LOS ANGELES SOUTHWEST COLLEGE FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT









PREPARED FOR

THE LOS ANGELES COMMUNITY COLLEGE DISTRICT

PREPARED BY

TERRY A. HAYES ASSOCIATES LLC

LOS ANGELES SOUTHWEST COLLEGE FACILITIES MASTER PLAN UPDATE FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

Prepared for

THE LOS ANGELES COMMUNITY COLLEGE DISTRICT

770 Wilshire Boulevard Los Angeles, CA 90017

Prepared by

TERRY A. HAYES ASSOCIATES LLC

8522 National Boulevard, Suite 102 Culver City, CA 90232

In association with Cordoba Corporation

PREFACE

This document constitutes the Final Supplemental Environmental Impact Report (EIR) for the Los Angeles Southwest College Facilities Master Plan Update (proposed project). The Draft EIR for the proposed project was circulated for a 45-day public review period from December 18, 2009 through February 1, 2010. Responses to comments raised on the Draft EIR are contained in Section 9.0 Comments and Responses to Draft EIR of this report.

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1.0 INTRODUCTION

The Los Angeles Community College District (LACCD) has prepared a Facilities Master Plan Update for improvements to Los Angeles Southwest College (LASC), located in unincorporated Los Angeles County, California. This Supplemental Environmental Impact Report (EIR) addresses the potential environmental effects of the proposed LASC Master Plan Update. The Master Plan Update includes the construction of six new facilities, modernizations to four buildings, infrastructure upgrades, an additional campus entrance, and renewable energy production site on the Caltrans Site #16 property adjacent to the southeast of the campus.

1.1 PURPOSE OF THIS REPORT

The purpose of an Environmental Impact Report (EIR), as defined in Section 15121 (a) of the State Guidelines for the implementation of the California Environmental Quality Act (CEQA) California Code of Regulations (CCR), Title 14, Division 6, Chapter 3 "Guidelines," is to "inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effect and describe reasonable alternatives to the project." This document assesses the significant environmental impacts, including unavoidable adverse impacts and cumulative impacts, related to the adoption of the proposed Los Angeles Southwest College Facilities Master Plan Update (hereafter referred to as the "proposed project"). Where there is potential for a significant adverse effect, this report identifies mitigation measures or alternatives that would either eliminate the impact or reduce the effect to a less-than-significant level. This report also identifies those significant effects that may be unavoidable even after the implementation of mitigation or policies.

1.2 AUTHORIZATION AND FOCUS

This Supplemental EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 and the Guidelines for the Implementation of the California Environmental Quality Act (the "State CEQA Guidelines"), as amended to date. This Supplemental EIR contains only the information necessary to make the previously approved Southwest Facilities Master Plan Final EIR (Final EIR) adequate for the project, as revised in the 2008 Master Plan Update. This focus meets the requirements for supplemental analysis under Section 15163 of the CEQA Guidelines, which requires that only changes to the original Master Plan that may result in significant impacts and that were not evaluated and disclosed in the Final EIR be included in this Supplemental EIR. Specifically, this document evaluates the environmental effects of any changes from the Original Master Plan which may result from the implementation of the LASC Facilities Master Plan Update. The following environmental issues were identified in the Final EIR, dated November 19, 2003, as having the potential to result in a significant impact:

- Aesthetics and Lighting
- Air Quality
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise
- Transportation and Traffic

1.3 LEAD AGENCY

The Los Angeles Community College District is the Lead Agency in accordance with Section 15367 of the CEQA Guidelines, which defines the lead agency as "the public agency which has the principal responsibility for carrying out or approving the project." The Los Angeles Southwest College Facilities Master Plan Update is proposed by:

Los Angeles Community College District

Larry Eisenberg, Executive Director Facilities Planning and Development Los Angeles Community College District 770 Wilshire Boulevard Los Angeles, CA 90017

1.4 INTENDED USES OF THE EIR

This Supplemental EIR is prepared at the direction and under the supervision of the Los Angeles Community College District (LACCD). As discussed above, the LACCD is the Lead Agency. The intended use of this EIR is to assist the LACCD in making decisions with regards to the approval of the LASC Facilities Master Plan Update. This document may also be used by other public agencies as defined by CEQA Guidelines, Section 15381, if any will need to use the Supplemental EIR when considering permits or other approvals for the proposed project. Section 21096 for the CEQA Guidelines defines a "responsible agency" as a public agency, other than the Lead Agency, which has responsibility for carrying out or approving a project. For the proposed project, the California Department of Transportation (Caltrans) District 7 and Department of Toxic Substances Control (DTSC) have been identified as responsible agencies. Caltrans and DTSC may rely on this document for environmental review in the potential regulatory review and disposition of Caltrans-owned property (Site #16).

1.5 PUBLIC REVIEW AND COMMENTS

A Notice of Preparation (NOP) for this EIR was issued on November 12, 2009, by the Lead Agency. Information, data, and observations resulting from these contacts were included where relevant. The Draft EIR was circulated for a 45-day public review period beginning on December 18,2009 to February 1, 2010. The public was invited to comment in writing on the information contained in this document. Persons and agencies commenting were encouraged to provide information that they believe was missing from the Draft EIR, or to identify where the information can be obtained. All comment letters received have been responded to in writing, and the comment letters, together with the responses to those comments, have been included in this Final EIR.

2.0 SUMMARY

This chapter summarizes the key findings of this Supplemental Environmental Impact Report (EIR), including the environmental effects, mitigation measures, unavoidable significant impacts, and any areas of environmental controversy concerning the proposed project.

2.1 SUMMARY OF PROJECT DESCRIPTION

The LASC Facilities Master Plan Update is being prepared to maintain the goals and guidelines of the Original Master Plan and incorporate changes to reflect the current conditions and identify opportunities for future growth. These goals support the creation of a campus with a sense of place where students, faculty, staff, and the community are comfortable in the environment and proud of their association with LASC. Inherent in the goals set forth in the Original Master Plan are recurring themes. These themes include improving the campus image, maintaining the campus community, increasing college partnerships with the community, and enhancing the educational program. The recurring themes and goals acknowledge that the educational endeavors of LASC are the primary forces in shaping campus facilities. The 2008 Master Plan Update was designed as a physical interpretation of the established goals, issues and concerns of the college community and the Educational Plan.

The Master Plan Update will be designed to allow for development of the facilities which would permit a capacity of 12,000 FTE students, the same number of students analyzed for the Original Master Plan. Currently, the campus serves approximately 8,000 students. Improvements proposed in the Master Plan Update would construct six new facilities, modernize four existing buildings and upgrade existing infrastructure. Infrastructure improvements include increasing electrical power, improving data lines and other infrastructure needed for the campus. Additional improvements would be made to signage, lighting, fire safety and security.

The proposed project would also include the acquisition or lease of the Caltrans Site #16 for use as a solar farm. The solar farm would be part of the four-megawatt renewable energy program that the campus is developing in conjunction with Chevron Energy Solutions. The energy program would satisfy all of the energy needs of the campus and provide additional storage capacity for surplus energy.

2.2 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

This Supplemental Final EIR has been prepared to analyze the potential significant environmental impacts associated with the construction and long-term operation of the proposed project, and to identify mitigation measures capable of avoiding or substantially reducing the impacts. To satisfy the requirements of the California Environmental Quality Act (CEQA) and to assist the Los Angeles Community College District and other interested citizens and community organizations in understanding the findings of the EIR, potential impacts of the proposed project have been divided into three categories: unavoidable significant impacts, significant impacts that can be mitigated to less-than-significant levels, and impacts which are less than significant or nonexistent when compared to the environmental impact thresholds identified in this report. The criteria for the determination of a significant impact in each environmental topic area is discussed in the body of this report.

As required by CEQA, mitigation measures are identified in this EIR to avoid or substantially reduce the level of all identified significant impacts. However, certain significant environmental impacts cannot be reduced to a level below significance, even with application of the identified mitigation measures. Such impacts are identified in the EIR as "unavoidable significant impacts."

This Supplemental Final EIR determined that the proposed project would have unavoidable significant impacts on the following: Air Quality (Construction and Operation) and Noise (Construction). The proposed project would have less-than-significant impacts with mitigation on the following Hazards and Hazardous Materials, Land Use and Planning and Traffic and Transportation. The proposed project would have less-than-significant impacts without mitigation on Aesthetics and Lighting. This information is presented in **Table 2-1** which provides a brief summary of the impacts in each topic area and lists any required mitigation measures associated with identified significant impacts.

Mitigation Measures F-AQ1 Water or a stabilizing agent shall be applied of exposed surfaces at least two times per day to revent generation of dust plumes. F-AQ2 The construction contractor shall utilize at east one of the following measures at each vehicle gress from the project site to a paved public road: Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long; Pave the surface extending at least 100 feet and at least 20 feet wide; Utilize a wheel shaker/wheel spreading device	Significance After Mitigation Unavoidable Significant Impact related to regional and localized NO _x , PM _{2.5} and PM ₁₀
G-AQ1 Water or a stabilizing agent shall be applied be exposed surfaces at least two times per day to revent generation of dust plumes. G-AQ2 The construction contractor shall utilize at east one of the following measures at each vehicle gress from the project site to a paved public road: Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long; Pave the surface extending at least 100 feet and at least 20 feet wide;	Unavoidable Significant Impact related to regional and localized NO _x , PM _{2.5}
exposed surfaces at least two times per day to revent generation of dust plumes. G-AQ2 The construction contractor shall utilize at east one of the following measures at each vehicle gress from the project site to a paved public road: Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long; Pave the surface extending at least 100 feet and at least 20 feet wide;	Impact related to regional and localized NO _x , PM _{2.5}
Pave the surface extending at least 100 feet and at least 20 feet wide;	
consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.	
i-AQ3 All haul trucks hauling soil, sand, and other cose materials shall be covered (e.g., with tarps or ther enclosures that would reduce fugitive dust missions).	
:-AQ4 Construction activity on unpaved surfaces hall be suspended when wind speed exceed 25 niles per hour (such as instantaneous gusts).	
i-AQ5 Heavy-duty equipment operations shall be urned off while idling longer than five minutes. Contractor shall use electric or natural gas powered ehicles/equipment where practical.	
e-AQ6 Ground cover in disturbed areas shall be eplaced as quickly as possible.	
i -AQ7 Appoint a construction relations officer to act s a community liaison concerning on-site construction activity including resolution of issues elated to PM_{10} generation.	
6-AQ8 Apply non-toxic soil stabilizers according to nanufacturers' specifications to all inactive onstruction areas (previously graded areas inactive or ten days or more).	
of tristance is a constant	tires and vehicle undercarriages; or Install a wheel washing system to remove bulk material from tires and vehicle undercarriages. AQ3 All haul trucks hauling soil, sand, and other ose materials shall be covered (e.g., with tarps or her enclosures that would reduce fugitive dust missions). AQ4 Construction activity on unpaved surfaces hall be suspended when wind speed exceed 25 idles per hour (such as instantaneous gusts). AQ5 Heavy-duty equipment operations shall be med off while idling longer than five minutes. Contractor shall use electric or natural gas powered ehicles/equipment where practical. AQ6 Ground cover in disturbed areas shall be placed as quickly as possible. AQ7 Appoint a construction relations officer to act a community liaison concerning on-site instruction activity including resolution of issues lated to PM10 generation. AQ8 Apply non-toxic soil stabilizers according to anufacturers' specifications to all inactive instruction areas (previously graded areas inactive instruction areas (previously graded areas inactive

TABLE 2-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES				
		Significance After		
Potential Impacts	Mitigation Measures	Mitigation		
	S-AQ9 Traffic speeds on all unpaved roads to be reduced to 15 mph or less.			
	S-AQ10 Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads. If feasible, use water sweepers with reclaimed water.			
	S-AQ11 Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.			
	S-AQ12 Contractors shall utilize electricity from power poles rather than temporary diesel or gasoline generators, as feasible.			
	S-AQ13 Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.			
	S-AQ14 Construction parking shall be configured to minimize traffic interference.			
	S-AQ15 Construction activity that affects traffic flow on the arterial system shall be limited to off-peak hours, as feasible.			
	S-AQ16 All diesel powered construction equipment in use shall require control equipment that meets at a minimum Tier III emissions requirements. In the event Tier III equipment is not available, diesel powered construction equipment in use shall require emissions control equipment with a minimum of Tier II diesel standards.			
	S-AQ17 The construction contractor shall coordinate with Child Development Center staff to ensure that children present at the Center would be limited to indoor activities during periods when diesel equipment is operated at the parking structure construction site.			
	S-AQ18 The construction contractor shall coordinate with Middle College High School during days of intense diesel equipment activity to minimize student exposure to air pollution.			
	S-AQ19 During construction activity occurring on Caltrans Site #16, Caltrans and DTSC shall require the construction contractor to coordinate with LACCD and the St. Francis X. Cabrini School to minimize exposure to air pollution.			
Air Quality impacts related to operational emissions.	S-AQ20 Staff and students shall be provided with information on public transportation options near Los Angeles Southwest College.	No Significant Impact		
	S-AQ21 Preferred parking shall be established for alternatively-fueled vehicles.			
	S-AQ22 Charging stations shall be supplied for electric vehicles.			

TABLE 2-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES			
		Significance After	
Potential Impacts	Mitigation Measures	Mitigation	
	S-AQ23 A ride sharing program shall be		
CULTURAL RESOURCES	implemented to increase carpooling opportunities.		
Less-than-significant impacts	S-CR1 In the event that archaeological resources	No significant impact	
related to cultural resources	(artifacts or features) are exposed during excavation of previously undisturbed soil, an archaeologist who meets the Secretary of the		
	Interior's professional qualification standards shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) in the immediate vicinity of the discovery shall be halted while the		
	resources are evaluated for significance and a Native American Tribe or elder identified by the Native American Heritage Commission shall be		
	consulted. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery		
	excavation, may be warranted and would be discussed in consultation with the lead agency.		
	The discovery of human remains is always a possibility during construction activities; State of California Health and Safety Code Section 7050.5		
	addresses these findings. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin		
	and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined		
	to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant		
	(MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive		
	analysis of human remains and items associated with Native American burials.		
HAZARDS & HAZARDOUS MA			
Hazards and Hazardous	S-HHM1 Prior to construction of new facilities on	No Significant Impact	
Material impacts related to LASC Campus	campus, LACCD shall collect soil vapor samples from proposed building sites to determine if elevated methane levels exist. Should testing reveal that		
	methane levels exceed the California Health and		
	Safety Screening Levels, a DTSC-approved mitigation system shall be required.		
	S-HHM2 Consistent with the 1994 Federal Occupational Exposure to Asbestos Standards,		
	LACCD shall retain a Licensed Asbestos Inspector to determine the presence of asbestos and asbestos containing materials (ACM) within buildings to be re-		
	used and/or demolished. If asbestos is discovered, a Licensed Asbestos Abatement Contractor shall be retained to safely remove all asbestos from the site.		
Hazards and Hazardous Material impacts related to Caltrans Site #16	S-HHM3 For all buildings (whether to be re-used or demolished), lead-based paint testing shall be conducted. All materials identified as containing lead shall be removed by a licensed lead-based paint/materials abatement contractor.	No Significant Impact	

NVIRONMENTAL IMPACTS AND MITIGATION MEAS	
	Significance After
Mitigation Measures	Mitigation
indemnity agreement stipulating the responsibilities for the design, construction, and operation of the site for its use as a campus entrance and renewable energy production site should be agreed upon by LACCD, Caltrans, and the DTSC. Should the intended uses of the proposed project require the removal or reconfiguration of the cap, responsibility and procedures shall be determined as part of this	
Responsibilities for the maintenance and monitoring of the contaminated site shall also be part of the indemnity agreement. Responsibilities for maintenance and monitoring would first involve an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater and repair of the existing monitoring wells.	
S-LU1 LACCD shall meet the County of Los Angeles requirements to obtain a conditional use permit for use of the Caltrans Site #16 as a renewable energy production facility and campus entrance.	Less-than-Significant Impact
S-N1 All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.	Unavoidable Significant Impact
S-N2 To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during parking structure construction. The wall shall be placed such that line-of-sight between ground-level construction activity and the St. Francis X. Cabrini School and Child Development Center would be blocked.	
S-N3 Prior to initiating construction, the construction contractor shall coordinate with the site administrator for the St. Francis X. Cabrini School, the Child Development Center, and Middle College High School to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout the construction phase of the project to mitigate potential disruption of classroom activities.	
S-N4 All residential units located within 500 feet of any construction site shall be sent a notice regarding the construction schedule of the proposed project. All notices shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.	
	for the design, construction, and operation of the site for its use as a campus entrance and renewable energy production site should be agreed upon by LACCD, Caltrans, and the DTSC. Should the intended uses of the proposed project require the removal or reconfiguration of the cap, responsibility and procedures shall be determined as part of this agreement and subject to the oversight of the DTSC. Responsibilities for the maintenance and monitoring of the contaminated site shall also be part of the indemnity agreement. Responsibilities for maintenance and monitoring would first involve an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater and repair of the existing monitoring wells. S-LU1 LACCD shall meet the County of Los Angeles requirements to obtain a conditional use permit for use of the Caltrans Site #16 as a renewable energy production facility and campus entrance. S-N1 All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices. S-N2 To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during parking structure construction. The wall shall be placed such that line-of-sight between ground-level construction activity and the St. Francis X. Cabrini School and Child Development Center would be blocked. S-N3 Prior to initiating construction, the construction contractor shall coordinate with the site administrator for the St. Francis X. Cabrini School, the Child Development Center, and Middle College High School to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout the construction phase of the project to mitigate potential disruption of classroom activities. S-N4 All residential units located within 500 feet of any construction schedule of the proposed project. All notices shall indica

TABLE 2-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES					
Potential Impacts	Mitigation Maggures	Significance After			
Potential Impacts	S-N5 A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.	Mitigation			
	S-N6 The Child Development Center shall prohibit outdoor activity at the southern outdoor play area when mobile diesel equipment is being actively utilized to construct the parking structure.				
	S-N7 To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during construction activity occurring on Caltrans Site #16. The wall shall be placed such that line-of-sight between ground-level construction activity and the St. Francis X. Cabrini School would be blocked.				
	S-N8 Prior to initiating construction on Caltrans Site #16, Caltrans and DTSC shall require the construction contractor to coordinate with LACCD and the St Francis X. Cabrini School to minimize potential disruption of classroom activities.				
Noise impacts related to operational noise	S-N9 The parking structure shall be designed such that the north facing portion of the building facing the Child Development Center is a solid wall without openings.	Less-than-Significant Impact			
	S-N10 Classroom windows facing Imperial Highway shall be constructed with windows that have an Exterior Wall Noise Rating of 23 or greater.				
	S-N11 A six-foot wall shall be constructed along the north side of the proposed additional campus entrance such that line-of-sight from vehicles and the St. Francis X. Cabrini School is blocked.				
TRANSPORTATION AND TRA					
Intersection operation (project-specific impacts)	S-T1 Eliminate the protected left-turn phasing on the southbound and westbound approaches in favor of permitted left turns at the Imperial Highway/Western Avenue intersection.	Less-than-Significant Impact			
Intersection operation (cumulative impacts)	S-T2 Upgrade the Century Boulevard/Normandie Avenue intersection into the City of Los Angeles Automated Traffic Surveillance and Control System (ATSAC).				
	S-T3 Eliminate the protected left-turn phasing on the northbound and westbound approaches in favor of permitted left turns at the Century Boulevard/Van Ness Avenue intersection.				

RADIUS MAP REPORT

TABLE 2-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES				
Potential Impacts	Mitigation Measures	Significance After Mitigation		
	S-T4 Eliminate the protected left-turn phasing on the southbound and westbound approaches in favor of permitted left turns at the Imperial Highway/Western Avenue and Imperial Highway/Vermont Avenue intersections.			
	S-T5 Eliminate the protected left-turn phasing on the northbound and eastbound approaches in favor of permitted left turns at the Imperial Highway/Normandie Avenue intersection.			
	S-T6 Eliminate the protected left-turn phasing on the eastbound approach in favor of permitted left turns at the Imperial Highway/I-110 NB Ramps intersection.			
Parking	No Mitigation Measures Required	Less-than-Significant Impact		
SOURCE: TAHA, 2010.		_		

2.3 AREAS OF CONTROVERSY

No areas of controversy or issues to be resolved by the decision-makers have been identified for this project. Issues relating to traffic, hazards, air quality, and noise were the main environmental concerns raised during the Draft EIR scoping process. These issues are comprehensively addressed in this EIR, providing factual, objective data to foster informed discussion, debate, and ultimately decision-making.

3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

This section presents the description of the Los Angeles Southwest College Facilities Master Plan Update (proposed project), the project background, and prior environmental review associated with the proposed project. The project objectives, location, overview of surrounding uses and existing campus setting, and construction phasing are also discussed in this section.

3.2 PROJECT BACKGROUND AND PRIOR ENVIRONMENTAL REVIEW

PROJECT BACKGROUND

The Los Angeles Community College District (LACCD) Board of Trustees certified the Final Environmental Impact Report for the Los Angeles Southwest College Facilities Master Plan (Final EIR) on November 19, 2003. The Facilities Master Plan approved in 2003 (Original Facilities Master Plan) consisted of the addition of 273,067 square feet of space to Los Angeles Southwest College (LASC) facilities, including the modernization of three existing campus buildings and the addition of 964 net new parking spaces within two new parking structures. The Original Facilities Master Plan was designed to allow for the addition of eight new buildings, renovation of four main buildings, and expansion of the athletic stadium to accommodate an increase in enrollment from 5,200 full time equivalent (FTE) students to as high as 12,000 students by year 2016. The Original Facilities Master Plan also included improvements to landscaping, and roadways, signage and street entrances, and plans for infrastructure and security upgrades.

PRIOR ENVIRONMENTAL REVIEW

An Addendum to the Final EIR is being prepared separately for the construction of a new Middle College High School on the LASC campus. This addendum is to ensure that no new significant impacts would result from the proposed new Middle College High School building on the LASC campus. The following list provides a summary of the changes to be analyzed under the Addendum. These changes would be analyzed cumulatively with the proposed project and involve the following components:

- 1. The Receiving building and instructional pool would be removed;
- 2. A fully functional high school building would be constructed in the middle of the campus;
- 3. A Methane Mediation System would be constructed to protect structures from the underlying Howard Townsite Oilfield; and
- 4. A fully functional communications infrastructure would be constructed to support the Middle College High School building.

3.3 PROJECT STATUS AND OBJECTIVES

PROJECT STATUS

Table 3-1 summarizes the status of the projects included in the Original Facilities Master Plan and the 2008 Facilities Master Plan Update.

	Y OF FACILITIES MASTE	2008 Facilities Master Plan	Status
Project	Facilities Master Plan	Update	2009
Child Development	Construction of a two-	No change	Complete
Center / Classroom Building	story, 35,000 gsf building	The shange	Complete
Student Services /	Construction of a two-	No change	Complete
Activity Cluster Center Building	story, 42,000 gsf building	The change	Complete
Construct a New Maintenance Operations Building	Construction of a one- story, 20,000 gsf building, including maintenance operations and new warehouse	No change	Complete
Student Services/Education Center	Construction of a three- story, 63,000 gsf building	No change	Complete
Campus Police Station	Construction of a 2,400 gsf building	No change	Complete
Advanced Technology Center	Construction of two-story, 40,000 gsf building	Location changed, renamed to Career and Applied Technologies Building	Revised in 2009 Master Plan Update
Community Arts Center	Construction of three-story, 40,000 gsf building	Revised to two-story, 37,300 gsf building, in new location and renamed to Visual, Communications, and Performing Arts Training Complex	Revised in 2009 Master Plan Update
Expand Stadium for Football, Soccer, and Track	Construction of a new stadium with 4000 seats and 38,900 gsf fieldhouse	No change	Complete
Modernize Cox Administration	Renovation to 85,400 gsf building	No change	Bid/Award
Modernize Theater (Cox Building)	Renovation to 19,000 gsf building	No change	Bid/Award
Modernize Technology Education Building	Renovation to 54,000 gsf building	No change	Complete
Modernize Thomas G. Lakin Physical Education Building	Renovation to 68,200 gsf building	Renamed to Fitness and Wellness Center	Bid/Award
Modernize Lecture Laboratory Building	Renovation to 90,100 gsf building	No change	Bid/Award
Library Expansion	Expansion of existing Cox building to include a 2.5-story, 41,000 gsf library building as north wing	Not Proposed	Not planned
Parking Structure	Construct a six-level parking structure north of stadium for 1,000 spaces	Four-level parking structure north of stadium for 500 spaces	Complete
Parking Structure	Construct a five-level parking structure south of Child Development Center for 650-700 spaces	Three-level parking structure for 650-700 spaces	Bid/Award
Annex to Cox	Not proposed	Construction of a 8,600 gsf building as an northern expansion wing of the Cox building	Bid/Award
Bookstore	Not proposed	Construction of a 5,000 gsf building at the southeast corner on the ground floor of the Student Services/Activity Center building	Design in Progress

TABLE 3-1: SUMMARY OF FACILITIES MASTER PLAN PROJECTS					
Project	Facilities Master Plan	2008 Facilities Master Plan Update	Status 2009		
Health Academy	Not proposed	Construction of a 45,000 gsf building to the north of the police services building	Bid/Award		
Campus East Pump House and Fire Water	Not proposed	Construction of a one-story building to include utilities	Bid/Award		
Normandie Avenue Campus Entrance	Not proposed	Addition of fourth entrance on the east side of the campus	Bid/Award		
Solar Farm on California Department of Transportation (Caltrans) Site #16	Not proposed	Acquisition or lease of Caltrans Site #16 for installation of solar farm as part of the campus renewable energy program	Bid/Award		
Campus-wide infrastructure upgrade	Not proposed	Connect all buildings to Central Plant and upgrade security, technology, communications, and utility systems College Facilitates Master Plan Update.	Bid/Award		

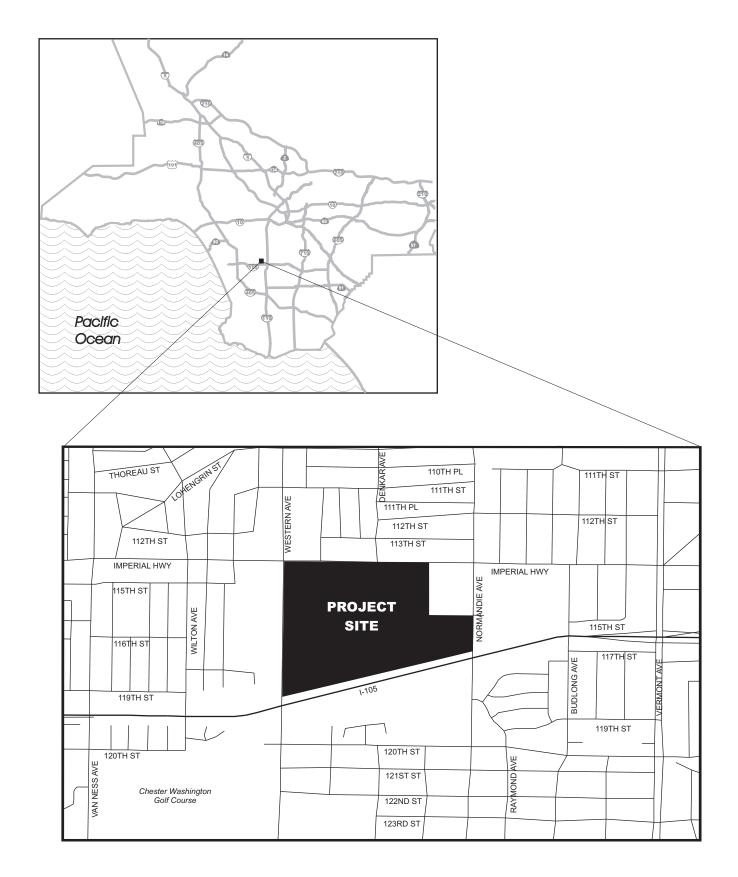
PROJECT OBJECTIVES

The 2008 Facilities Master Plan Update is intended to maintain the goals and guidelines of the Original Master Plan and incorporate changes to reflect the current conditions and identify opportunities for future growth. These goals support the creation of a campus with a sense of place where students, faculty, staff, and the community are comfortable in the environment and proud of their association with LASC. Inherent in the goals set forth in the Original Master Plan are recurring themes. These themes include improving the campus image, maintaining the campus community, increasing college partnerships with the community, and enhancing the educational program. The recurring themes and goals acknowledge that the educational endeavors of LASC are the primary forces in shaping campus facilities. The 2008 Master Plan Update was designed as a physical interpretation of the established goals, issues and concerns of the college community and the Educational Plan.

3.4 PROJECT LOCATION

The 63.7-acre LASC campus is located at 1600 West Imperial Highway in unincorporated Los Angeles County, 8.5 miles southwest of Downtown Los Angeles (**Figure 3-1**). The existing campus is bounded by Imperial Highway to the north, the Glenn Anderson Freeway (I-105) to the south, Western Avenue to the west, and St. Francis X. Cabrini Church and School and Caltrans Site #16 to the east. Regional access to the LASC campus is provided by the I-105, adjacent to the south, the San Diego Freeway (I-405), located the 3.5 miles to the west, and the Harbor Freeway (I-110), located one mile to the east. Access between the campus and the east/west oriented I-105 is obtained via off-ramps at Crenshaw Boulevard and Vermont Avenue. The I-105 connects to the north/south oriented I-405 and I-110. The major streets serving the campus are Western and Normandie Avenues in the north-south direction and Imperial Highway in the east-west direction. In addition, two Metro Green Line Stations serve the area. These stations are located along the I-105 at Vermont Avenue and Crenshaw Boulevard which are located 0.5 miles to the east and one mile to the west, respectively. The Los Angeles International Airport is located 3.5 miles to the west of the campus.









Project Site

SOURCE: TAHA, 2009





LASC Master Plan Update
Supplemental Environmental Impact Report



3.5 EXISTING CAMPUS SETTING

The college opened in 1967 and currently serves approximately 6,000 students offering associate degree programs in 34 disciplines, occupational certificates in 47 disciplines, community services and ESL/citizenship classes.

BUILDINGS

All of the temporary structures for classrooms on campus have been removed with the exception of the Middle College High School, which is being analyzed as a separate project. Campus buildings are generally located in the center and northeast portion of the site and are surrounded by parking and open space. The Cox Building, Cox Theater, Technology Education Center, Thomas G. Lakin Physical Education building, Lecture Laboratory building, Child Development Center, Student Services/Education building, Student Services/Activities Center, Central Plant, Campus Police, Field House, and Maintenance and Operations facility are the main buildings on campus. Seven of these twelve principal buildings were built within the last three years. The total gross square footage (gsf) of the campus buildings is approximately 490,000 gsf.

Generally, the buildings on campus are one to four stories in height. The Original Master Plan prescribed buildings to be designed with elevations that highlight vertical and horizontal lines. Design recommendations also encouraged the use of south-facing windows for increased sun shading and that banks of windows be treated as glazing rather than punched openings. Design recommendations also encouraged the use of clean uncomplicated details and a uniform color palette to create a cohesive campus character.

Outdoor athletic and recreational facilities, which include the football, soccer, and track stadium, baseball and softball fields, and the football and soccer practice fields, are located on the southern half of the campus.

PARKING

The campus currently provides 1,802 parking spaces in one large lot, four medium-sized lots, and eight small lots. The five large and medium-sized parking lots within the campus contain 1,519 of the 1,802 parking spaces. The eight small lots (including lots 5-7, 9-13, and street parking) provide the remaining 283 spaces. The large and medium sized lots are:

- Lot 4, located north of the stadium, containing a surface lot and four-level structure with approximately 500 spaces
- Lot 3, located at the northwest corner of the campus, containing approximately 479 spaces
- Lot 2, located between the Student Services/Activities Center and Cox building, containing approximately 205 spaces
- Lot 8, located on the east side of the campus south of the Child Development Center, containing approximately 209 spaces
- Lot 1, located north of the Cox building, containing approximately 148 spaces

OVERALL CAMPUS CONDITIONS

Landscaping

Along the northern boundary of the campus, a wide buffer of trees and lawn is currently in place. On the west end of campus, a lawn and small ornamental plants create a buffer between Western Avenue and the parking lots and stadium that form the western edge of the campus. The southern edge of campus, on the

south side of the playing fields, slopes downhill to the I-105 Freeway. The eastern edge of campus borders is densely landscaped, creating a buffer between LASC and the church and school.

The Original Master Plan included improvements to the character of the existing landscape. These improvements have resulted in the creation of distinct landscaped pathways, courtyards, and plazas which use low maintenance plantings and lighting to guide pedestrian circulation. Landscaping within the campus, while not complete, contains paved courtyards and landscaped areas which encourage the use of pedestrian gathering spaces and circulation routes.

Technology

The 2004 Information Technology Master Plan addressed the need for upgrades in electrical and data line infrastructure for instructional, technological, fire alarm, and energy management systems. This then identified the need for the design and implementation of updated infrastructure systems, including voice, data, video/CATV, wireless, inter/intra building cabling, paging intercom, and audiovisual and standalone sound systems.

Safety and Security

The main existing buildings on campus do not conform to the mandatory new and upgraded fire alarms and life safety systems required by the Division of the State Architect (DSA), to protect the property, assets, students, faculty, and visitors. The 2004 Security Master Plan identified the need for upgrades to the existing electronic surveillance systems, and improvements in design and campus operations to enhance campus security.

3.6 SURROUNDING LAND USES

Large commercial businesses, such as Food 4 Less, are the predominant land use along Western Avenue, beginning north of the Glenn Anderson Freeway (I-105) until Imperial Highway. Continuing north, the commercial uses begin to transition to smaller scale retail businesses through the Western Avenue/Imperial Highway intersection, and along the northern side of Imperial Highway to Hobart Boulevard. Single-family homes are located directly north of campus and east of Hobart Boulevard, as well as directly behind the strip of businesses along Western Avenue. The property to the east of campus is zoned for light agriculture use, however, it currently contains a church, a school and parking lot, and multi-family residential uses along Normandie Avenue. The I-105 forms the southern border of the campus.

3.7 PROJECT DESCRIPTION

The proposed project is intended to act as a guide for future development of the college and present projects that carry forward the concepts of improving the campus image, maintaining the campus community, increasing college partnerships with the community, and enhancing the educational program. These goals are to be achieved by providing state-of-the-art learning environments, enhanced infrastructure, aesthetic improvements, improved safety through building improvements, lighting and improved parking.

The Master Plan Update will be designed to allow for the addition of new facilities and the renovation of existing facilities to accommodate the original enrollment projection of 12,000 students by year 2016. The proposed project would result in approximately 132,000 gsf of new building space, bringing the campus total to 622,000 gsf. This would not exceed the 690,000 gsf that was analyzed in the Original Facilities Master Plan. To accommodate the Master Plan Update, approximately 25 parking spaces will be added, bringing the campus parking supply to 1,827 spaces. Parking lots will be reconfigured in the

near-term and a new parking structure would replace the East Lot. Improvements will be made to the existing grounds and roadways. An additional fourth entrance would be added along Normandie Avenue. The proposed project would also include the acquisition or lease of the Caltrans Site #16 for use as a solar farm. The solar farm would be part of the four-megawatt renewable energy program that the campus is developing in conjunction with Chevron Energy Solutions. The energy program would satisfy all of the energy needs of the campus and provide additional storage capacity for surplus energy.

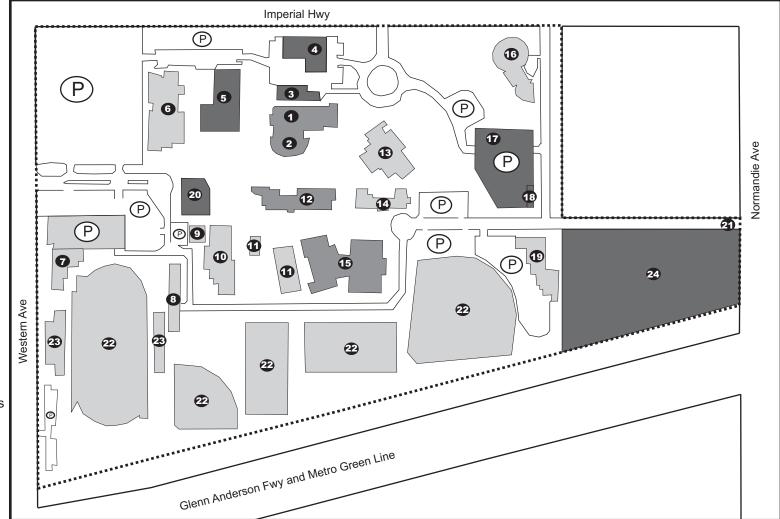
The components of the proposed project are broken into three categories: new facilities, proposed modernizations and infrastructure upgrades. A site plan identifying the locations of the various project components within the LASC campus are presented in **Figure 3-2**.

NEW FACILITIES

- Visual, Communications and Performing Arts Training Complex-A LEED-certified, two-story, approximately 37,300 gsf building is proposed at the site of the current parking located lot north of the Cox Administration building. The Visual, Communications and Performing Arts Training Complex would contain the following programs: music, music technology, dance and theater, media and graphic arts, backstage operations, and theater management. The existing surface parking lot would be demolished to accommodate this new facility.
- Career and Applied Technologies Building-A LEED-certified, approximately 40,000 gsf building is proposed at the vacant site east of the new Student Services/Activities Center and west of the Cox Administration building. The Career Applied Technologies Building would contain all of the current career/technical programs, as well as sustainability, heating ventilation and air conditioning, allied health, logistics, transportation, and hospitality programs: The existing surface parking lot would be demolished to accommodate this new facility.
- **Health Academy Building** -A LEED-certified, two-story, approximately 45,000-gsf building is proposed directly to the north of the Campus Police Station. The Health Academy Building would contain allied health instructional/support space, nursing/allied health department offices, nursing instructional/support space/ skills lab office, student success center, break room, and lobby. The existing surface walkway and open space would be demolished to accommodate this new facility.
- Annex to Cox Building-A LEED-certified, approximately 8,600-square-foot Annex Building would be constructed at the north side of the Cox Building that would house presidential administration staff.
- **Bookstore-**An approximately 5,000-square-foot Bookstore will be constructed at the southeast corner on the ground floor of the Student Services/Activity Center building. The Bookstore would relocate from its current location in the ground level of the Cox Administration building.
- Parking Structure-A three-level parking structure for approximately 650 to 700 cars would be constructed in the northeast quadrant of the campus, east of the Student Services/Education Building. The facility will feature electric charging stations and a smart electronic identification system. The proposed building site is currently a surface parking lot. Construction of the parking structure would include the export of 8,000 cubic feet of soil.

¹LEED is a national rating system developed by the U.S. Green Buildings Council to provide a benchmark for the design, construction, and operation of green buildings.





LEGEND:

- LASC Campus (Project Site)
- New Facility
- Modernization
- Retention
- P Parking Area
- # Building/Use
- **1.** Cox
- 2. Cox Little Theater
- 3. Annex to Cox
- 4. Visual Communications and Performing Arts
- 5. Career and Applied Technologies
- 6. Student Services/Activities Center
- **7.** Field House
- 8. Central Plant SOURCE: TAHA, 2009

- 9. Campus Police Station
- 10. Middle College High School
- 11. Pool and Pool Equipment
- 12. Lecture Lab
- 13. Student Services/Education Building
- 14. Technology Education
- 15. Fitness and Wellness Center
- 16. Child Development Center

- 17. NE Parking Structure
- **18.** Pumphouse
- 19. Maintenance
- **20.** Health Academy
- 21. Normandie Campus Entrance
- 22. Athletic Field
- 23. Bleachers
- 24. Caltrans Site #16 Solar Farm





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FIGURE 3-2



PROPOSED MODERNIZATIONS

- Cox Building-The proposed project would bring the existing Cox building up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.
- Cox Building Little Theater-The proposed project would bring the existing Little Theater up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.
- **Lecture Laboratory**-The proposed project would bring the existing Lecture Laboratory building up to current building code and life safety standards. Modernization would include a four-story renovation to the existing building, outfitting all classrooms electronically and adding four laboratory classrooms. The renovation would include architectural, structural, mechanical, electrical, plumbing, technology, and security systems upgrades and would connect to the Central Plant.
- **Fitness and Wellness Center**-The proposed project would bring the existing Fitness and Wellness Center building up to current building code and life safety standards. Modernization would include a student success center, replacement of gym floor and new protective covering, assessment of the bleachers, lighting and controls, fire alarm system upgrade, exterior stairs, improve the locker and wet room areas to accommodate separate women's facilities, mechanical, electrical, and security upgrades along with site improvements at the athletic practice fields.

INFRASTRUCTURE UPGRADES

- Normandie Campus Entrance-A fourth entrance along Normandie Avenue would be added to the campus. Access would occur on a new surface street along the northern portion of the Caltrans property from Normandie Avenue to the eastside perimeter road, north of the Maintenance and Operations building.
- Renewable Energy Program-LASC, in conjunction with Chevron Energy Solutions has initiated plans for a four-megawatt solar farm. The program involves implementation of solar tracking system, photovoltaic panels located on parking lots, rooftops of all buildings, and on the Normandie Mound Caltrans Site #16 site. The six-acre Normandie Mound Caltrans Site #16, located at the southwest corner of the Normandie Avenue/I-105 intersection, would either be acquired or leased as part of the proposed project. The electricity generated by the program will satisfy all of the energy demands of the college and additional energy would be stored on the main campus in centralized battery storage systems or hydrogen generation and storage for fuel cell operation. The program would work in conjunction with the Central Plant which would connect to all campus facilities. The renewable energy program would also serve as a living model for students, allowing for the study of design, construction, chemistry, and physics of renewable technologies.
- Utility Systems-The proposed project would undergo infrastructure upgrades identified in the 2004 Security Master Plan and 2004 Technology Master Plan, including the infrastructure improvements necessary to support the future security and technological development of the campus. The proposed project would include the installation of new utility systems, including potable water, fire-water, stormwater, sewer, electrical and communications distribution and roadways. All of these campus improvements would also connect the infrastructure systems to the Central Plant, would include landscaping upgrades, and would comply with ADA requirements. All buildings would have rooftop photovoltaic electrical power-producing systems installed and a permanent storm water pollution

prevention program and water reclamation project would be completed as part of the Master Plan Update.

Campus East Pump House & Fire Water-A new one-story concrete block building, approximately 18 feet by 78 feet, would include an electrical utility room, a domestic water pump room, a fire water pump room, and an emergency diesel generator room, including a site transformer and electrical switchgear located on the south side of the building. The electrical utility room will house all electrical lighting, fire alarm, information technology and security systems panels.

3.8 **CONSTRUCTION PHASING**

Table 3.2 identifies the various project components and provides an estimated construction schedule for the components of the proposed project. Construction start times and durations are an approximation and will be adjusted as design plans become finalized.

	Estimated Start of	Length of	
Project	Construction	Construction	Square Footage
Visual, Communications, and Performing Arts	December 2010	20 months	37,300
Career and Applied Technologies	December 2010	20 months	40,000
Annex to Cox Building	February 2011	4 months	8,600
Bookstore	August 2010	4 months	5,000
Parking Structure	February 2011	20 months	56,000
Lecture Laboratory	February 2011	26 months	Renovation
Fitness and Wellness Center	February 2011	18 months	Renovation
Cox	February 2011	26 months	Renovation
Cox Little Theater	February 2011	26 months	Renovation
Health Academy	TBD	20 months	45,000
Normandie Campus Entrance	June 2012	5 months	266,000/a/
Renewable Energy Program	TBD	TBD	266,000/a/
Utility Systems Upgrades	TBD	TBD	n/a
Campus East Pump House and Fire Water	November 2009	18 months	1,600
Storm Water Pollution Prevention Program	February 2011	13 months	n/a

TBD = To be determined

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[/]a/ Development of the Normandie Campus Entrance and Renewable Energy Program/Solar Farm would require the lease/acquisition of the 6.1-acre Normandie Mound Caltrans Site #16 (approximately 266,000 square feet).

SOURCE: 2008 Los Angeles Southwest College Facilitates Master Plan and Cummings Construction.

4.0 ENVIRONMENTAL IMPACTS

This section examines the potential adverse environmental impacts that may result from the implementation of the proposed project. Discussion is focused on the identification of changes that may be considered to be environmentally significant (a substantial, or potentially substantial, adverse change in the environment).

Analysis of each environmental issue is organized within the following five subsections:

ENVIRONMENTAL SETTING - A description of existing conditions, prior to implementation of the Los Angeles Southwest College Facilities Master Plan Update, and a discussion of the policy and technical background necessary for analysis of potential impacts.

THRESHOLDS OF SIGNIFICANCE - The criteria by which the project components are measured to determine if the proposed project would cause a substantial, or potentially substantial adverse change in the existing environmental conditions.

IMPACTS - An analysis of the beneficial and adverse effects of the proposed project, including, where appropriate, assessments of the significance of potential adverse impacts relative to established criteria and thresholds (relative to existing conditions per CEQA).

MITIGATION MEASURES - Wherever significant adverse impacts relative to existing conditions are identified in the impacts subsection, appropriate and reasonable measures are recommended to avoid or minimize impacts to the extent feasible.

LEVEL OF IMPACT AFTER MITIGATION - A discussion of whether an unavoidable significant impact would be reduced to a less-than-significant level or to no impact after mitigation under CEQA.

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4.1 AESTHETICS AND LIGHTING

This section presents the existing visual character, views and vistas, scenic resources, light and glare and shadows on and in the vicinity of the project site, followed by an analysis of the proposed project and assessment of potential impacts.

ENVIRONMENTAL SETTING

Visual Character

As required under CEQA, the aesthetic analysis must disclose the potential impacts the proposed project would have on the existing visual character of the project site and its surroundings. The concept of visual character, however, is not explicitly defined in the *CEQA Guidelines*. Visual character functions as a point of reference in assessing whether a project's features would appear to be compatible with the established built environment. In general, evaluation of visual character is determined by the degree of contrast that could potentially result between the proposed project and the existing built environment. Contrast is assessed by considering the consistency of the following features of a proposed project with those of the existing built environment:

- Scale: includes the general intensity of development comprised of the height and setback of buildings
- Massing: includes the volume and arrangement of buildings
- Open space: includes setback of buildings and amount of pedestrian spaces

Project Site

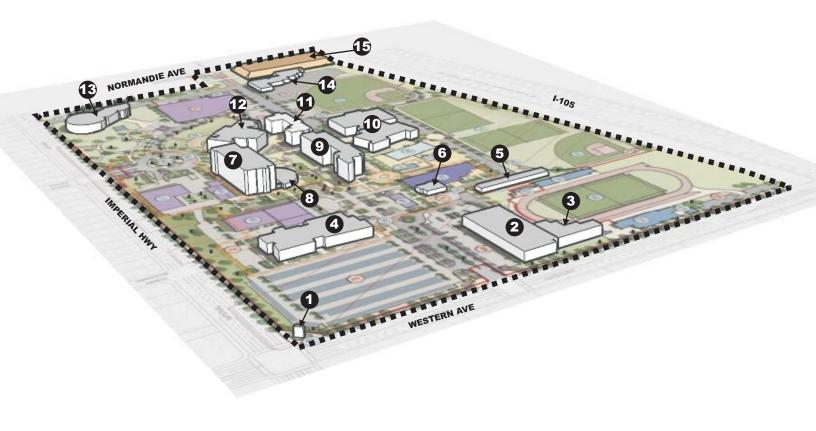
The 63.7-acre project site is located at 1600 West Imperial Highway in unincorporated Los Angeles County, 8.5 miles southwest of Downtown Los Angeles. The project site is surrounded to the west, south and east by large tracts of development occupied by the Chester Washington Golf Course to the southwest, a large-scale strip mall development to the west and a church, private school, vacant Caltrans Site #16 and County buildings to the east. To the north and south are residential developments. The project site is set atop a hill that slopes in a southwest direction from the northeast corner of the project site. Due to the nature of the surrounding development and the gradual change in elevation, the elevation of the site is not easily perceived at the pedestrian or immediate vehicular level. The existing campus buildings are generally located in the central and northeast portion of the project site and are surrounded by parking and open space. Outdoor athletic and recreational facilities, which include the football, soccer, and track stadium, baseball and softball fields, and the football and soccer practice fields, are located on the southern half of the campus (**Figure 4.1-1**).

Caltrans Site #16 is located at the southeast corner of the project site, east of the Maintenance Building. The site is approximately six acres and is bound by the Maintenance Building on the west, the Glenn Anderson Freeway (I-105) on the south, Normandie Avenue on the east and a church, school and multifamily residential building on the north. The vacant site is surrounded by a chain link fence on all four sides and is elevated above grade, reaching approximately the same height as the adjacent buildings.

The contrast in scale, massing, and open space characteristics of the project site is distinct in comparison to the adjacent lots to the north, east, and west due to the institutional nature of the campus setting which exhibits medium-to large-scale buildings with park-like areas located between and around the buildings. In contrast, the area to the north is characterized by small-scale residential structures with landscaped front yard setbacks. The areas to the east and west are characterized by large- to small-scale, low-rise commercial strip mall-type buildings with minimal landscaping and surface parking (**Figure 4.1-2**).

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roject Site

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House

ent Services/Activities Center 9. Lecture Laboratory

al Plant

TAHA, 2009

6. Campus Police Station

7. Cox Center

8. Cox Little Theater

10. Fitness and Wellness Center

11. Technology Education

12. Student Services/Education Building

13. Child Development Center

14. Maintenance Building

15. Caltrans Site #16 Cap

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FIGUR

3D RENDERING OF EXISTING PROJEC





Project Site. Looking east at the Child Development Center and adjacent park-like area located at the northeast corner of the project site.



North Adjacent Lots. Looking northeast along Imperial Highway from Denker Avenue at the small-scale, single-family residential lots with landscaped front yard setbacks.



West Adjacent Lots. Looking southwest on Western Avenue from Imperial Highway at the large-scale, low-rise commercial strip mall-type buildings with minimal landscaping and surface parking.





Buildings. The project site is occupied by twelve principal buildings, seven of which were constructed between 2007 and 2009. The remaining five buildings were constructed between 1969 and 2003. Generally, the buildings on campus are one to five stories in height and range in size from approximately 2,500- to 85,000-gross square feet (gsf). **Table 4.1-1** summarizes the characteristics of the existing buildings on campus.

TABLE 4.1-1: CHARACTERISTICS OF EXISTING BUILDINGS						
Building	Year Built	Number of Stories	Approx. Size (gsf)	Exterior Characteristics		
Cox Building	1969	5	85,400	Tinted glass and beige concrete, large window openings with a smooth facade and flat roof		
Cox Little Theater	1969	1- to 2	19,000	Tinted glass and beige concrete, large window openings with a curved facade and flat roof		
Student Services/ Activities Center	2008	2	42,000	Blue tinted glass and white and blue concrete, semi-solid glass wall on the south and east facades, large symmetrically spaced windows on the west facade and a sloped and flat roof		
Field House	2008	2	18,160	Blue tinted glass and white and blue concrete, small asymmetrically placed window openings and stepped facade with a sloped and flat roof		
Central Plant	2009	1	4,800	Grey concrete block with minimal window openings and flat roof		
Campus Police Station	2009	1	2,400	Blue and grey concrete, minimal window openings and flat roof		
Lecture Laboratory	1995	4	90,100	Beige, blue and pink concrete, small window openings and smooth facade and flat roof		
Student Services/ Education Building	2006	3	63,000	Grey and cream concrete and blue tile, long linear window openings, stepped and curved facade and flat roof		
Technology Education	1995	3	54,000	Blue, black and grey concrete, prominent exterior stair encased in black brick with blue railings, horizontal rectangular window openings and flat roof		
Fitness and Wellness Center	1993	2	68,200	Beige and blue concrete, glass atrium entryway, minimal window openings, stepped facade and flat roof		
Child Development Center	2007	2	35,000	Blue and white concrete, small window openings, stepped and curved facade and flat and sloped roof		
Maintenance	2008	1	20,000	Blue and white concrete, minimal window openings and smooth facade and flat roof		
SOURCE: 2003 Los Angeles Master Plan and 2008 Los Angeles Southwest College Facilitates Master Plan Update.						

The Original Facilities Master Plan prescribes buildings of two- to three-stories, designed with building elevations that highlight vertical and horizontal lines. It suggests the use of south facing windows for sun shading to create visually interesting elevations. The plan suggests that banks of windows be treated as glazing rather than "punched openings" and the use of clean uncomplicated details and a unified color palette to create cohesive campus character. The existing buildings constructed under the Original Facilities Master Plan are consistent with the architectural character prescribed in the Plan. Additionally, the visual character of the existing buildings throughout the project site are consistent with one another, exhibiting similar exterior facades, roof styles and use of building materials and color, creating a cohesive campus character (**Figure 4.1-3**).





Student Services/Activity Center. Blue tinted glass and white and blue concrete, semi-solid glass wall on the south and east facades, large symmetrically spaced windows on the west facade and a sloped and flat roof.



Technology Education. Blue, black and grey concrete, prominent exterior stair encased in black brick with blue railings, horizontal rectangular window openings and flat roof.



Student Services/Education Building. Grey and cream concrete and blue tile, long, linear window openings, stepped and curved facade with a flat roof.





Project Site Vicinity

Western Avenue. Western Avenue is a major north-south, commercial corridor in the project area. Large-scale, low-rise commercial strip mall-type buildings with commercial uses including a batting cage, hotel, bowling alley, grocery store, and fast food restaurant are located on the western side of Western Avenue. The project site spans the eastern side of Western Avenue from Imperial Highway to the I-105, with a campus entrance located midblock. North of the project site, the commercial uses transition to smaller-scale strip mall-type buildings with commercial uses including fast food restaurants, a pet supply store, and a real estate office. Mature palm trees are located on the western side of Western Avenue, sporadically spaced, and young trees are located along the eastern side of Western Avenue.

Normandie Avenue. Normandie Avenue is a major north-south, commercial/residential corridor in the project area. Normandie Avenue is characterized by medium-scale, multi-family housing, small-scale commercial strip mall-type buildings and surface parking. The western side of Normandie Avenue includes residences, a fast food restaurant and Caltrans Site #16. The eastern side of Normanide Avenue includes residences, County buildings, a large surface parking lot and a fast food restaurant. Small-scale commercial strip mall type-buildings continue north of Imperial Highway and transition to single- and multi-family residences.

Imperial Highway. Imperial Highway is a major east-west commercial/industrial/residential corridor. The segment of Imperial Highway located in the project area is dominated by residential uses with commercial uses located at the eastern and western extremities of the project area. The residential buildings were built in the late 1940s and are characterized as single-story, bungalow-style, single-family residences, which include landscaped front yard areas with setbacks of approximately 30 feet. A landscaped parkway extends from Hobart Boulevard to Normandie Avenue. The commercial uses at the eastern and western extremities of the project area are characterized by small-scale strip mall-type buildings and include a bail bond, restaurant and gas station (**Figure 4.1-4**). The south side of Imperial Highway is dominated by the LASC campus and a church and school.

I-105 and Metro Green Line. The I-105 is a major east-west freeway in the region which provides access to three major north-south freeways, the San Diego Freeway (I-405), the Harbor Freeway (I-110) and the Long Beach Freeway (I-710). Access between the campus and the I-105 is obtained via off-ramps at Crenshaw Boulevard and Vermont Avenue. The Metro Green Line runs along the median of the I-105 and provides access to the site via either the Vermont Avenue or Crenshaw Boulevard Stations.





Western Avenue. Large-scale, low-rise commercial strip mall-type buildings with commercial uses.



Normandie Avenue. Medium-scale, multifamily housing, small-scale commercial strip mall-type buildings and surface parking.



Imperial Highway. Single-story, bungalow-style, single-family residences, which include landscaped front yard areas with setbacks of approximately 30 feet.





Views and Vistas

Views refer to visual access to focal points or panoramic views from an area. In general, views are closely tied to topography and distances from visual features and resources. The project vicinity is an urbanized, primarily commercial and industrial area. No unique visual elements, landforms, or topographic features exist on or immediately surrounding the project site. The project site is within the distant viewshed of the Santa Monica and San Gabriel Mountains. The foothills of the Santa Monica Mountains begin approximately 12 miles to the northwest and represent a background, north/northwestfacing view for pedestrians and motorists along north-south streets in the project vicinity. The foothills of the San Gabriel Mountains begin approximately 20 miles to the northeast and represent a background, north/northeast-facing view for pedestrians and motorists along north-south streets in the project vicinity. Typically, the articulation of the mountains is not clearly discernable from the project site due to the height and density of development, presence of smog, and distance to the mountains. Buildings exceeding one-story in height block views of the mountains to the north from near or within the project site. Existing foreground views are primarily of commercial and residential land uses of one to two stories in height. Due to the high density of urban development and the project site's location in a flat portion of the Los Angeles basin, views within the neighborhood are generally limited to the immediate area. There are no other views or vistas in the project area.

Scenic Resources

There are no State-designated or locally-designated scenic highways within the vicinity of the project site. The nearest scenic highway is a portion of the I-110 designated as a Historic Parkway. The Historic Parkway begins at the junction of the I-110 with the I-5, approximately 12 miles north of the project site, and terminates in Pasadena. ¹

Light and Glare

Ambient exterior lighting at LASC consists of the illumination of some parking areas and security lighting for pedestrians, as well as lighting in the stadium in the southwestern portion of the campus. The baseball fields are equipped with lighting for nighttime use. The highest illumination on the campus is directed at the stadium where there is often nighttime training or events.

Glare or perceived brightness is characterized as a diffused light, which is generated or reflected from a surface, often causing a nuisance to the viewer. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior facades largely or entirely comprised of highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with a viewer being within the line-of-sight of bright point source lighting that contrasts with existing low ambient light conditions. The majority of existing buildings are comprised of a mixture of reflective and non-reflective materials which include concrete, plaster and glass. Glare can result from sunlight reflecting off the glass on the buildings located throughout the campus. During the daytime, parked vehicles can produce a large source of glare from sunlight being reflected off windshields and other surfaces. This phenomenon is noticeable primarily in the numerous surface parking lots throughout the campus.

¹California Department of Transportation (Caltrans), *California Scenic Highway Program 1999*, Available at: http://www.dot.ca.gov/hq/LandArch/scenic highways/index.htm, Accessed November 24, 2009.

Shade and Shadow

Shadows are cast in a clockwise direction from west/northwest to east/northeast from approximately 7:00 a.m. to 4:00 p.m. or later depending on the time of the year: Summer Solstice (June 20), Spring/Fall Equinoxes (March 20 and September 22), and Winter Solstice (December 21). Generally, the shortest shadows are cast during the Summer Solstice and grow increasingly longer until the Winter Solstice. During the Winter Solstice, the sun appears lower in the sky and shadows are at their maximum coverage lengths. Shadow impacts are considered to be significant when they cover shadow-sensitive uses for a substantial amount of time. Shadow-sensitive uses generally include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors/panels.

Shadow sensitive uses within the vicinity of the project site include usable outdoor spaces associated with the residential uses located to the north of the project site and the campus outdoor space located throughout the project site. The tallest buildings on the LASC campus, the Cox and Technology Education Building, are approximately 50 to 60 feet in height and are located near the center of campus. These buildings do not cast shadows outside of the campus boundaries however, they do cast shadows onto campus outdoor space located south of the Cox Building. Students pass through this open space or sit at one of its four picnic tables; it is one of the more heavily used open spaces on campus.

THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant impact related to aesthetics if the project would:

- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Affect the nature and quality of recognized or valued scenic views or vistas;
- Damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area; and/or
- Cast new shadows on shadow-sensitive uses for more a substantial period of time.

IMPACTS

Visual Character

The proposed project would include the construction of six new facilities, the modernization of four existing buildings, and infrastructure upgrades. **Table 4.1-2** describes the visual character of the proposed new facilities and proposed modernizations. The infrastructure upgrades would include a fourth entrance located along Normandie Avenue, the acquisition or lease of Caltrans Site #16 for installation of solar farm as part of the campus renewable energy program, and infrastructure improvements necessary to support the future security and technological development of the campus.

TABLE 4.1-2: CHARACTERISTICS OF PROPOSED NEW FACILITIES AND MODERNIZATIONS					
Building	Number of Stories	Approx. Size (gsf)	Description and Location		
NEW FACILITIES	.				
Visual, Communications and Performing Arts Training Complex	2	37,300	A LEED-certified building proposed north of the Cox Building along the northern perimeter of the project site at the location of an existing surface parking lot		
Career and Applied Technologies Building	2	40,000	A LEED-certified building proposed east of the Student Services/Activities Center located on the northwest corner of the project site where an existing surface parking lot is located		
Health Academy Building	2	45,000	A LEED-certified building proposed north of the Police Building at the location of existing walkway/open space		
Annex to Cox Building	1	5,000	A LEED-certified building proposed directly north of the Cox Building		
Bookstore	1	5,000	A Bookstore located at the southeast corner on the ground floor of the Student Services/Activity Center Building (within the existing structure)		
Parking Structure	3	650 to 700 Cars	A proposed parking structure located in the northeast quadrant of the campus, east of the Student Services/Education Building where a surface parking lot is currently located.		
MODERNIZATIONS		_			
Cox Building	5	85,400	Bring the existing building up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.		
Cox Little Theater	1- to 2	19,000	Bring the existing building up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.		
Lecture Laboratory	4	90,100	Bring the existing building up to current building code and life safety standards. The renovation would include architectural, structural, mechanical, electrical, plumbing, technology, and security systems upgrades and would connect to the Central Plant.		
Fitness and Wellness Center SOURCE: Los Angeles Southwest College, 2008	2	68,200	Bring the existing building up to current building code and life safety standards. Modernization would include a student success center, replacement of gym floor and new protective covering, assessment of the bleachers, lighting and controls, fire alarm system upgrade, exterior stairs, improve the locker and wet room areas to accommodate separate women's facilities, mechanical, electrical, and security upgrades along with site improvements at the athletic practice fields.		

The new buildings on campus are being planned in accordance with the architectural design guidelines of scale, color, and glazing patterns described in the Original Facilities Master Plan and would therefore result in buildings of similar scale and massing to the recently constructed buildings on campus.² The proposed modernizations would include upgrades to the architectural finishes of the existing buildings which would bring these buildings into conformance with the design guidelines of the Original Facilities Master Plan and the more recently constructed buildings on campus. As shown in **Figure 4.1-5**, the contrast in scale, massing and open space is consistent with the existing campus buildings and open space. Therefore, the proposed project would result in less-than-significant impacts related to visual character.

Views and Vistas

No particularly unique visual elements, landforms, or topographic features exist on or immediately surrounding the project site. The primary view from the project area include the distant Santa Monica and San Gabriel Mountains, however, the articulation of the mountains is not clearly discernable from the project site due to the height and density of development, presence of smog, and distance to the mountains. Buildings exceeding one-story in height block views to the north of the mountains from near or within the project site. The proposed new buildings would not exceed the height of the existing buildings on campus. There are no other views or vistas in the project area. Therefore, the proposed project would result in less-than-significant impacts related to views and vistas.

Scenic Resources

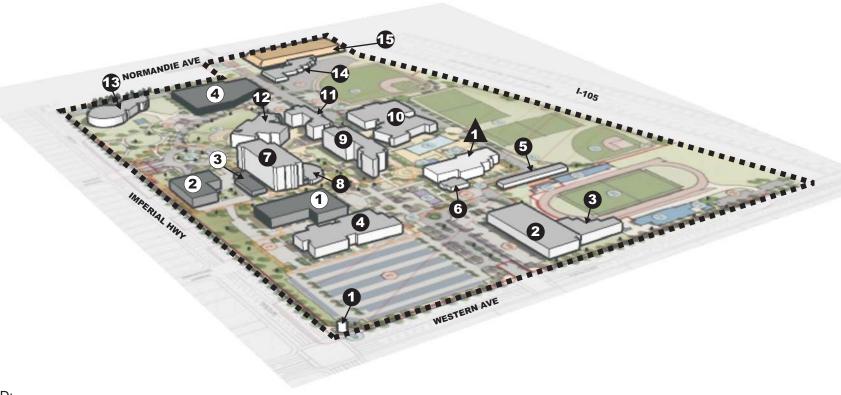
There are no designated scenic highways in the project vicinity and, as a result, no scenic highways would be affected by the proposed project. Therefore, the proposed project would result in less-than-significant impacts related to scenic resources.

Light and Glare

The proposed project would include security lighting for all buildings and facilities. Additional ornamental lighting may also be installed to accent buildings. Lighting fixtures would typically be mounted on low scale poles or on the facades of buildings. It is expected that this lighting (which typically is at the level of one to two footcandles) would not spillover outside the campus boundaries nor would it create glare that would adversely affect adjacent residences. Therefore, the proposed project would result in less-than-significant impacts related to lighting.

It is anticipated that exterior building materials, such as concrete, plaster and glass would be used in the construction of the proposed project. The design guidelines of the Original Facilities Master Plan suggests the use of south facing windows for sun shading which would result in the windows being placed facing the interior of the campus and away from the residences to the north. With implementation of all applicable local requirements related to the use of non-reflective exterior building materials, and the implementation of the design guidelines of the Original Facilities Master Plan, potential glare impacts would be less than significant.

²Los Angeles Southwest College, 2008 Los Angeles Southwest College Facilities Master Plan Update.



LEGEND:

Project Site

Proposed Structures

1. Career and Applied Technologies

3. Annex to Cox Center

2. Visual Communications and Performing Arts 4. NE Parking Structure

Existing Structures

1. Marquee Sign

2. Parking Structure

3. Field House

4. Student Services/Activities Center 9. Lecture Laboratory

5. Central Plant SOURCE: TAHA, 2009 6. Campus Police Station

7. Cox Center

8. Cox Little Theater

10. Fitness and Wellness Center

Separate Environmental Review

1. Middle College High School

11. Technology Education

12. Student Services/Education Building

13. Child Development Center

14. Maintenance Building

15. Caltrans Site #16 Cap





The project proposes a renewable energy production program which will likely include a solar farm on Caltrans Site #16. Solar panels may include the use of reflective materials resulting in glare. Caltrans Site #16 is only partially visible from within the campus due to the placement of the Maintenance Building which obstructs the view of Caltrans Site #16 and the elevation of the site which is higher than the adjacent athletic fields and gradually steps back towards Normandie Avenue. Caltrans Site #16 is visible from the multi-family residential buildings on the east and west sides of Normandie Avenue (**Figure 4.1-6**). The solar panels would be faced in a westerly direction and would, therefore, not result in glare that would affect the adjacent residences. Therefore, the proposed project would result in less-than-significant impacts related to glare from the proposed solar farm.

Shade and Shadows

The surrounding area adjacent to the campus was surveyed to identify shade sensitive uses. Examples of shade sensitive uses include useable outdoor spaces associated with residential, recreational or institutional uses, and commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor spaces. Residential properties are located north of the campus along Imperial Boulevard and campus outdoor spaces are located throughout the campus. The proposed project would result in the placement of the Visual Communications and Performing Arts Training Center Complex within 50 feet of the campus perimeter along Imperial Highway, south of the residential properties located to the north. The Career and Applied Technologies Building would be located adjacent to the campus outdoor space located east of the proposed building and the proposed parking structure would be located adjacent to the Child Development Center playground located north of the proposed structure and an outdoor seating area located west of the proposed structure. To determine whether a shadow would be cast onto shade sensitive uses, heights of the proposed building, the distance of the proposed building from sensitive uses, the time of day, and the time of year were taken into consideration. Figures 4.1-7 through 4.1-12 illustrate the shadows cast from the proposed buildings.

The Visual Communications and Performing Arts Training Center Complex is proposed to be two stories or an estimated 35 feet in height. The longest shadows cast for a 35-foot building would occur during the Winter Solstice at 9:00 a.m. and 3:00 p.m. This shadow length would not affect residences on the north side of Imperial Highway. Additionally, the maximum allowable building height for the proposed project site is 40 feet. The shadow length of a 40-foot building would not affect residences on the north side of Imperial Highway. Therefore, the proposed project would result in less-than-significant impacts related to shade and shadows on the adjacent residences.

Partial shadow coverage of the campus outdoor space east of the proposed Career and Applied Technologies Building would occur for two hours from 3:00 p.m. to 5:00 p.m. during the summer, for two hours from 3:00 p.m. to 5:00 p.m. in the spring and fall and for two hours from 1:00 p.m. to 3:00 p.m. during the winter. The campus outdoor space east of the proposed Career and Applied Technologies Building would not be covered by project-related shadows for three hours or more during the three key solar periods. Therefore, the proposed project would result in less-than-significant impacts related to shadows for the proposed Career and Applied Technologies Building.

Partial shadow coverage of the campus outdoor seating area west of the proposed parking structure would occur for one hour from 8:00 a.m. to 9:00 a.m. during the fall and winter. The campus outdoor seating area west of the proposed parking structure would not be covered by project-related shadows for three hours or more during the three key solar periods. Partial shadow coverage of the playground located north of the proposed parking structure would occur for two hours from 9:00 a.m. to 10:00 a.m. and from 3:00 p.m. to 4:00 p.m. during the winter. The playground north of the proposed parking structure would not be covered by project-related shadows for three hours or more during the three key solar periods. Therefore, the proposed project would result in less-than-significant impacts related to shadows for the proposed parking structure.



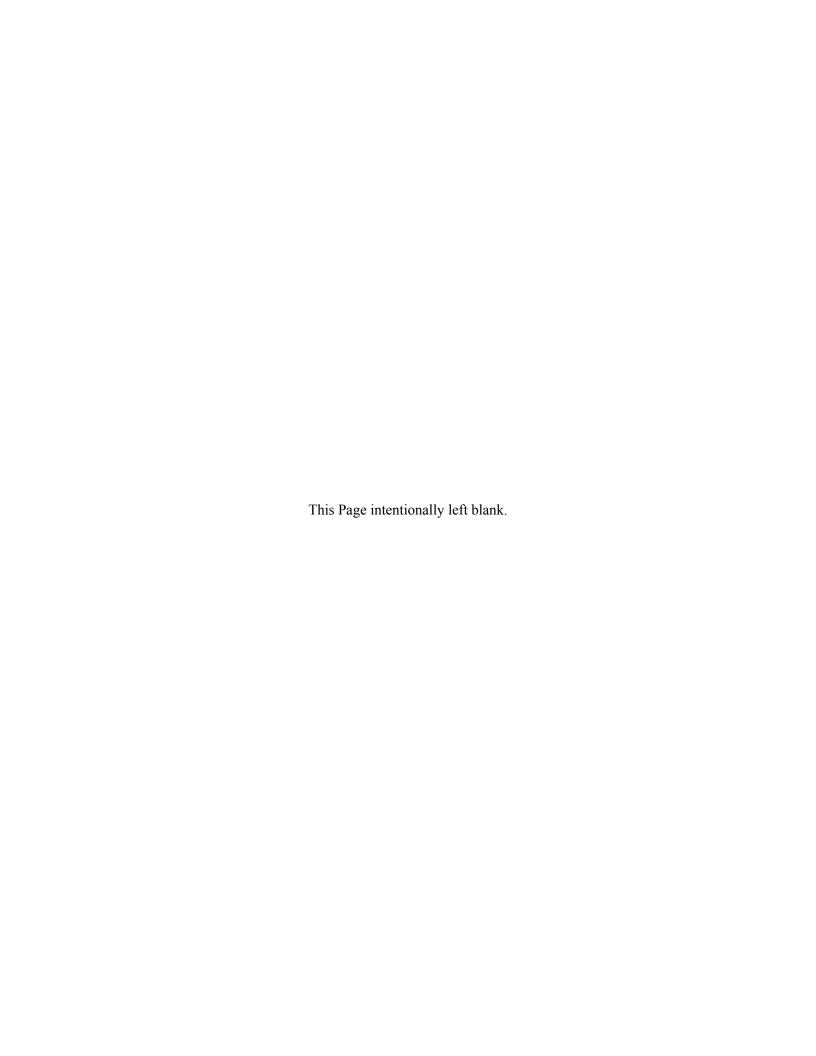


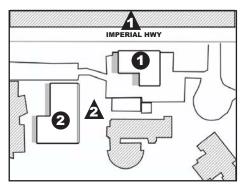
View of Caltrans Site #16 from the surface parking lot north of the Maintenance Building.

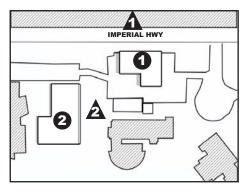


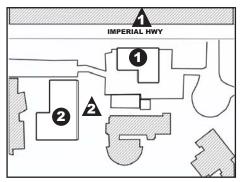
View of Caltrans Site #16 looking north on Normandie Avenue.







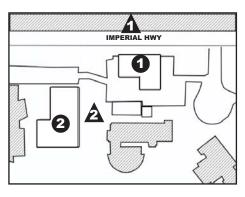


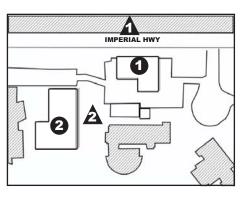


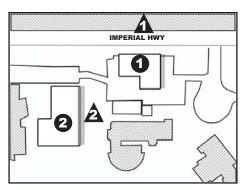
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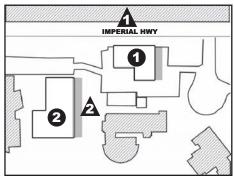


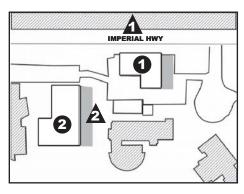


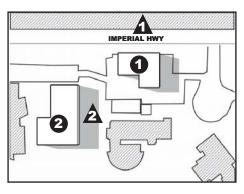
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LEGEND:



Building

- 1. Visual Communications and Performing Arts Building
- 2. Career and Applied Technologies Building SOURCE: TAHA, 2009



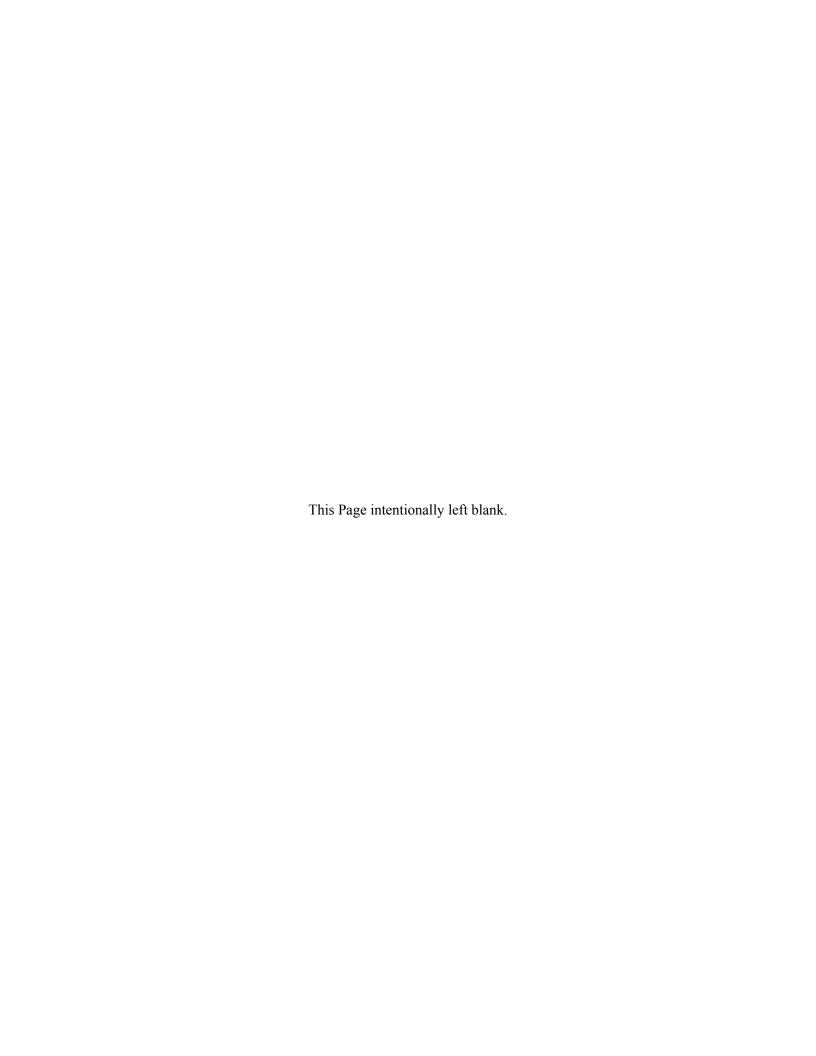
Shadow Sensitive Uses

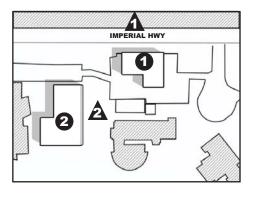
- 1. Single-Family Residences
- 2. Campus Open Space

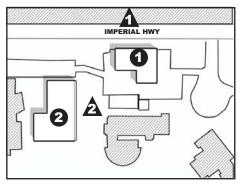


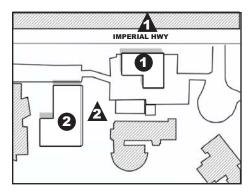


LASC Master Plan Update Supplemental Environmental Impact Report LOS ANGELES COMMUNITY COLLEGE DISTRICT

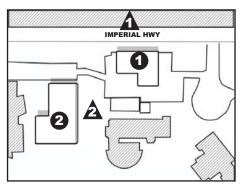


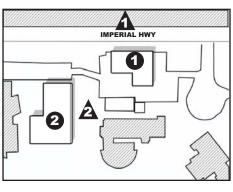


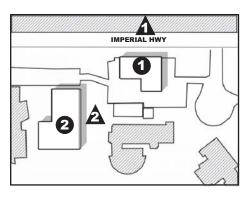




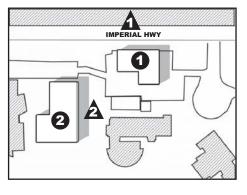
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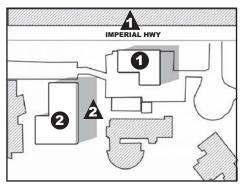


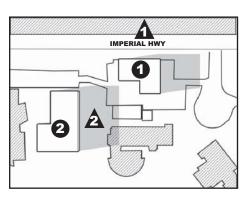




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- 1. Visual Communications and Performing Arts Building
- **2**. Career and Applied Technologies Building SOURCE: TAHA, 2009



Shadow Sensitive Uses

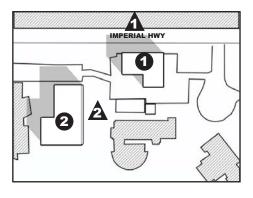
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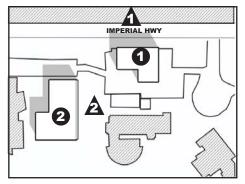


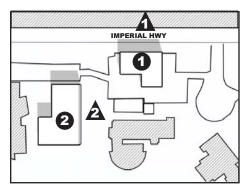


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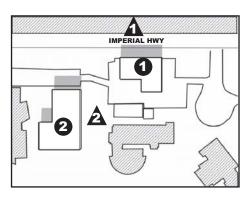


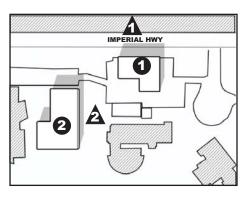


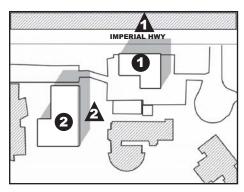




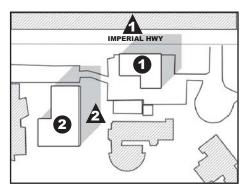
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- 1. Visual Communications and Performing Arts Building
- **2**. Career and Applied Technologies Building SOURCE: TAHA, 2009



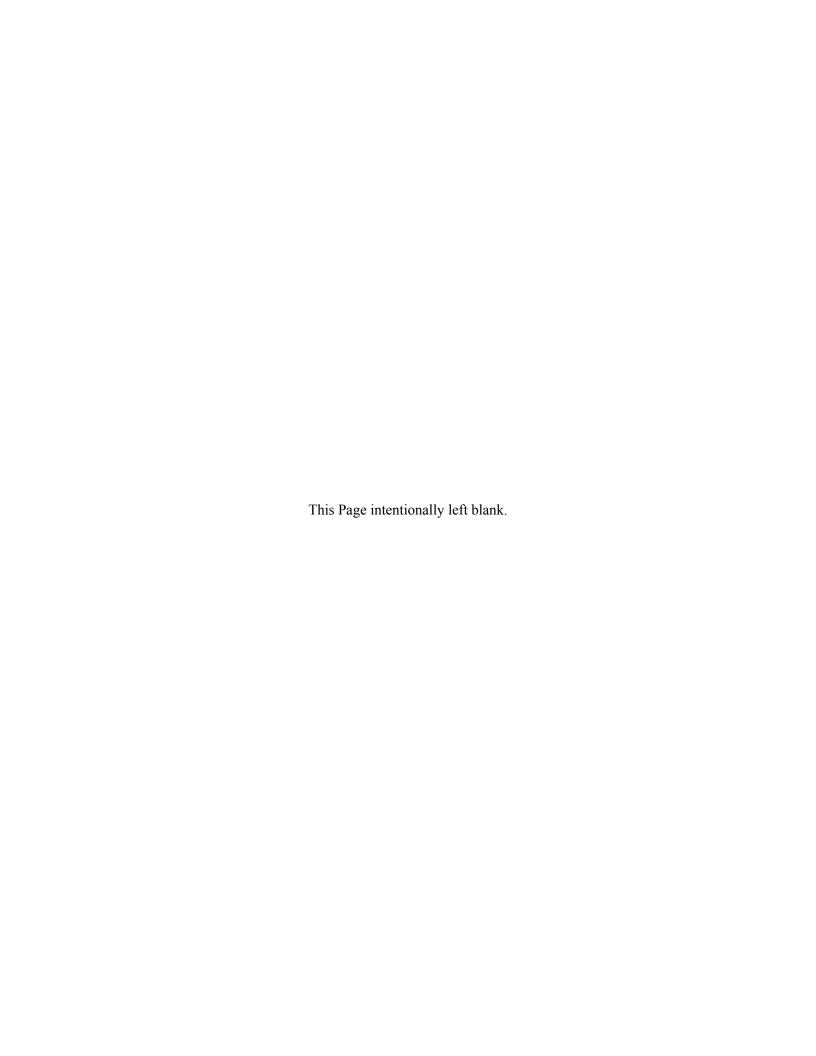
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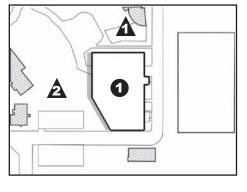
- 1. Single-Family Residences
- 2. Campus Open Space

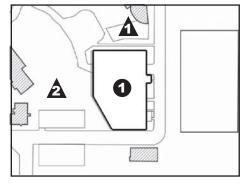


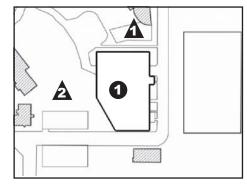


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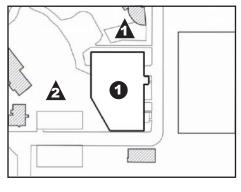


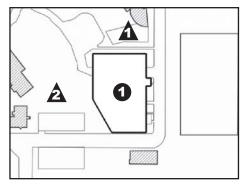


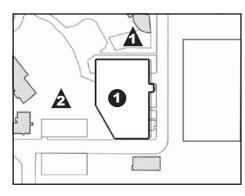
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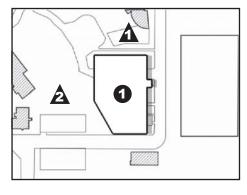


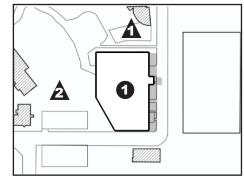


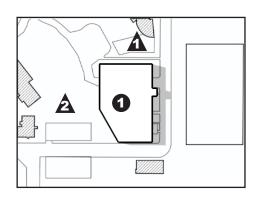
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LEGEND:





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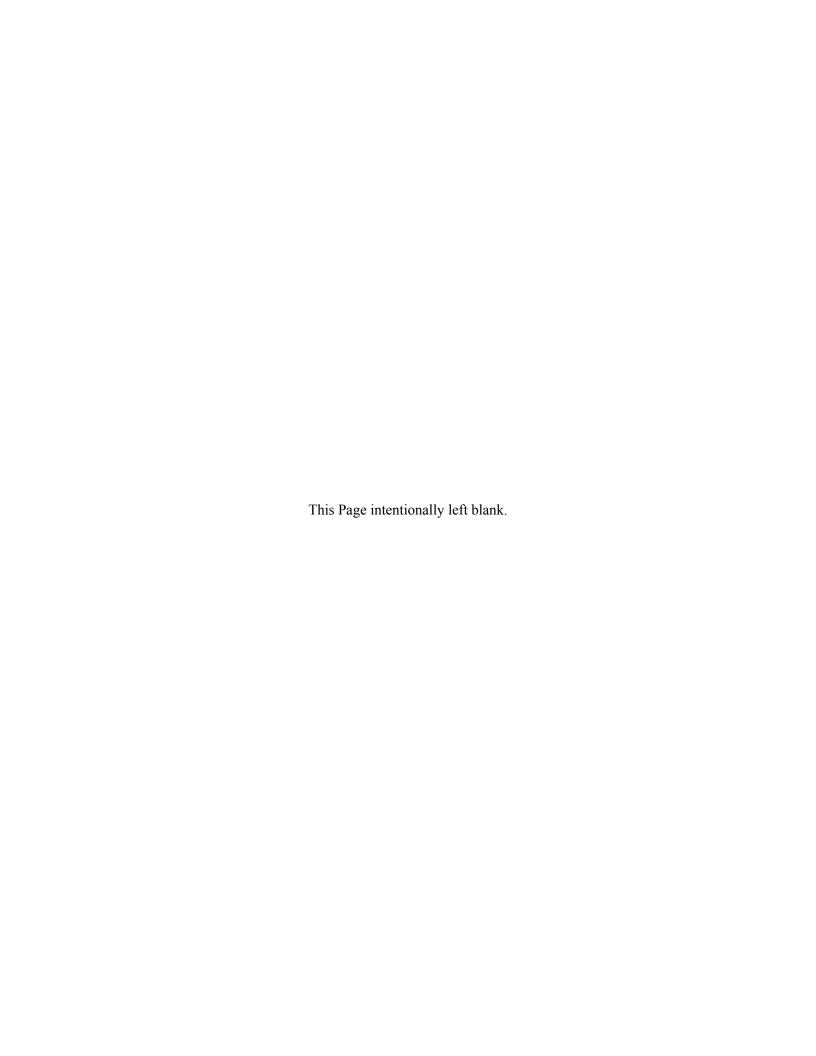
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- 1. Child Development Center Playground
- 2. Campus Open Space

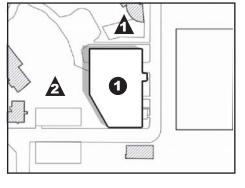
SOURCE: TAHA, 2009

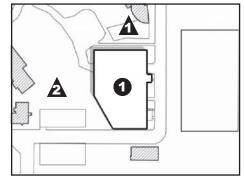


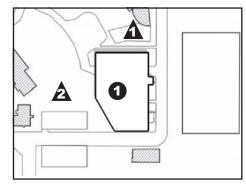
LASC Master Plan Update
Supplemental Environmental Impact Report
LOS ANGELES COMMUNITY COLLEGE DISTRICT

FIGURE 4.1-10





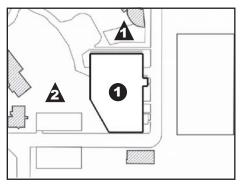


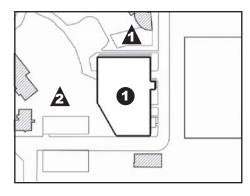


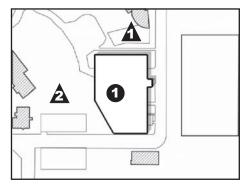
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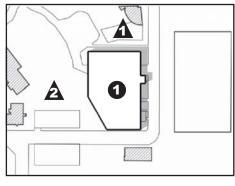


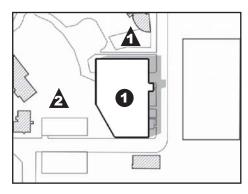


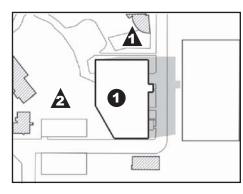
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Shadow Sensitive Uses

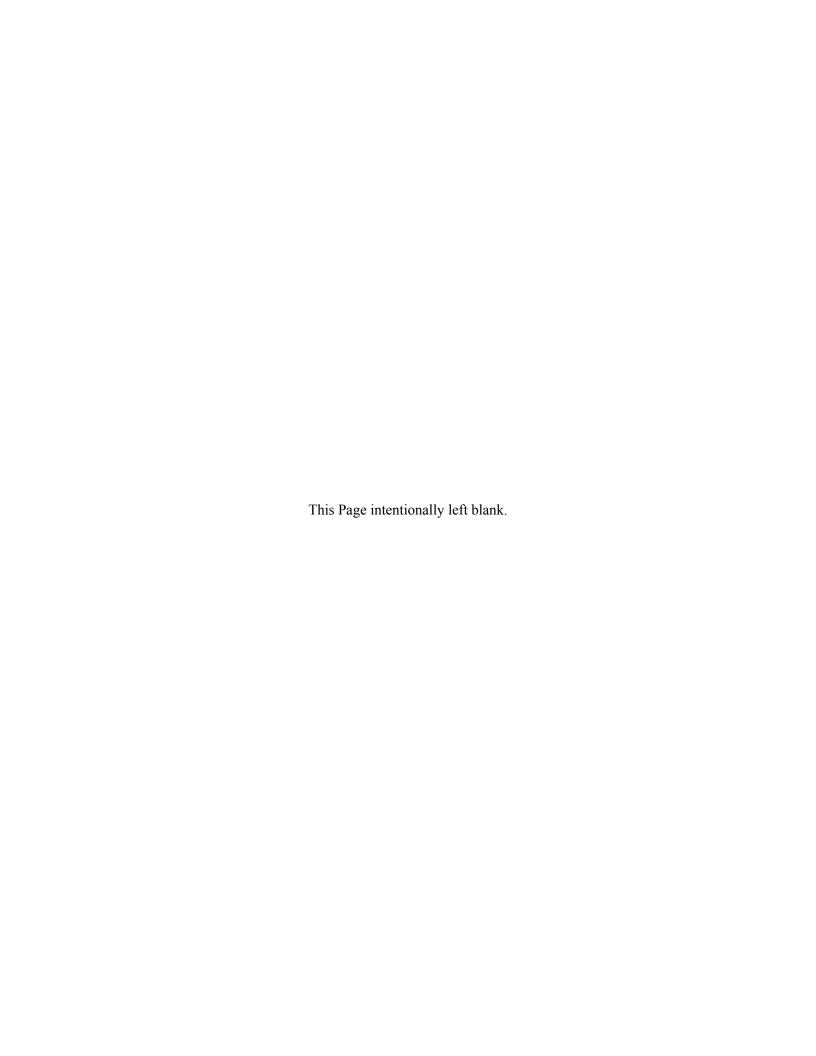
- 1. Parking Structure
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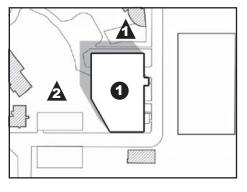
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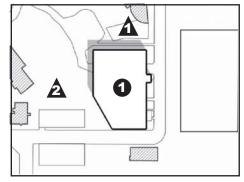


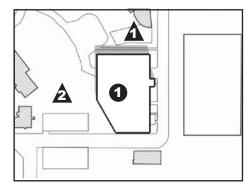


FIGURE 4.1-11





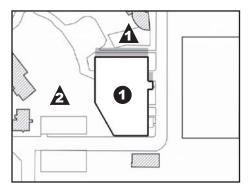


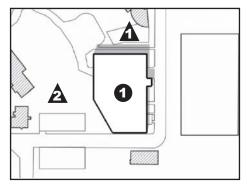


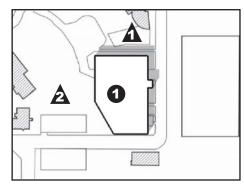
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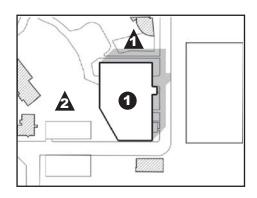




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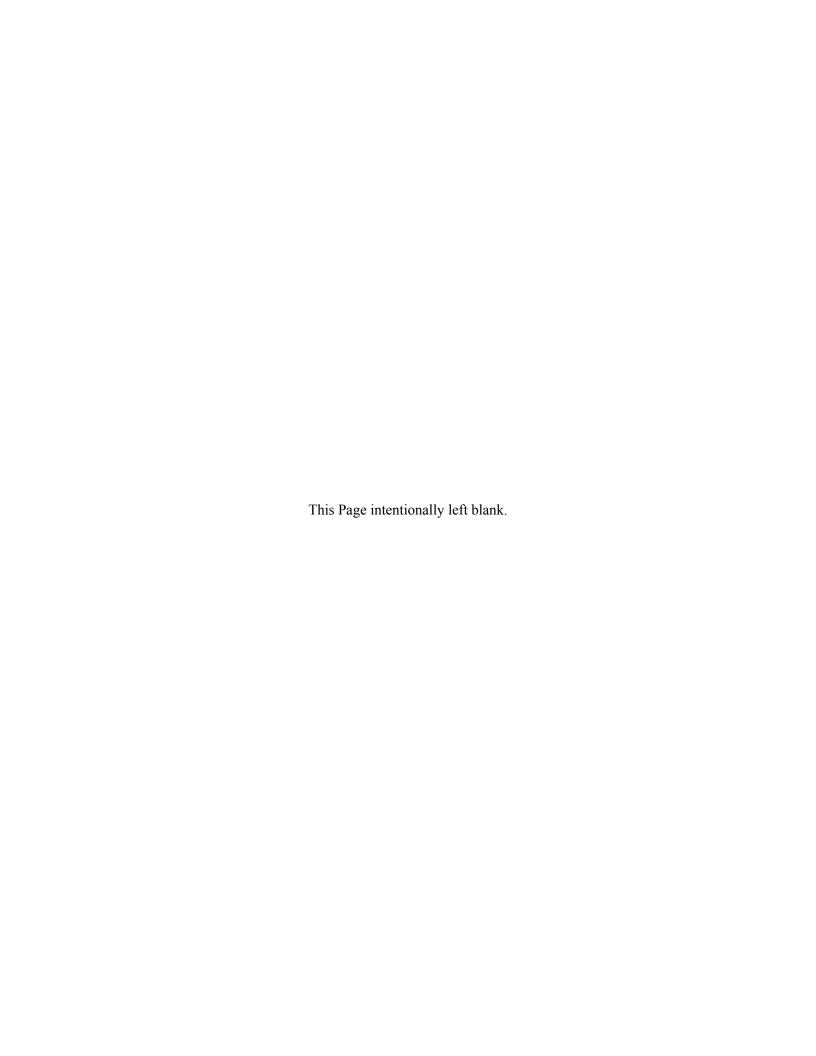


Shadow Sensitive Uses

- 1. Parking Structure
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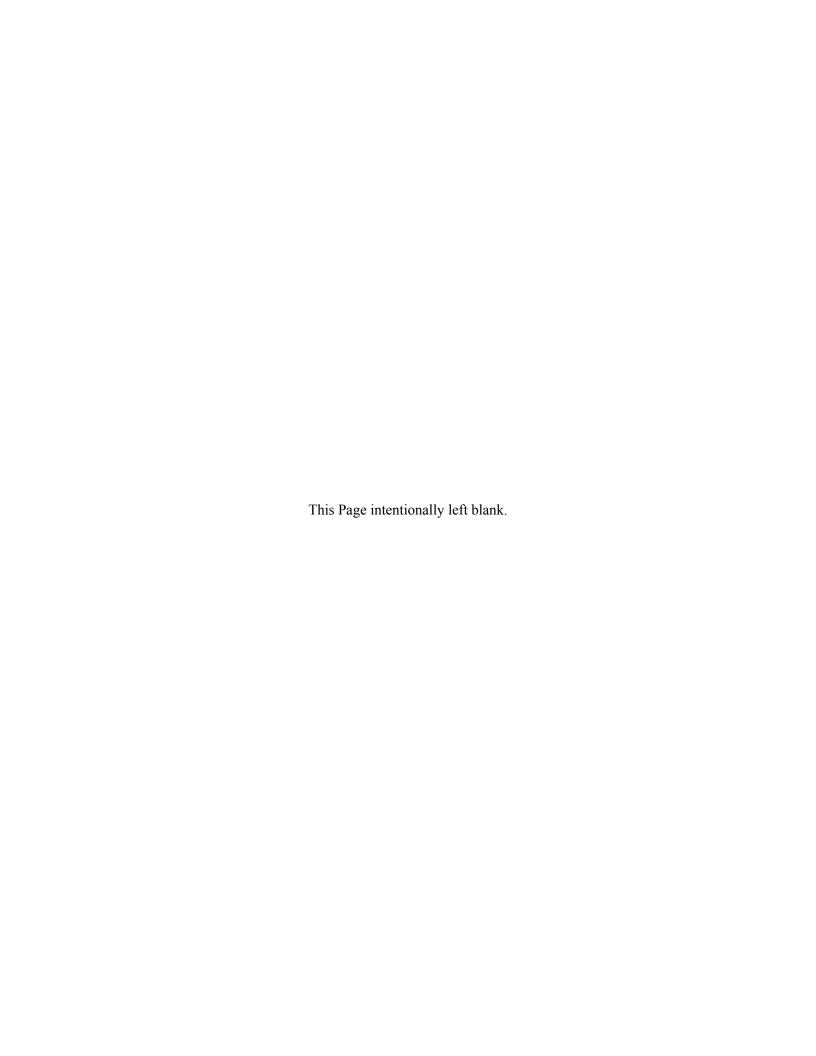


MITIGATION MEASURES

Impacts associated with visual character, views and vistas, scenic resources, light and glare and shadows are considered less-than-significant without mitigation. No mitigation measures are required.

LEVEL OF IMPACT AFTER MITIGATION

Impacts associated with visual character, views and vistas, scenic resources, light and glare and shadows are considered less-than-significant without mitigation.



4.2 AIR OUALITY

This section examines the degree to which the proposed project may cause significant adverse changes to air quality. Both short-term construction emissions occurring from activities, such as site grading and haul truck trips, and long-term effects related to the ongoing operation of the proposed project are discussed in this section. This analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Air calculations and modeling files are presented in Appendix B.

ENVIRONMENTAL SETTING

Pollutants and Effects

Air quality studies generally focus on the following criteria pollutants which are most commonly measured and regulated: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter ten microns or less in diameter (PM₁₀), and sulfur dioxide (SO₂). Air quality studies also often analyze toxic air contaminants and greenhouse gases.

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC), and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3 , are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smogproducing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Nitrogen Dioxide. NO_2 , like O_3 , is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10} . High concentrations of NO_2 can cause breathing difficulties and result in a brownish-

¹Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM_{2.5} and PM₁₀ represent fractions of particulate matter. Fine particulate matter, or PM_{2.5}, is roughly 1/28 the diameter of a human hair. PM_{2.5} results from fuel combustion (e.g. motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as SO₂, NO_X, and VOC. Inhalable particulate matter, or PM₁₀, is about 1/7 the thickness of a human hair. Major sources of PM₁₀ include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

 $PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans. A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are identified by State and federal agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management was designed to protect residents from the health effects of toxic substances in the air.

Greenhouse Gases. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the greenhouse effect, the Earth would be a frozen globe with an average surface temperature of about 5°F.

In addition to CO₂, CH₄, and N₂O, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO₂ is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO₂ comprised 83.3 percent of the total GHG emissions in California in 2002.² The other GHGs are less abundant but have higher global warming potential than CO₂. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. The CO₂e of CH₄ and N₂O represented 6.4 and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5 percent of these emissions.³ In addition, there are a number of human-made pollutants, such as CO, NO_X, non-methane VOC, and SO₂, that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

South Coast Air Basin

The project site is located within the Los Angeles County portion of the South Coast Air Basin. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

The Basin is in an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The Basin experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO₂ react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to CO and NO₂ emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). In the morning, CO levels are relatively high due to cold temperatures and the large number of cars traveling. High CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO emissions are produced almost entirely from automobiles, the highest CO concentrations in the Basin are associated with heavy traffic. NO₂ concentrations are also generally higher during fall and winter days.

Local Climate

The mountains and hills within the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the

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²California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 11.

³Ibid.

Lennox Wind Monitoring Station, is 4.1 miles per hour, with calm winds occurring approximately 13 percent of the time. Wind in the vicinity of the project site predominately blows from the west.⁴

The annual average temperature in the project area is 64.9°F.⁵ The project area experiences an average winter temperature of 58.0°F and an average summer temperature of 71.5°F. Total precipitation in the project area averages 14.8 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages 9.0 inches during the winter, 3.7 inches during the spring, 2.0 inches during the fall, and less than one inch during the summer.⁶

Regulatory Setting

The Federal Clean Air Act (CAA) governs air quality in the United States. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, CAA is administered by the United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels.

Federal

United States Environmental Protection Agency. USEPA is responsible for enforcing the CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet stricter emission standards established by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO₂, O₃, PM_{2.5}, PM₁₀, SO₂, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in **Table 4.2-1**. The USEPA has classified the Basin as maintenance for CO and nonattainment for O₃, PM_{2.5}, and PM₁₀.

⁶Ibid.

⁴SCAQMD, *Meteorological Data*, Available at: http://www.aqmd.gov/smog/metdata/MeteorologicalData.html, Accessed December 1, 2009.

⁵Western Regional Climate Center, *Historical Climate Information*, Available at: http://www.wrcc.dri.edu, Accessed December 1, 2009.

		Calif	ornia	Fed	eral
Pollutant	Averaging Period	Standards	Attainment Status	Standards	Attainment Status
0 (0)	1-hour	0.09 ppm (180 μg/m³)	Nonattainment		
Ozone (O ₃)	8-hour	0.070 ppm (137 μg/m³)	n/a	0.075 ppm (147 μg/m³)	Nonattainment
Dagginahla	24-hour	50 μg/m ³	Nonattainment	150 µg/m ³	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 μg/m³	Nonattainment		
Fine	24-hour			35 μg/m ³	Nonattainment
Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 μg/m³	Nonattainment	15.0 μg/m ³	Nonattainment
Carbon	8-hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Maintenance
Monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Maintenance
Nitrogen	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	Attainment	0.053 ppm (100 μg/m³)	Attainment
Dioxide (NO ₂)	1-hour	0.18 ppm (338 μg/m³)	Attainment		
	Annual Arithmetic Mean			0.030 ppm (80 μg/m³)	Attainment
Sulfur Dioxide (SO ₂)	24-hour	0.04 ppm (105 μg/m³)	Attainment	0.14 ppm (365 μg/m³)	Attainment
,	3-hour				
1 hour 0.25 pp		0.25 ppm (655 μg/m³)	Attainment		
Lead (Pb)	30-day average	1.5 μg/m ³	Attainment		
Ledu (PD)	Calendar Quarter			0.15 μg/m ³	Attainment

State

California Air Resources Board. In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn administer air quality activities at the regional and county levels. The State standards are summarized in **Table 4.2-1**.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O₃, PM_{2.5}, and PM₁₀.

Local

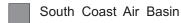
South Coast Air Quality Management District. The 1977 Lewis Air Quality Management Act created the South Coast Air Quality Management District (SCAQMD) to coordinate air quality planning efforts throughout Southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality within the project area. The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a subregion of the SCAQMD and covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (**Figure 4.2-1**).

Air Quality Management Plan. All areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses CAA and CCAA requirements and demonstrates attainment with State and federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the Basin must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

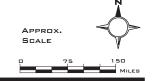


LEGEND:



State of California

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998







The 2007 AQMP was adopted by the SCAQMD on June 1, 2007. The 2007 AQMP proposes attainment demonstration of the federal PM_{2.5} standards through a more focused control of SO_X, directly-emitted PM_{2.5}, and NO_X supplemented with VOC by 2015. The eight-hour ozone control strategy builds upon the PM_{2.5} strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024. The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP is consistent with and builds upon the approaches taken in the 2003 AQMP. However, the 2007 AQMP highlights the significant amount of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the time frames allowed under the CAA.

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies. These policies can be viewed in the SCAQMD's Air Toxics Control Plan for the Next Ten Years (March 2000). To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the average cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

Global Climate Change

In response to growing scientific and political concern with global climate change, California has recently adopted a series of laws to reduce emissions of GHGs into the atmosphere. In September 2002, Assembly Bill (AB) 1493 was enacted, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. California Governor Arnold Schwarzenegger announced, on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In response to the Executive Order, the Secretary of the California Environmental Protection Agency created the Climate Action Team (CAT), which, in March 2006, published the Climate Action Team Report to Governor Schwarzenegger and the Legislature (2006 CAT Report). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

Assembly Bill 32. In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as AB 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB

⁷SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-III), September 2008.

32 is to limit 2020 emissions to the equivalent of 1990, and the present year (2009) is near the midpoint of this timeframe, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges the CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, the CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills. On October 25, 2007, the CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emission from the non-electricity sector. The CARB has determined that the total statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO₂e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO₂e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the Climate Action Team and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The measures in the Scoping Plan adopted by the Board will be developed and put in place by 2012.

The CARB has also developed the greenhouse gas mandatory reporting regulation, which required reporting beginning on January 1, 2008 pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO₂ per year. Cement plants, oil refineries, electric generating facilities/providers, cogeneration facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons of CO₂ per year, make up 94 percent of the point source CO₂ emissions in California.

CEQA Guideline Amendments. California Senate Bill (SB) 97 requires the Governor's Office of Planning and Research (OPR) to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for greenhouse gas emissions, as required by Senate Bill 97. These proposed CEQA Guideline amendments would provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The Natural Resources Agency will conduct formal rulemaking in 2009, prior to certifying and adopting the amendments, as required by Senate Bill 97.

OPR has proposed various amendments to the CEQA Guidelines. Noteworthy revisions to the Guidelines include:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;

- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

Senate Bill 375. California Senate Bill (SB) 375, passed September 30, 2008, provides a means for achieving AB 32 goals through regulation of cars and light trucks. SB 375 aligns three critical policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve greenhouse gas emissions reductions targets for the transportation sector. SB 375 establishes a process for CARB to develop the GHG emissions reductions targets for each region (as opposed to individual local governments or households). CARB must take certain factors into account before setting the targets, such as considering the likely reductions that will result from actions to improve the fuel efficiency of the Statewide fleet and regulations related to the carbon content of fuels (low carbon fuels). CARB must also convene a Regional Targets Advisory Committee, which includes representation from the League of California Cities, California State Association of Counties, metropolitan planning organizations, developers, planning organizations and other stakeholder groups. Furthermore, before setting the targets for each region, CARB is required to exchange technical information with the Metropolitan Planning Organizations (MPOs) for that region and with the affected air district. SB 375 provides that the MPOs may recommend a target for its region.

SB 375 relies upon regional planning processes already underway in the 17 MPOs in the State to accomplish its objectives. The provisions related to GHG emissions only apply to the MPOs in the State, which includes 37 of the 58 counties. Most notably, the measure requires the MPO to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP), which sets forth a vision for growth for the region taking into account the transportation, housing, environmental, and economic needs of the region. The SCS is the blueprint by which the region will meet its GHG emissions reductions target if there is a feasible way to do so.

SB 375 indirectly addresses another longstanding issue: single purpose State agencies. The new law will require the cooperation of CARB, the California Transportation Commission (CTC), the California Department of Transportation (Caltrans) and the State Department of Housing and Community Development (HCD). For example, SB 375 takes a first step to counter this problem by connecting the Regional Housing Needs Allocation (RHNA) to the transportation planning process. While these State agencies will be involved in setting the targets and adopting new guidelines, local governments and the MPOs will not only provide input into setting the targets, but will serve as the lead on implementation. Member cities and counties working through their MPOs are tasked with development of the new integrated regional planning and transportation strategies designed to meet the GHG targets.

SB 375 also includes a provision that applies to all regional transportation planning agencies in the State that recognizes the rural contribution towards reducing GHGs. More specifically, the bill requires regional transportation agencies to consider financial incentives for cities and counties that have resource areas or farmland, for the purposes of, for example, transportation investments for the preservation and safety of the city street or county road system, farm to market, and interconnectivity transportation needs. An MPO or county transportation agency shall also consider financial assistance for counties to address countywide service responsibilities in counties that contribute towards the GHG emissions reductions targets by implementing policies for growth to occur within their cities.

SB 375 uses California Environmental Quality Act (CEQA) streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Cities and counties that find the CEQA streamlining provisions attractive have the opportunity (but not the obligation) to align their planning decisions with the decisions of the region.

SB 375 provides more certainty for local governments and developers by framing how AB 32's reduction goal from transportation for cars and light trucks will be established. It should be noted, however, that SB 375 does not prevent CARB from adopting additional regulations under its AB 32 authority. However, based on the degree of consensus around SB 375 and early indications from CARB, such actions are not anticipated in the foreseeable future.

CARB Guidance. The CARB has published draft guidance for setting interim GHG significance thresholds (October 24, 2008). The guidance is the first step toward developing the recommended Statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). The CARB believes that thresholds in these important sectors will advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

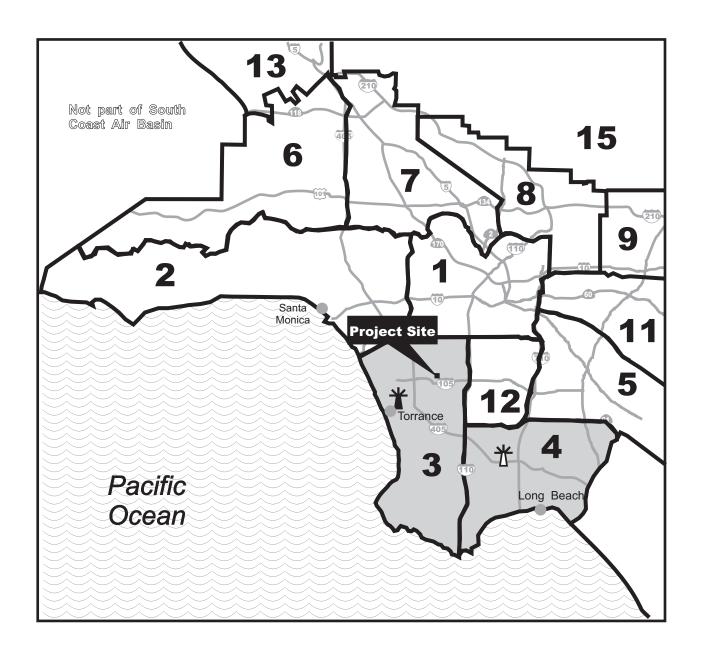
SCAQMD Guidance. The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.

Local Air Monitoring Data

The SCAQMD monitors air quality conditions at 38 locations throughout the Basin. The project site is located in SCAQMD's Southwest Los Angeles County Coastal Air Monitoring Subregion, which is served by the Hawthorne Monitoring Station. The monitoring station is located approximately three miles west-southwest of the project site (**Figure 4.2-2**). Historical data from the Hawthorne Monitoring Station were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Hawthorne Monitoring Station include O₃, CO, PM₁₀, SO₂, and NO₂. Historical data from the Long Beach Monitoring Station was used to characterize existing PM_{2.5} levels.

Table 4.2-2 shows pollutant levels, the State and federal standards, and the number of exceedances recorded at the relevant monitoring station compared to the Coastal General Forecast Area (Forecast Area) from 2006 to 2008.

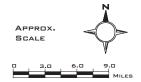
The CAAQS for the criteria pollutants are also shown in the table. As **Table 4.2-2** indicates, criteria pollutants CO, NO₂, and SO₂ did not exceed the CAAQS during the 2006 to 2008 period. The one-hour State standard for O₃ was not exceeded during this period, and the eight-hour State standard for O₃ was exceeded one time in 2007 and 2008. The 24-hour State standard for PM₁₀ was exceeded twice during 2007, and the annual State standard for PM_{2.5} was exceeded each year. When compared to the Forecast Area, the Hawthorne Monitoring Station has recorded similar concentrations for CO, NO₂, PM_{2.5} and SO₂, and lower concentrations for O₃ and PM₁₀.



* Hawthorne Monitoring Station * Long Beach Monitoring Station LEGEND:

Air Monitoring Areas in Los Angeles County:

- 1. Central Los Angeles
- 2. Northwest Coastal
- Southwest Coastal
- 4. South Coastal
- 5. Southeast Los Angeles County 13. Santa Clarita Valley
- 6. West San Fernando Valley
- 7. East San Fernando Valley
- 8. West San Gabriel Valley
- 9. East San Gabriel Valley
- 10. Pomona/Walnut Valley (not shown)
- 11. South San Gabriel Valley
- 12. South Central Los Angeles
- 15. San Gabriel Mountains



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SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1999



TABLE 4.	TABLE 4.2-2: 2006-2008 AMBIENT AIR QUALITY DATA IN THE PROJECT VICINITY						
		Hawthorne and Long Beach Monitoring Stations /a/			Coastal General Forecast Area /b,c/		
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Pollutant	Pollutant Concentration & Standards	2006	2007	2008	2006	2007	2008
	Maximum 1-hr Concentration (ppm)	0.08	0.09	0.09	0.08	0.11	0.10
	Days > 0.09 ppm (State 1-hr standard)	0	0	0	1	1	1
Ozone							
	Maximum 8-hr Concentration (ppm)	0.06	0.07	0.08	0.07	0.08	0.08
	Days > 0.07 ppm (State 8-hr standard)	0	1	1	0	3	4
	Maximum 1-hr concentration (ppm)	3	3	4	4	3	3
Carbon	Days > 20 ppm (State1-hr standard)	0	0	0	0	0	0
Monoxide							
Monoxide	Maximum 8-hr concentration (ppm)	2.3	2.4	2.5	2.7	2.5	2.3
	Days > 9.0 ppm (State 8-hr standard)	0	0	0	0	0	0
Nitrogen	Maximum 1-hr Concentration (ppm)	0.10	0.08	0.10	0.10	0.09	0.10
Dioxide	Days > 0.18 ppm (State 1-hr standard)	0	0	0	0	0	0
DM	Maximum 24-hr concentration (µg/m³)	45	96	50	81	110	66
PM ₁₀	Estimated Days > 50 µg/m³ (24-hr standard)	0	2	0	10	10	5
DM	Annual Arithmetic Mean (µg/m³)	14.5	13.7	13.7	14.5	13.7	13.7
PM _{2.5}	Exceed State Standard (12 µg/m³)?	Yes	Yes	Yes	Yes	Yes	Yes
Sulfur	Maximum 24-hr Concentration (ppm)	0.01	0.01	0.01	0.01	0.01	0.01
Dioxide	Days > 0.04 ppm (State 24-hr standard)	0	0	0	0	0	0

[/]a/ O₃, CO, NO₂, SO₂, and PM₁₀ data were obtained from the Hawthorne Monitoring Station and PM_{2.5} data were obtained from the Long Beach Monitoring Station.

Existing Carbon Monoxide Concentrations at Project Area Intersections

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic are the primary source of CO. CO is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found in areas directly adjacent to congested roadway intersections.

SCAQMD defines the ambient CO level as the highest reading over the past three years. A review of data from the Hawthorne Monitoring Station for the 2006 to 2008 period indicates that the one- and eight-hour background concentrations are approximately 4 and 2.5 ppm, respectively. Accordingly, the existing background concentrations do not exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

Existing CO concentrations were modeled at intersections near the project site. The study intersections were selected to be representative of the project area and were based on traffic volume to capacity (V/C) ratio and the traffic level of service (LOS) as indicated in the traffic analysis. The intersections were selected because they represent the busiest or most congested intersections analyzed in the traffic analysis.

The selected intersections are as follows:

- Century Boulevard and Normandie Avenue PM Peak Hour
- Century Boulevard and Western Avenue PM Peak Hour

[/]b/ The Coastal General Forecast Area includes Northwest Los Angeles County Coastal, Southwest Los Angeles County Coastal, South Los Angeles County Coastal, and North Orange County Coastal air monitoring areas of the SCAQMD.

[/]c/ An average of the maximum concentration of each criteria pollutant of the air monitoring areas of the Coastal General Forecast Area was used to represent maximum concentrations in the Coastal General Forecast Area.

SOURCE: SCAQMD, Historical Data by Year, available at http://www.aqmd.gov/smog/historicaldata.htm, accessed November 11, 2009.

- Imperial Highway and Crenshaw Boulevard AM Peak Hour
- Imperial Highway and Crenshaw Boulevard PM Peak Hour
- Imperial Highway and I-110 Northbound On-Ramp AM Peak Hour
- Imperial Highway and Vermont Avenue AM Peak Hour
- Imperial Highway and Vermont Avenue PM Peak Hour
- Imperial Highway and Western Avenue PM Peak Hour

At each intersection, traffic-related CO contributions were added to background CO conditions. Traffic CO contributions were estimated using the USEPA CAL3QHC dispersion model, which utilizes traffic volume inputs and CARB EMFAC2007 emissions factors. Consistent with the California Department of Transportation (Caltrans) CO protocol, receptors for the analysis were located three meters (approximately ten feet) from each intersection corner. Existing conditions at the study intersections are shown in **Table 4.2-3**. One-hour CO concentrations would be approximately 5 ppm and eight-hour CO concentrations range from approximately 3.0 to 3.3 ppm. Presently, none of the study intersections exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

Intersection	1-hour (parts per million)	8-hour (parts per million)
Century Boulevard and Normandie Avenue – PM Peak Hour	5	3.2
Century Boulevard and Western Avenue – PM Peak Hour	5	3.2
Imperial Highway and Crenshaw Boulevard – AM Peak Hour	5	3.2
Imperial Highway and Crenshaw Boulevard – PM Peak Hour	5	3.3
Imperial Highway and I-110 Northbound On-Ramp – AM Peak Hour	5	3.1
Imperial Highway and Vermont Avenue – AM Peak Hour	5	3.0
Imperial Highway and Vermont Avenue – PM Peak Hour	5	3.2
Imperial Highway and Western Avenue – PM Peak Hour	5	3.3
State Standard	20	9.0

Sensitive Receptors

Off-Site Receptors. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptor distances presented below are measured from the nearest construction activity. As shown in Figure 4.2-3, sensitive receptors include the following:

- Single-family residences located approximately 80 feet to the north
- St. Frances X. Cabrini church and school located 90 feet to the north and east
- Multi-family residences located approximately 150 feet to the east
- Single-family residences located approximately 290 feet to the west
- Single- and multi-family residences located approximately 570 feet to the southeast
- Single-family residences located approximately 660 feet to the south

- Animo High School located approximately 835 feet to the north
- Busy Bee Preschool located approximately 930 feet to the west-northwest

The above sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by the proposed project. Additional sensitive receptors are located in the surrounding community within one-quarter mile of the project site and may be impacted by the proposed project.

On-Site Receptors. The Los Angeles Unified School District Middle College High School campus is currently operating on the southwest portion of the project site. A separate project involves relocating the existing campus to the middle of the project site. This construction may occur concurrently with project-related construction activity. The Middle College High School is anticipated to be in operation at the existing location during project-related construction activity.

In addition to the off-site sensitive receptors, a Child Development Center is located at the northeastern corner of the project site. The Child Development Center is adjacent to a proposed parking structure and may be impacted by construction and operational emissions. The outdoor play area located to the south of the Child Development Center would be approximately 30 feet from construction activity. The building would be approximately 85 feet from construction activity associated with the northeast parking structure.

Caltrans Site #16. Caltrans Site #16 is located on the southeastern portion of the project site. The nearest off-site sensitive receptor is the adjacent to St. Frances X. Cabrini church and school. The nearest on-site sensitive receptor is the Child Development Center located approximately 450 feet to the northwest.

THRESHOLDS OF SIGNIFICANCE

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily regional and localized construction emissions were to exceed SCAQMD construction emissions thresholds for VOC, NO_X, CO, SO_X, PM_{2.5}, or PM₁₀, as presented in **Table 4.2-4**;
- The proposed project would generate significant emissions of TACs; and/or
- The proposed project would create an odor nuisance.

TABLE 4.2-4: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS						
Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day) <i>lal</i>				
Volatile Organic Compounds (VOC)	75					
Nitrogen Oxides (NO _X)	100	151				
Carbon Monoxide (CO)	550	1,234				
Sulfur Oxides (SO _X)	150					
Fine Particulates (PM _{2.5})	55	6				
Particulates (PM ₁₀)	150	10				

/a/ A worst-case scenario was developed based on overlapping construction activity that would produce the greatest emissions. This activity would occur over a 2.9-acre area at the northern portion of the project site in November 2010. The analysis assumed a 2.9-acre project site and a 25-meter (82-foot) receptor distance.

SOURCE: SCAQMD. 2009.





LEGEND:



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- # Sensitive Receptors
- 1. Saint Francis X Cabrini School
- 2. Single-Family Residences
- 3. Multi-Family Residences
- 4. Busy Bee Preschool
- **5**. Animo High School SOURCE: TAHA, 2009





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Operations Phase Significance Criteria

The proposed project would have a significant impact if:

• Daily operational emissions were to exceed SCAQMD operational emissions thresholds for VOC, NO_X, CO, SO_X, PM_{2.5}, or PM₁₀, as presented in **Table 4.2-5**;

TABLE 4.2-5: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS					
Criteria Pollutant	Pounds Per Day				
Volatile Organic Compounds (VOC)	55				
Nitrogen Oxides (NO _X)	55				
Carbon Monoxide (CO)	550				
Sulfur Oxides (SO _X)	150				
Fine Particulates (PM _{2.5})	55				
Particulates (PM ₁₀)	150				
SOURCE: SCAQMD, 2009.					

- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20 and 9.0 ppm, respectively;
- The proposed project would generate significant emissions of TACs;
- The proposed project would create an odor nuisance;
- The proposed project would not be consistent with the AQMP; and/or
- The proposed project would not comply with regional and local greenhouse gas regulations and policies.

IMPACTS

Methodology

Construction Emissions. This air quality analysis is consistent with the methods described in the SCAQMD *CEQA Air Quality Handbook*, as well as the updates to the *CEQA Air Quality Handbook*, as provided on the SCAQMD website. Regional and localized construction emissions were analyzed to determine impacts. The proposed project would consist of a number of smaller, similarly-sized construction projects occurring simultaneously. A worst-case scenario was developed based on overlapping construction activity that would produce the greatest emissions (a 2.9-acre area at the northern portion of the project site in November 2010). Equipment mixes for individual construction sites were based on SCAQMD's Sample One Acre Site from their *Sample Construction Scenarios for Projects Less than Five Acres in Size* methodology.

Construction emissions (i.e., demolition, grading, building construction, and finishing) were calculated using information provided by the Applicant and calculation formulas published by the SCAQMD and USEPA. Heavy-duty truck and worker vehicle emission rates were obtained from the EMFAC2007 model. Equipment emission factors were obtained from the OFFROAD2007 model. Refer to Air Quality Appendix for the calculation sheets that include detailed information on construction assumptions.

⁸SCAQMD, *Air Quality Analysis Guidance Handbook*, Available at: http://www.aqmd.gov/ceqa/hdbk.html, Accessed December 1, 2009.

The localized construction analysis followed guidelines published by the SCAQMD in the Localized Significance Methodology for CEQA Evaluations (SCAQMD Localized Significance Threshold (LST) Guidance Document). In January 2005, the SCAQMD supplemented the SCAQMD LST Guidance Document with Sample Construction Scenarios for Projects Less than Five Acres in Size.

Operational Emissions. Regional operations emissions were also calculated using the URBEMIS2007 model. Localized CO emissions were calculated utilizing the USEPA CAL3QHC dispersion model and the CARB EMFAC2007 model. EMFAC2007 is the latest emission inventory model for motor vehicles operating on roads in California. This model reflects the CARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2007 model can be used to show how California motor vehicle emissions have changed over time and are projected to change in the future. CAL3QHC is a model developed by USEPA to predict CO and other pollutant concentrations from motor vehicle emissions at roadway intersections. The model uses a traffic algorithm for estimating vehicular queue lengths at signalized intersections.

Greenhouse Gas Emissions. The California Climate Action Registry (CCAR) published version 3.1 of its General Reporting Protocol (Protocol) in January 2009 as a means for businesses, government agencies, and non-profit organizations to calculate greenhouse gas (GHG) emissions from a number of general and industry-specific activities and participate in the CCAR. This Protocol is not intended for CEQA purposes, but it does provide methods that can be used to quantify the GHG emissions of CO₂, methane CH₄, and nitrous oxide N₂O associated with a project's increase in on-road mobile vehicle operations, electricity consumption, and natural gas consumption.

The consumption of fossil fuels to generate electricity and to provide heating and hot water for the proposed project, as well as the consumption of fuel by on-road mobile vehicles associated with the proposed project, has the potential to create GHG emissions. The future fuel consumption rates for the proposed project by these sources are estimated based on the amount of proposed development. Natural gas and electricity demand were obtained from Section 7.0 (Effects Determined Not to Be Significant of the Draft Environmental Impact Report. The proposed project would utilize 1,740,000 cubic feet per month of natural gas and 8,465,277 kilowatt hours per year of electricity. The GHG emission factors from the CCAR Protocol for natural gas and electricity are then applied to the respective consumption rates, to calculate annual GHG emissions in metric tons. Mobile source CO₂ emissions were obtained from the URBEMIS2007 emissions inventory model. Mobile source CH₄ and N₂O emissions were obtained using vehicle miles traveled data generated by URBEMIS2007 and emission factors obtained from the CARB's EMFAC2007 model.

California's water infrastructure uses energy to collect, move, and treat water; dispose of wastewater; and power the large pumps that move water throughout the State. California consumers also use energy to heat, cool, and pressurize the water they use in their homes and businesses. Together these water-related energy uses annually account for roughly 20 percent of the State's electricity consumption, one-third of non-power plant natural gas consumption, and about 88 million gallons of diesel fuel consumption. The California Energy Commission has reported that the energy intensity of the water use cycle in Southern California is 12,700 kilowatt-hours per million gallons.

Construction Emissions

Regional Impacts. Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the project site. Fugitive dust emissions would primarily result from grading activity. NO_X emissions would primarily result from the use of construction equipment. During the finishing phase, paving operations and the application of architectural coatings (e.g., paints) and other building materials would release VOC. The assessment of construction air quality impacts considers each

of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce PM_{2.5} and PM₁₀ emissions associated with construction activities by approximately 61 percent.

Table 4.2-6 shows the maximum estimated daily emissions associated with construction activity. Daily construction emissions would exceed the SCAQMD regional significance threshold for NO_X . Regional construction emissions would result in a significant impact.

TABLE 4.2-6: DAILY CONSTRUCTION EMISSIONS - UNMITIGATED								
	Pounds Per Day							
	VOC	NO _X	СО	SO _X	PM _{2.5} /a/	PM ₁₀ /a/		
Maximum Regional Total /b/	32	259	129	<1	16	31		
Regional Significance Threshold	75	100	550	150	55	150		
Exceed Threshold?	No	Yes	No	No	No	No		
Maximum On-Site Total	30	247	119	<1	15	30		
Localized Significance Threshold	/c/	151	1,234	/c/	6	10		
Exceed Threshold?		Yes	No		Yes	Yes		

[/]a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.

SOURCE: TAHA, 2009.

The proposed construction schedule indicated that maximum daily emissions would occur during finishing activities. A separate VOC analysis was completed to determine maximum emissions from architectural coating and paving emissions, which would occur in May 2011. Unmitigated VOC emissions during this period would be approximately 29 ppd, and would not exceed the SCAQMD regional significance threshold of 75 ppd. Architectural coating and paving activities would result in a less-than-significant impact.

Localized Impacts. Emissions for the localized construction air quality analysis of PM_{2.5}, PM₁₀, CO, and NO₂ were compiled using LST methodology required by the SCAQMD.⁹ Localized on-site emissions were calculated using similar methodology to the regional emission calculations. LSTs were developed based upon the size or total area of the emissions source, the ambient air quality in each source receptor area, and the distance to the sensitive receptor. LSTs for CO and NO₂ were derived by using an air quality dispersion model to back-calculate the emissions per day that would cause or contribute to a violation of any ambient air quality standard for a particular source receptor area. Construction PM_{2.5} and PM₁₀ LSTs were derived using a dispersion model to back-calculate the emissions necessary to exceed a

[/]b/ Based on the draft construction schedule, maximum construction emissions would occur in November 2010 when multiple buildings would be constructed simultaneously.

[/]c/ SCAQMD has not developed localized significance methodology for VOC or SO_X .

⁹The concentrations of SO₂ are not estimated because construction activities would generate a small amount of SO_X emissions. No State standard exists for VOC. As such, concentrations for VOC were not estimated.

concentration equivalent to 50 $\mu g/m^3$ over five hours, which is the SCAQMD Rule 403 control requirement.

Table 4.2-6 shows the estimated daily localized emissions associated with construction activity. Daily construction emissions would exceed the SCAQMD localized significance thresholds for NO_X , $PM_{2.5}$, and PM_{10} . Localized construction emissions would result in a significant impact at off-site sensitive receptors.

With respect to on-site sensitive receptors, localized construction emissions may impact the Child Development Center and the Middle College High School. **Table 4.2-7** shows the estimated daily localized emissions. Daily construction emissions would exceed the SCAQMD localized significance thresholds for NO_X , $PM_{2.5}$, and PM_{10} . Localized construction emissions would result in a significant impact at on-site sensitive receptors.

TABLE 4.2-7: DAILY LOCALIZED CONSTRUCTION EMISSIONS – ON-SITE SENSITIVE RECEPTORS							
			Pounds	Per Day			
	VOC	NO _X	СО	SO _X	PM _{2.5} /a/	PM ₁₀ /a/	
Child Development Center							
Maximum On-Site Total	7	47	24	<1	5	17	
Localized Significance Threshold /b/	/c/	91	674	/c/	3	5	
Exceed Threshold?		No	No		Yes	Yes	
						•	
Middle College High School							
Maximum On-Site Total	30	247	119	<1	15	30	
Localized Significance Threshold /c/	/d/	107	1,229	/d/	9	28	
Exceed Threshold?		Yes	No		Yes	Yes	

[/]a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.

SOURCE: TAHA, 2009.

Toxic Air Contaminant Impacts. The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy-duty equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. Given the short-term construction schedule of approximately 36 months, the proposed project would not result in a long-term (i.e., 70 years) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period (36 out of 840 months), project-related construction TAC emission would result in a less-than-significant impact.

Odor Impacts. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Proposed project construction would not cause an odor nuisance. Construction odors would result in a less-than-significant impact.

[/]b/ The analysis assumed a one-acre project site for the northeast parking structure and a 25-meter (82-foot) receptor distance.

[/]c/ The analysis used the 2.9-acre project site from the worst case construction scenario, and a 100-meter (328-foot) receptor distance.

[/]d/ SCAQMD has not developed localized significance methodology for VOC or SO_x.

Caltrans Site #16. An additional campus entrance and a renewable energy production facility are proposed on Caltrans Site #16. Based on the draft schedule, construction of the renewable energy production facility would not occur during the maximum emissions phase presented in **Tables 4.2-6** and **4.2-7**. A separate analysis was completed to determine impacts if the renewable energy production facility was constructed independently. The analysis of worst-case emissions assumed the simultaneous operation of five pieces of equipment, 50 haul truck trips, and the disturbance of approximately 0.6 acres per day (i.e., the additional campus entrance). As shown in **Table 4.2-8**, daily construction regional emissions would not exceed the SCAQMD regional significance thresholds. However, daily localized construction emissions would exceed the SCAQMD localized significance thresholds for PM_{2.5} and PM₁₀. Construction emissions would result in a significant air quality impact.

TABLE 4.2-8: DAILY CONSTRUCTION EMISSIONS FOR CALTRANS SITE #16 - UNMITIGATED								
			Pounds	Per Day				
	VOC	NO _X	CO	SO _X	PM _{2.5} /a/	PM ₁₀ /a/		
Maximum Regional Total /b/	9	43	78	<1	6	13		
Regional Significance Threshold	75	100	550	150	55	150		
Exceed Threshold?	No	No	No	No	No	No		
Maximum On-Site Total	5	28	17	<1	4	11		
Localized Significance Threshold /c/	/d/	91	674	/d/	3	5		
Exceed Threshold?		No	No		Yes	Yes		

[/]a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.

SOURCE: TAHA, 2009.

The contaminated site includes a clay cap designed to prevent hazardous vapors from escaping to the surface and posing a hazard to human health. As discussed in Section 4.3, Hazards and Hazardous Materials, the adequacy of the clay cap and potential exposure impacts will be assessed by DTSC. Construction of the road and the energy facility may include grading activity and limited export of contaminated soil. Construction activity must comply with SCAQMD Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil). The requirements of Rule 1166 include preparing a mitigation plan, separating contaminated soil from clean soil, and spraying contaminated soil stockpiles with water and/or approved vapor suppressant. Compliance with Rule 1166 would ensure that sensitive receptors would not be exposed to substantial levels of airborne VOC from contaminated soil. Construction contractors are required by law to comply with SCAQMD rules and regulations. Therefore, compliance with Rule 1166 is not included as mitigation. Airborne contaminant exposure from Caltrans Site #16 would result in a less-than-significant impact.

Operational Emissions

Regional Impacts. Long-term project emissions would be generated by mobile sources and area sources, such as natural gas combustion. Motor vehicles trips would be the predominate source of long-term project emissions. According to the traffic report, the proposed project would generate 4,466 daily vehicle trips. Regional emissions are shown in **Table 4.2-9**. Regional emissions would not exceed the SCAQMD significance thresholds, and would result in a less-than-significant impact.

[/]b/ Based on the draft construction schedule, maximum construction emissions would occur in November 2010 when multiple buildings would be constructed simultaneously.

[/]c/ The analysis used the one-acre project site and a 25-meter (82-foot) receptor distance.

[/]d/ SCAQMD has not developed localized significance methodology for VOC or SO_x.

TABLE 4.2-9: DAILY OPERATIONAL EMISSIONS								
	Pounds per Day							
Emission Source	VOC	NO _X	СО	SO _X	PM _{2.5}	PM ₁₀		
Proposed Project								
Mobile Sources	36	33	253	<1	14	70		
Area Sources	<1	3	4	<1	<1	<1		
Total Emissions	36	36	257	<1	14	70		
SCAQMD Threshold	55	55	550	150	55	150		
Exceed Threshold?	No	No	No	No	No	No		
SOURCE: TAHA, 2009.								

Localized Impacts. CO concentrations in 2016 are expected to be lower than existing conditions due to stringent State and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both without and with the implementation of the proposed project, CO emissions from mobile sources are expected to be much lower due to technological advances in vehicle emissions systems, as well as from normal turnover in the vehicle fleet. Accordingly, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

The State one- and eight-hour CO standards may potentially be exceeded at congested intersections with high traffic volumes. An exceedance of the State CO standards at an intersection is referred to as a CO hotspot. The SCAQMD recommends a CO hotspot evaluation of potential localized CO impacts when V/C ratios are increased by two percent at intersections with a LOS of D or worse. SCAQMD also recommends a CO hotspot evaluation when an intersection decreases in LOS by one level beginning when LOS changes from C to D.

Based on the traffic study, the selected intersections are as follows:

- Century Boulevard and Normandie Avenue PM Peak Hour
- Century Boulevard and Western Avenue PM Peak Hour
- Imperial Highway and Crenshaw Boulevard AM Peak Hour
- Imperial Highway and Crenshaw Boulevard PM Peak Hour
- Imperial Highway and I-110 Northbound On-Ramp AM Peak Hour
- Imperial Highway and Vermont Avenue AM Peak Hour
- Imperial Highway and Vermont Avenue PM Peak Hour
- Imperial Highway and Western Avenue PM Peak Hour

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for 2016 conditions. CO concentrations at the analyzed intersections are shown in **Table 4.2-10**. One-hour CO concentrations under project conditions would be approximately 3 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations under project conditions would range from approximately 2.0 to 2.2 ppm. The State one- and eight-hour standards of 20 and 9.0 ppm, respectively, would not be exceeded at the analyzed intersections. Localized CO concentrations would result in a less-than-significant impact.

TABLE 4.2-10: 2009 AND 2016 CARBON MONOXIDE CONCENTRATIONS /a/								
	1-hour (parts per million)			8-hour (parts per million)				
Intersection	Existing (2009)	Pre- Project (2016)	Project (2016)	Existing (2009)	Pre- Project (2016)	Project (2016)		
Century Boulevard and Normandie Avenue – PM Peak Hour	5	3	3	3.2	2.2	2.2		
Century Boulevard and Western Avenue – PM Peak Hour	5	3	3	3.2	2.2	2.2		
Imperial Highway and Crenshaw Boulevard – AM Peak Hour	5	3	3	3.2	2.2	2.2		
Imperial Highway and Crenshaw Boulevard – PM Peak Hour	5	3	3	3.3	2.2	2.2		
Imperial Highway and I-110 Northbound On-Ramp – AM Peak Hour	5	3	3	3.1	2.0	2.0		
Imperial Highway and Vermont Avenue – AM Peak Hour	5	3	3	3.0	2.2	2.2		
Imperial Highway and Vermont Avenue – PM Peak Hour	5	3	3	3.2	2.2	2.2		
Imperial Highway and Western Avenue – PM Peak Hour	5	3	3	3.3	2.2	2.2		
State Standard		20			9.0			

/a/ Existing concentrations include year 2009 one- and eight-hour ambient concentrations of 4 and 2.5 ppm, respectively. No Project and Project concentrations include year 2016 one- and eight-hour ambient concentrations of 3 and 1.6 ppm, respectively.

SOURCE: TAHA. 2009.

The proposed parking structure would be located adjacent to the Child Development Center. A localized CO analysis was completed to identify potential impacts associated with mobile source emissions. One and eight-hour CO concentrations would be approximately 3 and 1.8 ppm, respectively. The State one-and eight-hour standards of 20 and 9.0 ppm, respectively, would not be exceeded at the analyzed intersections. Localized CO concentrations would result in a less-than-significant impact.

Toxic Air Contaminant Impacts. The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops) and has provided guidance for analyzing mobile source diesel emissions. The proposed project would develop an institutional land use on the project site. The institutional land use would not be anticipated to generate a substantial number of daily truck trips. The primary source of potential TACs associated with project operations is diesel particulate from delivery trucks (e.g., truck traffic on local streets and on-site truck idling). Typically less than ten heavy-duty trucks (e.g., delivery trucks) would access the project site on a daily basis, and the trucks that do visit the site would not idle on-site for extended periods of time. Based on the limited activity of these TAC sources, the proposed project would not warrant the need for a health risk assessment associated with on-site activities, and potential TAC impacts are expected to be less than significant.

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes and automotive repair facilities. The proposed project would not include any of these potential sources, although minimal emissions may result from the use of consumer products (e.g., aerosol sprays). It was expected that the proposed project would not release substantial amounts of TACs, and no significant impact on human health would occur.

The project site is adjacent to the Glenn Anderson Freeway (I-105), which is a major source of mobile source air toxic contaminants. However, the proposed project would not increase the existing student capacity of Los Angeles Southwest College, and new buildings would be located on the northern portion of the project site away from the I-105. No additional risk would be associated with the proposed project.

Demolition activity would potentially expose human receptors to airborne asbestos. All construction activities in the jurisdiction of the SCAQMD are required to comply with SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). Rule 1403 specifies work practice requirements to limit asbestos emissions from building demolition activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings. Potential exposure to asbestos would result in a less-than-significant impact.

Odor Impacts. According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The project site would be developed as an educational land use and not a land use that is typically associated with odor complaints. On-site trash receptacles would have the potential to create adverse odors. Trash receptacles would be located and maintained in a manner that promotes odor control and no adverse odor impacts are anticipated from these types of land uses. Trash receptacles would be serviced daily by a contractor and trash would not be stored on the project site. Odors would result in a less-than-significant impact.

Air Quality Management Plan Consistency. The 2007 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Growth considered to be consistent with the 2007 AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the 2008 RTP, implementation of the 2007 AQMP would not be obstructed by such growth. The project site is zoned A1 (light agriculture) and would not require a zone change. The proposed project would not increase the student capacity of Los Angeles Southwest College as identified in the 2003 Master Plan. The proposed project would be consistent with the growth assumptions utilized in the AQMP, and the proposed project would have a less-than-significant impact related to consistency with the 2007 AQMP.

Global Climate Change Impacts. The Final Environmental Impact Report for the Los Angeles Southwest College Facilities Master Plan did not include analyses of greenhouse gas emissions for operation or construction of the proposed project. The following analysis is for buildout of the entire campus.

Generally, an individual project cannot generate enough GHG emissions to influence global climate change because it is the increased accumulation of GHGs which may result in global climate change. However, an individual project may contribute an incremental amount of GHG emissions that could combine with other emission sources to create concentrations of GHG that could influence climate change. For most projects, the main contribution of GHG emissions is from motor vehicles, but how much of those emissions are "new" is uncertain. New projects do not create new drivers, and therefore, do not create a new mobile source of emissions. Rather, new projects only redistribute the existing traffic patterns. Larger projects will certainly affect a larger geographic area, but again, would not necessarily cause the creation of new drivers. Some mixed-use, urban infill, and mass transit projects could actually reduce the number of vehicle miles traveled.

Worldwide population growth and the consequent use of energy is the primary reason for GHG emission increases. The market demand for goods and services and the use of land is directly linked to population changes and economic development trends within large geographies (e.g., regional, national, worldwide).

Individual site-specific projects have a negligible effect on these macro population-driven and growth demand factors. Whether an individual site-specific project is constructed or not has little effect on GHG emissions. This is because the demand for goods and services in question would be provided in some other location to satisfy the demands of a growing population if not provided on the project site. The only exception to this basic relationship between population growth, development, energy consumption and GHG emissions would occur if the site-specific project (1) embodied features that were not typical of urban environment or developing communities, and (2) generated a disproportionate amount of vehicle miles of travel or had other unique and disproportionately high fuel consumption characteristics. The proposed project does not fall within these exceptions.

LACCD has developed a sustainability Program to reduce climate change impacts. The sustainability program includes the following elements:

- Leadership in Energy and Environment Design (LEED) certification for buildings funded with at least 50 percent bond dollars;
- Retrofitting buildings with energy saving elements for maximum efficiency;
- Installing innovative features including low-flush toilets and waterless urinals, which reduce water consumption and wastewater;
- Installing artificial turf to reduce their dependence on water to maintain the fields;
- Using innovative landscaping designs such as drought-tolerant and native plants to reduce water consumption to levels appropriate for the arid Southern California climate;
- Spearheading efforts to encourage vendors/companies into producing sustainable products;
- Using newly-established environmentally-friendly techniques, such as mixing fly-ash with concrete, during the construction process; and
- A Renewable Energy Plan that includes the installation of enough photovoltaic (solar) panels, wind turbines and geo-thermal energy on site at each of its nine colleges to produce enough electricity to meet all electricity needs.

The following GHG emissions are conservative estimates based on URBEMIS2007 and the California Climate Action Registry's *General Reporting Protocol*. LACCD sustainability program would reduce emissions. However, the emission reductions are difficult to quantify and are not included in the following analysis. A worst-case analysis indicated that construction activity would generate 21,982 tons of GHG emissions over the 36-month period. Operational GHG emissions are shown in **Table 4.2-11**. GHG emissions were calculated from mobile sources, natural gas usage, and electricity generation. A worst-case operational analysis indicated that the proposed project would result in CO₂e emissions of 29,601 tons per year, which represents 0.0056 percent of Statewide emissions.

TABLE 4.2-11: ANNUAL GREENHOUSE GAS EMISSIONS					
Source	Carbon Dioxide Equivalent (Tons per Year)				
Proposed Project Emissions	29,601				
2004 California GHG Emissions Inventory /a/ 528,820,000 /b/					
/a/ CARB, DRAFT California Greenhouse Gas Inventory (Millions of Metric Tonnes of CO2 Equivalent) – By IPCC Category, November 19, 2007.					

/a/ CARB, DRAFT California Greenhouse Gas Inventory (Millions of Metric Tonnes of CO2 Equivalent) – By IPCC Category, November 19, 2007. /b/ Metric tonnes provided by the CARB were converted into tons to allow for the appropriate comparison.

SOURCE: TAHA, 2009.

The State has mandated a goal of reducing State-wide emissions to 1990 levels by 2020, even though State-wide population and commerce is predicted to grow substantially. To help meet this goal the California Climate Action Team recommended strategies that could be implemented by lead agencies to

reduce GHG emissions. The proposed project would comply with these strategies which include increasing building energy efficiency and reducing HFC use in air conditioning systems. The implementation of the proposed project would not result in an unplanned level of development and does not represent a substantial new source of GHG emissions. In addition, the Visual, Communications and Performing Arts Training Complex, the Career and Applied Technologies Building, the Annex to the Cox Building, and the Bookstore would all be LEED-certified resulting in increased energy efficiency and a reduction in associated GHG emissions compared to standard development. Based on the above analysis, global climate change and GHG emissions would result in a less-than-significant impact.

Caltrans Site #16. The renewable energy facility proposed at Caltrans Site #16 would not result in operational emissions. The facility would generate renewable energy and reduce general emissions associated with regional power generation. Similarly, renewable energy facility would reduce regional reliance on fossil fuel power and reduce associated GHG emissions. The renewable energy facility proposed at Caltrans Site #16 would result in a beneficial operational impact.

MITIGATION MEASURES

Construction

- **S-AQ1** Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.
- **S-AQ2** The construction contractor shall utilize at least one of the following measures at each vehicle egress from the project site to a paved public road:
 - Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;
 - Pave the surface extending at least 100 feet and at least 20 feet wide;
 - Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or
 - Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.
- **S-AQ3** All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
- **S-AQ4** Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts).
- **S-AQ5** Heavy-duty equipment operations shall be turned off while idling longer than five minutes. Contractor shall use electric or natural gas powered vehicles/equipment where practical.
- **S-AQ6** Ground cover in disturbed areas shall be replaced as quickly as possible.
- **S-AQ7** Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM₁₀ generation.
- **S-AQ8** Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
- **S-AQ9** Traffic speeds on all unpaved roads to be reduced to 15 mph or less.

- **S-AQ10** Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads. If feasible, use water sweepers with reclaimed water.
- **S-AQ11** Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.
- **S-AQ12** Contractors shall utilize electricity from power poles rather than temporary diesel or gasoline generators, as feasible.
- **S-AQ13** Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.
- **S-AQ14** Construction parking shall be configured to minimize traffic interference.
- **S-AQ15** Construction activity that affects traffic flow on the arterial system shall be limited to off-peak hours, as feasible.
- S-AQ16 All diesel powered construction equipment in use shall require control equipment that meets at a minimum Tier III emissions requirements. In the event Tier III equipment is not available, diesel powered construction equipment in use shall require emissions control equipment with a minimum of Tier II diesel standards.
- **S-AQ17** The construction contractor shall coordinate with Child Development Center staff to ensure that children present at the Center would be limited to indoor activities during periods when diesel equipment is operated at the parking structure construction site.
- **S-AQ18** The construction contractor shall coordinate with Middle College High School during days of intense diesel equipment activity to minimize student exposure to air pollution.
- **S-AQ19** During construction activity occurring on Caltrans Site #16, Caltrans and DTSC shall require the construction contractor to coordinate with LACCD and the St. Frances X. Cabrini School to minimize exposure to air pollution.

Operations

- **S-AQ20** Staff and students shall be provided with information on public transportation options near Los Angeles Southwest College.
- **S-AQ21** Preferred parking shall be established for alternatively-fueled vehicles.
- **S-AQ22** Charging stations shall be supplied for electric vehicles.
- **S-AQ23** A ride sharing program shall be implemented to increase carpooling opportunities.

LEVEL OF IMPACT AFTER MITIGATION

Construction

Implementation of Mitigation Measures **S-AQ1** through **S-AQ10** would reduce PM_{2.5} and PM₁₀ emissions during construction of the project. Implementation of Mitigation Measure **S-AQ11** would reduce engine emissions by approximately five percent. Implementation of Mitigation Measures **S-AQ12** through **S-AQ16**, while difficult to quantify, would also reduce construction emissions. Implementation of

Mitigation Measures **S-AQ17** and **S-AQ18** would minimize air pollution exposure at the Child Development Center and Middle College High School, respectively. As demonstrated in **Table 4.2-12**, mitigated construction regional emissions would continue to exceed the SCAQMD regional thresholds for NO_X, PM_{2.5} and PM₁₀. Regional construction emissions would result in an unavoidable, significant air quality impact.

TABLE 4.2-12: DAILY CONSTRUCTION EMISSIONS - MITIGATED									
	Pounds Per Day								
	VOC	NO _X	СО	SO _X	PM _{2.5} /a/	PM ₁₀ /a/			
Maximum Regional Total /b/	30	247	123	<1	15	30			
Regional Significance Threshold	75	100	550	150	55	150			
Exceed Threshold?	No	Yes	No	No	No	No			
Maximum On-Site Total	29	235	113	<1	15	30			
Localized Significance Threshold	/c/	151	1,234	/c/	6	10			
Exceed Threshold?		Yes	No		Yes	Yes			

[/]a/ Emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.

SOURCE: TAHA, 2009.

Table 4.2-12 shows the estimated daily localized emissions associated after mitigation. Daily construction emissions would continue to exceed the SCAQMD localized significance thresholds for NO_X , $PM_{2.5}$, and PM_{10} emissions even after mitigation. Mitigated localized emissions would also exceed the significance thresholds at the Child Development Center and the Middle College High School. Localized construction emissions would result in an unavoidable, significant air quality impact.

Operation

As previously discussed, operational emissions would result in a less-than-significant impact. Regardless, Mitigation Measures **S-AQ20** through **S-AQ23** are recommended to reduce the proposed project's contribution to regional mobile source emissions. Operational emission would still result in a less-than-significant impact.

[/]b/ Maximum construction emissions would occur in November 2010 when activity at eight construction projects would occur simultaneously at the project site.

[/]c/ SCAQMD has not developed localized significance methodology for VOC or SO_X.

4.3 HAZARDS AND HAZARDOUS MATERIALS

This section identifies the potential for the proposed project to expose the public or the environment to hazards or hazardous materials that may be related to existing conditions on the project site or the surrounding areas, or new hazards created as a result of the proposed project. Separate environmental analyses for hazards and hazardous materials were conducted for the Los Angeles Southwest College (LASC) campus and adjacent California Department of Transportation (Caltrans) Site #16. Because the results of these analyses differ, the results will be discussed separately. The Phase I ESA for Caltrans Site #16 is included as Appendix C.

ENVIRONMENTAL SETTING

LASC Campus

The proposed project is located on an existing college campus which also contains the Middle College High School. CEQA Guidelines require that analyses of hazards and hazardous materials take into account schools within one-quarter-mile of the project. There are two additional schools, St. Frances X. Cabrini private school and Animo South Los Angeles Charter school which are located within ¼-mile of the proposed project. A Phase One Environmental Site Assessment (ESA) was conducted on the campus and selected buildings on April 17, 2003 by NATEC International, Inc. The purpose of the assessment was to attempt to uncover past or present environmentally related events that could negatively impact the LASC campus. Research included a government records search, research of permits, review of historical and aerial photographs and other supporting documentation, and an on-site inspection.

Subsidence/Methane Gas

There is a potential for methane gas to exist beneath the surface in sites where landfills have previous existed or oil exploration occurred. Subsidence is the downward settling of the earth's surface with little or no horizontal motion. The removal of oil (and gas or other fluids) from the deep geologic formations can leave void spaces at depths which, unless refilled with fluids by re-pressurization techniques, may collapse causing subsidence in the shallower earth layers between the ground surface and the pumped geologic units at depth. Engineered structures built above or within these subsiding earth layers will settle along with the earth materials potentially causing varying degrees of distress to foundations and the structures they support. Also, these earth materials may become conduits for methane (or other) gas seeping upward from these petroleum-rich formations. Methane may accumulate in layers or pockets within the construction zone. Encountering these poisonous or combustible gases could lead to exposure of workers, to fire, or explosion.¹

California Division of Oil and Gas maps were reviewed for the presence of active, inactive, or abandoned oil and gas wells within the proposed project area. These maps showed that the area adjacent to the LASC southern boundary was once an oil field. Based on the information obtained, there was one known oil well located in the south-central portion of the proposed project area that was properly abandoned. Six additional oil wells were located along the southern boundary of the college, although it is unclear from historic data whether or not these wells were actually within LASC's borders. In addition, unreported "wildcat" oil wells could be on or near the proposed project site.²

¹Los Angeles Citywide General Plan Framework EIR, January, 1995.

²NATEC International, Inc. *Phase One Environmental Site Assessment*, April 17, 2003.

Hazardous Materials

Soil and/or Groundwater Contamination. A records search of environmental databases was performed to determine the number, extent, and condition of reported hazardous material sites. The information from the search provides identification and insight on the location of identified environmental problems that include leaking underground storage tanks. The government environmental records database search indicated that there are four leaking underground storage sites located within one-half mile of the proposed project area and seven underground and aboveground storage tanks are located within one-quarter mile.

One underground storage tank on the proposed project site was identified to be previously used for unleaded gasoline storage. This tank was removed in 1988. There was one underground clarifier waste vessel within the proposed project site which was used to store waste hydrochloric acid, sulfuric acid, and acetic. The clarifier vessel was properly abandoned and demolished at the time Building "D" was demolished.

Poly-chlorinated biphenyl (**PCB**). PCB containing transformers were banned in 1976 by the United States Environmental Protection Agency (USEPA). By 1985, the USEPA required that commercial property owners with transformers containing more than 500 parts per million (ppm) PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within five meters. The EPA has designated transformers containing less than 50 ppm PCB as non-PCB containing transformers.

One ground-mounted electrical transformer was observed on the eastern portion of the proposed project site and was determined to be in good condition. Transformers in the project area are owned and operated by Southern California Edison. According to the NATEC Phase One ESA, the majority of the transformers have been tested and are below the 50 ppm PCB standard.³ Any remaining, untested transformers located in the City would be replaced in the event that any are found to contain more than 50 ppm PCB. The utility is responsible for ensuring that its transformers comply with all applicable regulations.⁴

Asbestos Materials. Asbestos containing building materials (ACMs) were widely used in structures built between 1945 and 1980. Common asbestos-containing building materials include vinyl flooring and associated mastic, wallboard and associate joint compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components and roofing materials. Commercial/industrial structures are affected by asbestos regulations if damage occurs or if remodeling, renovation or demolition activities disturb asbestos-containing building materials. The majority of buildings on the LASC campus were constructed after 1980. Based on the age of the buildings on the proposed project property, building materials are not suspected of containing ACMs as part of their manufacture.

Lead Paint. Leaded paint was primarily utilized from the 1920s through 1978. Commercial/industrial structures are affected by lead-based paint regulations if damage occurs or if remodeling, renovation or demolition activities disturb lead-based paint surfaces. The majority of buildings on the LASC campus were constructed after 1980. Based on the age of the buildings on the proposed project property, building materials are not suspected of containing lead-based paint.

 $^{^{3}}Ibid.$

⁴Ibid.

Caltrans Site #16

The Caltrans Site #16 was used as an uncontrolled landfill since the early 1940s until 1984. The Caltrans Site #16 was acquired by Caltrans during the construction of the I-105. When construction of the 1-105 required excavation of the landfill, Caltrans was required to acquire all of the property and became a responsible party. During excavation, contaminants identified at the Caltrans Site #16 include methane gas, lead, copper, and zinc. The property is on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and is, therefore, under the oversight of the Department of Toxic Substances Control (DTSC). In 1992, a plan was established that removed 350,000 cubic yards of contaminated soil, install a geotextile fabric and clay cap and storm water drainage system to convey storm water off the cap. This plan was completed in February of 1993. A long term soil gas monitoring program was also implemented to monitor the potential accumulation of vapors beneath the cap.

A Phase One ESA was conducted for the Caltrans Site #16 on October 30, 2008 by Andersen Environmental. The purpose of the assessment was to evaluate the environmental conditions, risks, requirements, and responsibilities related to the ownership or use of the property. Research included a government records search, research of permits, interviews, review of historical and aerial photographs and other supporting documentation and an on-site inspection.

The Caltrans Site #16 ESA revealed recognized environmental conditions in connection with the property that are limited to the historical use of the property as a landfill, the remaining landfill debris, and its current long term monitoring requirements and use restrictions.⁵ From the on-site investigation, the integrity of the cap appeared to be compromised and the soil vapor monitoring wells were not fully functional. In addition, the release of hydrocarbons has occurred from surrounding properties into a perched aquifer which may extend beneath the property. Items observed to be in need of attention included the evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater into the landfill. An inventory of the soil vapor monitoring wells was recommended along with an assessment of their integrity. The surface drainage systems were in need of maintenance and a secure perimeter was recommended to be reestablished around the property.⁶

Subsidence/Methane Gas

Due to the historical use of the property as a landfill and the oil exploration activities in the area of the site, there is a potential for methane gas to exist at the site. According to the vapor monitoring conducted at the site on an annual basis, methane has been detected in the soil. If the property is to be developed with any permanent structures, a methane mitigation system may be warranted.

The most recent soil vapor monitoring event at the property occurred in 2007. According to the monitoring report, methane was detected at concentrations that exceeded either the California Environmental Protection Agency (CalEPA) California Human Health Screening Levels (CHHSL) for the residential vapor intrusion pathway or the USEPA Region 9 Preliminary Remediation Goals (PRG) for the ambient air pathway.

Hazardous Materials

Soil and/or Groundwater Contamination. According to the 2007 soil vapor monitoring report, contaminants including vinyl chloride, methylene chloride, benzene, and 1,4-dichlorobenzene, were detected at concentrations that exceeded either the CalEPA CHHSL for the residential vapor intrusion

⁵Andersen Environmental. *Phase One Environmental Site Assessment*, October 30, 2008.

[°]Ibid.

pathway or the USEPA Region 9 PRG for the ambient air pathway. Ambient air samples collected during field activities were analyzed and found to contain similar contaminants as found in the landfill, giving an indication that the existing cap may be damaged. Recommendations were made to conduct the annual soil vapor monitoring in or repair/replace the cap. The DTSC has responded that due to the levels of the constituents at the site and their presence in the ambient air that immediate remedial measures to alleviate the threat to residents and or users of the adjacent lots need to be implemented.

Poly-chlorinated biphenyl (PCB). There were no PCBs observed on the Caltrans Site #16.

Asbestos Materials. Building materials suspected of having an asbestos content include floor tiles and linoleum, plaster walls, wallboard, ceiling tiles, exterior stucco and roofing materials. There is a potential for asbestos containing materials to be within the historical landfill debris beneath the site, although no structures are present at the site.

Lead Paint. There is a potential for lead based paints to be within the historical landfill debris beneath the site, although no structures are present at the site.

THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant impact if:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; and/or
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard for people residing or working on the project area.

IMPACTS

LASC Campus

The proposed project would not change the types of hazardous materials used or stored at the site, or the quantity of these materials. The proposed project does not include any known, unique specific uses that would pose a potential hazardous materials impact due to the reasonably foreseeable upset involving the release of hazardous materials. The proposed project, or the continued operation of the college in general, is not expected to exceed maximum regulatory requirements for hazardous materials and is not expected to release hazardous materials within the project area or into nearby soil and groundwater supplies.

Additional chemicals and fuels may be temporarily stored as used on-site throughout the duration of construction activity for the proposed project. Plans and programs designed to protect water quality, such as the Standard Urban Stormwater Mitigation Plan (SUSMP) and Stormwater Pollution Prevention Plan (SWPPP) will address appropriate storage, spill containment and contingency programs for hazardous materials retained on-site during the construction phase. Storage of hazardous materials to and on the site must conform to all applicable laws, regulations, and health and safety standards set forth by federal, State, and local authorities to properly dispose of such materials and their containers. Any materials would be stored and disposed of in accordance with State and local regulations and industry standards.

There are four schools, LASC, Middle College High School, St. Frances X. Cabrini private school and Animo South Los Angeles Charter school which are located within one-quarter-mile of the proposed project. However, as the proposed project would involve the continuation of current educational land uses, and would be consistent with land uses in the project vicinity which do not typically emit substantial concentrations of hazardous emissions or waste, potential impacts to the existing college campus, Middle College High school, St. Frances X. Cabrini private school, and Animo South Los Angeles Charter school due to the routine generation, use, storage, or transport of hazardous materials would be less than significant. By complying with the generally applicable administrative procedures required by the applicable agencies and the industry-wide safety procedures for the use and storage of these materials, the proposed project would result in a less-than-significant impact related to the routine transport, use, or disposal of hazardous materials and the proximity to existing or proposed schools.

Subsidence/Methane Gas

Historical research revealed that the proposed project contains one known oil well located in the south central portion of the project site that was properly abandoned. Six additional oil wells were located along the southern boundary of the college, although it is unclear from historic data whether or not these sites were within LASC's borders. Due to the historical use of the adjacent property as a landfill and the oil exploration activities in the area of the site, there is a potential for methane gas to travel underneath the site. During construction of the Child Development Center, levels of methane were detected and a methane mitigation system was required. During construction of new facilities, soil testing may be required to determine whether a methane mitigation system may be warranted. Based on the available information on location of the known and possible oil wells and nearby landfill, potential significant impacts from subsidence or exposure to potential combustion from methane gas may occur.

Hazardous Materials

Soil and/or Groundwater Contamination. Records show four leaking underground storage sites located within one-half mile of the proposed project area and seven underground/aboveground storage tanks located within one-quarter mile. Based on their distance and direction from the subject property, it is not expected that contamination from these sites would have migrated onto the proposed project site. There are no areas of concern regarding migration of subsurface soil or groundwater contamination from off-site sources. No impact related to soil and/or groundwater contamination is expected.

The proposed project would develop educational land uses and associated infrastructure upgrades that would not typically transport, use and dispose of hazardous materials. Central and Physical plant operations associated with the additional campus buildings may handle small quantities of chemical substances, such as cleaners or solvents, and may involve a variety of materials for teaching and laboratory purposes. These uses would involve very little, if any, use of petroleum products or hazardous materials, and these would be transported, contained, and disposed of in accordance with applicable federal, State, and local regulations. If there were a release of materials related to the proposed project, the amount would be small and localized, and it is unlikely it would affect the adjacent populations. Therefore, a less-than-significant impact related to hazards and hazardous materials from the new uses from the proposed project on the existing campus site is anticipated.

Asbestos Materials. Renovation and/or replacement of buildings containing asbestos could create health hazards to workers at construction sites, and staff and students within the vicinity of these sites. Due to the age of the buildings within the proposed project area, there is potential for the existence of asbestos, and therefore, would result in a potentially significant impact.

⁷NATEC International, Inc. *Phase One Environmental Site Assessment*, April 17, 2003.

 $^{^{8}}Ibid.$

Lead-based Paint. Renovation and/or replacement of buildings containing leaded paint could create health hazards to workers at construction sites, and staff and students within the vicinity of these sites. Improper disposal of lead-based paint removed during renovation or demolition could also pose a hazard. Due to the age of the buildings within the proposed project area, there is potential for the existence of leaded paint, and therefore, would result in a potentially significant impact.

Poly-chlorinated biphenyl (**PCB**). The removal of electrical transformers and lighting ballasts that contain PCBs could create health hazards to workers at construction sites, and residents and employees within the vicinity of these sites. One ground-mounted electrical transformer was observed on the eastern border of the subject site. Under the proposed project, there are no transformers scheduled for removal. Therefore, no impact related to exposure to PCBs is anticipated.

Caltrans Site #16

Caltrans Site #16 is on a list of hazardous materials sites compiled by the DTSC pursuant to Government Code Section 65962.5. The former landfill activities on the Caltrans Site #16 are the source of the environmental contamination and Caltrans, under oversight from the DTSC, is the responsible party. Under the proposed project, the majority of the Caltrans Site #16 would be used for renewable energy production and the northern portion of the property would be used for a fourth campus entrance from Normandie Avenue. Caltrans Site #16 is adjacent to the I-105 and should any right-of-way be required to complete the energy production facility, a Caltrans encroachment permit would be required.

Subsidence/Methane Gas

There are no known oil wells located on the Caltrans Site #16. In addition, there would not be any subsurface excavation that could encounter unreported wildcat wells. Based on the available information on location of the known and possible oil wells, no impacts from subsidence are anticipated.

Landfills typically contain 50 percent methane gas by volume. Methane is a potentially explosive gas that may pose a risk to human safety. Methane from landfills has been known to travel underground, accumulate in enclosed structures, and ignite. There is the potential for methane gas to accumulate underneath the geotextile and clay cap. DTSC regulations require the annual monitoring of soil vapor wells installed on the site. However, recent on-site investigation found that these monitoring wells were not fully functional and that regular soil vapor monitoring had not been ongoing. Without regular soil vapor monitoring on the Caltrans Site #16, a potential significant impact from methane gas would occur.

Hazardous Materials

Soil and/or Groundwater Contamination. According to the Phase I ESA, contaminants identified on the property include methane gas, lead, copper, and zinc. Soil removal, long term monitoring requirements and use restrictions have been implemented as a result of these elevated concentrations. The Caltrans Site #16 is on a State-listed contaminated site, and Caltrans is the responsible agency under oversight of the DTSC. The geotextile and clay cap on the site was designed to prevent hazardous vapors from escaping to the surface and posing a hazard to human health. The use of the site for an additional campus entrance and renewable production site would create a significant hazard for workers or students from exposure to hazardous substances if the seal on the cap remained breached or if construction of the facilities proposed on the site required the removal or reconfiguration of the cap. Therefore, the proposed uses on the Caltrans Site #16 would result in a potentially significant impact related to exposure to hazardous materials

Use of the site for renewable energy production may involve the limited use of petroleum products or other hazardous materials for cleaning and/or routine maintenance. Any use of hazardous materials

would be transported, contained, and disposed of in accordance with applicable regulations. A restricted use covenant on the site requires written approval from the DTSC for any use. Use of the site by the college as an entrance and for renewable energy production would require coordination with Caltrans and DTSC to obtain this required written approval. Students and workers are not anticipated to remain on the site, given the intended uses, for extended durations of time. This would further reduce the potential risk to exposure. Compliance with the deed restriction and written approval from the DTSC would result in a less-than-significant impact related to the use, transport, or disposal of hazardous materials.

Asbestos Materials. There are no structures on the Caltrans Site #16 and demolition of structures containing potential asbestos materials would not occur. Should excavation occur below the geotextile and clay cap, there is the potential to encounter previously disposed asbestos materials remaining from the historical landfill. Therefore, a potential impact related to asbestos materials is anticipated.

Lead-based Paint. There are no structures on the Caltrans Site #16 and demolition of structures containing potential lead-based paint would not occur. Should excavation occur below the geotextile and clay cap, there is the potential to encounter previously disposed lead-based paint on materials remaining from the historical landfill. Therefore, a potential impact related to lead-based paint is anticipated.

Poly-chlorinated biphenyl (PCB). There are no structures on the Caltrans Site #16 and demolition of structures containing potential PCBs would not occur. Should excavation occur below the geotextile and clay cap, there is the potential to encounter previously disposed PCBs remaining from the historical landfill. Therefore, a potential impact related to PCBs is anticipated.

MITIGATION MEASURES

S-HHM1

Prior to construction of new facilities on campus, LACCD shall collect soil vapor samples from proposed building sites to determine if elevated methane levels exist. Should testing reveal that methane levels exceed the California Health and Safety Screening Levels, a DTSC-approved mitigation system shall be required.

S-HHM2

Consistent with the 1994 Federal Occupational Exposure to Asbestos Standards, LACCD shall retain a Licensed Asbestos Inspector to determine the presence of asbestos and asbestos containing materials (ACM) within buildings to be re-used and/or demolished. If asbestos is discovered, a Licensed Asbestos Abatement Contractor shall be retained to safely remove all asbestos from the site.

S-HHM3

For all buildings (whether to be re-used or demolished), lead-based paint testing shall be conducted. All materials identified as containing lead shall be removed by a licensed lead-based paint/materials abatement contractor.

S-HHM4

Upon written approval from the DTSC, an indemnity agreement stipulating the responsibilities for the design, construction, and operation of the site for its use as a campus entrance and renewable energy production site should be agreed upon by LACCD, Caltrans, and the DTSC. Should the intended uses of the proposed project require the removal or reconfiguration of the cap, responsibility and procedures shall be determined as part of this agreement and subject to the oversight of the DTSC. Responsibilities for the maintenance and monitoring of the contaminated site shall also be part of the indemnity agreement. Responsibilities for maintenance and monitoring would first involve an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater and repair of the existing monitoring wells.

LEVEL OF IMPACT AFTER MITIGATION

Implementation of Mitigation Measure **S-HHM1** would ensure that sites for new facilities on campus are tested for elevated methane levels to determine if a methane mitigation system is required in the design of any new facilities. Should elevated levels of methane be detected, a DTSC-approved methane mitigation system would reduce impacts to a less-than-significant level.

Implementation of the Mitigation Measures **S-HHM2** through **S-HHM3** would reduce the impact of any materials identified as containing asbestos materials or lead-based paint to a less-than-significant level.

Implementation of the Mitigation Measure **S-HHM4** would ensure that DTSC regulations for the contaminated Caltrans Site #16 are adhered to and that an uncompromised cap and routine soil vapor monitoring would be reestablished. Implementation of Mitigation Measure **S-HHM4** would ensure that the responsibilities and intended uses for the proposed project would be subject to DTSC approval. DTSC would determine the appropriate treatment measures should any risk to exposure from hazardous materials or substances occur. Fulfillment of annual soil vapor monitoring requirements would ensure that methane levels would not accumulate to underneath the cap and result in a risk to combustion. Responsibilities and procedures for the uses of the site and the reestablishment of an uncompromised cap and fulfillment of vapor monitoring requirements would reduce the potential impacts from exposure to hazardous materials on the Caltrans Site #16 to a less-than-significant level.

After implementation of Mitigation Measures **S-HHM1** through **S-HHM4**, no significant impacts related to hazards and hazardous materials would remain for the LASC campus or Caltrans Site #16.

4.4 LAND USE AND PLANNING

This section examines the proposed project to determine whether it is consistent with local and/or regional land use plans and policies, and analyzes potential conflicts between existing and proposed land uses on-site and in surrounding areas. Local policies for land use and development regulate the types of uses allowed, as well as the intensity of development permitted on private property. As new development changes results in changes to land use patterns, the character of the area can be affected and physical impacts to the environment become a concern. The proposed project has been evaluated for consistency with the existing Community Plan for the unincorporated Los Angeles County community of West Athens/Westmont and the County of Los Angeles Zoning Ordinance.

ENVIRONMENTAL SETTING

Los Angeles Southwest College (LASC) campus encompasses approximately 63.7 acres and is located in unincorporated Los Angeles County community of West Adams/Westmont, approximately 8.5 miles southwest of Downtown Los Angeles. The existing campus is bounded by Imperial Highway to the north, the Glenn Anderson Freeway (I-105) to the south, Western Avenue to the west, and St. Francis X. Cabrini Church and School and Caltrans Site #16 to the east. Regional access to the LASC campus is provided by the I-105, adjacent to the south, the San Diego Freeway (I-405), located the 3.5 miles to the west, and the Harbor Freeway (I-110), located one mile to the east. Access between the campus and the east/west oriented I-105 is obtained via off-ramps at Crenshaw Boulevard and Vermont Avenue. The I-105 connects to the north/south oriented I-405 and I-110. The major streets serving the campus are Western and Normandie Avenues in the north-south direction and Imperial Highway in the east-west direction. In addition, two Los Angeles Metropolitan Transportation Authority (Metro) Green Line Stations serve the area. These stations are located along the I-105 at Vermont Avenue and Crenshaw Boulevard which are located 0.5 miles to the east and one mile to the west, respectively. The Los Angeles International Airport is located 3.5 miles to the west of the campus. The college opened in 1967 and currently serves more than 6,247 full time enrollment (FTE) students offering associate degree programs in 34 disciplines, occupational certificates in 47 disciplines, community services and ESL/citizenship classes.

LASC Campus

LASC's campus is located in a fully developed predominantly residential urban environment. **Table 4.4-1** shows the land use distribution for the West Athens/Westmont community. Residential land uses account for the majority of land uses within the City (51 percent). Institutional uses comprise 13 percent of land uses in the community. Open Space has the third largest percentage of land use within the community at nine percent. Commercial land uses are limited to the frontages along major corridors within the community and only represent three percent of total land use.

The surrounding neighborhood consists primarily of residential land uses with commercial/retail uses along the major roadways. Land uses to the immediate north of the LASC campus consist primarily of single-family residential units with some commercial near Western Avenue that include fast food restaurants, retail stores, and gas stations. Land uses to the west of the LASC campus consist of a retail shopping center and other commercial uses along Western Avenue include fast food restaurants, a large grocery store, retail stores, a motel, and a community center. The area further west of Western Avenue is comprised primarily of single-family residences. Land uses to the east of the LASC campus along Normandie Avenue consist of the St. Francis X. Cabrini church and school, multi-family residences and the California Department of Transportation (Caltrans) Site #16 vacant parcel. The land uses east of Normandie Avenue consists of an industrial/civic use, a fast food restaurant, and multi-family residences.

Directly south of the campus is the I-105 with single-family residences located on the south side of the freeway.

TABLE 4.4-1: LAND USE DISTRIBUTION FOR WEST ATHENS/WESTMONT				
Type of Land Use	Acreage	Percentage of Total Area		
Residential				
Single-Family	805	51		
Multi-Family	197	12		
Commercial	51	3		
Industrial	17	1		
Open Space	147	9		
Institutional	204	13		
Public Utilities/Transportation	115	7		
Vacant	58	4		
Total	1,594	100		
SOURCE: West Athens/Westmont Community F	Plan, 1990.			

The LASC campus is currently operating as a two-year community college. Existing structures on campus consist of eight permanent, multi-level buildings (Cox Building and Little Theater, Technology Education Center, Thomas G. Lakin Physical Education building, Lecture Laboratory building, Child Development Center, Student Services/Education building, Student Services/Activities Center, and Fieldhouse), and three single-story buildings (Central Plant, Campus Police, and Maintenance and Operations). The campus currently provides 1,425 parking spaces in one large lot, four medium-sized lots, and three small lots, generally located on the periphery of the campus.

Caltrans Site # 16

The Caltrans Site #16 is located adjacent to the southeast of the LASC campus and is bordered by Normandie Avenue to the east, the I-105 to the south, and St. Francis X. Cabrini Church and school and multi-family residences to the north. The land uses east of Normandie Avenue consist of an industrial/civic use, fast food restaurant, and multi-family residences. Directly south of the campus is the I-105 with single-family residences located on the south side. The Caltrans Site #16 was used as an uncontrolled landfill since the early 1940s until 1984. The Caltrans Site #16 was acquired by Caltrans during the construction of the I-105 and has since been identified as a contaminated site by the Department of Toxic Substances Control (DTSC). The site is vacant, has fencing around the perimeter, and does not contain any landscaping. The property contains a deed restriction which prohibits the use of the property for full-time human habitation and requires any use to be approved by the DTSC.

Land Use Plans

Regional

SCAG's Regional Comprehensive Plan and Guide. The LASC campus is located within the Southern California Association of Governments (SCAG) region. SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. At the regional level, the goals, objectives, and policies in the RCPG are used for measuring consistency with adopted plan. However, the city and county governments have the authority and responsibility for land use and other critical planning decisions.

County of Los Angeles General Plan. Adopted in 1980, the County of Los Angeles General Plan is a framework providing policies and goals for resource allocation and tools for initiating and responding to change on a county-wide level.

Local

West Athens/Westmont Community Plan. LASC and Caltrans Site #16 lie within the adopted West Athens/Westmont Community Plan area in unincorporated Los Angeles County. The plan area is bordered by the City of Los Angeles to the north and east, the Cities of Inglewood and Hawthorne to the west, and the City of Gardena to the south. The most recent Community Plan was adopted in March 1990. It aims to improve the community's quality of life and economic base through effective land use, housing, circulation and environmental management. To aid in the implementation of the Community Plan's established goals, the West Athens/Westmont Community Standards District (CSD) was created. Under the CSD, no building shall exceed a maximum height of 40 feet. Devices or apparatus essential to industrial processes or public health communications may bring the building height to 50 feet, and these specified heights may be modified by a variance. Figures 4.4-1 and 4.4-2 show the land uses and zoning designations for the LASC campus, the Caltrans Site #16, and surrounding area.

Under State law, buildings and facilities on Los Angeles Community College District campuses are generally subject to zoning limitations imposed by the local jurisdiction. However, by two-thirds vote of the Board of Trustees of the Los Angeles Community College District, the Los Angeles Community College District may elect to exempt facilities from local zoning control. Any new facilities that would not fully comply with current zoning and that are not exempted by the Board of Trustees may require a general plan amendment, zone change, variance, or other discretionary land use permit from the County of Los Angeles to avoid a potentially significant impact.

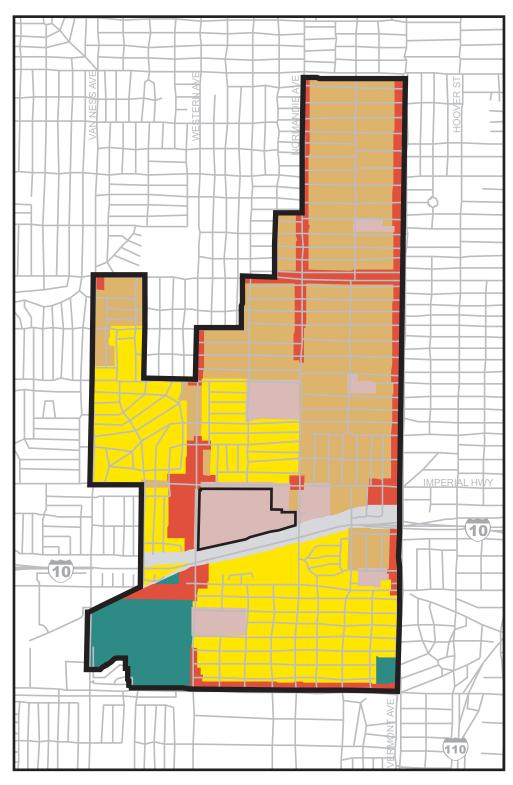
Land Use Designations. The West Athens/Westmont Community Plan Land Use Element designates the LASC campus and Caltrans Site #16 as public/quasi-public uses. The Land Use Element designates the adjacent land uses to the north as single-family residential, the adjacent land uses to the west are designated community commercial, the adjacent land use to the south as a transportation corridor, and the adjacent land uses to the east as public/quasi-public and medium-density multi-family residential.

Zoning Designations. The LASC campus and Caltrans Site #16 are zoned A1 (light agricultural). In 2003 when the Original Master Plan was adopted, the Board of Trustees adopted a zoning exemption for LASC to eliminate the zoning inconsistency.² The adjacent land uses to the north are zoned R-1 (single-family residential), land uses to the west are zoned C1 (restricted business) and C2 (neighborhood business), land uses to the south are zoned C2 (neighborhood business and R-1 (single-family residential) and land uses to the east are C2 (neighborhood business) and R3 (limited multiple residence).

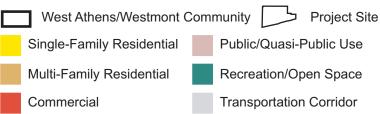
¹County of Los Angeles, Department of Regional Planning. West Athens/Westmont Community Plan, March 15, 1990.

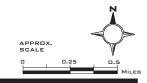
²Los Angeles Community College District Board of Trustees. *Board Meeting Minutes*, November 19, 2003.









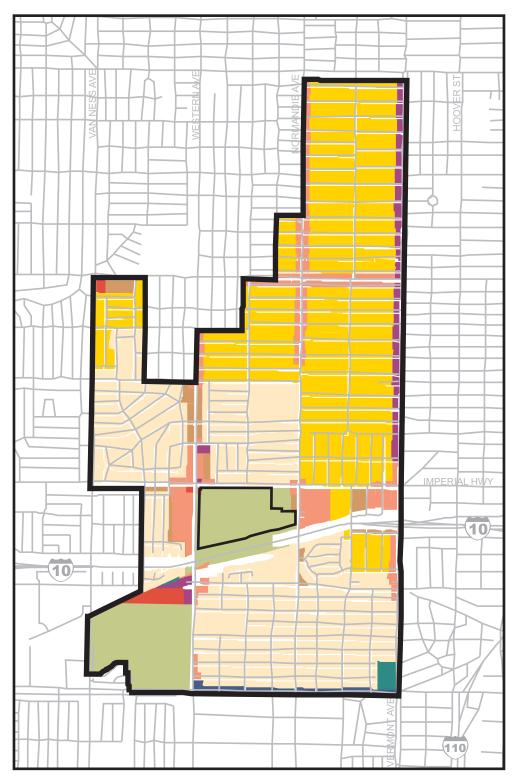


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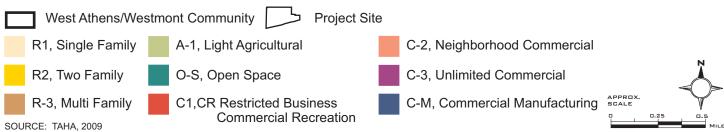
SOURCE: TAHA, 2009

LASC Master Plan Update
Supplemental Environmental Impact Report
LOS ANGELES COMMUNITY COLLEGE DISTRICT













THRESHOLDS OF SIGNIFICANCE

The proposed project would have a significant land use impact if:

- Physically divides an established community;
- Conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflicts with any applicable Habitat Conservation Plan or Natural Community Conservation Plan.

IMPACTS

Division of an Established Community

LASC Campus

The LASC campus has been an established major land use in the community since 1967. The proposed project would construct four new buildings and a parking structure, modernize four buildings, and upgrade campus infrastructure on the existing project site. The proposed project would not create any new barriers or restrict pedestrian or vehicular circulation. These campus improvements would occur within the boundaries of LASC and would not physically divide the community. Therefore, no impact is anticipated related to the division of an established community for the proposed project.

Caltrans Site #16

An additional campus entrance and development of a renewable energy production facility would occur on the adjacent and vacant Caltrans Site #16. While development of the Caltrans Site #16 would develop new boundaries to the existing campus, the boundary change would only involve undeveloped land and would not create any new barriers, restrict pedestrian activity. The Caltrans Site #16 would not alter the adjacent I-105, which is an existing physical barrier. Therefore, the acquisition or lease of the site would not divide the community. Therefore, no impact is anticipated related to the division of an established community for the Caltrans Site #16.

Adopted Plans and Policies

LASC Campus

The proposed project would be consistent with all applicable SCAG policies, as shown below in **Table 4.4-2**. The proposed project would be consistent with the County of Los Angeles General Plan and the West Athens/Westmont Community Plan. The project site is not within the jurisdiction of any Habitat Conservation Plan or Natural Community Conservation Plan. While the site is zoned A1 (light agricultural), a zoning exemption was passed in 2003 to allow institutional uses for LASC. The West Athens/Westmont Community Plan also recommends that institutional uses be rezoned from agricultural to public/quasi-public to be consistent with the land use designations. Therefore the proposed project would be consistent with the zoning designation and no impact is anticipated related to consistency with adopted plans and policies.

Caltrans Site #16

The proposed project would use the Caltrans Site #16 for an additional campus entrance and renewable production site. These uses would be consistent with all applicable SCAG policies, as shown below in **Table 4.4-2**. The use of the Caltrans Site #16 would be consistent with the County of Los Angeles General Plan and the West Athens/Westmont Community Plan. The site is not within the jurisdiction of any Habitat Conservation Plan or Natural Community Conservation Plan. The West Athens/Westmont Community Plan also recommends that institutional uses be rezoned from agricultural to public/quasipublic to be consistent with the land use designations. The site is zoned A1 (light agricultural) and use of the site for a renewable energy production site is a permitted use that would require a conditional use permit under Chapter 24.150 of Title 22 of the County of Los Angeles Zoning Code. The County of Los Angeles would determine during the process of granting a conditional use permit if the uses on the Caltrans Site #16 would be consistent with the zoning code. The granting of this conditional use permit would signify that the County of Los Angeles determined that the intended uses on Caltrans Site #16 were consistent with the existing zoning. Therefore, a less than-significant impact is anticipated related to consistency with adopted plans and policies.

TABLE 4.4-2: COMPARISON OF THE PROPOSED PROJECT TO SCAG REGIONAL POLICIES						
Policy Type and Goals	Policy Type and Goals LASC Campus Caltrans Site #16					
GROWTH MANAGEMENT CHAPTER						
3.01 The population, housing and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.	The proposed project would not exceed student projections analyzed in the 2003 Final EIR and would not require SCAG forecasts to be used in land use planning for this project.	N/A				
3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.	Adequate public facilities, transportation, and utilities infrastructure are in place for the proposed project and would not affect regional growth.	The proposed project would implement a solar farm which would satisfy all the energy needs of the campus.				
GROWTH MANAGEMENT POLICIES TO IMP	ROVE THE REGIONAL STANDARD (OF LIVING				
3.05 Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.	The project would make better use of existing facilities by utilizing existing vacant space and upgrading infrastructure.	The proposed project would develop a property with limited land use potential.				
3.09 Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.	The project is an urban infill project and would utilize existing facilities and transportation infrastructure.	The proposed project would connect to existing campus facilities and infrastructure.				
3.10 Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.	The proposed project is an urban infill project and would not affect the economic vitality and competitiveness.	N/A				

GROWTH MANAGEMENT POLICIES RELATED TO IMPROVE THE REGIONAL QUALITY OF LIFE					
3.12 Encourage existing or proposed local jurisdiction's programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.	The proposed project is an urban infill project and would not alter the existing land use.	N/A			
3.13 Encourage local jurisdiction's plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.	The proposed project is consistent with the West Athens/Westmont Community Plan to use the site for educational use.	The proposed project would utilize a vacant parcel that would be compatible with surrounding uses.			
3.14 Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.	The existing campus is an activity center for the community. The expansion of the campus would increase the density and development of the college and surrounding uses.	N/A			
3.15 Support local jurisdictions strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.	The proposed project is located along the transit-oriented Metro Green Line and Imperial Highway and has three bus lines which allow connections to the nearest Metro Green Line Stations at Vermont Avenue and Crenshaw Boulevard and enabling regional connectivity.	N/A			
3.16 Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.	The purpose of the project is to adaptively reuse the existing buildings on the site. Thus the proposed project would maximize the use of existing space, infrastructure, and public facilities and through infill.	The proposed project would improve the existing electricity infrastructure of the campus.			
3.17 Support and encourage settlement patterns, which contain a range of urban densities.	The project is an urban infill project and would not induce settlement patterns.	N/A			
3.18 Encourage planned development in locations least likely to cause environmental impact.	The proposed development is an infill project directed at improving educational service to the community. Since the site is located in an urbanized area, no natural areas would be affected.	The proposed project provides a compatible use for the site which minimizes the environmental impact.			
3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.	The site is located in an urbanized area which is devoid of such vital resources. Hence, no vital resources would be directly or indirectly affected by the proposed project.	There are no ecological resources located on the vacant site, which previously operated as a landfill.			
3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.	The proposed project site has undergone prior environmental review that included a complete investigation into the potential presence of cultural and archaeological resources, and developed provisions to avoid any potential impacts.	There are no known cultural resources located on the vacant site, which previously operated as a landfill.			

GROWTH MANAGEMENT POLICIES RELATED TO IMPROVE THE REGIONAL QUALITY OF LIFE					
3.22 Discourage development, or encourage the use of special design requirements in areas with steep slopes, high fire, flood, and seismic hazards.	The facility will be made Field Act compliant to safeguard against the threat to seismic hazards. The project site is not susceptible to high fire, flood, or slope hazards.	The proposed project is located on a level six acre site that is well above street level with no risks to flood, fire, or steep slopes.			
3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.	This Supplemental EIR contains mitigation measures to reduce noise. Biological and ecological resources would not be affected by the proposed project. The proposed project would be built in accordance with all current earthquake standards and emergency plans would be submitted for approval to applicable agencies prior to operations.	Mitigation measures are provided to reduce any potential impacts related to hazardous materials identified previously on the site.			
GROWTH MANAGEMENT POLICIES RELAT	ED TO SOCIAL, POLITICAL, AND CU	ILTURAL EQUITY			
3.24 Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.	The proposed project would not supply housing.	N/A			
3.27 Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.	The proposed project would provide a self-sustaining energy program, enhance educational facilities, provide an additional parking facility, and improve safety and reliability through upgraded infrastructure. All of these facilities would be of benefit to the communities they serve.	The proposed project would develop the site with a fully sustainable energy production program for the campus.			
REGIONAL TRANSPORTATION PLAN					
4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.	Transportation investments associated with the proposed project would be based on surrounding traffic conditions.	N/A			
4.02 Transportation Investments shall mitigate environmental impacts to an acceptable level.	Transportation mitigation measures are included in this EIR to mitigate environmental impacts to acceptable levels. (see Section 4.10)	N/A			
4.04 Transportation Control Measures shall be a priority.	The proposed project would utilize a variety of tools to minimize vehicular trips and promote alternative transportation modes.	The proposed project would not create a significant number of vehicular trips that would require control measures.			
4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity.	The proposed project is an infill project that would utilize the existing transportation system.	N/A			

AIR QUALITY CHAPTER CORE ACTIONS			
5.07 Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.	This policy is largely regional in scope. However, the proposed project would incorporate all applicable source reduction and control measures including Air Quality Management District Rule 403 - Fugitive Dust Control, and would strive to identify other programs and actions throughout the life of the proposed project so that options to command and control regulations can be assessed.	N/A	
5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.	The interrelationship between air quality, land use, transportation, and economic relationships was considered throughout the analysis contained in this Supplemental EIR to ensure consistency and minimize conflicts.	The interrelationship between air quality, land use, transportation, and economic relationships was considered throughout the analysis.	
OPEN SPACE CHAPTER ANCILLARY GOAL	S		
9.01 Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.	The proposed project would modernize the physical education building and contains additional athletic facilities to help meet the recreational needs of the students and surrounding community.	N/A	
9.02 Increase the accessibility to open space lands for outdoor recreation.	The proposed project contains athletic facilities to help meet the recreational needs of the students and surrounding community.	N/A	
9.03 Promote self-sustaining regional recreation resources and facilities.	The proposed project would not contribute to or eliminate regional recreation resources.	N/A	
9.04 Maintain open space for adequate protection of lives and properties against natural and man-made hazards.	The proposed project does not increase the risk to natural and man-made disasters and contains no-build setback zones that buffer areas of risk from buildings.	N/A	
9.05 Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.	The proposed project contains measures to minimize the risks of such potential hazards.	The proposed project contains measures to minimize the risks of such potential hazards.	
9.07 Maintain adequate viable resource production land, particularly lands devoted to commercial agriculture and mining operations.	The project site does not contain resource production lands.	The project site does not contain resource production lands.	
9.08 Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.	The site is located in an urbanized area which is devoid of such ecologically significant resources.	There are no known ecological resources on the vacant Caltrans Site #16.	

throughout the region where it is cost- effective, feasible, and appropriate to reduce reliance on imported water and wastewater	reclaimed water for the landscaped and open space areas of the	not result in increased water

Land Use Compatibility

LASC Campus

Land use compatibility is the degree to which a proposed land use is compatible with surrounding existing land uses. A final determination of compatibility is not an objective of the CEQA process. However, a decision regarding land use compatibility is based on numerous factors, many of which coincide with CEQA issue areas. The analysis of air quality, noise, and hazards, in particular, inform the lead agency about the potential effects to residents, students, and employees that would be present in the project area from existing adjacent uses. Please refer to Section 4.2s Air Quality, 4.3 Hazards and Hazardous Materials, and 4.5 Noise for the analysis of environmental impacts in these areas.

The proposed project is located in a predominantly residential area and has operated as an institutional use since 1967. Institutional land uses comprise the second largest land use type within the West Athens/Westmont community. The proposed project would increase the functional use of the campus would enhance access and educational service to the surrounding community. The proposed project would result in a land use that is compatible with the surrounding residences and community scale commercial development.

Caltrans Site #16

The Caltrans Site #16 is a vacant parcel adjacent to multi-family residences St. Frances X. Cabrini church and school, the LASC campus and the I-105. Construction of the access road and development of an energy production facility on the Caltrans Site #16 would result in uses that would be compatible with the surrounding properties. The intended uses would not create significant levels of noise, odors, lighting, or other environmental effects that would be incompatible with the surrounding uses. Therefore, a less-than-significant impact is anticipated related to land use incompatibility for the Caltrans Site #16.

MITIGATION MEASURES

S-LU1 LACCD shall meet the County of Los Angeles requirements to obtain a conditional use permit for use of the Caltrans Site #16 as a renewable energy production facility and campus entrance.

LEVEL OF IMPACT AFTER MITIGATION

The acquisition of a conditional use permit for the use of the Caltrans Site #16 as a renewable energy production site and campus entrance would make the proposed project consistent with the County of Los Angeles Zoning code. Therefore, a less-than-significant impact to land use is anticipated for the proposed project.

4.5 NOISE AND VIBRATION

This section evaluates noise and vibration levels associated with the implementation of the proposed project. The noise and vibration analysis in this section assesses: existing noise and vibration conditions at the project site and its vicinity, as well as short-term construction and long-term operational noise and vibration levels associated with the proposed project. Mitigation measures for significant impacts are recommended when appropriate to reduce noise and vibration levels. Supporting documentation is presented in Appendix E.

ENVIRONMENTAL SETTING

Noise Characteristics and Effects

Characteristics of Sound. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. **Figure 4.5-1** provides examples of A-weighted noise levels from common sounds.

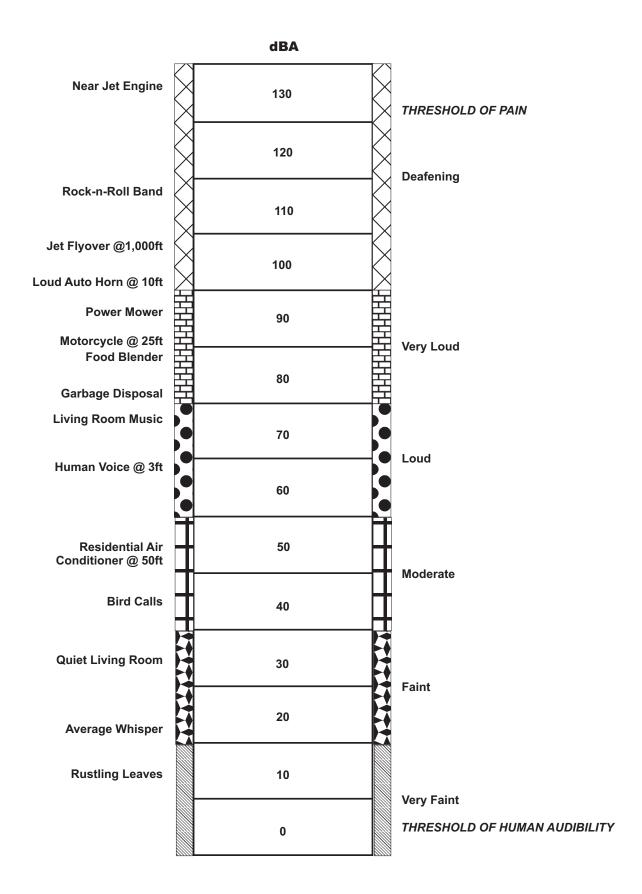
Noise Definitions. This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Effects of Noise. Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.





SOURCE: Cowan, James P., Handbook of Environmental Acoustics





Audible Noise Changes. Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely evoke a community reaction. A 10-dBA increase is subjectively heard as a doubling in loudness and would cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of the distance.

Generally, noise is most audible when traveling by direct line-of-sight.¹ Barriers, such as walls, berms, or buildings, that break the line-of-sight between the source and the receiver greatly reduce noise levels from the source since sound can only reach the receiver by bending over the top of the barrier (diffraction). Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

Applicable Regulations. The Los Angeles County Noise Control Ordinance includes noise regulations for addressing specific types of noise sources.² The Noise Ordinance also provides measures for protecting different land uses, which are assigned noise zones and corresponding noise limits (exterior and interior), as shown in **Table 4.5-1**.

TABLE 4	TABLE 4.5-1: COUNTY NOISE ZONE DESIGNATION AND LIMITS				
Noise Zone	Designated Noise Zone Land Use (Receptor Property)				
Exterior					
1	Noise-Sensitive Area	Anytime	45		
II	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	45 50		
III	Commercial Properties	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	55 60		
IV	Industrial Properties	Anytime	70		
Interior					
All	Multi-family Residential	10:00 p.m. to 7:00 a.m. (nighttime) 7:00 a.m. to 10:00 p.m. (daytime)	40 45		
	s Angeles County, Noise Control Ordinance of the C 3.400 (Interior Noise Standards).	ounty of Los Angeles. 1978. Section 12.08.390 (Exterior	Noise Standards) and		

The County's Noise Control Ordinance also includes construction noise restrictions that apply to residential and commercial properties, as presented in **Table 4.5-2**. Furthermore, it is required that all

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¹Line-of-sight is an unobstructed visual path between the noise source and the noise receptor.

²Los Angeles County, *Noise Control Ordinance of the County of Los Angeles* [Ordinance 11778 §2 (Article 1 §101) and Ordinance 11773 §2 (Article 1 §101)]. 1978. Codified in the Los Angeles County Code Title 12, Environmental Protection, Chapter 12.08, Noise Control. Available online at the following website: http://ordlink.com/codes/lacounty/maintoc.htm. Last accessed June 16, 2008.

mobile and stationary internal-combustion-engine powered equipment or machinery be equipped with suitable exhaust and air-intake silencers in proper working order.³

TABLE 4.5-2: COUNTY CONSTRUCTION NOISE LIMITS IN DBA							
Time Mobile Equipment (non-scheduled intermi	Single-Family Residential	Multi-Family Residential	Semi-Residential/ Commercial				
Daily, except Sundays and legal holidays,	Mobile Equipment (non-scheduled, intermittent, short-term operation – less than 10 days) Daily, except Sundays and legal holidays						
7:00 a.m. to 8:00 p.m.	75	80	85				
Daily, 8:00 p.m. to 7:00 a.m., and all day Sunday and legal holidays	60	64	70				
Stationary Equipment (repetitively schedu	Stationary Equipment (repetitively scheduled and relatively long-term operation – periods of 10 days or more)						
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60	65	70				
Daily, 8:00 p.m. to 7:00 a.m., and all day Sunday and legal holidays	50	55	60				
SOURCE: Los Angeles County, Noise Control Ordinance of the County of Los Angeles, Chapter 12.08, Section 12.08.44, Construction Noise.							

The maximum noise level limits for construction activity occurring for a period of ten days or more between the hours of 7:00 a.m. and 8:00 p.m. are 60 dBA at the property line of single-family residential areas, 65 dBA at multi-family residential areas, and 70 dBA at semi-residential and commercial areas. Section 12.08.44 of the County Noise Ordinance prohibits non-emergency construction activity between the weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays.

The Federal Highway Administration (FHWA) has published noise abatement criteria for determining when to consider noise mitigation.⁴ According to the FHWA, mitigation measures should be considered for schools if interior noise levels exceed 52 dBA L_{eq}.

Vibration Characteristics and Effects

Characteristics of Vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment.

Vibration Definitions. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of

³Los Angeles County, *Noise Control Ordinance of the County of Los Angeles* [Ordinance 11778 §2 (Article 1 §101) and Ordinance 11773 §2 (Article 1 §101)]. 1978. Codified in the Los Angeles County Code Title 12, Environmental Protection, Chapter 12.08, Section 12.08.44, Construction Noise. Available online at the following website: http://ordlink.com/codes/lacounty/maintoc.htm. Last accessed June 16, 2008.

⁴Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.⁵

Effects of Vibration. High levels of vibration may cause physical personal injury or damage to buildings. However, ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that may affect concentration or disturb sleep. In addition, high levels of ground-borne vibration may damage fragile buildings or interfere with equipment that is highly sensitive to ground-borne vibration (e.g., electron microscopes). To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, engineered concrete and masonry buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. Buildings extremely susceptible to vibration damage can be exposed to ground-borne vibration levels of 0.12 inches per second without experiencing structural damage.

Perceptible Vibration Changes. In contrast to noise, ground-borne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower, well below the threshold of perception for humans which is around 65 RMS. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Applicable Regulations. The County of Los Angeles Noise Ordinance prohibits the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way. The County defines the vibration perception threshold as 0.01 inch per second PPV. This is not relevant for construction activity. According to the Federal Transit Administration (FTA), standard buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. In addition, **Table 4.5-3** shows FTA annoyance criteria for vibration.

TABLE 4.5-3: FTA VIBRATION IMPACT CRITERIA						
Land Use Category	Vibration Impact Level for Frequent Events (VdB)/a/	Vibration Impact Level for Occasional Events (VdB)/b/	Vibration Impact Level for Infrequent Events (VdB)/c/			
Category 1: Buildings where low ambient vibration is essential for interior operations	65	65	65			
Category 2: Residences and buildings where people normally sleep	72	75	80			
Category 3: Institutional land uses with primarily daytime uses	75	78	83			

[/]a/ Frequent events are defined as more than 70 vibration events of the same source per day.

2005.

[/]b/ Occasional events are defined as between 30 and 70 vibration events of the same source per day. /c/ Infrequent events are defined as fewer than 30 vibration events of the same source per day.

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

⁵Ibid.

⁶Federal Railway Administration, High Speed Ground Transportation Noise and Vibration Impact Assessment, October

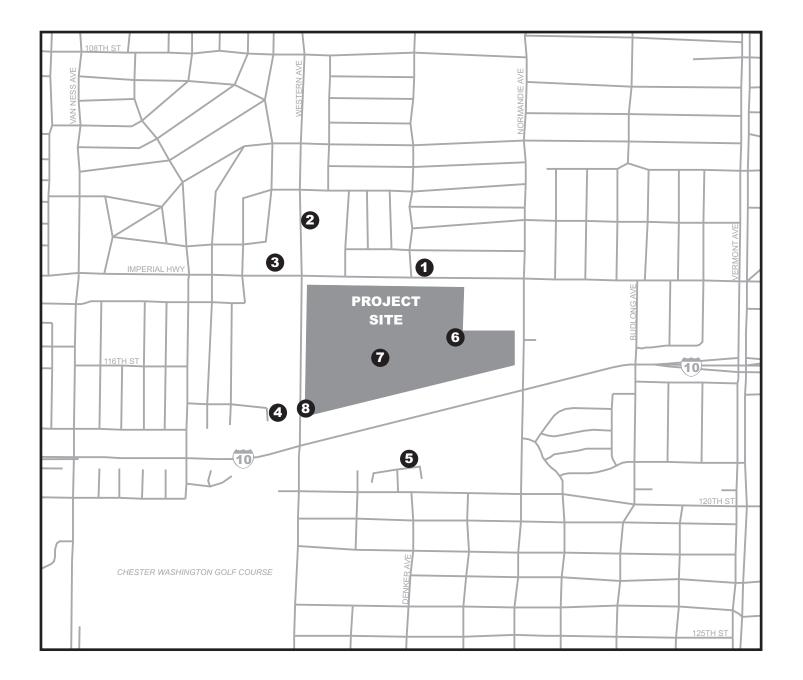
⁷Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

⁸Ibid.

Existing Noise and Vibration Levels

Monitored Ambient Noise Levels. The existing noise environment of the project area is characterized by vehicular traffic and noises typical to a dense urban area (e.g., sirens, horns, helicopters, etc.). Vehicular traffic is the primary source of noise in the project vicinity, specifically traffic from the Interstate 105 Freeway (I-105) south of the project site. Sound measurements were taken using a SoundPro DL Sound Level Meter between 8:30 a.m. and 3:00 p.m. on November 12, 2009 to determine existing ambient daytime noise levels in the project vicinity. These readings were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction and operational noise impacts. Noise monitoring locations are shown in **Figure 4.5-2**. As shown in **Table 4.5-4**, existing ambient sound levels would be 74.4 dBA L_{eq} during the AM peak hour period (7:30 to 9:30 a.m.) and ranged from 54.1 to 72.3 dBA L_{eq} during the off-peak period.

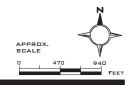
TABLE 4.5-4:	EXISTING NOISE LEVELS		
Key to Figure 4.7-2	Noise Monitoring Location	Distant from Project Site (feet)	Sound Level (dBA, L _{eq})
AM Peak Hour	Period (7:30 to 9:30 a.m.)		
1	1549 Imperial Highway	80	74.4
Off-Peak Perio	od		
1	1549 Imperial Highway	80	66.9
2	Animo High School	740	68.9
3	Busy Bees Preschool	550	72.3
4	11715 Manhattan Place	440	60.8
5	1624 Bruin Street	720	52.3
6	St. Frances X. Cabrini School	Adjacent	54.5
7	Physical Education Building	On Site	54.1
8	Middle College High School	On Site	64.5
SOURCE: TAHA, 2	009.		



LEGEND:



- # Noise Monitoring Locations
- 1. 1549 Imperial Highway
- 2. Animo High School
- 3. Busy Bee Preschool
- **4**. 11715 Manhattan Place SOURCE: TAHA, 2009
- 5. 1624 Bruin Street
- 6. Saint Frances X. Cabrini School
- 7. Physical Education Building
- 8. Middle College High School





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Modeled Vehicular Noise Levels. Vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, the CNEL was calculated for various roadway segments near the project site. As shown in **Table 4.5-5**, existing mobile source noise levels in the project area range from 68.5 to 72.9 dBA CNEL.

TABLE 4.5-5: EXISTING COMMUNITY NOISE EQUIVALENT LEVEL /a/	
Roadway Segment	Estimated CNEL (dBA)
Imperial Highway between Crenshaw Boulevard and Van Ness Avenue	71.9
Imperial Highway between Van Ness Avenue and Western Avenue	72.4
Imperial Highway between Western Avenue and Denker Avenune	72.5
Imperial Highway between Denker Avenue and Normandie Avenue	72.5
Imperial Highway between Normandie Avenue and Vermont Avenue	72.8
Imperial Highway between Vermont Avenue and I-110 Southbound Ramp	72.9
Western Avenue between Imperial Highway and Campus Entrance	71.3
Western Avenue between Campus Entrance and 120 th Place	72.1
Normandie Avenue between Imperial Highway and Campus Entrance	69.6
Normandie Avenue between Campus Entrance and 120 th Place	68.5
Vermont Avenue between Imperial Highway and I-105 Westbound Ramp	72.0

/a/ The predicted CNEL were calculated as peak hour L_{eq} and converted into CNEL using the California Department of Transportation Technical Noise Supplement (October 1998). The conversion involved making a correction for peak hour traffic volumes as a percentage of average daily traffic and a nighttime penalty correction.

SOURCE: TAHA, 2009.

Ambient Vibration Levels. There are no stationary sources of vibration located near the project site. Heavy-duty trucks and trains can generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions. Based on field observations, vibration levels from adjacent roadways, including I-105, are not typically perceptible at the project site.

Sensitive Receptors

Off-Site Receptors. Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptor distances presented below are measured from the nearest construction activity. As shown in **Figure 4.5-3**, off-site sensitive receptors include the following:

- Single-family residences located approximately 80 feet to the north
- St. Frances X. Cabrini School located 90 feet to the north and east
- Multi-family residences located approximately 150 feet to the east
- Single-family residences located approximately 290 feet to the west
- Single- and multi-family residences located approximately 570 feet to the southeast
- Single-family residences located approximately 660 feet to the south
- Animo High School located approximately 835 feet to the north
- Busy Bee Preschool located approximately 930 feet to the west-northwest

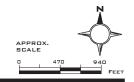




LEGEND:



- # Sensitive Receptors
- 1. Child Development Center
- 2. LAUSD Middle College
- 3. St. Frances X. Cabrini School
- 4. Single-Family Residences
- 5. Multi-Family Residences
- 6. Busy Bee Preschool
- **7**. Animo High School SOURCE: TAHA, 2009





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The above sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by the proposed project. Additional sensitive receptors located in the surrounding community may be impacted by the proposed project.

On-Site Receptors. The Los Angeles Unified School District Middle College High School campus is currently operating on the southwest portion of the project site. A separate project involves relocating the existing campus to the middle of the project site. This construction may occur concurrently with project-related construction activity. The Middle College High School is anticipated to be in operation at the existing location during project-related construction activity.

In addition to the off-site sensitive receptors, a Child Development Center is located at the northeastern corner of the project site. The Child Development Center is adjacent to a proposed parking structure and may be impacted by construction and operational emissions. The outdoor play area located to the south of the Child Development Center would be approximately 30 feet from construction activity. The building would be approximately 85 feet from construction activity associated with the northeast parking structure.

Caltrans Site #16. Caltrans Site #16 is located on the southeastern portion of the project site. The nearest off-site sensitive receptor is the adjacent St. Frances X. Cabrini School. A multi-family residential land use is located approximately 100 feet to the east and single-family homes are located approximately 800 feet to the north. The nearest on-site sensitive receptor is the Child Development Center located approximately 450 feet to the northwest.

THRESHOLDS OF SIGNIFICANCE

Noise

Construction. A significant impact would occur if:

• Construction activities would generate noise levels that exceed the County standards shown in **Table 4.5-2**.

Operational. Existing ambient noise levels in the project area exceed the County standards shown in **Table 4.5-1**. Therefore, a significant impact would occur if:

- The proposed project causes the ambient noise level measured at the property line of the affected uses to increase by 3 decibels CNEL to or within the "normally unacceptable" or "clearly unacceptable" categories, as show in **Table 4.5-6**; and/or
- Classroom interior noise levels exceed 52 dBA L_{eq}.

	Community Noise Exposure - L _{dn} or CNEL (dBA)					
Land Use Category	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						
Normally Acceptable - Specified land use is satisfactory, conventional construction without any special noise insulated Conditionally Acceptable - New construction or development of the conditional of th	tion requirement ment should be u oon features inclu ill normally suffic ent should gener ments must be n	s. undertaken o ded in the de ee. ally be disco	nly after a de esign. Conve uraged. If ne eded noise in	etailed analysis entional constr	s of the noise ruction, but w	e vith closed ment does

Vibration

The proposed project would result in a significant construction or operational vibration impact if:

- Construction activity would expose buildings to the FTA building damage threshold level of 0.3 inches per second;
- Construction activity would exceed the FTA annoyance threshold level of 75 Vdb at sensitive receptors; and/or
- Operational activity would exceed the County standard of 0.01 inches per second at sensitive receptors.

IMPACTS

Methodology

The noise analysis considers construction, operational, and vibration sources. Construction noise levels are based on information obtained from the United States Environmental Protection Agency. The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. Operational noise levels were calculated based on information provided in the traffic study and stationary noise sources located on the project site. Vibration levels were estimated based on information provided by the FTA.

Construction Impacts

Noise. Construction of the proposed project would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would occur during the approximate 36-month construction schedule. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities typically require the use of numerous noise-generating equipment. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4.5-7**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

⁹Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

TABLE 4.5-7: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION MACHINES				
	Noise Level (dBA)			
Noise Source	50 Feet /a/	100 Feet /a/		
Front Loader	80	74		
Trucks	89	83		
Cranes (derrick)	88	82		
Jackhammers	90	84		
Generators	77	71		
Back Hoe	84	78		
Tractor	88	82		
Scraper/Grader	87	81		
Paver	87	81		
Impact Pile Driving	101	95		
Auger Drilling	77	71		

/a/ Assumes a 6-dBA drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of ten and 30 feet from the noise source.

SOURCE: USEPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

The noise levels shown in **Table 4.5-8** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. **Table 4.5-9** presents the estimated noise levels at sensitive receptors during construction activity. Construction noise levels would exceed the significance threshold at multiple sensitive land uses. Construction activity would result in a significant noise impact.

TABLE 4.5-8: OUTDOOR CONSTRUCTION NOISE LEVELS				
Construction Phase	Noise Level At 50 Feet (dBA)			
Ground Clearing	84			
Grading/Excavation	89			
Foundations	78			
Structural	85			
Finishing	89			
SOURCE: USEPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.				

TABLE 4.5-9: CONSTRUCTION NOISE IMPACTS - UNMITIGATED					
Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA)/b/	Significance Threshold	Impact?	
Child Development Center	Adjacent	89.0	60	Yes	
Single-family residences to the north	80	84.9	60	Yes	
St. Frances X. Cabrini School	90	78.9 /c/	60	Yes	
Multi-family residences to the east	150	79.5	65	Yes	
Single-family residences to the west	290	73.7	60	Yes	
Single- and multi-family residences to the southeast	570	57.9 /d/	60	No	
Single-family residences to the south	660	56.6 /d/	60	No	
Middle College High School	575	62.8	60	Yes	
Animo High School	835	59.5 /c/	60	No	
Busy Bee Preschool	930	63.6	60	Yes	

[/]a/ Distance of noise source from receptor.

As shown in **Table 4.5-9**, noise generated during construction of the northeast parking structure would exceed the noise standard at the Child Development Center. This would result in a significant impact.

With regard to Middle College High School, **Table 4.5-9** shows the noise generated from the nearest construction activity at the project site would exceed the noise standard at Middle College High School. This would result in a significant impact.

Vibration. Construction activity would potentially generate substantial vibration levels. As shown in **Table 4.5-10**, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second at a distance of 25 feet. The closest structure to construction activity would be the St. Frances X. Cabrini School located 90 feet from the nearest construction activity. This structure would experience vibration levels of 0.013 inches per second. This would be less than the FTA threshold for buildings of 0.3 inches per second. The potential for building damage as a result of construction vibration would result in a less-than-significant impact.

TABLE 4.5-10: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT					
Equipment	PPV at 25 feet (Inches /Second) /a/	Vibration Decibels at 25 feet (VdB)			
Caisson Drilling	0.089	87			
Large Bulldozer	0.089	87			
Loaded Trucks	0.076	86			
/a/ Fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.					

/a/ Fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage. **SOURCE:** Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

The FTA vibration impact criteria for annoyance are shown in **Table 4.5-3**. Construction activity would occur during daytime hours and, as such, the Category 3 thresholds for daytime uses were utilized for the analysis. A construction vibration annoyance impact would result if sensitive receptors would be exposed to vibration levels of 75 VdB RMS or greater. Typical heavy equipment (e.g., a large bulldozer) generates vibration levels of 87 VdB RMS at a distance of 25 feet. The nearest off-site sensitive receptor would be at least 80 feet from construction activity. At this distance, typical construction equipment would generate vibration levels of approximately 71.8 VdB RMS. This vibration level would not exceed

[/]b/ Includes a noise reduction for distance attenuation.

[/]c/ Includes a 5-dBA reduction for intervening structures and/or terrain.

[/]d/ Includes a 10-dBA reduction for intervening structures and/or terrain.

SOURCE: TAHA, 2009.

the annoyance threshold of 75 VdB RMS and, as such, construction-related vibration would result in a less-than-significant annovance impact.

The Child Development Center located in the northeast portion of the project site would be potentially impacted by vibration generated during construction of the northeast parking structure. The Child Development Center has an outdoor play area that would be 30 feet from the nearest construction activity occurring at the parking structure. The building for the Child Development Center would be at least 85 feet from construction activity. The outdoor play area could potentially experience a vibration level of approximately 84.7 VdB. The Child Development Center building could experience vibration levels of approximately 0.014 inches per second, and a vibration noise level of approximately 71.1 VdB. Vibration levels would not exceed the building damage or annoyance thresholds at the Child Development Center building but would exceed the annoyance threshold at the outdoor play area. Children use the outdoor area for limited period of time and vibration does not typically interfere with outdoor activities. Nonetheless, construction-related vibration at the Child Development Center outdoor play area would result in a significant annoyance impact.

Caltrans Site #16. An additional campus entrance and a renewable energy production facility are proposed on Caltrans Site #16. The construction schedule has not been finalized and it is not known if construction would occur concurrently with general project development. The design has also not been finalized but it is likely that construction activity would require heavy-duty equipment and may interfere with operational activity at nearby land uses. Construction activity would increase ambient noise levels at the St. Frances X. Cabrini School by approximately 29.4 dBA. Construction activity would increase ambient noise levels at the multi-family residence to the east by approximately 28.9 dBA. Construction activity would increase ambient noise levels at the Child Development Center by approximately 5.1 dBA. Construction activity would not be audible at the single-family residences located to the north. Construction noise level increases would exceed the 5-dBA significance threshold, and would result in a significant impact.

Vibration levels generated from construction activity at Caltrans Site #16 would be approximately 0.013 inches per second at the nearest St. Frances X. Cabrini School classroom and 0.001 inches per second at the Child Development Center. Vibration levels would not exceed the 0.3 inches per second building damage significance threshold. With respect to annoyance thresholds, vibration noise levels at the St. Frances X. Cabrini School and Child Development Center would be approximately 76 and 62 VdB, respectively. Vibration levels at the multi-family residential land use to the east would be 0.011 inches per second and 69 VdB. Vibration noise levels would exceed the annoyance threshold of 75 VdB at the St. Frances X. Cabrini School classroom, and would result in a significant impact.

Operational Impacts

Mobile Noise. The proposed project would generate 4,466 daily vehicle trips. ¹⁰ To determine off-site noise impacts, traffic was modeled under future year (2016) "no project" and "with project" conditions utilizing FHWA RD-77-108 noise calculation formulas. Results of the analysis are summarized in **Tables 4.5-11**. The greatest project-related noise increase would be 0.7 dBA CNEL and would occur along Imperial Highway between Van Ness Avenue and Western Avenue. Mobile noise generated by the proposed project would not cause the ambient noise level measured at the property line of the affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" category (**Table 4.5-6**) or any 5-dBA or more increase in noise level. Vehicular noise would result in a less-than-significant impact.

¹⁰Cordoba Corporation, Traffic Impact and Parking Analysis of the Los Angeles Southwest Community College Master Plan Update, December 3, 2009.

TABLE 4.5-11: 2016 ESTIMATED COMMUNITY NOISE EQUIVALE	ENT LEVEL /a	/	
	Estimate	ed dBA, CN	EL /b/
Roadway Segment	No Project (2016)	Project (2016)	Project Impact
Imperial Highway between Crenshaw Boulevard and Van Ness Avenue	73.0	73.1	0.1
Imperial Highway between Van Ness Avenue and Western Avenue	72.6	73.3	0.7
Imperial Highway between Western Avenue and Denker Avenune	73.0	73.2	0.2
Imperial Highway between Denker Avenue and Normandie Avenue	73.0	73.2	0.2
Imperial Highway between Normandie Avenue and Vermont Avenue	73.4	73.5	0.1
Imperial Highway between Vermont Avenue and I-110 Southbound Ramp	73.4	73.5	0.1
Western Avenue between Imperial Highway and Campus Entrance	71.5	71.5	0.0
Western Avenue between Campus Entrance and 120 th Place	72.2	72.3	0.1
Normandie Avenue between Imperial Highway and Campus Entrance	69.8	70.1	0.3
Normandie Avenue between Campus Entrance and 120 th Place	68.6	69.2	0.6
Vermont Avenue between Imperial Highway and I-105 Westbound Ramp	72.1	72.2	0.1

/a/ The predicted CNEL were calculated as peak hour L_{eq} and converted into CNEL using the California Department of Transportation *Technical Noise Supplement* (October 1998). The conversion involved making a correction for peak hour traffic volumes as a percentage of average daily traffic and a nighttime penalty correction.

SOURCE: TAHA, 2009.

The proposed project would construct an additional campus entrance on the eastern side of the campus with ingress/egress from Normandie Avenue. This new street would likely follow the existing grade, which is elevated above the adjacent St. Frances X. Cabrini School by six to ten feet. The additional campus entrance would be approximately 65 feet from the property line of St. Frances X. Cabrini School and construction activity may interfere with School activities. Vehicle noise along this new street would generate a maximum noise level increase of 4.0 dBA L_{eq} during the AM peak hour, and 6.7 dBA during the PM peak hour at the property line of the St. Frances X. Cabrini School. Mobile source noise associated with the additional campus entrance would exceed the 5 dBA significance threshold at the St. Frances X. Cabrini School, and would result in a significant impact without mitigation.

Stationary Noise. Mechanical equipment (e.g., HVAC equipment) typically generates noise levels of approximately 60 dBA L_{eq} at 50 feet. Mechanical equipment would be screened from view as necessary to comply with County of Los Angeles Municipal Code. The highest ambient noise increase due to mechanical equipment noise would be 1.3 dBA and would occur at St. Frances X. Cabrini School adjacent to the Project Site. Operation of mechanical equipment would not increase ambient noise levels by 5 dBA or more, and would result in a less-than-significant noise impact.

As part of the Renewable Energy Program, solar energy panels would be installed on parking lots, rooftops of all buildings, and on the Caltrans #6 Site. These panels would have integrated tracking systems to maximize the surface area exposed to the sun during all parts of the day. However, this associated mechanical equipment would not produce audible noise at any nearby sensitive receptors. Operation of the solar energy panels would result in a less-than-significant noise impact.

A pump house building would be constructed on the east side of the campus, approximately 90 feet from the property line of St. Frances X. Cabrini School. The building would include an electrical utility room, a domestic water pump room, a fire water pump room, and an emergency diesel generator room. The mechanical equipment would be completely enclosed by the building, and noise produced by this equipment would be inaudible at nearby sensitive receptors. Operation of the pump house would result in a less-than-significant noise impact.

Parking Noise. The proposed project would provide a new above-ground, three-level parking structure on the eastern portion of the project site. It is approximately 90 feet from the nearest sensitive receptor, the St. Frances X. Cabrini School. Automobile parking activity typically generates a noise level of approximately 58.1 dBA L_{eq} at 50 feet (e.g., tire noise, engine noise, and door slams). Parking and access activity would generate a maximum noise level increase of 0.9 dBA L_{eq} at the nearest on- or off-site sensitive receptor. This increase would be inaudible. Parking structure noise would result in a less-than-significant off-site operational noise impact.

The parking structure would be within 30 feet of the Child Development Center outdoor play area and 85 feet from the building. Parking structure noise may annoy and interfere with activities at the Child Development Center. This would result in a significant impact.

Land Use Compatibility/Interior Noise Levels. New classroom facilities would be located along the northern boundary of the project site 45 feet from Imperial Highway. As shown in **Table 4.5-11**, the peak-hour ambient noise level along Imperial Highway is 73.4 dBA L_{eq} . Typical building construction reduces exterior-to-interior noise levels by approximately 17 dBA. Interior noise levels along Imperial Highway would be 56.4 dBA L_{eq} . This noise level would exceed the 52 dBA L_{eq} significance threshold. These noise levels would exceed the acceptable interior noise level for a school. Land use compatibility would result in a significant impact.

A screening level analysis was completed using the FHWA Traffic Noise Model Version 2.5 Look-Up Tables for mobile noise from the I-105. Based on Caltrans data, the I-105 carries an average daily traffic volume of approximately 239,000 vehicles including 10,994 trucks (4.6 percent). Additional Caltrans data notes that the I-105 has a peak-hour volume of 15,900 vehicles near the project site. This data is not separated by vehicle type. The above data was utilized as a ratio to determine a peak-hour truck rate of 731 vehicles. All of these trucks were considered to be heavy-duty. No outdoor uses are proposed in the Master Plan Update. The nearest building to the I-105 under the proposed project would be the Fitness and Wellness Center, located approximately 550 feet to the north. Mobile source noise from the I-105 would generate an exterior noise level of approximately 61.2 dBA L_{eq} at the Fitness and Wellness Center. Typical building construction reduces exterior-to-interior noise levels by approximately 17 dBA. Interior noise levels at the Fitness and Wellness Center would be 44.2 dBA L_{eq} . These noise levels would not exceed the 52-dBA L_{eq} significance threshold, and the I-105 mobile source noise would result in a less-than-significant impact.

Vibration. The proposed project would not include significant stationary sources of ground-borne vibration, such as heavy equipment operations. Operational ground-borne vibration in the project vicinity would be generated by vehicular travel on the local roadways. However, similar to existing conditions, project-related traffic vibration levels would not be perceptible by sensitive receptors. Operational activity would not generate vibration levels that would exceed the County standard of 0.01 inches per second at sensitive receptors. Operational vibration would result in a less-than-significant impact.

Caltrans Site #16. The renewable energy facility proposed at Caltrans Site #16 would be a passive land use and would not generate audible operational noise or perceptible vibration. Operational noise and vibration associated with Caltrans Site #16 would result in a less-than-significant impact.

¹¹The reference parking noise level is based on a series of noise measurements completed 50 feet from vehicles accessing a multi-level parking structure.

MITIGATION MEASURES

Construction

- **S-N1** All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.
- **S-N2** To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during parking structure construction. The wall shall be placed such that line-of-sight between ground-level construction activity and the St. Frances X. Cabrini School and Child Development Center would be blocked.
- S-N3 Prior to initiating construction, the construction contractor shall coordinate with the site administrator for the St. Frances X. Cabrini School, the Child Development Center, and Middle College High School to discuss construction activities that generate high noise levels. Coordination between the site administrator and the construction contractor shall continue on an as-needed basis throughout the construction phase of the project to mitigate potential disruption of classroom activities.
- **S-N4** All residential units located within 500 feet of any construction site shall be sent a notice regarding the construction schedule of the proposed project. All notices shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.
- S-N5 A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.
- **S-N6** The Child Development Center shall prohibit outdoor activity at the southern outdoor play area when mobile diesel equipment is being actively utilized to construct the parking structure.
- S-N7 To the extent feasible, a temporary six-foot solid wall (e.g., wood) shall be erected during construction activity occurring on Caltrans Site #16. The wall shall be placed such that line-of-sight between ground-level construction activity and the St. Frances X. Cabrini School would be blocked.
- **S-N8** Prior to initiating construction on Caltrans Site #16, Caltrans and DTSC shall require the construction contractor to coordinate with LACCD and the St. Frances X. Cabrini School to minimize potential disruption of classroom activities.

Operational

- **S-N9** The parking structure shall be designed such that the north facing portion of the building facing the Child Development Center is a solid wall without openings.
- **S-N10** Classroom windows facing Imperial Highway shall be constructed with windows that have an Exterior Wall Noise Rating of 23 or greater.

S-N11 A six-foot wall shall be constructed along the north side of the proposed additional campus entrance such that line-of-sight from vehicles and the St. Frances X. Cabrini School is blocked.

LEVEL OF IMPACT AFTER MITIGATION

Construction

Implementation of Mitigation Measure **S-N1** would reduce noise levels by approximately 3 dBA. Implementation of Mitigation Measure **S-N2** would reduce noise levels at the St. Frances X. Cabrini School and the Child Development Center by at least 5 dBA. Implementation of Mitigation Measure **S-N3** would minimize disruption to classes at the St. Frances X. Cabrini School and Middle College High School. Implementation of Mitigation Measures **S-N4** and **S-N5** would assist in attenuating construction noise levels. As shown in **Table 4.5-12**, multiple of sensitive receptors would still be exposed to ambient noise levels that exceed the County standard. Construction noise would result in an unavoidable, significant impact.

TABLE 4.5-12: CONSTRUCTION N	IOISE IMPA	ACTS - MITIGATED		
Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA)/b/	Significance Threshold	Impact?
Child Development Center	Adjacent	84.0 /c/	60	Yes
Single-family residences to the north	80	81.9	60	Yes
St. Frances X. Cabrini School	90	70.9 /c/	60	Yes
Multi-family residences to the east	150	76.5	65	Yes
Single-family residences to the west	290	70.7	60	Yes
Single- and multi-family residences to the southeast	570	54.9 /d/	60	No
Middle College High School	575	59.8	60	No
Single-family residences to the south	660	53.6 /d/	60	No
Animo High School	835	56.5 /c/	60	No
Busy Bee Preschool	930	60.6	60	Yes

[/]a/ Distance of noise source from receptor.

SOURCE: TAHA, 2009.

Implementation of Mitigation Measure **S-N6** would ensure that children at the Child Development Center would not be exposed to significant vibration levels. Mitigated construction vibration would result in a less-than-significant impact.

Caltrans Site #16. Implementation of Mitigation Measure **S-N1** would reduce noise levels by approximately 3 dBA. Mitigation Measure **S-N7** would reduce noise levels at the St. Frances X. Cabrini School and the Child Development Center by at least 5 dBA. After mitigation, construction activity would increase ambient noise levels at the St. Frances X. Cabrini School and the multi-family land use to the east by approximately 21.4 and 25.9 dBA, respectively. Construction activity would increase ambient noise levels at the Child Development Center by approximately 1.3 dBA. Construction noise level increases would continue to exceed the 5-dBA significance threshold at the St. Frances X. Cabrini School and the multi-family residential land use, and would result in a significant and unavoidable impact.

[/]b/ Includes a noise reduction for distance attenuation and a 3-dBA reduction for application of mitigation measures.

[/]c/ Includes a 5-dBA reduction for intervening structures and/or terrain, and an additional 5-dBA reduction for application of mitigation measures.

[/]d/ Includes a 10-dBA reduction for intervening structures and/or terrain.

Operational

Implementation of Mitigation Measure **S-N9** would ensure that parking structure noise would not interfere with activities at the Child Development Center. Mitigated parking structure noise would result in a less-than-significant impact with mitigation.

Implementation of Mitigation Measure **S-N10** would reduce noise levels by at least 23 dBA. As a result, interior noise levels along Imperial Highway would be 51.4 dBA L_{eq} . These noise levels would not exceed the acceptable interior noise level schools. The proposed project would result in a less-than-significant impact from noise related to land use compatibility with mitigation.

Implementation of Mitigation Measure **S-N11** would reduce mobile noise levels generated by traffic along the additional campus entrance at St. Frances X. Cabrini School by 5 dBA. Mobile source noise levels would be reduced to less than 0.1 dBA L_{eq} during AM peak hour and 0.7 dBA L_{eq} during PM peak hour, and would not exceed the significance threshold. Mobile noise associated with the additional campus entrance would result in a less-than-significant impact with mitigation.



4.6 TRANSPORTATION AND TRAFFIC

This section summarizes the findings of the traffic and parking study conducted by Cordoba Corporation on December 9, 2009. The complete traffic and parking report is included in Appendix E of this document.

The traffic and parking study was prepared to evaluate traffic generated by the proposed Facilities Master Plan and the impacts on the surrounding street system. The traffic analysis addresses existing conditions, cumulative base conditions, and cumulative plus project conditions. Project conditions include an additional campus entrance on Normandie Avenue that would be located on the existing California Department of Transportation (Caltrans) Site #16. Existing and potential future parking demands were analyzed in detail. Traffic and parking mitigation measures were recommended as needed.

ENVIRONMENTAL SETTING

Existing Street System

Regional access to the LASC campus is provided by the Glenn Anderson Freeway (I-105), adjacent to the south, the San Diego Freeway (I-405), located the 3.5 miles to the west, and the Harbor Freeway (I-110), located one mile to the east. Access between the campus and the east/west oriented I-105 is obtained via off-ramps at Crenshaw Boulevard and Vermont Avenue. The I-105 connects to the north/south oriented I-405 and I-110. The major streets serving the campus are Western and Normandie Avenues in the north-south direction and Imperial Highway in the east-west direction. In addition, two Metro Green Line Stations serve the area. These stations are located along the I-105 at Vermont Avenue and Crenshaw Boulevard which are located 0.5 miles to the east and one mile to the west, respectively. The Los Angeles International Airport is located 3.5 miles to the west of the campus.

Existing Public Transit Service

The campus is currently served by bus services provided by the Los Angeles County Metropolitan Transit Authority (MTA) and the City of Gardena. The following bus lines serve the campus:

- <u>MTA Route # 120</u> This route travels along Imperial Highway, connecting El Segundo to Willowbrook.
- <u>MTA Route # 206</u> This route travels along Imperial Highway in the study area, connecting Athens to Hollywood via Normandie Avenue.
- <u>MTA Route # 207, 757</u> These routes travel along Western Avenue, connecting Hollywood to Athens and Hawthorne.
- <u>Gardena Route 2</u> This route travels along Western Avenue connecting the Pacific Coast Highway to Imperial Highway in the City of Gardena.

Existing Traffic Conditions

The level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. The County of Los Angeles has established LOS D as the minimum acceptable level of service. The definitions for each level of service are described in **Table 4.6-1** for signalized intersections and **Table 4.6-2** for unsignalized intersections.

Level of Service	Volume/Capacity Ratio	Definition
Α	0.00 - 0.60	EXCELLENT. No vehicles wait longer than one red light and no approach phase is fully used.
В	0.61 - 0.70	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
С	0.71 - 0.80	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.81 - 0.90	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.91 - 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.00	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

TABLE 4.6-2: LEVEL OF SERVICE D	DEFINITIONS FOR UNSIGNALIZED INTERSECTIONS
Level of Service	Average Total Delay (seconds/vehicle)
Α	0 - 10.0
В	10.0 - 15.0
С	16.0 - 25.0
D	26.0 - 35.0
Е	36.0 - 50.0
F	> 50.0
SOURCE: Transportation Research Board, Highway C.	apacity Manual, Special Report 209, 1997.

The "Intersection Capacity Utilization" (ICU) method of analysis was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service for the 16 signalized study intersections. For the unsignalized intersection, the level of service was determined by using the "Two-Way Stop Control" analysis method contained in the *Highway Capacity Manual, Special Report No. 209* (Transportation Research Board, 1997).

Table 4.6-3 summarizes the existing weekday AM and PM peak hour V/C ratio and/or average vehicle delay, and corresponding LOS, at each of the study intersections based on the methodology described above. As shown in **Table 4.6-3**, the Imperial Highway/I-110 Northbound Ramp intersection currently operates at LOS D during AM peak hour. All other study intersections are currently operating at LOS C or better during both the AM and PM peak hours.

TABLE 4.6-3: EXISTING INTERSECTION LEVEL			DM D. J. II.			
	AM Peak I	Hour	PM Peak F	lour		
Intersection	V/C or Delay	LOS	V/C or Delay	LOS		
1. 120th St and I-105 EB	0.727	С	0.627	В		
2. Imperial Hwy and Crenshaw Blvd	0.734	С	0.761	С		
3. Imperial Hwy and Van Ness Ave	0.664	В	0.717	С		
4. Century Blvd and Van Ness Ave	0.623	В	0.698	В		
5. Century Blvd and Western Ave	0.730	С	0.714	С		
6. Century Blvd and Normandie Ave	0.671	В	0.729	С		
7. Imperial Hwy and Normandie Ave	0.744	С	0.645	В		
8. Imperial Hwy and Vermont Ave	0.772	С	0.759	С		
9. Vermont Ave and I-105 WB	0.685	В	0.624	В		
10. Vermont Ave and I-105 EB	0.663	В	0.485	Α		
11. 111th Pl and I-110 SB	0.343	Α	0.263	Α		
12. Imperial Hwy and I-110 SB	0.644	В	0.637	В		
13. Imperial Hwy and I-110 NB	0.816	D	0.530	Α		
14. Imperial Hwy and Western Ave	0.728	С	0.771	С		
15. Western Ave and Campus Entrance	0.515	Α	0.447	Α		
16. Imperial Hwy and Denker Ave	0.525	Α	0.514	Α		
17. Normandie Ave and Proposed Entrance (Unsignalized)/a/	7.5	А	7.2	А		

a/ Strip controlled intersection; methodology does not calculate V/C. Delay is reported as total intersection delay, in seconds.

SOURCE: Cordoba Corporation. Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis. December 2009

Existing Parking Conditions

Currently, there are eight parking lots (one major lot, four medium-sized lots, and three small lots) that exist on the LASC campus. The five major and medium-sized parking lots within the campus are the Stadium Parking structure (Lot 4), Northwest Parking Lot (Lot 3), the Activities Center Lot (Lot 2), the Eastern Lot (Lot 8), and the Northern Lot (Lot 1). Of the eight parking lots, five are located along the edges of the campus. Lot 4 is located north of the Stadium along Western Avenue. Lot 3 is located on the northwest corner of Western Avenue and Imperial Highway. Lot 2 is situated on the northern edge of campus between the Student Services/Activities Center and Cox Building on Imperial Highway. Lot 8 is located along the eastern edge of the campus to the south of the Child Development Center. Lot 1 is located to the north of the Cox building along Imperial Highway. All parking facilities on campus are restricted and are located within the gated areas of the campus. A total of 1,802 parking spaces are available on campus. **Table 4.6-4** shows the total number of spaces available in each parking facility.

TABLE 4.6-4:	INVENTORY (OF PARKIN	IG SPACE			
			Numb	er of Spaces		
Location	Student	Faculty	Handicap	Car Pool	Motorcycle	Lot Total
Lot 4	457		12	27	4	500
Lot 3/a/	479					479
Lot 8	176		11			187
Lot 2	191		14			205
Lot 1	80	56	6	6		148
Lot 5		18				18
Lot 6		28	2			30
Lot 7		31	2			33
Remaining Lots 8-13	134	4				138
SW Dr/b/	34	14	16			64
Grand Total	1,551	151	63	33	4	1,802

/a/ Lot 3 was not operational at the time of the inventory and a distribution of spaces was not available.

/b/ There are approximately 64 spaces located along Southwest Drive, an internal street on the campus.

SOURCE: Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.

Existing Parking Utilization

A parking utilization survey was conducted by Cordoba Corporation on November 5, 2009 between 7:00 a.m. and 9:00 p.m. to assess the use of the various parking facilities during the school session. Parking on the LASC campus has two peak periods. The peak periods occur during the morning, from 10:30 a.m. to 11:30 a.m. and during the evening from 7:00 p.m. to 8:00 p.m. During the AM peak hour, approximately 41 percent (712 parking spaces) of the total available parking spaces were used. During the evening peak hour, approximately 26.9 percent (464 parking spaces) of the total available parking spaces were used. Only faculty parking (along Southwest Drive) reached maximum capacity, which occurred during the AM peak hour. **Table 4.6-5** shows the existing use of parking lots during peak hour.

Existing Parking Demand Rates

The student enrollment in the fall of 2009 (at the time the inventory and parking survey were conducted) was approximately 9,100 including part- and full-time students. Of the 1,651 spaces available to students, 594 were occupied during the AM peak period and 118 of the 151 faculty spaces were occupied. The surveys indicated there was a raw demand of one space per 15.2 head count students and 2.1 spaces per head count faculty member. When adjusted 15 percent for the inefficiencies of parking and a reserve surplus, the parking rate is one space for every 12.8 head count students and one space for every 1.8 head count faculty.

TABLE 4.6-	5: EXISTIN	NG PARKING LOT	UTILIZATION		
		AM Pe	eak Hour	Evening	Peak Hour
Type of Lot	Total Capacity	Number of Spaces Occupied	Percentage Utilized	Number of Spaces Occupied	Percentage Utilized
Student Lots					
Lot 1	92	77	84%	59	64%
Lot 2	205	154	75%	80	39%
Lot 3	479	Not Operational	0	Not Operational	0
Lot 4	500	135	27%	65	13%
Lot 8	187	138	74%	110	59%
Remaining Small Lots	138	102	74%	81	59%
SW Dr	50	34	68%	16	32%
Subtotal	1,651	594	39%	392	25%
Faculty/Staff	/Guest Lots	:			
Lot 1	56	52	93%	30	53%
Lot 5	18	16	89%	5	30%
Lot 6	30	22	73%	15	50%
Lot 7	33	15	46%	17	50%
SW Dr	14	14	100%	10	71%
Subtotal	151	118	79%	72	51%
Total	1,802	712	41%	464	27%

SOURCE: Southwest College Parking Inventory and Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.

THRESHOLDS OF SIGNIFICANCE

The County of Los Angeles has established criteria for determining the significance of traffic impacts of proposed projects within the County. Based on the criteria established by the County, a project is considered to have a significant traffic impact if:

• The addition of project-related traffic causes an intersection to operate at a level of service worse than the pre-project according to the following conditions;

<u>LOS</u>	V/C Ratio	Increase in V/C Ratio with Project Trips
C	0.71-0.80	Greater or equal to 0.04
D	0.81-0.90	Greater or equal to 0.02
E	>0.91	Greater or equal to 0.01

- Intersections are caused to operate at worse than LOS C conditions by project-related traffic; and/or
- The project provides less parking than needed as determined through an analysis of demand from the project.

IMPACTS

Areawide Traffic Growth

A review of historical traffic count data and forecast population figures for the County of Los Angeles indicates that traffic in the study area is predicted to increase at an approximate rate of 0.5 percent per year. Future ambient increases in the background traffic volumes due to regional growth and development are assumed to continue at this rate. Assuming a completion date in the year 2016, the existing year 2000 traffic volumes were increased by approximately three percent to reflect the ambient regional growth between 2009 and 2016.

Project Trip Generation

The number of trips generated by the proposed project were estimated based on trip generation rates/equations provided in the Institute of Transportation Engineers' *Trip Generation*, 6^{th} *Edition*. This edition represents the most current rate with student-based trips. The resulting estimate of the number of trips associated with the proposed project is summarized in **Table 4.6-6**. The proposed project would result in a total increase in enrollment of 2,944 students, to a total of 12,000. Using the ITE trip generation equations, the 2,900 new students are expected to generate a total of approximately 4,466 net new trips per day. Approximately 406 net new trips will occur during the AM peak hour, while 493 net new trips will result during the evening peak hour.

TABLE 4.6-6: LOS ANGELES SOUTHWEST COLLEGE TRIP GENERATION ESTIMATES									
	l Peak H	lour	PM Peak Hour						
Land Use	ITE Trip Rate Category	Size	Daily Trips	In	Out	Total	In	Out	Total
Student Growth	Community College	2,900/a/	4,466	369	37	406	335	158	493
Access Road	N/A	N/A	590	103	12	115	93	51	144

/a/Trip generation rate based on students.

SOURCE: ITE Trip Generation Manual, 6th Edition, and Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.

Intersection Analysis

Future Base Traffic Conditions

The Year 2016 Future Base peak hour traffic volumes were analyzed to determine the V/C ratio and/or average vehicle delay, and LOS at each of the 17 study intersections for without project conditions. The results are shown in **Table 4.6-7**. Based on the standards established by the County of Los Angeles, one of the seventeen analyzed intersections is projected to operate at an unacceptable level of service (LOS D, E, or F) under future conditions without the addition of project traffic. The Imperial Highway/Western Avenue intersection operates at LOS D during the PM peak hour.

TABLE 4.6-7 YEAR 2016 FUTURE BASE AND E	SASE PL	US PRO	JECT II	NTERSE	CTION	LEVELS O	F SERVICE			
		Cumul Bas		Cumula Proj		Project Increase	Significant	With Mitigation		Project
Intersection	Peak Hour	V/C or Delay	LOS	V/C or Delay	LOS	in V/C or Delay	Project Impact	V/C	LOS	Increase in V/C
	AM	0.748	С	0.754	С	0.006	No	ı	-	-
1. 120th St and I-105 EB	PM	0.644	В	0.651	В	0.007	No	-	-	-
	AM	0.754	С	0.755	С	0.001	No	-	-	-
2. Imperial Hwy and Crenshaw Blvd	PM	0.782	С	0.794	С	0.012	No	-	-	-
	AM	0.683	В	0.695	В	0.012	No	-	-	-
3. Imperial Hwy and Van Ness Ave	PM	0.736	С	0.758	С	0.022	No	-	-	-
	AM	0.640	В	0.650	В	0.010	No	-	-	-
4. Century Blvd and Van Ness Ave	PM	0.718	С	0.733	С	0.015	No	-	-	-
	AM	0.750	С	0.773	С	0.023	No	-	-	-
5. Century Blvd and Western Ave	PM	0.734	С	0.758	С	0.024	No	-	-	-
	AM	0.690	В	0.707	С	0.017	No	-	-	-
6. Century Blvd and Normandie Ave	PM	0.750	С	0.765	С	0.015	No	-	-	-
	AM	0.764	С	0.799	С	0.035	No	-	-	-
7. Imperial Hwy and Normandie Ave	PM	0.663	В	0.710	С	0.047	No	-	-	-
	AM	0.794	С	0.809	D	0.015	No	-	-	-
8. Imperial Hwy and Vermont Ave	PM	0.781	С	0.806	С	0.025	No	-	-	-
	AM	0.704	С	0.711	С	0.007	No	-	-	-
9. Vermont Ave and I-105 WB	PM	0.641	В	0.651	В	0.010	No	-	-	-
	AM	0.681	В	0.686	В	0.005	No	-	-	-
10. Vermont Ave and I-105 EB	PM	0.498	Α	0.507	Α	0.009	No	-	-	-

		Cumul Bas		Cumula Proj		Project Increase	Significant	With Mitigation		- Project
Intersection	Peak Hour	V/C or Delay	LOS	V/C or Delay	LOS	in V/C or Delay	Project Impact	V/C	LOS	Increase in V/C
	AM	0.352	Α	0.356	Α	0.004	No	ı	-	-
11. 111 th Pl and l-110 SB	PM	0.261	Α	0.265	Α	0.004	No	ı	-	-
	AM	0.662	В	0.669	В	0.007	No	ı	-	-
12. Imperial Hwy and I-110 SB	PM	0.655	В	0.664	В	0.009	No	-	-	-
	AM	0.839	D	0.858	D	0.019	No	ı	-	-
13. Imperial Hwy and I-110 NB	PM	0.541	Α	0.560	Α	0.019	No	ı	-	-
	AM	0.748	С	0.776	С	0.028	No	ı	-	-
14. Imperial Hwy and Western Ave	PM	0.792	С	0.831	D	0.039	Yes	0.707	С	-0.085
	AM	0.539	Α	0.567	Α	0.028	No	ı	-	-
15. Western Ave and Campus Entrance	PM	0.459	Α	0.492	Α	0.033	No	ı	-	-
	AM	0.539	Α	0.622	Α	0.083	No	-	-	-
16. Imperial Hwy and Denker Ave	PM	0.529	Α	0.631	В	0.102	No	ı	-	-
	AM	7.5	Α	15	Α	7.5	No	ı	-	-
17. Normandie Ave and Proposed Entrance/a/	PM	7.2	Α	17.2	С	10	No	-	-	-

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[/]a/ Strip controlled intersection; methodology does not calculate V/C. Delay is reported as total intersection delay, in seconds. **SOURCE:** Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.

Cumulative Projects

In addition to the general background growth, specific projects may generate a significant amount of traffic to affect roadway levels of service and this traffic is added to the overall traffic volumes as related projects. Discussions with the Cities of Hawthorne, Inglewood, Culver City, Los Angeles, and the County of Los Angeles identified the list of related projects which is shown in **Table 4.6-8**.

			Daily	AN	/ Peak Tr	ips	P	M Peak Tri	ρs
Project	Land Use	Size	Trips	In	Out	Total	In	Out	Total
City of In	glewood								
-1	Retail	1,792,472	44,328	539	345	884	2,019	2,187	4,20
	Less 17% Pass-by	GLSF	(7,536)	(92)	(59)	(151)	(343)	(372)	(71
-2	The Renaissance Project	188 DU	1,799	35	106	141	120	70	19
-3	Retail Restaurant	39,800 GLSF 10,1000 GSF	1,709 900	25 4	16 4	41 8	72 50	77 25	14
	Less 35% Pass-by	10,1000 GSF	(914)	(10)	(7)	(17)	(43)	(36)	(7
-4	Commercial	12,029 GLSF	517	7	5	12	22	23	\'
•	Less 35% Pass-by	,	(180)	(2)	(2)	(4)	(8)	(8)	(1
5	Retail	97,490 GLSF	4,186	61	39	100	176	190	3
	Less 35% Pass-by	,	(1,466)	(21)	(14)	(35)	(62)	(67)	(12
6	Condominiums	6 DU	59	1	4	5	4	2	
7	Office	3,000 GSF	33	4	1	5	1	3	
8	New Car Sales	49,000 GSF	1,634	74	26	100	50	79	1
9	Church	5,983 GSF	55	2	2	4	2	2	
10	Transitional Housing	20 Bed	47	2	1	3	1	3	
11	Condominiums	8 DU	75	1	6	7	5	3	
12	Office	12,950	143	18	2	20	3	16	
13	Office/Warehouse	9,000 GSF	99	12	2	14	2	11	<u> </u>
14	Warehouse	15,774 GSF	78	6	1	7	2	5	
15 16	Motorcycle Sales	480,000 GLSF	2,834	41	27	68	119	129	2
16	Retail Less 35% Pass-by	101,000 GLSF	4,337 (1,518)	63 (22)	41 (14)	104 (36)	182 (64)	197 (69)	; (1
17	Forum Site Project		(1,516)	(22)	(14)	(30)	(04)	(09)	(1
17	Condominiums	1.000 DU	4,544	55	271	326	266	131	;
	Retail	250,000 GLSF	10,735	157	101	258	450	488	9
	Less 30% Pass-by	200,000 020.	(3,220)	(47)	(30)	(77)	(135)	(146)	(2
18	Condominiums	5 DU	50	1	4	5	3	2	
19	Home Stretch at Hollywood Park	796,970 GLSF	26,174	332	212	544	1,183	1,281	2,4
	Less 21% Pass-by		(5,496)	(70)	(45)	(115)	(248)	(269)	(5
20	Gasoline Station with Convenience Market Less 50% Pass-by	12 VFP	1,953 (976)	61	60	121	81	80	
	Convenience Market	3,750 GLSF	(976)	(31)	(30)	(61) 4	(41) 7	(40) 7	(
	Retail	4,200 GLSF	180	2	2	4	8	8	
21	Locust Senior Housing Project	1,200 0201	602	_	-	-	18	25	
22	Retail	19.920 GLSF	855	13	8	21	36	39	
5	Condominiums	25 DU	198	3	14	17	13	6	†
<u>-</u> 24	Mausoleum	0.40 Acres	2	-	-	-	-	-	
25	Transitional Housing	239,996 GSF	1,464	48	43	91	47	54	
26	Adult School/Day Care Center	27,477 GSF	2,178	186	165	351	170	192	;
27	Retail	10,000 GLSF	429	6	4	10	18	20	1
28	Supermarket Expansion	14,000 GSF	1,431	28	18	46	74	72	
	Less 35% Pass-by		(500)	(10)	(6)	(16)	(26)	(25)	(
29	Hotel	20 rooms	178	8	5	13	7	7	
30	Office	19,000 GSF	209	26	3	29	5	23	ļ
31	Single-Family Residential	9 DU	86	2	5	7	6	3	
32	Retail	7,981 GLSF	343	5	3	8	14	16	ļ
33	Supermarket	11,506 GSF	1,176	23	14	37	61	59	,
2.4	Less 35% Pass-by	40 DU	(412)	(8)	(5)	(13)	(21)	(21)	(
34	Condominiums	10 DU	91	1	7	8	6	3	-
35	Condominiums	12 DU	106	2	7	9	7	4	
36	Condominiums	12 DU	106	2	7	9		4	
ulver C		986.000 GSF	10.050	1 245	400	1 500	250	1 010	1
1	Office Shopping Center	293,786 GLSF	10,856	1,345	183	1,528 303	250	1,219 573	1,4
2	Less 29% Pass-by	293,100 GLSF	12,615 (3,658)	185 (54)	118	(88)	529 (153)	(166)	1,
3	Gasoline Station with Convenience	3,314 GSF	3,190	131	(34) 126	257	160	159	(3
,	Market	J,J 14 USF	3,190	131	120	207	100	109	Ι,
		•		ī	ī	ī	ī	ī	i

			Daily	AN	/ Peak Tri	ips	PM Peak Trips			
Project	Land Use	Size	Trips	In	Out	Total	In	Out	Total	
C4	Fire Station	12,156 GSF	100	5	5	10	5	5	10	
C5	Office	240,612 GSF	2,649	328	45	373	61	298	35	
	Retail	4,242 GLSF	182	2	2	4	8	8	10	
C6	Research and Development	550,000	4,461	566	116	682	89	505	59	
	awthorne	1					1	1 -		
H1	Single-Family Residential	21 DU	201	4	12	16	13	8	2	
H2 H3	Single-Family Residential	11 DU 14 DU	105 134	3	6 8	8 11	7 9	<u>4</u> 5	1	
<u>пэ</u> Н4	Single-Family Residential Single-Family Residential	15 DU	134	3	8	11	9	6	1	
H5	Condominiums	99 DU	636	9	42	51	4	20	6	
H6	Single-Family Residential	28 DU	268	5	16	21	18	10	2	
	Retail	18,600 GLSF	799	12	7	19	34	36	7	
	Less 35% Pass-by	,	(290)	(4)	(2)	(6)	(12)	(13)	(2	
H7	Hotel	300 rooms	2,451	102	66	168	94	83	17	
H8	Single-Family Residential	139 DU	1,330	26	78	104	88	52	14	
H9	Single-Family Residential	610 DU	5,838	115	343	458	388	228	61	
	Office	782,432 GSF	6,503	856	117	973	162	793	95	
	Retail	782,432 GLSF	25,963	328	210	538	1,168	1,266	2,43	
City of L	Less 21% Pass-by		(5,432)	(69)	(44)	(113)	(245)	(266)	(51	
LA1	S Angeles Fast Food Restaurant without Drive-	3,700 GSF		l I		l	1	1	1	
LAI	Thru	3,700 GSF	2,649	97	65	162	49	48	!	
LA2	Office Park	447,500 GSF	3,931	504	62	566	73	451	52	
LA3	Fast Food Restaurant with Drive- Thru	3,152 GSF	1,564	85	82	167	57	52	10	
LA4	Gasoline Station with Market and Car Was	12 VFP	1,076	47	46	93	43	42	;	
LA5	Retail	12,289 GLSF	528	8	5	13	22	24		
LA6	Office	220,000 GSF	3,930	332	45	377	71	345	4	
LA7	High School	1,250 students	2,138	75	33	108	-	-		
LA8	Elementary School	1,050 students	1,355	240	196	436	-	-		
LA9	Elementary School	675 students	871	149	121	270	-	-		
LA10	Private School Expansion	13,700 GSF	62	11	9	20	-	-		
LA11	Mixed-Use Project		1,850	22	86	108	109	59	1	
LA12	Apartments	187 DU	908	14	55	69	62	34		
LA13	Hotel	180 rooms	3,188	143	103	246	125	130	2	
LA14 LA15	Private School	600 students 42,391 GSF	250 407	35 19	29 6	64 25	14 22	18 34	;	
LA16	New Car Sales Walk-in Bank	3,621 GSF	567	8	7	15	60	60	1	
LA17	LAX Master Plan	3,021 031	307	0	- 1	10	00	00	1.	
LA17 LA18	Playa Vista						840			
L/ (10	Single-Family Residential	1,646 DU	13,679	291	871	1,162	361	493	1,3	
	Office	1,827,050 GSF	12,495	1,687	230	1,917	201	1,764	2,1	
	Sound Stage/Production Support	1,129,900 GSF	7,864	778 194	171 950	949 1,144	204	768 463	9 1,4	
	Single-Family Housing	2,600 DU	15,236 2,271	287	39	326	941	253	3	
	Office	175,000 GSF	6,193	87	56	143	52	299	5	
	Retail	150,000 GSF	520	9	4	13	276	12		
O	Community Serving Uses	40,000 GSF					6			
County o	f Los Angeles Fitness Center	37,000 GSF	1,218	10	26	45	77	72	1	
LAC1	Condominiums	14 DU	1,210	19	26 7	45 8	77	73 4	1	
LAC2 LAC3	Single-Family Residential	32 DU	306	6	18	24	20	12		
LAC4	Apartments	450 DU	3,024	46	184	230	181	98	2	
LAC5	Condominiums	25 DU	200	2	12	14	12	7	_	
LAC6	High Turnover Restaurant	1,300 GSF	165	8	7	15	9	5		
	Less 40% Pass-by		(66)	(3)	(3)	(6)	(4)	(2)	1	
LAC7	Apartments	39 DU	262	4	16	20	16	8		
LAC8	Condominiums	72 DU	576	4	35	39	34	19		
LAC9	Day Care Center	3,500 GSF	277	24	21	45	22	24		
LAC10	Condominiums	69 DU	552	4	33	37	32	18		
LAC11	Adult Day Care Center	25,265 GSF	2,003	171	152	323	157	176	3	
LAC12	Apartments	34 DU	228	3	14	17	14	7		
LAC13	Condominiums	11 DU	88	1	5	6	5	3		
LAC14	Condominiums	35 DU	280	2	17	19	16	9		
LAC15	High School	1,800 students	3,078	509	229	738	118	134	2	
LAC16	Condominiums	38 DU	304	2	18	20	18	10	İ	

Future Base Plus Related Projects and Cumulative Plus Project Traffic Conditions

The Cumulative and Project peak hour traffic volumes were analyzed to determine the projected Future Year 2016 operating conditions with the proposed Los Angeles Southwest College Facilities Master Plan Update. The results of the Cumulative and Project analysis are shown in **Table 4.6-9**. Traffic from the related projects and proposed project would increase V/C such that eight of the seventeen study intersections would have a significant impact during one or both of the peak hours.

Eight intersections are forecast to operate at unacceptable LOS D or worse during the AM and/or PM peak hour and require mitigation. The eight significantly impacted intersections are:

- Imperial Highway and Crenshaw Boulevard (AM and PM peak hour)
- Century Boulevard and Van Ness Avenue (AM and PM peak hour)
- Century Boulevard and Western Avenue (PM peak hour)
- Century Boulevard and Normandie Avenue (AM and PM peak hour)
- Imperial Highway and Normandie Avenue (AM peak hour)
- Imperial Highway and Vermont Avenue (AM and PM peak hour)
- Imperial Highway and I-110 Northbound Ramp (AM peak hour)
- Imperial Highway and Western Avenue (PM peak hour)

At-grade rail crossings at Normandie and Budlong Avenues, south of the I-105, would be used by pedestrians and vehicles traveling to and from the project site. The traffic analysis did not indicate any new trips along Budlong Avenue. The traffic study indicated that three percent of project-related vehicles would travel along Normandie Avenue. This would result in 15 peak-hour trips. Based on a conservative pedestrian mode split of ten percent, two additional pedestrian trips would be generated along Normandie Avenue. Existing safety features at these crossings (e.g., crossing gates) are sufficient to accommodate the additional 15 vehicles and two pedestrians. The proposed project would result in a less-than-significant rail crossing impact.

Caltrans Site #16 (Normandie Avenue Campus Access Road). The new access road is expected to generate a total of approximately 590 net new trips per day. Approximately 115 net new trips would occur during the AM peak hour and 144 net new trips would occur during the PM peak hour. A traffic signal warrant analysis was conducted for the new proposed campus entrance to determine whether a signalized intersection was necessary. The warrant analysis determined, based upon average daily traffic on Normandie Avenue, the new campus access road and peak hour trips, that the addition of a signalized intersection was not justified. The level of service definitions for unsignalized intersections are presented in time of delay, as shown in Table 4.6-2. Tables 4.6-7 and 4.6-9 show that the campus access road would result in a LOS of A in the AM peak hour and C in the PM peak hour. Based on the delay standards, this additional campus entrance would not operate at a LOS worse than C in the AM or PM peak hours. Therefore, no traffic intersection impacts are anticipated from the access road on the Caltrans Site #16.

Congestion Management Program System Analysis

The Congestion Management Program (CMP) was created Statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County.

TABLE 4.6-9: YEAR 2016 FUTURE BASE PLUS PROJECT AND CUMULATIVE PLUS PROJECT INTERSECTION LEVELS OF SERVICE										
		Future Base + Project		Cumulative + Project		Project Increase	Significant	With Mitigation		
Intersection	Peak Hour	V/C or Delay	LOS	V/C or Delay	LOS	in V/C or Delay	Cumulative Impact	V/C	LOS	Increase in V/C
	AM	0.754	С	0.779	С	0.025	No	-	-	-
1. 120th St and I-105 EB	PM	0.651	В	0.587	Α	-0.064	No	-	-	-
	AM	0.755	С	0.825	D	0.070	Yes	0.747	С	-0.008
2. Imperial Hwy and Crenshaw Blvd/a/	PM	0.794	С	0.980	Е	0.186	Yes	0.652	В	-0.144
	AM	0.694	В	0.714	С	0.020	No	-	-	-
3. Imperial Hwy and Van Ness Ave	PM	0.758	С	0.783	С	0.025	No	-	-	1
	AM	0.650	В	0.750	С	0.100	Yes	0.671	В	0.021
4. Century Blvd and Van Ness Ave	PM	0.733	С	0.844	D	0.111	Yes	0.737	С	0.004
	AM	0.773	С	0.887	D	0.114	Yes	0.787	С	0.015
5. Century Blvd and Western Ave/a/	PM	0.758	С	0.943	E	0.185	Yes	0.775	С	0.017
	AM	0.707	С	0.775	С	0.068	Yes	0.649	В	-0.058
6. Century Blvd and Normandie Ave	PM	0.765	С	0.916	Е	0.151	Yes	0.779	С	0.014
	AM	0.799	С	0.819	D	0.020	Yes	0.729	С	-0.070
7. Imperial Hwy and Normandie Ave	PM	0.710	С	0.734	С	0.024	No	-	-	-
	AM	0.809	D	0.829	D	0.020	Yes	0.818	D	0.09
8. Imperial Hwy and Vermont Ave	PM	0.806	D	0.830	D	0.024	Yes	0.687	В	-0.119
	AM	0.711	С	0.711	С	0.000	No	-	-	-
9. Vermont Ave and I-105 WB	PM	0.651	В	0.651	В	0.000	No	-	-	-
	AM	0.686	В	0.686	В	0.000	No	-	-	-
10. Vermont Ave and I-105 EB	PM	0.507	Α	0.507	Α	0.000	No	-	-	-

		Future Base + Project		Cumulative + Project		Project Increase	Significant	With Mitigation		
Intersection	Peak Hour	V/C or Delay	LOS	V/C or Delay	LOS	in V/C or Delay	Cumulative Impact	V/C	LOS	Increase in V/C
	AM	0.356	Α	0.356	Α	0.000	No	-	-	-
11. 111 th Pl and l-110 SB	PM	0.265	Α	0.265	Α	0.000	No	-	-	_
	AM	0.669	В	0.696	В	0.027	No	ı	-	_
12. Imperial Hwy and I-110 SB	PM	0.664	В	0.693	В	0.030	No	-	-	_
	AM	0.858	D	0.895	D	0.037	Yes	0.820	D	-0.38
13. Imperial Hwy and I-110 NB	PM	0.560	Α	0.574	Α	0.014	No	ı	-	-
	AM	0.776	С	0.795	С	0.019	No	ı	-	-
14. Imperial Hwy and Western Ave	PM	0.831	D	0.856	D	0.025	Yes	0.731	С	-0.100
	AM	0.567	Α	0.567	Α	0.000	No	ı	-	-
15. Western Ave and Campus Entrance	PM	0.492	Α	0.491	Α	-0.001	No	-	-	_
	AM	0.622	В	0.640	В	0.018	No	-	-	_
16. Imperial Hwy and Denker Ave	PM	0.631	В	0.656	В	0.025	No	-	-	_
	AM	15	Α	15	Α	0	No		-	_
17. Normandie Ave and Proposed Entrance/b/	PM	17.2	С	17.2	С	0	No	_	-	_

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[/]a/ Mitigated V/C ratio is based on 10%-12% reduction in traffic volume from implementation of ATSAC and ITS improvements.
/b/ Strip controlled intersection; methodology does not calculate V/C. Delay is reported as total intersection delay, in seconds.
SOURCE: Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.

The CMP Traffic Impact Analysis Guidelines require analysis of all surface-street monitoring locations where the proposed project adds 50 or more peak hour trips. The CMP also requires all freeway segments to be analyzed where the proposed project adds 150 or more peak hour trips. Within the study area, there are no CMP monitoring locations that would be potentially impacted by the proposed project. In addition, the proposed campus expansion would not add 150 or more additional peak hour trips to any freeway segment. Therefore, no traffic impacts from the CMP are anticipated for the proposed project.

Future Parking Demand

With the completion of the proposed project in the Year 2016, the student population is expected to increase by approximately 2,900 from the 2009 enrollment levels surveyed for the parking demand analysis. It is reasonable to assume that these additional students will exhibit parking-use profiles similar to those of the existing students. Thus, it is assumed that the 2,900 new students and 55 additional faculty members would generate a total peak daytime parking demand of 1,109 parking spaces. The Middle College High School would also require approximately an additional 30 spaces. **Table 4.6-10** shows the existing parking supply and estimated future parking demand of the proposed project. These projections were used to forecast future parking demand for the campus. The existing parking supply is adequate to accommodate the parking demand in 2016. In addition to the existing parking, a three-level parking structure with 650 to 700 cars would be constructed as part of the proposed project. Therefore, no impacts from parking are anticipated for the proposed project.

TABLE 4.6-10: FUTURE CAMPUS PARKING DEMAND										
Campus Population	Existing	Future								
Students	9,100		12,000							
Faculty and Staff	252	307								
Future Parking Demand										
All Students		1 space per 12.8 students	938							
All Faculty and Staff		1 space per 1.8 staff person								
Middle College High School 30										
Existing Total Parking	1,731	Future Parking Demand	1,139							
SOURCE: Cordoba Corporation, Los Angeles Southwest Community College Master Plan Update Traffic and Parking Analysis, December 2009.										

Cumulative Parking Impact

There is the potential for a cumulative parking impact to occur when the 4,000-seat track/football stadium is fully attended. Assuming an average automobile occupancy of 2.5 people per vehicle (a typical value for arenas and stadiums) and an approximate transit use of five percent, the stadium would generate a demand for about 1,520 parking spaces. Parking demand for LASC on a typical evening would be about 595 spaces. If peak stadium events were held on evenings when typical classes are in session, the combined parking demand would be for approximately 2,115 spaces.

The proposed project provides over 2,381 parking spaces (including the three-level parking structure with a 650-space capacity). In addition, the athletic practice fields on the southern portion of the campus would also be available to provide parking for an additional 385 vehicles. Combined, this would provide

a total in-site parking supply of 2,766 spaces, which would provide adequate on-site parking to meet the combined demand of evening classes and a stadium event.

MITIGATION MEASURES

Mitigation measures were developed for those locations where it was deemed feasible and their effectiveness was analyzed. The potential measures were designed to increase capacity and included operational improvements and potential physical improvements. Physical improvements involving right-of-way acquisition were not considered since the study area is a relatively built-up area with little or no easily available right-of-way for roadway improvements.

The implementation of these mitigation measures or other suitable mitigation measures will depend upon the availability of funding and the willingness of applicable agencies to implement measures in an appropriate timeframe. If these mitigation measures cannot be undertaken, then the related impacts would be deemed significant and unavoidable.

Project-Specific Impacts

S-T1 Eliminate the protected left-turn phasing on the southbound and westbound approaches in favor of permitted left turns at the Imperial Highway/Western Avenue intersection.

Cumulative Impacts

The following mitigation measures are to addresses the cumulative impacts that occur when the project is considered in addition to the related projects. The following cumulative mitigation measures would fund a proportionate share of intersection improvements based on the projects cumulative contribution.

- **S-T2** Upgrade the Century Boulevard/Normandie Avenue intersection into the City of Los Angeles Automated Traffic Surveillance and Control System (ATSAC).
- **S-T3** Eliminate the protected left-turn phasing on the northbound and westbound approaches in favor of permitted left turns at the Century Boulevard/Van Ness Avenue intersection.
- **S-T4** Eliminate the protected left-turn phasing on the southbound and westbound approaches in favor of permitted left turns at the Imperial Highway/Western Avenue and Imperial Highway/Vermont Avenue intersections.
- **S-T5** Eliminate the protected left-turn phasing on the northbound and eastbound approaches in favor of permitted left turns at the Imperial Highway/Normandie Avenue intersection.
- **S-T6** Eliminate the protected left-turn phasing on the eastbound approach in favor of permitted left turns at the Imperial Highway/I-110 NB Ramps intersection.

LEVEL OF IMPACT AFTER MITIGATION

Intersection Impacts

Project Specific

Implementation of Mitigation Measure **S-T1** would reduce the project-specific impacts at the Imperial Highway/Western Avenue intersection to a less-than-significant level. After implementation of Mitigation Measure **S-T1**, less-than-significant project-specific traffic impacts would occur.

Cumulative Impacts

Intersections requiring mitigation are impacted primarily due to cumulative impacts from the related projects, specifically the Hollywood Park Redevelopment Project. Funding a proportionate share of the proposed ATSAC and intersection improvements described in Mitigation Measures **S-T2** through **S-T6** would mitigate the cumulative traffic intersection impacts to less-than-significant levels. With implementation of mitigation measures **S-T2** through **S-T6**, the proposed project would result in less-than-significant cumulative intersection impacts.

Parking Impacts

The proposed project would result in less-than-significant parking impacts without the implementation of mitigation.

5.0 PROJECT ALTERNATIVES

5.1 DESCRIPTION OF PROJECT ALTERNATIVES

Alternatives to the proposed project must be evaluated under Section 15126.6 of the California Environmental Quality Act (CEQA). Because an Environmental Impact Report must identify ways to mitigate or avoid the significant effects that a project may have on the environment, the discussion of alternatives focuses on changes to the project or the project's location which are capable of achieving the objectives of the proposed project while avoiding or substantially lessening any significant effects associated with the project.

In the scope of alternatives to be examined in an EIR, the public agency must be guided by the doctrine of "feasibility." In the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof. (Public Resources Code Section 21002)

The Legislature has defined "feasible" for purposes of CEQA review as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." (Public Resources Code Section 21061.1; Guidelines Section 15364). In addition, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site. (Guidelines Section 15126.6) A project alternative which cannot be feasibly accomplished need not be extensively considered.

5.2 ANALYSIS OF ALTERNATIVES

ALTERNATIVE 1-NO PROJECT ALTERNATIVE

The No Project Alternative is required by Section 15126(e) of the CEQA Guidelines and assumes that the proposed project would not be implemented. The No Project Alternative does not mean that development within the project area will be prohibited. The "No Project" alternative allows decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. With respect to the proposed project, analysis of the No Project Alternative includes existing environmental impacts on-site, as well as those environmental effects which would be reasonably expected to occur in the foreseeable future if the project were not approved.

Impact Summary

This No Project Alternative would avoid all impacts associated with the preferred alternative.

Project Objective

The No Project Alternative would not be considered a feasible alternative by the college because it would not meet project objectives, in particular the objective to provide a safe and suitable learning environment for the students.

Furthermore, as facilities at surrounding colleges continue to be expanded and upgraded, LASC would not be able to meet the educational needs for future prospective students.

Educational Buildings. Several of the educational buildings on campus are not in compliance with the mandatory new and upgraded fire life safety systems required by the DSA. In addition, most of these buildings do not meet applicable safety standards. The No Project Alternative would not address these deficiencies.

Parking. Parking is currently underutilized in those parking lots located away from the main educational uses of the campus. Underutilization in these lots results in lack of parking in other lots. In addition, parking capacity is not sufficient to accommodate future enrollment growth. The No Project Alternative would not remedy either of these two problems. Rather, failure to act will result in an exacerbation of the problem.

Utility Systems. The current utility systems are outdated and in need of upgrades to support curriculum and classroom applications. Infrastructure upgrades would link all facilities to the Central Plant and establish a cohesive campus environment that provides enhanced utilities to all areas of the campus. The No Project Alternative would fail to implement these upgrades and would not meet the goals of improving the campus image or enhancing the educational environment for the students and faculty.

ALTERNATIVE 2- NO OVERLAPPING CONSTRUCTION ALTERNATIVE

The No Overlapping Construction Alternative would allow LASC to provide new facilities, modernize existing buildings, and would include the infrastructure upgrades. This alternative would require that construction of all project components occurs independently and does not overlap.

The implementation of the No Overlapping Construction Alternative would enhance the educational learning environment and improve campus infrastructure to conform to environmental and safety regulations and concerns.

Impact Summary

The No Overlapping Construction Alternative would reduce the severity of the air quality impacts associated with the preferred alternative.

Project Objectives

The No Overlapping Construction Alternative, while meeting environmental and safety related issues, would still result in short-term construction noise and air quality impacts and would require a much longer time schedule.

Educational Buildings. The No Overlapping Construction Alternative would resolve campus deficiencies in fire code and safety standards.

Parking. The No Overlapping Construction Alternative would meet all of the same parking objectives as the No Project Alternative.

Utility Systems. The No Overlapping Construction Alternative would resolve deficiencies in the existing campus utility system. Infrastructure upgrades would link all facilities to the Central Plant and establish a cohesive campus environment that provides enhanced utilities to all areas of the campus.

5.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6 (e)(2) of the State CEQA Guidelines requires that an environmentally superior alternative be identified among the selected alternatives (excluding the No Project alternative). The Environmentally Superior Alternative as discussed in this Supplemental EIR is the implementation of the Facilities Master Plan Update as proposed (proposed project). The Master Plan Update is proposed to be undertaken in order to facilitate superior instructional delivery. The goals of the proposed project are to improve the campus image, maintain the campus community, and enhance the educational program. It is also the concern of the administration that LASC is unable to fully meet the educational needs of current students due to inadequate facilities. New facilities and modernizations would enable the college to accommodate the needs of the students and faculty. Infrastructure upgrades would also result in technological and aesthetic improvements, improved safety through building improvements, lighting and adequate and convenient parking, and the ability to maintain and/or increase course offerings and programs.



6.0 CUMULATIVE AND LONG TERM EFFECTS

In certain instances, a proposed project may have possible environmental effects which are individually limited but cumulatively considerable. In accordance with Section 15130 of the CEQA Guidelines (as amended through January 1, 2000), this Supplemental EIR analyzes the cumulative impacts that could occur with the proposed project. Cumulative impacts (e.g., two or more individual effects which, when considered together, compound or increase the environmental impact of a proposed project) can result from individually minor but collectively significant projects taking place over a period of time.

The CEQA Guidelines require a discussion of the cumulative impacts of a project "when the project's incremental effect is cumulatively considerable," e.g., when "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." The Guidelines provide further direction as to the scope of a cumulative impact analysis. The discussion "need not provide as great detail as is provided for the effects attributable to the project alone" and "should be guided by the standards of practicality and reasonableness." Furthermore, an EIR should not discuss impacts that do not result in part from the evaluated project. An EIR may also determine that a project's contribution to a significant impact is *de minimus* and thus is not significant (i.e., the environmental conditions would be essentially the same whether or not the proposed project is implemented).

An adequate discussion of significant cumulative impacts can be accomplished by analyzing either (1) "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency" or (2) "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact."³

6.1 CUMULATIVE EFFECTS

Aesthetics and Lighting

The cumulative projects (approved or proposed development projects in the general study area) are too distant from each other to have a combined effect. In addition, each project is of a scale in keeping with the community of West Athens/Westmont and the surrounding area. No cumulative change in the physical environment is expected for the Los Angeles Southwest College (LASC) campus or the California Department of Transportation (Caltrans) Site #16.

Air Quality

The related projects include the development of hundreds of thousands of square feet of commercial and residential uses, a number that is many times greater than the proposed project. As the proposed project (LASC campus) results in a regionally significant impact during construction relative to NO_X, it is anticipated that related project development would also result in significant regional impacts. It is also anticipated that project emissions (LASC campus and Caltrans Site #16), combined with related project emissions, would also exceed the regional significance thresholds for VOC, CO, PM_{2.5}, and PM₁₀. While SCAQMD required mitigation measures that would reduce air quality impacts, it is forecasted that the construction of the related projects, in addition to the proposed project, would result in a regionally significant cumulative impact.

¹CEQA Guidelines, Section 15065(c).

²CEQA Guidelines, 15130(4)(b).

³CEQA Guidelines, Section 15130 (b)(1).

Hazards and Hazardous Materials

Concerns related to hazardous materials are site specific. All new development projects would be required to mitigate hazardous concerns (if existing) prior to implementation. The LASC campus and Caltrans Site #16 has not identified negative effects related to hazardous materials, therefore, no cumulative effects are anticipated.

Land Use and Planning

The proposed LASC campus and Caltrans Site #16 land use is in character with the surrounding developed setting. Further, the nearby related projects appear to be in keeping with the low to moderate density character of the area. Thus, no cumulative effects are expected.

Noise

Although several projects are within the vicinity of the project site, the timing of development and degree of overlapping construction is unknown at this time. It is likely that construction activity associated with buildout of the LASC Master Plan would overlap with construction activity associated with various related projects. Construction activity generates localized noise levels and it is unlikely that related projects would be located close enough together that they would disrupt traffic flows on the same street or combine together to increase overall construction noise as to affect a single neighborhood or sensitive land use area. Therefore, the proposed project (LASC campus and Caltrans Site #16) would not result in a considerably cumulative noise impact.

When calculating future traffic impacts, the traffic consultant took related projects into consideration. Thus, the future traffic results without and with the proposed project (LASC campus and Caltrans Site #16) already account for the cumulative impacts from these other projects. **Table 6-1** presents the cumulative increase in future traffic noise levels at intersections. The greatest project-related noise increase would be 1.2 dBA CNEL and would occur along Imperial Highway between Van Ness and Western Avenues. Mobile noise generated by the proposed project would not cause the ambient noise level measured at the property line of the affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" category or any 5-dBA or more increase in noise level. Mobile source noise would not result in a cumulatively considerable noise impact.

Transportation and Traffic

An assessment of future traffic conditions is needed to determine the impact of projects at the time of development. Future conditions must account for other known or planned projects. Forecasts of the future year 2016 Cumulative traffic volumes were developed by adding the traffic expected to be generated by approved or proposed development projects in the area to the forecast ambient traffic growth. Listings of proposed projects in the study area were obtained from the Cities of Los Angeles, Inglewood, Culver City, and Hawthorne, as well as the County of Los Angeles. A list of the related projects can be found in Section 4.6 Transportation and Parking, in **Table 4.6-7**.

TABLE 6-1: 2009 AND 2016 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL /a/									
	Estimated dBA, CNEL /b/								
Roadway Segment	Existing (2009)	Project (2016)	Cumulative Impact						
Imperial Highway between Crenshaw Boulevard and Van Ness Avenue	71.9	73.1	1.2						
Imperial Highway between Van Ness Avenue and Western Avenue	72.4	73.3	0.9						
Imperial Highway between Western Avenue and Denker Avenune	72.5	73.2	0.7						
Imperial Highway between Denker Avenue and Normandie Avenue	72.5	73.2	0.7						
Imperial Highway between Normandie Avenue and Vermont Avenue	72.8	73.5	0.7						
Imperial Highway between Vermont Avenue and I-110 Southbound Ramp	72.9	73.5	0.6						
Western Avenue between Imperial Highway and Campus Entrance	71.3	71.5	0.2						
Western Avenue between Campus Entrance and 120 th Place	72.1	72.3	0.2						
Normandie Avenue between Imperial Highway and Campus Entrance	69.6	70.1	0.5						
Normandie Avenue between Campus Entrance and 120 th Place	68.5	69.2	0.7						
Vermont Avenue between Imperial Highway and I-105 Westbound Ramp	72.0	72.2	0.2						

 \prime a/ The predicted CNEL were calculated as peak hour L_{eq} and converted into CNEL using the California Department of Transportation *Technical Noise Supplement* (October 1998). The conversion involved making a correction for peak hour traffic volumes as a percentage of average daily traffic and a nighttime penalty correction.

SOURCE: TAHA, 2009.

In assessing the cumulative impacts of the LASC campus and Caltrans Site #16, a combination of both of the methodologies listed above was utilized. The traffic analysis contained in this EIR is cumulative in nature. Specifically, the analysis takes into account ambient traffic growth as well as the effects of future planned and proposed projects. As discussed in Section 4.6 Transportation and Parking, ambient traffic is expected to increase by approximately three percent over the remaining life of the LASC Master Plan. Future developments –including the buildout of the LASC Master Plan– are expected to increase daily trips by approximately 261,830 trips. The impact analysis, however, revealed that these cumulative traffic increases with the implementation of mitigation measures would not result in unavoidable significant impacts. Thus, no cumulative traffic impacts are anticipated.

6.2 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines states that the assessment of growth-inducing impacts in the EIR must describe the "ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

The proposed project will not extend infrastructure such as roads, utilities and public facilities, beyond that which already exists and meets the needs of existing development in the project area. The proposed project site is located within a densely developed urban setting and will not introduce new land uses into a previously undeveloped area that could induce changes to the surrounding area.

Although the proposed project inherently represents growth within the area, including expansion of existing facilities, creation of new facilities, and marginal localized job growth, such growth is not of the scale that would affect regional population, housing, or employment forecasts. Thus, no significant growth-inducing impacts are anticipated.

6.3 IRREVERSIBLE ADVERSE ENVIRONMENTAL EFFECTS

Irreversible adverse environmental effects are not anticipated for the proposed project or any of the project alternatives. Construction of the proposed project would rely upon the use of nonrenewable resources. Use of fossil fuel derived energy sources such as gasoline, diesel fuel, electricity, and natural

gas would be necessary for the transport of workers and materials during construction. Implementation of the proposed project would result in a renewable energy program that would meet all of the energy demands of the LASC campus. This would reduce usage of non-renewable electricity, natural gas, and fuel for vehicles during the life of the project. The reduction in fossil fuel consumption associated with the project operation would constitute a beneficial impact. Thus, the proposed project's use of nonrenewable energy sources is not considered a significant impact.

7.0 EFFECTS DETERMINED NOT TO BE SIGNIFICANT

This section discusses anticipated effects of the proposed project and why these effects are not considered significant or why various impacts would not be expected to occur. The following topics were addressed in the previous, certified Los Angeles Southwest College Master Plan Final Environmental Impact Report (the previous EIR for which this Supplemental EIR is a supplement) located on the same site and involving the same existing conditions and uses as those related to the proposed project. Under each topic below, impact analysis is provided explaining why significant impacts are not anticipated for the proposed project.

AGRICULTURE RESOURCES

The previous EIR found that the project site did not contain any farmland, or have any other agricultural use and no impact would occur. The proposed project would not develop any agricultural uses and no impact to agricultural resources is anticipated.

BIOLOGICAL RESOURCES

The previous EIR found that the project site contained no rare or endangered plant or animal species, no year-round bodies of surface water to provide corridors for native resident or migratory fish or wildlife species and that no impact to biological resources would occur. Conditions on the project site have not changed since the certification of the previous EIR and the proposed project would not affect biological resources. Therefore, no significant impacts related to biological resources are anticipated with the proposed project.

CULTURAL RESOURCES

The previous EIR found that there were no archaeological sites located on or within a one-mile radius of the project site. The California State Historic Resources Inventory (CHRIS) listed three properties within a one-mile radius of LASC; however, the records check found that all of these sites have been evaluated and none were eligible for National Register listing. The potential of finding paleontological resources was determined to be very low. Due to the age of the campus no historical resources were anticipated on campus and no impact on historic resources would occur. Conditions on the project site have not changed since the certification of the previous EIR and the proposed project would not disturb any cultural resources. Therefore, a less-than-significant impact related to cultural resources is anticipated with the proposed project. In the unlikely event that any undisturbed land containing potentially significant cultural or archaeological resources is encountered during project construction the following mitigation measure shall be incorporated. The mitigation would require consultation and evaluation by a qualified Native American resource before further construction could continue.

S-CR1 In the event that archaeological resources (artifacts or features) are exposed during excavation of previously undisturbed soil, an archaeologist who meets the Secretary of the Interior's professional qualification standards shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance and a Native American Tribe or elder identified by the Native American Heritage Commission shall be consulted. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the lead agency.

¹West Athens/Westmont Community Plan, March 1990.

The discovery of human remains is always a possibility during construction activities; State of California Health and Safety Code Section 7050.5 addresses these findings. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

GEOLOGY

Potential impacts from geologic materials and soils and surface rupture and ground shaking were discussed in the previous EIR. Soils on the project site were found to contain artificial fill which can be prone to shrinking and swelling. Mitigation measures were provided to require site specific soil investigation to determine the appropriate design standards to eliminate the risk from expansive soils. The LASC campus was identified to be dissected by two main fault zones and several associated secondary faults of the Newport-Inglewood fault zone. The site was found to be subject to strong ground shaking and possible surface rupture as a result of an earthquake on this fault which would cause risk to occupants and damage to structures. Based on data obtained regarding the location orientation, and width of faulting, it was the geologists' determination that the areal limits of the fault identified within the campus are well constrained and a setback distance of 50 feet would be sufficient to reduce the risk to a less-than-significant level. Mitigation measures were proposed to ensure that no building would occur within the setback zone or areas that were unevaluated and that all structures built within the project site would be required to comply with the most current seismic building code standards. Implementation of the mitigation measures reduced the impacts related to geologic materials and soils and surface rupture and ground shaking to a less-than-significant level.

Seismic conditions have not changed since the certification of the previous EIR and construction of the proposed project would be subject to the same mitigation measures and would be in compliance with all applicable construction standards and building codes. Therefore, no significant impacts related to seismicity are anticipated with the proposed project.

In the previous EIR, no impacts related to liquefaction or landslide hazards, tsunamis, inundation, or seiches were determined. The proposed project would not result in impacts related to liquefaction or landslide hazards, tsunamis, inundation, or seiches.

HYDROLOGY AND WATER QUALITY

The previous EIR stated that there were no surface water bodies on or adjacent to the campus and the Master Plan would not cause changes in currents or the course or direction of water movement or effect water quality. Therefore, no impact to hydrology and water quality is anticipated under the proposed project.

MINERAL RESOURCES

The previous EIR found that one oil well was in use on the site prior to the construction of the campus and was appropriately abandoned. No other mineral resources have been identified in the project site and no impact to mineral resources was anticipated. The proposed project would develop the vacant California Department of Transportation (Caltrans) Site #16, which formerly operated as a landfill. No mineral resources are known to exist on the site. No additional mineral resources have been discovered on the site since the certification of the previous EIR. Therefore, no impact to mineral resources is anticipated under the proposed project.

POPULATION AND HOUSING

The previous EIR stated that because no housing component was proposed to be included in the Master Plan and no housing stock would be removed as a result of implementation of the project, no significant impacts related to housing would result. The proposed project also does not propose a housing component and would not remove any portion of the existing housing stock in the area. Since no additional housing would be developed under the proposed project, no increase in population would occur. Therefore, no impacts to population and housing are anticipated under the proposed project.

PUBLIC SERVICES

Fire and Emergency Services

The previous EIR found that no impacts to fire protection and emergency services would occur. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in an increased demand for fire and emergency services beyond what was originally analyzed for the LASC campus. The proposed project would not result in an increased demand for fire and emergency services. Therefore, no impacts to fire and emergency services are anticipated under the proposed project.

Police Protection

On-Campus Security

The previous EIR stated that increased enrollment could result in the need for additional on-site security staff during construction and operation. Potentially significant impacts to on-site campus security were anticipated. Mitigation measures were provided to ensure that the number of campus security personnel was adjusted as needed as enrollment increased. These mitigation measures reduced the impacts to on-site police services to a less-than-significant level. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in an increased demand for on-site police services beyond what was originally analyzed for the LASC campus. Mitigation measures from the previous EIR would still apply under the proposed project. Therefore, no impacts to on-campus police services are anticipated under the proposed project.

Off-Site Security

The previous EIR found that no increase in the permanent population of West Athens or the area surrounding LASC would occur and an increase in staffing was not necessary under to maintain a satisfactory level of service. No significant impacts to police services off-campus were anticipated. The proposed project would not include additional building space or exceed the projected FTE student population evaluated under the Final EIR and no increase in demand for off-site police services would occur. Therefore, no impacts to on-campus police services are anticipated under the proposed project.

Schools

The previous EIR found that the Master Plan did not contain a residential component and would not directly affect school enrollment within the Los Angeles Unified School District (LAUSD). Any change in site employment would be minimal and thus, no secondary student generation would be created due to new or unusual housing demand within the LAUSD service area. No impacts to school services were anticipated. The proposed project would not include additional building space or exceed the projected FTE student population evaluated under the Final EIR and no increase in demand for school services would occur. Therefore, no impacts to demand for school services are anticipated under the proposed project.

Recreation

The previous EIR found that there would not be an increase in population nor a significant increase in employment on campus resulting from an increased student population because the Master Plan did not contain a residential component. Therefore, no new or expanded recreation facility was required and no impacts to recreation would occur. The proposed project would not create a residential component and corresponding increase in population nor would it result in a significant increase in employment. Therefore, no additional recreational facilities would be required and no impacts related to recreational services are anticipated under the proposed project.

UTILITIES AND SERVICE SYSTEMS

Water Supply

The previous EIR found that impacts to water supply from the campus would be less-than-significant with the implementation of mitigation measures. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in an increased demand for water supply beyond what was originally analyzed for the LASC campus. As such, the proposed project is not anticipated to have an increased demand of potable and non-potable water. In addition, the proposed project would implement sustainable building features which include, but are not limited to, the installation of low-flush and waterless urinals, landscape design utilizing drought-tolerant and California native Plants, and artificial turf for athletic fields. Therefore the proposed project is anticipated to have a less-than-significant impact upon the water supply and distribution infrastructure.

Wastewater

The previous EIR stated found that no impacts to wastewater from the campus would occur. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy

production facility is not expected to result in an increase of wastewater beyond what was originally analyzed for the LASC campus. As such, the proposed project is not anticipated to generate additional wastewater. In addition, the proposed project would implement sustainable building features which include, but are not limited to, the installation of low-flush and waterless urinals. Therefore the proposed project is anticipated to have a less-than-significant impact upon the wastewater conveyance and treatment infrastructure

Solid Waste

The previous EIR found that impacts to solid waste from the campus would be less-than-significant. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in an increase of solid waste beyond what was originally analyzed for the LASC campus. The proposed project would not include additional building space or exceed the projected FTE student population evaluated in the Final EIR. As such, the proposed project is not anticipated to generate additional solid waste during construction and demolition of the remaining Original Facilities Master Plan facilities and during the operation of LASC. In addition, the proposed project is expected to comply with the LACCD's district-wide recycling program, which would decrease the amount of solid waste transported and disposed of at the Sunshine Canyon Landfill. Therefore the proposed project is anticipated to have a less-than-significant impact upon the solid waste.

Stormwater/Drainage

The previous EIR found that impacts to stormwater and drainage from the campus would be less-than-significant. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in a significant increase in impermeable surfaces beyond what was originally analyzed for the LASC campus. Existing stormwater infrastructure serving the project site is designed to collect and convey stormwater off the project site. As part of the proposed project's Stormwater Pollution Prevention Plan, existing stormwater infrastructure on campus would be inspected and either replaced and/or relocated. Stormwater infrastructure on the project site would be better equipped to accommodate stormwater. Therefore, the proposed project is anticipated to have a less-than-significant impact on stormwater infrastructure.

Electricity

The previous EIR found that impacts to electricity from the campus would be less-than-significant. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is expected to lessen the demand for electricity from what was originally analyzed for the LASC campus. As such, the proposed project is not anticipated to have an increased demand of electricity from SCE. In addition, the proposed project would include the potential construction and operation of a photovoltaic electrical power-producing system on the LASC campus which would satisfy all electrical power needs. Therefore, the proposed project is anticipated to have a less-than-significant impact on electricity generating and power distribution infrastructure.

²Los Angeles Community College District, Los Angeles Southwest College SUSMP Campus Plan, July 2004.

Natural Gas

The previous EIR found that impacts to natural gas from the campus would be less-than-significant. The proposed project would include 622,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR. The projected FTE student population would not exceed the 12,000 students evaluated in the Final EIR. The use of the Caltrans Site #16 as a campus entrance and renewable energy production facility is not expected to result in an increased demand for natural gas beyond what was originally analyzed for the LASC campus. As such, the proposed project is not anticipated to have an increased demand of natural. Therefore, the proposed project is anticipated to have a less-than-significant impact on natural gas supply and distribution infrastructure.

8.0 ORGANIZATIONS AND PERSONS CONSULTED

8.1 PERSONS AND AGENCIES CONSULTED

California Department of Transportation, District 7 100 South Main Street, Suite 100 Los Angeles, CA 90012 Contact: Ron Kosinski, Deputy District Director

County Sanitation Districts of Los Angeles County, Facilities Planning Department 1955 Workman Mill Road Whittier, CA 90601-1400 Contact: Ruth I. Frazen, Customer Service Specialist.

Los Angeles County Department of Public Works Design Division Hydraulic Analysis Unit 900 South Fremont Avenue, 6th Floor Alhambra, CA 91803 Contact: Erik Bautista, Hydraulic Analysis Unit

South Coast Air Quality Management District 21865 E. Copley Drive Diamond Bar, CA 91765

Conde Ventura Project Engineer Golden State Water Company 1600 W. Redondo Beach Blvd. #101 Gardena, CA 90247

State of California, The Resources Agency Department of Conversation, Division of Mines and Geology 801 K. Street, MS 12-31 Sacramento, CA 95814

Frank Fuchs
Engineering
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, CA 90746

SOURCES CONSULTED 8.2

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8.3 PREPARERS OF THIS EIR

Terry A. Hayes Associates LLC 8522 National Boulevard, Suite 102 Culver City, CA 90232

Principal: Terry Hayes, AICP
Senior Planner: Kevin Ferrier
Senior Environmental Scientist: Sam Silverman
Planners: Kari Bernard

Michael Sullivan

Assistant Planners: Jeremy Stephens

Kristen Kam

Graphic Artist: Janet Fitzgerald

In association with:

Anderson Environmental 9937 Jefferson Boulevard, Suite 200 Culver City, CA 90232

Contact: Matthew Rodda, Registered Environmental Assessor/Project Manager

Cordoba Corporation 2677 North Main Street, Suite 240 Santa Ana, CA 92705

Contact: Catherine Higley, Vice President

9.0 COMMENTS AND RESPONSES TO THE DRAFT EIR

The Draft EIR was available for a 45-day public review period between December 18, 2009 and February 2, 2010. During this period, three comment letters on the Draft EIR were received. In addition, two public meetings were held during the review period on January 14, 2010 and January 26, 2010 at the Los Angeles Southwest College to receive public comments on the Draft EIR. No verbal public comments pertaining to the proposed project and Draft EIR were received during these meetings.

This Final Environmental Impact Report (Final EIR) provides responses to all written and public meeting comments received on the Draft EIR during the 45-day public review period. Comments and questions raised by the Board of Trustees were addressed at the meeting.

Comments on the Draft EIR include issues raised by the public that warrant clarification or correction of certain statements in the Draft EIR. None of the corrections and additions constitutes significant new information or substantial project changes as defined by CEQA Guidelines Section 15088.5.

9.1 RESPONSE TO WRITTEN COMMENTS

Each comment letter has been assigned a number. The body of each comment letter has been separated into individual comments, which also have been numbered. This results in a tiered numbering system, whereby the first comment in Letter 1 is depicted as Comment 1-1, and so on. These numbered comment letters are included in their entirety, followed by the corresponding responses which include a brief summary of comment. The following presents a list of all the written commenters on the Draft EIR:

Draft EIR Written Comments from Public Agencies:

- Governor's Office of Planning and Research 1400 10th Street P.O. Box 3044 Sacramento, CA 95812-3044 Scott Morgan, Acting Director February 4, 2010,
- Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814 Dave Singleton, Program Analyst January 27, 2010
- 3. Department of Transportation, District 7, Regional Planning 100 Main Street, MS#16
 Los Angeles, CA 90017
 Elmer Alvarez, IGR/CEQA Branch Chief
 February 9, 2010

Draft EIR Written Comments from Public:

None received.

Comment Letter No. 1



STATE OF CALIFORNIA

GOVERNOR'S OFFICE of PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT DIRECTOR

ARNOLD SCHWARZENEGGER
GOVERNOR

February 4, 2010

Larry Eisenberg Los Angeles Community College District 770 Wilshire Boulevard, 6th Floor Los Angeles, CA 90017

Subject: Los Angeles Southwest College Facilities Master Plan Update

SCH#: 2003031024

Dear Larry Eisenberg:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on February 3, 2010, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

Enclosures

cc: Resources Agency

1-1

LETTER 1

February 4, 2010

Scott Morgan, Acting Director Governor's Office of Planning and Research 1400 10th Street P.O. Box 3044 Sacramento, CA 95812-3044

Comment 1-1

This comment states that the State agencies that reviewed the document and acknowledges compliance with State Clearing House review requirements.

Response 1-1

Comment noted. No further response to this comment is necessary.

STATE OF CALIFORNIA

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364 SACRAMENTO, CA 95814 (916) 653-6251 Fax (916) 657-5390 Web Site <u>www.nahc.ca.gov</u> e-mail: ds_nahc@pacbell.net



January 27, 2010

Mr. Larry Eisenberg, Executive Director – Facilities Planning & Development **LOS ANGELES COMMUNITY COLLEGE DISTSRICT** 770 Wilshire Boulevard, 6th Floor

STATE CLEARING HOUSE

770 Wilshire Boulevard, 6th Floor Los Angeles, CA 90017

Re: <u>SCH#2003031024</u> CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the <u>Los Angeles Southwest College Facilities Master Plan Update Project</u>; located at 1600 W. Imperial Highway; Los Angeles County, California

Dear Mr. Eisenberg:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. (Also see *Environmental Protection Information Center v. Johnson (1985) 170 Cal App. 3rd 604)* The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources were not identified within one-half mile of the APE. There are, however, Native American cultural resources in close proximity to the APE.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or Native American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11..

Consultation with tribes and interested Native American tribes and individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f)]et se), 36 CFR Part 800.3, the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 et seq) and NAGPRA (25 U.S.C. 3001-3013), as appropriate.

DEPARTMENT OF TRANSPORTATION

DISTRICT 7, REGIONAL PLANNING IGR/CEQA BRANCH 100 MAIN STREET, MS # 16 LOS ANGELES, CA 90012-3606 PHONE: (213) 897-6696

PHONE: (213) 897-6696 FAX: (213) 897-1337



IGR/CEQA No. 091232AL, DEIR Los Angeles Southwest College Facilities Master Plan Update Vic. LA-0105 / PM 5.736 to R6.254 SCH # 2003031024

February 9, 2010

Mr. Larry Eisenberg Los Angeles Community College District 770 Wilshire Blvd., 6th Floor Los Angeles, CA 90017

Dear Mr. Eisenberg:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is to build new facilities, modernize existing buildings, and to upgrade infrastructure. The project is located on the north side of SR-105 and is between Western Ave. and Normandie Ave.

The project site is right next to SR-105. The project will generate a net 4,466 Average Daily Traffic trips, 406/493 AM/PM peak hour trips. The report shows that State facilities would operate at acceptable level after the development. However, Caltrans still has concerns for the cumulative traffic effects in the future.

We would like to remind you that any work to be performed within the State Right-of-way will need an Encroachment Permit from the California Department of Transportation. Any modifications to State facilities will need to meet all mandatory design standard and specifications.

The noise impact analysis prepared found that students would not be exposed to noise levels in excess of the City's acceptable standards. Therefore, we acknowledge that traffic noise coming from I-105 would not exceed the City's standards at the proposed school and we do not anticipate that sound attenuation measures such as a sound wall would be required.

Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects need to be designed to discharge clean run-off water. Additionally storm water run-off is not permitted to discharge onto State highway facilities.

LETTER 2

January 27, 2010

Dave Singleton, Program Analyst Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814

Comment 2-1

This comment provides CEQA guidance on the requirements for projects that have the potential to affect historic resources. The Commissions acknowledges that no Native American cultural resources were identified within one-half mile of the APE, but there are resources in close proximity to the APE.

Response 2-1

The Los Angeles Community College District acknowledges that there are Native American cultural resources in close proximity to the APE; however, they would not be affected by the project.

Comment 2-2

This comment recommends early consultation with Native American tribes within the project area and identifies a list of consulting parties that have cultural knowledge of the project area.

Response 2-2

A Supplemental EIR was prepared for the proposed project. As discussed in Section 6.0 Effects Not Significant of the Original EIR, the proposed project would not adversely affect any historical or archaeological resources. Southwest College was originally built by adding a large amount of fill to the irregular topography of the area to make the site level. As a result, most, if not all of the project site has been previously disturbed, making the discovery of archeological resources remote. Therefore, a less-than-significant impact to cultural and archeological resources would occur. The comment letter further indicates that a Sacred Lands Search performed within a half-mile of the project site indicated that no Native American cultural resources were present. The existing buildings on the project site, which were constructed in 1968 or later, are not listed or eligible for listing on the National Register of Historic Places or the California Register of Historic Places. The existing buildings also do not contain elements that would be considered historic by the State Historic Resources Commission or the local register of historic resources. If any undisturbed land should be encountered during construction of the proposed project, the list of Native American resources provided by the Native American Commission would be consulted. The following mitigation measures will be provided to ensure that consultation occurs according to State and federal requirements:

S-CR1 In the event that archaeological resources (artifacts or features) are exposed during excavation of previously undisturbed soil, an archaeologist who meets the Secretary of the Interior's professional qualification standards shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance and a Native American Tribe or elder identified by the Native American Heritage Commission shall be consulted. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the lead agency.

The discovery of human remains is always a possibility during construction activities; State of California Health and Safety Code Section 7050.5 addresses these findings. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Comment 2-3

This comment cites provisions for accidental discovery of archeological resources and the need to discuss them in the environmental document.

Response 2-3

The Los Angeles Community College District shall consider avoidance as defined under Section 15370 of CEQA, should any significant archeological or cultural resources be discovered during construction of the proposed project. An area of potential effects (APE) has not been required or established for the project site due to the characteristics of its previous development and intense historic uses. Therefore, the likelihood of archaeological or other cultural resources on the project site is low. In addition, construction of the proposed project would not require extensive excavation activities nor be likely to encounter previously undisturbed soil. Because no archaeological or other cultural resources have been identified or are known to exist on the project site, the proposed project would not likely affect any such resources. The mitigation provided above in Response to Comment 2-2 would ensure that any accidental discovery of archeological or cultural resources would adhere to the provisions of Public Resources Code Section 5097.98 and Health and Safety Code 7050.5

Comment 2-4

This comment identifies that the authority for a Sacred Lands File record search is exempt from public records and that there is a confidentiality of historic properties of religious and cultural significance.

Response 2-4

Comment noted. The Los Angeles Community College District concurs and respects the authority for exemption and confidentiality of historic properties of cultural or religious significance.

Comment 2-5

This comment refers to CEQA guidelines involving the potential presence of Native American human remains within the APE and to assure the appropriate and dignified treatment of any remains.

Response 2-5

Should the accidental discovery of any Native American human remains occur, Los Angeles Community College District would comply with the applicable regulations referred to by the commenter.

DEPARTMENT OF TRANSPORTATION

DISTRICT 7, REGIONAL PLANNING IGR/CEQA BRANCH 100 MAIN STREET, MS # 16 LOS ANGELES, CA 90012-3606 PHONE: (213) 897-6696

PHONE: (213) 897-6696 FAX: (213) 897-1337



IGR/CEQA No. 091232AL, DEIR Los Angeles Southwest College Facilities Master Plan Update Vic. LA-0105 / PM 5.736 to R6.254 SCH # 2003031024

February 9, 2010

Mr. Larry Eisenberg Los Angeles Community College District 770 Wilshire Blvd., 6th Floor Los Angeles, CA 90017

Dear Mr. Eisenberg:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is to build new facilities, modernize existing buildings, and to upgrade infrastructure. The project is located on the north side of SR-105 and is between Western Ave. and Normandie Ave.

The project site is right next to SR-105. The project will generate a net 4,466 Average Daily Traffic trips, 406/493 AM/PM peak hour trips. The report shows that State facilities would operate at acceptable level after the development. However, Caltrans still has concerns for the cumulative traffic effects in the future.

We would like to remind you that any work to be performed within the State Right-of-way will need an Encroachment Permit from the California Department of Transportation. Any modifications to State facilities will need to meet all mandatory design standard and specifications.

The noise impact analysis prepared found that students would not be exposed to noise levels in excess of the City's acceptable standards. Therefore, we acknowledge that traffic noise coming from I-105 would not exceed the City's standards at the proposed school and we do not anticipate that sound attenuation measures such as a sound wall would be required.

Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects need to be designed to discharge clean run-off water. Additionally storm water run-off is not permitted to discharge onto State highway facilities.

3-3

3-2

3-1

3-4

Any transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large size truck trips be limited to off-peak commute periods. Thank you for the opportunity to have reviewed this report.

If you have any questions or issue about our comment, please feel free to contact me at (213) 897-6696 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 091232AL.

Sincerely,

ELMER ALVAREZ

IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

LETTER 3

February 9, 2010

Elmer Alvarez, IGR/CEQA Branch Chief Department of Transportation 100 Main Street, MS #16 Los Angeles, CA 90012-3606

Comment 3-1

The comment summarizes the proposed project and identifies concern regarding cumulative traffic effects

Response 3-1

In addition to the general background growth, specific projects may generate a significant amount of traffic that could affect roadway levels of service and this traffic is added to the overall traffic volumes as related projects. Discussions with the Cities of Hawthorne, Inglewood, Culver City, Los Angeles, and the County of Los Angeles identified a list of 86 related projects. This extensive list of related projects was provided to represent a conservative estimate of cumulative traffic so that the cumulative traffic impacts would not be underestimated.

The following mitigation measures were provided to addresses the cumulative impacts that occur when the proposed project is considered in addition to the related projects. Implementation of the following cumulative mitigation measures that were identified in the Section 4.6, Transportation and Traffic of the Supplemental EIR would result in a less-than-significant cumulative impact.

- **S-T2** Upgrade the Century Boulevard/Normandie Avenue intersection into the City of Los Angeles Automated Traffic Surveillance and Control System (ATSAC).
- **S-T3** Eliminate the protected left-turn phasing on the northbound and westbound approaches in favor of permitted left turns at the Century Boulevard/Van Ness Avenue intersection.
- **S-T4** Eliminate the protected left-turn phasing on the southbound and westbound approaches in favor of permitted left turns at the Imperial Highway/Western Avenue and Imperial Highway/Vermont Avenue intersections.
- **S-T5** Eliminate the protected left-turn phasing on the northbound and eastbound approaches in favor of permitted left turns at the Imperial Highway/Normandie Avenue intersection.
- **S-T6** Eliminate the protected left-turn phasing on the eastbound approach in favor of permitted left turns at the Imperial Highway/I-110 NB Ramps intersection.

Comment 3-2

This comment identifies the need for an Encroachment Permit from the California Department of Transportation should any construction be performed within the State right-of-way.

Response 3-2

Under the proposed Master Plan Update, no construction or development is anticipated to occur within the State right-of-way. However, if circumstances arise where any work has to be performed within the State Right-of-way, the LACCD will comply and obtain an Encroachment permit from the California Department of Transportation. Any modifications to State facilities will meet all mandatory design standards and specifications.

Comment 3-3

The comment concurs with the noise analysis presented in the EIR that noise attenuation between the school and the I-105 would not be required.

Response 3-3

Comment noted.

Comment 3-4

This comment identifies concern with stormwater design and discharge onto the I-105.

Response 3-4

The proposed project has adopted a Storm Water Pollution Prevention Plan (SWPP) as part of the Standard Urban Storm Water Mitigation Plan (SUSMP) in order to comply with the Regional Water Quality Control Board designed to reduce the quantity and improve the quality of rainfall runoff. This program will ensure that the proposed project will discharge clean run-off water. There are two storm drains on the Southwest College site which convey stormwater runoff to the south into the Anderson Wash which flows in a southwestern direction to the north of the I-105 and drains into the Dominguez Channel. The proposed project would not discharge stormwater runoff into State highway facilities.

Comment 3-5

This comment identifies the need for a Caltrans permit should the transport of oversize-transport vehicles be necessary.

Response 3-5

Should oversized-transport vehicles be necessary to bring in construction equipment, a Caltrans transportation permit would be obtained as specified by the commenter. There would be an anticipated 50 haul truck trips per day during construction of the proposed project. The truck trips would be dispersed through the course of the work day and would not result in a substantial amount of haul truck trips during peak periods.



10.0 CORRECTIONS AND ADDITIONS

As required by Section 15088 of the CEQA Guidelines, this section provides corrections or clarifications to the Draft Supplemental EIR. None of the corrections and additions constitutes significant new information or substantial project changes as defined by Section 15088.5 of the CEQA Guidelines. Corrections and Additions to the Draft Supplemental EIR are provided in <u>underline</u> or <u>strikeout</u> text as needed to indicate an addition or deletion, respectively.

Section 15088.5 of the CEQA Guidelines requires that:

A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.

During the circulation period of the Draft Supplemental EIR, the Master Plan Update was revised to include a new facility, the Health Academy Building. This two-story, approximately 45,000-gross-square-foot (gsf) building would be located north of the existing campus police station. The physical features of this building, the siting, and the intensity of construction activity would be consistent with the additional new facilities analyzed as part of the Supplemental EIR. The environmental impacts of Southwest College Master Plan Update were evaluated on the number of projected students and not building square footage. Therefore, the additional 45,000 square feet of building space would not result in an adverse impact. The Original Master Plan was evaluated to accommodate a projected enrollment of 12,000 students by year 2016 and 690,000 gsf of building space. Without the Health Academy Building, the Master Plan Update would result in approximately 87,000 gsf of new building space, bringing the campus total to 577,000 gsf. With the Health Academy Building, the Master Plan Update would result in approximately 132,000 gsf of new building space, bringing the campus total to 622,000 gsf. Both scenarios would not exceed the 690,000 gsf that was analyzed in the Original Facilities Master Plan. Furthermore, the incorporation of the Health Academy Building into the Master Plan Update would not affect enrollment projections.

The incorporation of the Health Academy Building into the proposed project would not result in significant new environmental impacts not previously disclosed in the Draft Supplemental EIR. In addition, the incorporation of the Health Academy Building into the project would not result in an increase in the severity of environmental impacts previously disclosed in the Draft Supplemental EIR nor would there be any of the other circumstances requiring recirculation described in Section 15088.5.

In response to the comment letter received from the Native American Heritage Commission, a mitigation measure was added in the unlikely event that any undisturbed land containing potentially significant cultural or archaeological resources is encountered during project construction. The mitigation would require consultation and evaluation by a qualified Native American resource before further construction could continue. The additional mitigation measure would not result in any significant environmental impacts not previously disclosed in the Draft Supplemental EIR. In addition, the implementation of this mitigation measure would not result in the generation of any additional environmental impacts. Therefore, this additional mitigation measure would not require recirculation as described in Section 15088.5.

10.1 CORRECTIONS AND ADDITIONS

SUMMARY

 Page 2-3, Table 2-1, Air Quality Impacts Related to Operational Emissions, Significance After Mitigation, language adjusted to be consistent with the conclusion presented in Section 4.2 Air Quality.

No Significant Impact. Unavoidable Significant Impact related to regional VOC and NOx

- Page 2-4, Table 2-1, fourth row, added Mitigation Measure **S-CR1**:
- **S-CR1** In the event that archaeological resources (artifacts or features) are exposed during excavation of previously undisturbed soil, an archaeologist who meets the Secretary of the Interior's professional qualification standards shall be retained. Construction activities (e.g., grading, grubbing, vegetation clearing) in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance and a Native American Tribe or elder identified by the Native American Heritage Commission shall be consulted. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the lead agency.

The discovery of human remains is always a possibility during construction activities; State of California Health and Safety Code Section 7050.5 addresses these findings. This code section states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

• Page 2-5, Table 2-1, fourth row, added language:

NOISE AND VIBRATION

PROJECT DESCRIPTION

• Table 3-3, Page 3-3, first row of continued table, added new facility to Summary of Facilities Master Plan Projects:

Health Academy	Not proposed	Construction of a 45,000 gsf	Bid/Award
		building to the north of the police	
		services building	

• Page 3-6, last paragraph, revised language to incorporate new facility:

The proposed project would result in approximately $\underline{132,000}$ 87,000 gsf of new building space, bringing the campus total to $\underline{622,000}$ 577,000 gsf.

• Page 3-7, after second bullet, added new facility to planned improvements:

Health Academy Building -A LEED-certified, two-story, approximately 45,000-gsf building is proposed directly to the north of the Campus Police Station. The Health Academy Building would contain allied health instructional/support space, nursing/allied health department offices, nursing instructional/support space/ skills lab office, student success center, break room, and lobby. The existing surface walkway and open space would be demolished to accommodate this new facility.

• Page 3-8, Figure 3-2 Site Plan, to include proposed Health Academy Building.

AESTHETICS AND LIGHTING

- Page 4.1-9, last paragraph, language revised to include proposed Health Academy Building.
 - ...construction of six five new facilities
- Page 4.1-10, Table 4.1-2 third row, language added to include proposed Health Academy Building.

Health Academy Building	<u>2</u>	<u>45,000</u>	A LEED-certified building proposed north of the Police Building at the location of existing
			walkway/open space

AIR QUALITY

• Page 4.2-28, last paragraph, language revised for consistency with conclusion presented on Page 4.2-21.

As previously discussed, operational emissions would result in a less-than-significant impact. Regardless, Mitigation Measures S-AQ20 through S-AQ23 are recommended to reduce the proposed project's contribution to regional mobile source emissions. Operational emission would still result in a less-than-significant impact. Over 90 percent of VOC and NO_x emissions would result from mobile sources. Although difficult to quantify, Mitigation Measures S-AQ20 through S-AQ23 would reduce operational emissions. Nonetheless, regional emissions would exceed SCAQMD significance thresholds for VOC and NO_x, and would result in an unavoidable, significant air quality impact.

NOISE AND VIBRATION

• Page 4.5-1, first line, chapter title revised to include vibration:

4.5 NOISE AND VIBRATION

EFFECTS DETERMINED NOT TO BE SIGNIFICANT

• Page 7-1, last paragraph, language revised to incorporate an additional mitigation measure:

In the unlikely event that any undisturbed land containing potentially significant cultural or archaeological resources is encountered during project construction the following mitigation measure shall be incorporated. The mitigation would require consultation and evaluation by a qualified Native American resource before further construction could continue.

S-CR1 In the event that archaeological resources (artifacts or features) are exposed during excavation of previously undisturbed soil, an archaeologist who meets the Secretary of the Interior's professional qualification standards shall be retained. Construction activities (e.g., grading,

• Page 7-2, third paragraph, omit additional word "to":

The previous EIR found that impacts to to-fire protection

• Pages 7-3 through 7-6, revise building space of campus:

The proposed project would include $\underline{622,000}$ 577,000 gsf of building space, less than the 690,000 gsf that was analyzed in the previous EIR.

Appendix A

Notice of Preparation and Comments to NOP

Notice of Preparation of a Supplemental Environmental Impact Report

To: All Interested Persons and Agencies

From: The Los Angeles Community College District

Date: November 12, 2009

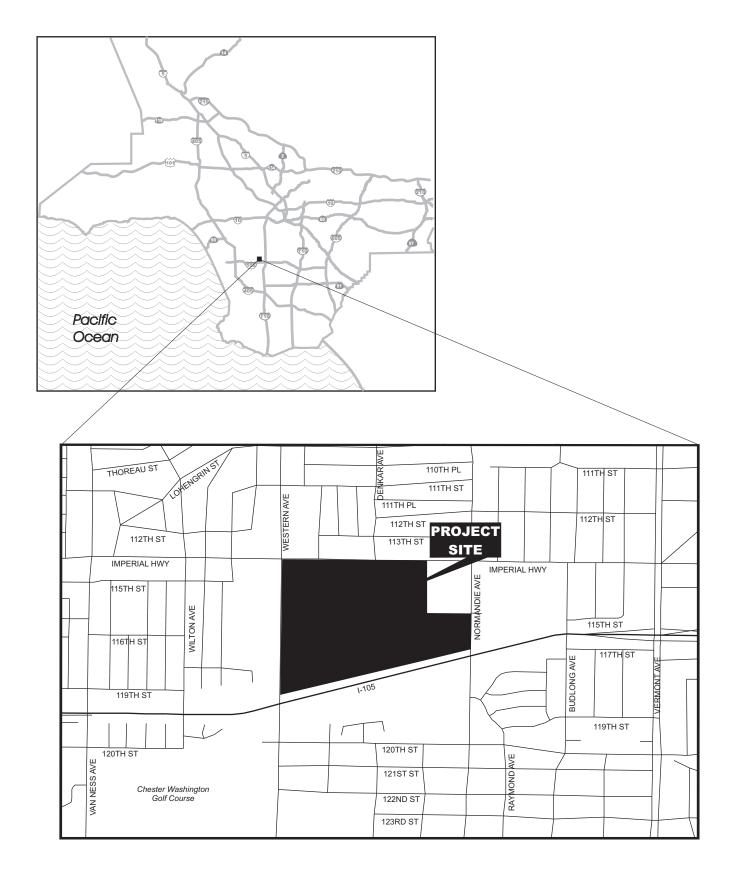
Project Title: Los Angeles Southwest College Facilities Master Plan Update

Subject: The Los Angeles Community College District (LACCD), acting as the Lead Agency under the California Environmental Quality Act (CEQA), publicly announces its intent to initiate the preparation of a Supplemental Environmental Impact Report (Supplemental EIR) for the Los Angeles Southwest College (LASC) Facilities Master Plan Update (proposed project). The Supplemental EIR is a continuation of the Final Environmental Impact Report (Final EIR) prepared for the LASC Facilities Master Plan (Original Facilities Master Plan) that was certified on November 19, 2003 (State Clearinghouse Number 2003031024).

The Supplemental EIR will contain only the information necessary to make the changes as revised in the proposed project. This focus meets the requirements for supplemental analysis under Section 15163 of the CEQA Guidelines, which requires that only changes to the Final EIR prepared for the Original Facilities Master Plan and subsequent Addendum that may result in significant impacts and that were not evaluated and not previously disclosed be included in this Supplemental EIR.

Purpose of NOP: The Lead Agency has prepared this Notice of Preparation (NOP) for the Supplemental EIR to initiate early consultation and provide opportunity for comment from public agencies, stakeholders, organizations, and interested individuals on the scope of the environmental analysis addressing the potential effects of the proposed project. In accordance with the CEQA Guidelines, 14 CCR Section 15000 et seq., the Lead Agency is requesting written comments from public agencies, stakeholders, organizations and interested individuals on the scope and content of the environmental information that should be addressed in the Supplemental EIR. Responsible Agencies, as defined by CEQA Guidelines, Section 15381, if any, will need to use the Supplemental EIR when considering permits or other approvals for the proposed project.

Project Site and Location: The 63.7-acre LASC campus is located at 1600 West Imperial Highway in unincorporated Los Angeles County, 8.5 miles southwest of Downtown Los Angeles. The campus is bounded by Imperial Highway to the north, the Glen Anderson Freeway (I-105) to the south, Western Avenue to the west, and St. Francis X. Cabrini Church and School and California Department of Transportation Site #16 to the east. Regional access to the LASC campus is provided by the I-105, located adjacent to south, the San Diego Freeway (I-405), located the 3.5 miles to the west, and the Harbor Freeway (I-110), located one mile to the east. Access between the campus and the east/west oriented I-105 is obtained via off-ramps at Crenshaw Boulevard and Vermont Avenue. The I-105 connects to the north/south oriented I-405 and I-110. The major streets serving the campus are Western and Normandie Avenues in the north-south direction and Imperial Highway in the east-west direction. In addition, two Metro Green Line Stations serve the area. These stations are located along the I-105 at Vermont Avenue and Crenshaw Boulevard which are located 0.5 miles to the east and one mile to the west, respectively. The Los Angeles International Airport is located 3.5 miles to the west of the campus. The location of the project site is shown in **Exhibit 1**.



LEGEND:



SOURCE: TAHA, 2009



LASC Master Plan Update
Supplemental Environmental Impact Report

Project Description: The proposed project is intended to act as a guide for future development of the college and present projects that carry forward the concepts of improving the campus image, maintaining the campus community, increasing college partnerships with the community, and enhancing the educational program. These goals are to be achieved by providing: state-of-the-art learning environments, enhanced infrastructure, aesthetic improvements, increased safety through building and lighting improvements, and improved parking.

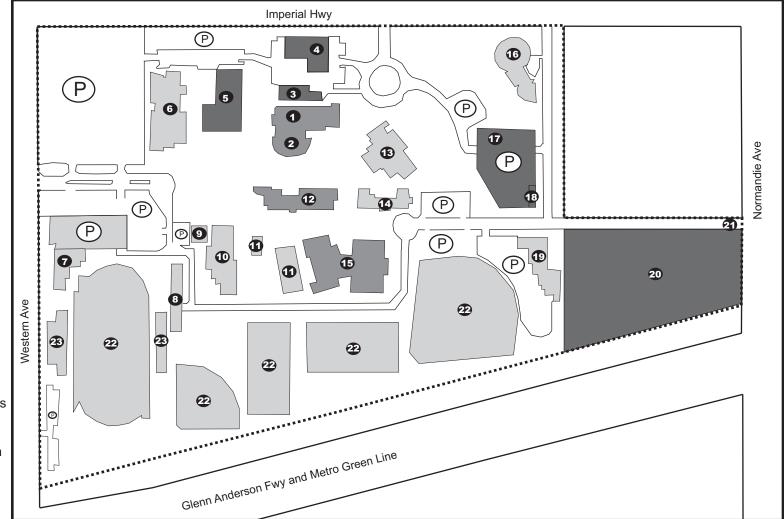
The components of the proposed project are broken into three categories: new facilities, proposed modernizations and infrastructure upgrades. A site plan identifying the locations of the various project components within the LASC campus are presented in **Exhibit 2**.

New Facilities

- Visual, Communications and Performing Arts Training Complex-A LEED-certified, two-story, approximately 37,300 gross square-foot (gsf) building is proposed at the site of the current parking located lot north of the Cox Administration building. The Visual, Communications and Performing Arts Training Complex would contain the following programs: music, music technology, dance and theater, media and graphic arts, backstage operations, and theater management. The existing surface parking lot would be demolished to accommodate this new facility.
- Career and Applied Technologies Building-A LEED-certified, approximately 40,000 gsf building is proposed at the vacant site east of the new Student Services/Activities Center and west of the Cox Administration building. The Career Applied Technologies Building would contain all of the current career/technical programs, as well as sustainability, heating ventilation and air conditioning, allied health, logistics, transportation, and hospitality programs: The existing surface parking lot would be demolished to accommodate this new facility.
- **Annex to Cox Building-**A LEED-certified, approximately 5,000-square-foot Annex Building would be constructed at the north side of the Cox Building that would house presidential administration staff.
- **Bookstore-**An approximately 5,000-square-foot Bookstore will be constructed at the southeast corner on the ground floor of the Student Services/Activity Center building. The Bookstore would relocate from its current location in the ground level of the Cox Administration building.
- Parking Structure-A three-level parking structure for approximately 650 to 700 cars would be constructed in the northeast quadrant of the campus, east of the Student Services/Education Building. The facility will feature electric charging stations and a smart electronic identification system. The proposed building site is currently a surface parking lot. Construction of the parking structure would include the export of 8,000 cubic feet of soil.

Proposed Modernizations

- Cox Building-The proposed project would bring the existing Cox building up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.
- Cox Building Little Theater-The proposed project would bring the existing Little Theater up to current building code and life safety standards. Upgrades would include architectural finishes, electrical, plumbing, and security and fire alarm upgrades.



LEGEND:

- LASC Campus (Project Site)
- New Facility
- Modernization
- Retention
- Parking Area
- # Building/Use
- **1.** Cox
- 2. Cox Little Theater
- 3. Annex to Cox
- 4. Visual Communications and Performing Arts
- 5. Career and Applied Technologies
- 6. Student Services/Activities Center
- **7.** Field House
- 8. Central Plant

- 9. Campus Police Station
- 10-Middle College High School
- 11. Pool and Pool Equipment
- 12. Lecture Lab
- 13. Student Services/Education Building
- 14. Technology Education
- 15. Fitness and Wellness Center
- 16. Child Development Center

- 17. NE Parking Structure
- **18.** Pumphouse
- 19. Maintenance
- 20. Caltrans Site #16 Solar Farm
- 21. Normandie Campus Entrance
- 22. Athletic Field
- 23. Bleachers



SOURCE: TAHA, 2009



LASC Master Plan Update
Supplemental Environmental Impact Report
LOS ANGELES COMMUNITY COLLEGE DISTRICT

EXHIBIT 2

SITE PLAN

- **Fitness and Wellness Center**-The proposed project would bring the existing Fitness and Wellness Center building up to current building code and life safety standards. Modernization would include a student success center, replacement of gym floor and new protective covering, assessment of the bleachers, lighting and controls, fire alarm system upgrade, exterior stairs, improve the locker and wet room areas to accommodate separate women's facilities, mechanical, electrical, and security upgrades along with site improvements at the athletic practice fields.
- Lecture Laboratory-The proposed project would bring the existing Lecture Laboratory building up to current building code and life safety standards. Modernization would include a four-story renovation to the existing building, outfitting all classrooms electronically and adding four laboratory classrooms. The renovation would include architectural, structural, mechanical, electrical, plumbing, technology, and security systems upgrades and would connect to the Central Plant.

Infrastructure Upgrades

- Normandie Campus Entrance-A fourth entrance along Normandie Avenue would be added to the campus. Access would occur on a new surface street along the northern portion of the Caltrans property from Normandie Avenue to the eastside perimeter road, north of the Maintenance and Operations building.
- Renewable Energy Program-LASC, in conjunction with Chevron Energy Solutions has initiated plans for a 4-megawatt solar farm. The program involves implementation of solar tracking system, photovoltaic panels located on parking lots, rooftops of all buildings, and on the Normandie Mound Caltrans Site #16 site. The six-acre Normandie Mound Caltrans Site #16, located at the southwest corner of the Normandie Avenue/I-105 intersection, would either be acquired or leased as part of the proposed project. The electricity generated by the program will satisfy all of the energy demands of the college and additional energy would be stored on the main campus in centralized battery storage or hydrogen generation and storage systems. The program would work in conjunction with the Central Plant which would connect to all campus facilities. The renewable energy program would also serve as a living model for students, allowing for the study of design, construction, chemistry, and physics of renewable technologies.
- Utility Systems-The proposed project would undergo infrastructure upgrades identified in the 2004 Security Master Plan and 2004 Technology Master Plan, including the infrastructure improvements necessary to support the future security and technological development of the campus. The proposed project would include the installation of new utility systems, including potable water, fire-water, stormwater, sewer, electrical and communications distribution and roadways. All of these campus improvements would also connect the infrastructure systems to the Central Plant, would include landscaping upgrades, and would comply with ADA requirements. The Master Plan Update would include a permanent storm water pollution prevention program, a water reclamation project, and rooftop photovoltaic electrical power-producing systems would be installed on all buildings.
- Campus East Pump House & Fire Water-A new one-story concrete block building, approximately 18 feet by 78 feet, would include an electrical utility room, a domestic water pump room, a fire water pump room, and an emergency diesel generator room, including a site transformer and electrical switchgear located on the south side of the building. The electrical utility room will house all lighting, fire alarm, information technology and security systems panels.

Areas of Project Impact: Environmental effects are anticipated in the following categories: Aesthetics and Lighting; Air Quality; Cultural Resources; Geology; Hazards and Hazardous Materials; Land Use and Planning; Noise; Population and Housing; Public Services; Transportation and Traffic; and Utilities and Service Systems. An Initial Study was not prepared for this project as preliminary review of the project scope indicated the necessity to prepare a Supplemental EIR. Therefore, all topics included in the CEQA Initial Study Checklist will be analyzed in the Supplemental EIR.

The Supplemental EIR will seek to identify and analyze the significant impacts of the proposed project and recommend possible mitigation measures, when necessary, to eliminate or substantially reduce any identified significant impacts.

How to Comment: When submitting a comment, please include the name of a contact person in your agency or organization. Comments regarding the scope of the environmental analysis to be conducted for the proposed project may be submitted by mail, e-mail, or fax to the address below:

Larry Eisenberg, Executive Director, Facilities Planning and Development Los Angeles Community College District 770 Wilshire Boulevard, 6th Floor Los Angeles, CA 90017

Fax: 213-891-2145

E-mail: EisenbLH@email.laccd.edu

In addition, comments may be submitted at the public scoping meeting to be held on November 23rd at 6:00 p.m. in Lecture Lab Building, Room 105 at the Southwest Los Angeles College campus, 1600 West Imperial Highway, Los Angeles, CA 90047

Please send comments at the earliest possible date. All comments must be received by December 12th, 2009 for consideration.

DEPARTMENT OF TRANSPORTATION

DISTRICT 7, Division of Environmental Planning 100 South Main Street, Suite 100 LOS ANGELES, CA 90012-3606 PHONE (213) 897-0362 FAX (213) 897-0685 TTY (213) 897-4937



Flex your power!
Be Energy efficient!

November 23, 2009

Larry Eisenberg, Executive Director, Facilities Planning and Development Los Angeles Community College District 770 Wilshire Boulevard, 6th floor Los Angeles, CA 90017

RE: Notice of Preparation of a Supplemental Environmental Impact Report (EIR) for the Los Angeles Southwest College Facilities Master Plan Update

Dear Mr. Eisenberg,

The Department of Transportation (Caltrans) is in receipt of the Notice of Preparation for the above-referenced project. We accept your invitation to become a Responsible Agency per the California Environmental Quality Act (CEQA) for the project. If federal funding should become available, Caltrans is prepared to assume National Environmental Policy Act (NEPA) lead agency status.

We look forward to working with you on this project and would like to offer any engineering or environmental assistance with project features or impacts that may occur within State right-of-way adjacent to Interstate 105.

Please continue to keep us informed of the project schedule and coordination points. If you should have any questions, feel free to contact me at (213) 897-0703.

Sincerely,

RON KOSINSKI

Deputy District Director

Division of Environmental Planning

Caltrans District 7

DEPARTMENT OF TRANSPORTATION

DISTRICT 7, REGIONAL PLANNING IGR/CEQA BRANCH 100 MAIN STREET, MS # 16 LOS ANGELES, CA 90012-3606 PHONE: (213) 897-6696

PHONE: (213) 897-6696 FAX: (213) 897-1337



IGR/CEQA No. 091115AL, NOP Los Angeles Southwest College Facilities Master Plan Update Vic. LA-0105 / PM 5.736 to R6.254 SCH # 2003031024

December 3, 2009

Mr. Larry Eisenberg Los Angeles Community College District 770 Wilshire Blvd., 6th Floor Los Angeles, CA 90017

Dear Mr. Eisenberg:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is to build new facilities, modernize existing buildings, and to upgrade infrastructure. The project is located on the north side of SR-105 and is between Western Ave. and Normandie Ave.

To assist us in our efforts to evaluate the impacts of this project on State transportation facilities, a traffic study in advance of the DEIR should be prepared. We wish to refer the project's traffic consultant to our traffic study guide Website:

http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

and we list here some elements of what we generally are expecting in the traffic study:

- 1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to State Route 105 and on/off ramps at Crenshaw Blvd. and South Vermont Ave.
- 2. Consistency of project travel modeling with other regional and local modeling forecasts and with travel data. We may use indices to check results. Differences or inconsistencies must be thoroughly explained.

- 3. Analysis of ADT, AM and PM peak-hour volumes for both the existing and future conditions in the affected area. Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions would include build-out of all projects (see next item) and any plan-horizon years.
- 4. Inclusion of all appropriate traffic volumes. Analysis should include traffic from the project, cumulative traffic generated from all specific approved developments in the area, and traffic growth other than from the project and developments. That is, include: existing + project + other projects + other growth.
- 5. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. These mitigation discussions should include, but not be limited to, the following:
 - Description of Transportation Infrastructure Improvements
 - Financial Costs, Funding Sources and Financing
 - Sequence and Scheduling Considerations
 - Implementation Responsibilities, Controls, and Monitoring

Any mitigation involving transit, or Transportation Demand Management (TDM) should be justified and the results conservatively estimated. Improvements involving dedication of land or physical construction may be favorably considered.

6. Regarding realistic mitigation measures, Caltrans may accept fair share contributions toward pre-established or future improvements on the State Highway System. Please use the following ratio when estimating project equitable share responsibility: additional traffic volume due to project implementation is divided by the total increase in the traffic volume (see Appendix "B" of the Guide).

We note for purposes of determining project share of costs, that the number of trips from the project on each traveling segment or element is estimated in the context of forecasted traffic volumes which include build-out of all approved and not yet approved projects, and other sources of growth. Analytical methods such as select-zone travel forecast modeling might be used.

The Department has jurisdiction superceding that of Metro in identifying the State facility analysis needed for this project. Caltrans is responsible for obtaining measures that will off-set project vehicle trip generation that worsens Caltrans facilities. CEQA allows a responsible agency such as Caltrans to develop superceding criteria for evaluating impacts upon those facilities it manages. In addition, the County CMP standards include consultation with Caltrans should State facilities be impacted. State Route(s) mentioned in item #1 and its facilities should be analyzed preferably using methods suggested in Department's Traffic Impact Study Guide. To help us to determine the appropriate scope, we request that a select zone model run is performed. We welcome consultation regarding appropriate scope and methods of analysis preferred by Caltrans.

A noise impact analysis should prepared to determine whether students would be exposed to freeway noise levels in excess of the City's acceptable standards. If the traffic noise coming from the freeway would exceed the City's standard at the proposed school, then we would anticipate that sound attenuant measures such as a sound wall be required as part of noise mitigation.

Additionally, because of the plan area proximity to the State right of way, there is the possibility that work may encroach onto State property. In all instances where the proposed work falls within or affects the State right-of-way such as constructions, grading, changes to hydraulic run-off, etc., a Caltrans encroachment permit will be needed, consequently, plans will need to be reviewed by our Office of Permits.

We look forward to reviewing the traffic study. We expect to receive a copy from the State Clearinghouse when the DEIR is completed. However, to expedite the review process, and clarify any misunderstandings, you may send a copy in advance to the undersigned.

If you have any questions or issue about our comment, please feel free to contact me at (213) 897-6696 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 091115AL.

Sincerely,

ELMER ALVAREZ
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

PUBLIC UTILITIES COMMISSION

320 WEST 4TH STREET, SUITE 500 LOS ANGELES, CA 90013



December 8, 2009

Larry Eisenberg Los Angeles Community College District 770 Wilshire Boulevard, 6th Floor Los Angeles, CA 90017

Dear Mr. Eisenberg:

Re: SCH# 2003031024; Los Angeles Southwest College Facilities Master Plan Update

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings.

The Commission is in receipt of the *Notice of Completion & Environmental Document Transmittal-Notice of Preparation* from the State Clearinghouse for the Southwest College master plan at Imperial Highway and Western Avenue. Commission staff is concerned that the proposed project may increase traffic volumes at the nearby crossings of Normandie Avenue (DOT# 760579V) and Budlong Avenue (DOT# 760577G). This includes considering pedestrian circulation patterns/destinations with respect to the railroad right-of-way and crossing.

The District should consider the proposed development's impact at the above crossings. Language should be in place so that any traffic impact studies undertaken should also address traffic and pedestrian impacts over these crossings. Mitigation measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic and pedestrian volumes, and pedestrian safety treatments and continuous vandal resistant fencing to channelize pedestrians to safe designated crossing locations.

Thank you for your consideration of these comments and we look forward to working with the District on this project. If you have any questions in this matter, please contact Jose Pereyra, Utilities Engineer at 213-576-7085, jfp@cpuc.ca.gov, or me at rxm@cpuc.ca.gov, 213-576-7078.

Sincerely,

Rosa Muñoz, PE Utilities Engineer

Rail Crossings Engineering Section Consumer Protection & Safety Division

C: Dan Miller, UPRR

November 19, 2009

Mr. Larry Eisenberg
Executive Director, Facilities Planning and Development
Los Angeles Community College District
770 Wilshire Boulevard, 6th Floor
Los Angeles, CA 90017

Dear Mr. Eisenberg:

Notice of Preparation of a Draft Supplemental Environmental Impact Report (Draft EIR) for the Los Angeles Southwest College Facilities Master Plan Update

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Electronic files include spreadsheets, database files, input files, output files, etc., and does <u>not</u> mean Adobe PDF files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation <u>will require</u> additional time for review beyond the end of the comment period.

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

Cleaning the air that we breathe...

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM intro.html Additionally, SCAQMD's Rule 403 - Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Daniel Garcia, Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.

Sincerely.

Susan Nakamura Planning Manager

Planning, Rule Development and Area Sources

SN:DG:AK LAC091112-09AK Control Number Appendix B

Air Quality Data



LOS ANGELES CIVIC CENTE, CALIFORNIA

Period of Record General Climate Summary - Temperature

				Sta	tion:(04511	(5) L(OS ANGEL	ES CIV	IC CE	ENTE					
					From	Year	=1906 To Y	ear=200	19						
	1	Aonth verag	-		Daily E	xtrem	es	Mo	nthly !	Extreme	S	Ma Tei	ax. np.		in. np.
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	66.3	48.3	57.3	95	18/1971	28	07/1913	65.9	1986	46.9	1949	0.1	0.0	0.1	0.0
February	67.3	49.6	58.4	95	20/1995	25	19/1911	65.3	1995	51.9	1911	0.1	0.0	0.0	0.0
March	68.8	51.1	60.0	98	26/1988	35	04/1976	66.0	1931	54.6	1945	0.2	0.0	0.0	0.0
April	71.0	53.4	62.2	106	06/1989	39	07/1975	69.6	1992	56.0	1975	0.8	0.0	0.0	0.0
May	72.9	56.5	64.7	102	16/1967	40	12/1933	72.6	1997	58.7	1917	0.9	0.0	0.0	0.0
June	77.0	59.7	68.3	112	26/1990	49	01/1917	77.4	1981	63.4	1944	1.3	0.0	0.0	0.0
July	82.3	63.1	72.7	107	01/1985	53	17/1907	79.9	2006	66.6	1944	3.2	0.0	0.0	0.0
August	83.0	63.8	73.4	105	06/1983	52	25/1909	80.8	1983	68.1	1914	4.0	0.0	0.0	0.0
September	81.8	62.6	72.2	110	01/1955	50	22/1921	81.3	1984	64.6	1933	4.9	0.0	0.0	0.0
October	77.6	58.6	68.1	108	03/1987	41	30/1971	74.2	1983	59.7	1916	3.1	0.0	0.0	0.0
November	72.8	53.3	63.1	100	01/1966	37	28/1919	68.9	1932	57.9	1906	0.8	0.0	0.0	0.0
December	67.4	49.1	58.2	92	08/1938	30	08/1978	64.2	1939	52.6	1916	0.0	0.0	0.0	0.0
Annual	74.0	55.8	64.9	112	19900626	25	19110219	68.9	1981	60.9	1916	19.4	0.0	0.1	0.0
Winter	67.0	49.0	58.0	95	19710118	25	19110219	63.3	1986	51.0	1949	0.2	0.0	0.1	0.0
Spring	70.9	53.7	62.3	106	19890406	35	19760304	67.8	1997	57.8	1917	1.9	0.0	0.0	0.0
Summer	80.8	62.2	71.5	112	19900626	49	19170601	77.6	1981	66.4	1916	8.5	0.0	0.0	0.0
Fall	77.4	58.2	67.8	110	19550901	37	19191128	72.2	1983	61.4	1916	8.8	0.0	0.0	0.0

Table updated on Jul 30, 2009

For monthly and annual means, thresholds, and sums:

Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

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LOS ANGELES CIVIC CENTE, CALIFORNIA

Period of Record General Climate Summary - Precipitation

			Sı	tation	:(045	115)	LOS ANGE	LES C	IVIC CI	ENTE				
					Fro	m Ye	ear=1906 To	Year=2	.009					
						P	recipitation					Tota	Snov	vfall
	Mean	High	Year	Low	Year	1]	Day Max.	>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	3.23	14.94	1969	0.00	1948	5.71	26/1956	6	4	2	1	0.0	0.3	1949
February	3.40	13.68	1998	0.00	1912	4.80	24/1913	6	5	2	1	0.0	0.0	1949
March	2.41	8.37	1983	0.00	1931	5.88	02/1938	6	4	2	1	0.0	0.0	1949
April	1.02	7.53	1926	0.00	1909	2.74	05/1926	3	2	1	0	0.0	0.2	1950
May	0.25	3.57	1921	0.00	1923	2.02	08/1977	1	1	0	0	0.0	0.0	1949
June	0.07	0.98	1999	0.00	1908	0.76	05/1993	1	0	0	0	0.0	0.0	1913
July	0.01	0.18	1986	0.00	1907	0.60	25/1906	0	0	0	0	0.0	0.0	1948
August	0.05	2.26	1977	0.00	1907	2.06	17/1977	0	0	0	0	0.0	0.0	1948
September	0.28	5.67	1939	0.00	1907	3.96	25/1939	1	1	0	0	0.0	0.0	1948
October	0.45	4.56	2004	0.00	1913	1.72	17/1934	2	1	0	0	0.0	0.0	1948
November	1.27	9.68	1965	0.00	1907	3.85	07/1966	3	2	1	0	0.0	0.0	1948
December	2.34	8.77	2004	0.00	1912	5.55	28/2004	5	4	2	1	0.0	0.0	1948
Annual	14.77	34.04	1983	3.85	1953	5.88	19380302	36	23	10	4	0.0	0.3	1949
Winter	8.97	29.11	2005	1.19	1924	5.71	19560126	18	13	6	3	0.0	0.3	1949
Spring	3.68	13.89	1983	0.00	1997	5.88	19380302	11	7	2	1	0.0	0.2	1950
Summer	0.12	2.26	1977	0.00	1912	2.06	19770817	1	0	0	0	0.0	0.0	1949
Fall	2.00	11.48	1965	0.00	1980	3.96	19390925	6	4	1	0	0.0	0.0	1948

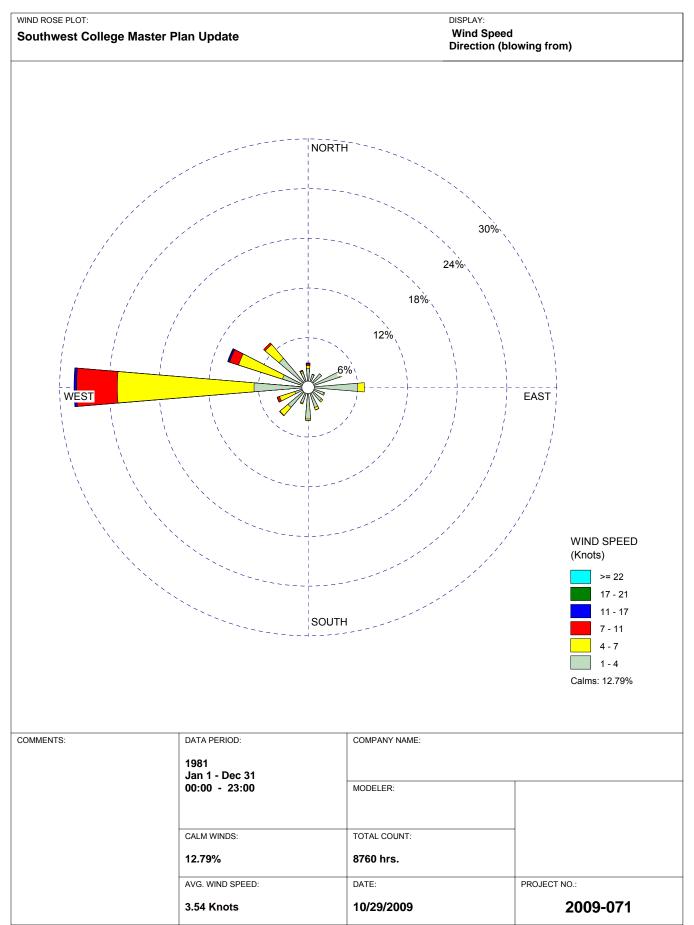
Table updated on Jul 30, 2009

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

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Part			Cart	on Mono	oxide a)		Ozone b)							Nitrog	en Dioxide	c)		Sulfur	Dioxide d)			
March Marc										No	. Days S	tandard E	xceeded									
March Marc				Max.	Max		Max.		Fourth	Health							Max	Annual		Max.	Max.	Annual
Some Personant Personant Personant Personant Personal P			No.	Conc.	Conc.	No.	Conc.	Conc.	High	Advisory	Fe	deral	St	ate	No.	Conc.	Conc.	Average	No.	Conc.	Conc.	Average
No. Location No. Data Hour Shour Hour Shour Hour Hour Shour Shour Hour Shour Sh			Days	in	in	Days	in	in	Conc.	≥ 0.15	> 0.12	> 0.08	> 0.09	> 0.07	Days	in	in	AAM	Days	in	in	AAM
Control Cont	Source/Receptor Area	Station	of	ppm	ppm	of	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	of	ppm	ppm	Conc.	of	ppm	ppm	Conc.
Castral LA County	No. Location	No.	Data	1-hour	8-hour	Data	1-hour	8-hour	8-hour	1-hour	1-hour	8-hour	1-hour	8-hour	Data	1-hour	24-hour	ppm	Data	1-hour	24-hour	ppm
Castral LA County	LOS ANGELES COUNTY																					
Southwest Coastal LA County 073 30		087	362	3	2.6	362	0.11	0.079	0.077	0	0	0	8	4	360	0.11	0.06	0.0288	365	0.03	0.006	0.0019
4 South Coastal LA County 1 072 300 4 3.4 3.4 364 0.8 0.88 0.088 0.088 0.088 0.089 0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 Northwest Coastal LA County 	091	365	3	2.0	365	0.10	0.074	0.069	0	0	0	3	0	365	0.08	0.05	0.0173				
A South Consarl LA County O77	3 Southwest Coastal LA County	820	363	3	2.3	360	0.08	0.066	0.062	0	0	0	0	0	351	0.10	0.05	0.0155	363	0.02	0.006	0.0020
See New Stan Fernando Valley	4 South Coastal LA County 1	072	360	4	3.4	364	0.08	0.058	0.058	0	0	0	0	0	357	0.10	0.05	0.0215	364	0.03	0.010	0.0012
Fast Sam Formando Valley	4 South Coastal LA County 2	077																				
Mest San Gabriel Valley 068 360 4 2.8 365 0.15 0.117 0.095 1 5 7 2.5 2.4 3.65 0.12 0.06 0.0245 Peast San Gabriel Valley 075 365 3 2.1 3.65 0.15 0.107 2 10 15 3.7 31 3.62 0.10 0.06 0.0256 Peast San Gabriel Valley 075 365 3 2.1 3.65 0.15 0.128 0.109 2 9 16 32 30 3.65 0.10 0.06 0.0256 South San Gabriel Valley 085 232 38 2.1 3.65 0.15 0.128 0.109 2 9 16 32 30 3.65 0.10 0.06 0.0307 South San Gabriel Valley 085 232 38 2.7 250 0.13 0.095 0.0808 08 1 3.8 9 5.5 2.04 0.10 0.06 0.0238 South San Gabriel Valley 090 363 2 1.3 359 0.16 0.120 0.112 1 20 40 62 64 359 0.08 0.04 0.0184 South San Gabriel Valley 090 363 2 1.3 359 0.16 0.120 0.112 1 20 40 62 64 359 0.08 0.04 0.0184 South San Gabriel Valley 090 363 2 1.3 359 0.16 0.120 0.112 1 20 40 62 64 359 0.08 0.04 0.0184 South San Gabriel Valley 090 363 2 1.3 359 0.16 0.120 0.112 1 20 40 62 64 359 0.08 0.04 0.0184 South County 3177 362 5 3.0 365 0.01 0.0088 0.072 0.112 1 3 4 8 8 9 361 0.09 0.05 0.0224 North County 3178 365 5 3.0 365 0.01 0.064 0.062 0 0 0 0 0 0 0 0 0	6 West San Fernando Valley	074	365	5	3.4	361	0.16	0.108	0.105	1	6	17	32	39	363	0.07	0.04	0.0174				
Past San Gabriel Valley 1	7 East San Fernando Valley	069	365	4	3.5	365	0.17	0.128	0.099	2	6	12	25	23	365	0.10	0.05	0.0274	360	0.01	0.004	0.0006
Past Sam Gabriel Valley 2	8 West San Gabriel Valley	088	360	4	2.8	365	0.15	0.117	0.095	1	5	7	25	24	365	0.12	0.06	0.0245				
10 Pomona Walnut Valley	9 East San Gabriel Valley 1	060	365	2	1.7	364	0.17	0.120	0.091	2	7	10	23	19	365	0.11	0.07	0.0258				
11 South San Gabriel Valley 085 322* 3* 2.7* 250* 0.13* 0.095* 0.080* 0.0* 0.0* 1* 3* 3* 9* 5* 204* 0.10* 0.06* 0.0283* 1.2* 1.2* 0.0* 0.06* 0.06* 0.0* 0.	9 East San Gabriel Valley 2	591	363	2	2.0	363	0.18	0.128	0.107	2	10	15	37	31	362	0.10	0.06	0.0206				
South Central LA County O84 365 8 6.4 365 0.9 O.066 O.064 O. 0 O	10 Pomona/Walnut Valley	075	365	3	2.1	365	0.15	0.128	0.109	2	9	16	32	30	365	0.10	0.06	0.0307				
Santa Clarita Valley	11 South San Gabriel Valley	085	232*	3*	2.7*	250*	0.13*	0.095*	0.080*	0*	1*	3*	9*	5*	204*	0.10*	0.06*	0.0283*				
ORANGE COUNTY 16 North Orange County 3177 362 6 3.0 362 0.15 0.114 0.092 1 3 4 8 9 361 0.09 0.05 0.0224	12 South Central LA County	084	365	8	6.4	365	0.09	0.066	0.064	0	0	0	0	0	363	0.14	0.08	0.0306				
16 North Orange County	13 Santa Clarita Valley	090	363	2	1.3	359	0.16	0.120	0.112	1	20	40	62	64	359	0.08	0.04	0.0184				
16 North Orange County	ORANGE COUNTY																					
Central Orange County 3176 365 5 3.0 365 0.17 0.088 0.072 0 0 0 1 5 3 343 0.11 0.06 0.0197 .		3177	362	6	3.0	362	0.15	0.114	0.092	1	3	4	8	9	361	0.09	0.05	0.0224				
18										0		1	5									
Saddleback Valley										0		0							353		0.004	0.0013
Noting N	2 3			2	1.8					0	0	6	13	17								
Noting N	RIVERSIDE COUNTY																					
Metropolitan Riverside County 1 4144 365 3 2.1 365 0.15 0.116 0.113 1 8 30 45 59 365 0.08 0.05 0.019 365 0.01 0.004 0.0013		4155																				
Metropolitan Riverside County 2		4144	365	3	2.1	365	0.15	0.116	0.113	1	8	30	45	59	365	0.08	0.05	0.0199	365	0.01	0.004	0.0013
23 Mira Loma 24 Perris Valley 4149																						
25 Lake Elsinore 4158 362 1 1.0 362 0.14 0.109 0.102 0 3 24 40 58 352 0.07 0.05 0.0151		5214	364	4	2.7	364	0.16	0.119	0.107	1	4	25	39	48	332	0.08	0.05	0.0194				
29 Banning Airport 4164 357 0.14 0.115 0.104 0 8 444 57 78 355 0.11 0.04 0.0161 357 0.14 0.115 0.104 0 8 444 57 78 355 0.11 0.04 0.0161 30 Coachella Valley 1** 4137 365 2 1.0 361 0.13 0.109 0.101 0 2 23 37 67 359 0.09 0.05 0.0103	24 Perris Valley	4149				351	0.17	0.122	0.114	3	12	53	76	84								
29 Banning Airport 4164 357 0.14 0.115 0.104 0 8 444 57 78 355 0.11 0.04 0.0161 357 0.14 0.115 0.104 0 8 444 57 78 355 0.11 0.04 0.0161 30 Coachella Valley 1** 4137 365 2 1.0 361 0.13 0.109 0.101 0 2 23 37 67 359 0.09 0.05 0.0103	25 Lake Elsinore	4158	362	1	1.0	362	0.14	0.109	0.102	0		24	40	58	352	0.07	0.05	0.0151	T			
30 Coachella Valley 1** 4137 365 2 1.0 361 0.13 0.109 0.101 0 2 2.33 37 67 359 0.09 0.05 0.0103										0												
SAN BERNARDINO COUNTY 32 Northwest San Bernardino Valley 5175 360 3 1.8 365 0.17 0.130 0.114 2 14 25 50 54 337 0.10 0.07 0.0310	30 Coachella Valley 1**	4137	365	2	1.0	361	0.13	0.109	0.101	0	2	23	37	67	359	0.09	0.05	0.0103				
32 Northwest San Bernardino Valley 5175 360 3 1.8 365 0.17 0.130 0.114 2 14 25 50 54 337 0.10 0.07 0.0310	30 Coachella Valley 2**	4157				364	0.10	0.089	0.087	0	0	7	4	29								
32 Northwest San Bernardino Valley 5175 360 3 1.8 365 0.17 0.130 0.114 2 14 25 50 54 337 0.10 0.07 0.0310	SAN BERNARDINO COUNTY																					
33 Southwest San Bernardino Valley 5817		5175	360	3	1.8	365	0.17	0.130	0.114	2	14	25	50	54	337	0.10	0.07	0.0310				
34 Central San Bernardino Valley I 5197 365 3 2.0 361 0.16 0.123 0.116 1 12 29 47 49 362 0.09 0.06 0.0270 365 0.01 0.003 0.0019 34 Central San Bernardino Valley 5203 364 3 2.3 362 0.15 0.127 0.119 3 10 29 52 57 362 0.09 0.05 0.0252 365 0.16 0.135 0.125 5 11 36 60 64 365 0.16 0.135 0.125 5 11 36 60 64 365 0.16 0.142 0.112 2 9 59 71 96										_												
35 East San Bernardino Valley 5204 365 0.16 0.135 0.125 5 11 36 60 64			365	3	2.0	361	0.16	0.123	0.116	1	12	29	47	49	362	0.09	0.06	0.0270	365	0.01	0.003	0.0019
35 East San Bernardino Valley 5204 365 0.16 0.135 0.125 5 11 36 60 64	34 Central San Bernardino Valley 2	5203	364	3	2.3	362	0.15	0.127	0.119	3	10	29	52	57	362	0.09	0.05	0.0252				
38 East San Bernardino Mountains 5818 <		5204				365	0.16	0.135	0.125	5	11	36	60	64								
DISTRICT MAXIMUM 8 6.4 0.18 0.142 0.125 5 20 59 76 96 0.14 0.08 0.0310 0.03 0.010 0.0020	37 Central San Bernardino Mountains	5181				365	0.16	0.142	0.112	2	9	59	71	96								
	38 East San Bernardino Mountains	5818																				
SOUTH COAST AIR BASIN 8 6.4 0.18 0.142 0.125 10 35 86 102 121 0.14 0.08 0.0310 0.03 0.010 0.0020	DISTRICT MAXIMUM			8	6.4		0.18	0.142	0.125	5	20	59	76	96		0.14	0.08	0.0310		0.03	0.010	0.0020
	SOUTH COAST AIR BASIN			8	6.4		0.18	0.142	0.125	10	35	86	102	121		0.14	0.08	0.0310		0.03	0.010	0.0020

ppm - Parts Per Million parts of air, by volume.

AAM = Annual Arithmetic Mean

-- - Pollutant not monitored.

** Salton Sea Air Basin.



The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

^{*} Less than 12 full months of data. May not be representative.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005.

The 8-hour average California ozone standard of 0.07 ppm was established effective May 17, 2006.

c) - The state standard is 1-hour average NO₂ > 0.25 ppm. The federal standard is annual arithmetic mean NO₂ > 0.0534 ppm. Air Resources Board has approved to lower the NO₂ 1-hour standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. The revisions are expected to become effective later in 2007.

d) - The state standards are 1-hour average $SO_2 > 0.25$ ppm and 24-hour average $SO_2 > 0.04$ ppm. The federal standards are annual arithmetic mean $SO_2 > 0.03$ ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO_2 standards were not exceeded.

			Suspen	ded Particula	ates PM10 e)				Fine Particu	lates PM2.5	; f)		Pa	rticulates T	(SPg)	Le	adg)	Su	lfate g)
2006					Samples					No. (%)	-							No.	(%) Samples
					eeding				98th	Excee	U								Exceeding
			Max.		ndard	Annual		Max.	Percentile	Standard	Standard	Annual		Max.	Annual	Max.	Max.	Max.	Standard
		No.	Conc.	<u>Federal</u>	State	Average	No.	Conc.	Conc.	Federal i)	Federal i)	Averages	No.	Conc.	Average	Monthly	Quarterly	Conc.	State
		Days	in	> 150	> 50	AAM h)	Days	in	in	> 35	> 65	AAMj)	Days	in	AAM	Average	Average	in	≥ 25
Source/Receptor Area	Station	of	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	Conc.	of	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	Conc.	of	$\mu g/m^3$	Conc.	Conc. k)	Conc.k)	$\mu g/m^3$	$\mu g/m^3$
No. Location	No.	Data	24-hour	24-hour	24-hour	μg/m ³	Data	24-hour	24-hour	24-hour	24-hour	$\mu g/m^3$	Data	24-hour	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	24-hour	24-hour
LOS ANGELES COUNTY																			
1 Central LA	087	59	59	0	3(5.1)	30.3	330	56.2	38.9	11(3.3)	0	15.6	59	109	63.3	0.02	0.01	18.2	0
2 Northwest Coastal LA County	091												56	76	40.2			12.2	0
3 Southwest Coastal LA County	820	51	45	0	0	26.5							56	84	43.1	0.01	0.01	13.6	0
4 South Coastal LA County 1	072 077	61	78	0	6(9.8)	31.1	290*	58.5*	34.9*	5(1.7)*	0*	14.2*	62 59	157	62.9	0.01	0.01	17.8	0
4 South Coastal LA County 26 West San Fernando Valley		58	117	0	19(32.7)	45.0	320	53.6 44.1	35.3	6(1.9)	0	14.5	.	192	71.1	0.01	0.01	18.8	0
· · · · · · · · · · · · · · · · · · ·	074				10(10.5)	25.6	92		32.0	1(1.1) 6(5.8)		12.9							
7 East San Fernando Valley 8 West San Gabriel Valley	069 088	54	71	0	10(18.5)	35.6	104 113	50.7 45.9	43.4 32.1	1(0.9)	0	16.6 13.4	60	123	42.8			28.7	1(1.7)
9 East San Gabriel Valley 1	060	58	81	0	7(12.1)	31.9	278*	52.8*	38.5*	8(2.9)*	0*	15.4	59	142	68.4			20.8	0
9 East San Gabriel Valley 2	591				7(12.1)		276											20.0	
10 Pomona/Walnut Valley	075																		
11 South San Gabriel Valley	085						116	72.2	43.1	7(6)	1(0.9)	16.7	58	768	79.3	0.03	0.02	28.6	1(1.7)
12 South Central LA County	084						107	55.0	44.5	4(3.7)	0	16.7	58	147	68.4	0.02	0.02	24.1	0
13 Santa Clarita Valley	090	58	53	0	1(1.7)	23.4													
ORANGE COUNTY																			
16 North Orange County	3177																		
17 Central Orange County	3176	56	104	0	7(12.5)	33.4	330	56.2	40.5	8(2.4)	0	14.1							
18 North Coastal Orange County	3195																		
19 Saddleback Valley	3812	50	57	0	1(2.0)	22.8	106	47.0	25.7	1(0.9)	0	11.0							
RIVERSIDE COUNTY																			_
22 Norco/Corona	4155	57	74	0	10(17.5)	36.5													
23 Metropolitan Riverside County 1	4144	118	109	0	71(60.2)	54.4	300	68.5	53.7	32(10.7)	1(0.3)	19.0	59	169	91.2	0.01	0.01	10.8	0
23 Metropolitan Riverside County 2	4146						105	55.3	47.7	9(8.6)	0	17.0	59	131	72.9	0.01	0.01	9.9	0
23 Mira Loma	5214	59	124	0	41(69.5)	64.0	113	63.0	52.5	14(12.4)	0	20.6							
24 Perris Valley	4149	54	125	0	19(35.2)	45.0													
25 Lake Elsinore	4158				0(14.6)														
29 Banning Airport 30 Coachella Valley 1**	4164 4137	55 57	75 73+	0 0+	8(14.6) 2(3.5)+	31.1 24.5+	111	24.8	 15.9	0	0	 7.7							
30 Coachella Valley 2**	4157	115	122+	0+ 0+	2(3.3)+ 57(49.6)+	52.7+	107	24.8	19.1	0	0	9.5							
	4137	113	122+	0+	37(49.0)+	32.1+	107	24.3	17.1	0	U	9.3							
SAN BERNARDINO COUNTY	5175												50	105	516	0.01	0.01	0.1	0
32 Northwest San Bernardino Valley 33 Southwest San Bernardino Valley	5175 5817	62	78	0	17(27.4)	42.3	107	53.7	41.5	7(6.5)	0	18.5	58	105	54.6	0.01	0.01	9.1	0
34 Central San Bernardino Valley 1	5197	60	142	0	31(51.7)	53.5	112	52.6	43.8	7(6.3)	0	17.6	59	190	101.0			10.3	0
34 Central San Bernardino Valley 2	5203	57	92	0	24(42.1)	46.0	102	55.0	48.4	8(7.8)	0	17.8	54	174	87.0	0.02	0.01	11.0	0
35 East San Bernardino Valley	5204	60	103	0	12(20.0)	36.2													
37 Central San Bernardino Mountains	5181	58	63	0	1(1.7)	26.2													
38 East San Bernardino Mountains	5818						42*	40.1*	40.1*	1(2.4)*	0*	11.2*							
DISTRICT MAXIMUM			142+	0+	71	64.0		72.2	53.7	32	1	20.6		768	101.0	0.03	0.02	28.7	1
SOUTH COAST AIR BASIN			142+	0+	75	64.0		72.2	53.7	32	1	20.6		768	101.0	0.03	0.02	28.7	1
/ 3 \ 11																			

μg/m³ - Micrograms per cubic meter of air

AAM - Annual Arithmetic Mean

-- - Pollutant not monitored

- g) Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.
- h) Federal annual PM10 standard (AAM > 50 μg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 μg/m³.
- i) U.S. EPA has revised the federal 24-hour PM2.5 standard from 65 µg/m³ to 35 µg/m³; effective December 17, 2006.
- j) Federal PM2.5 standard is annual average (AAM) > $15 \mu g/m^3$. State standard is annual average (AAM) > $12 \mu g/m^3$.
- k) Federal lead standard is quarterly average > $1.5 \,\mu\text{g/m}^3$; and state standard is monthly average $\geq 1.5 \,\mu\text{g/m}^3$. No location exceeded lead standards.
- Maximum monthly and quarterly lead concentrations at special monitoring sites immediately downwind of stationary lead sources were 0.24 µg/m³ and 0.22 µg/m³, respectively, both recorded at Central Los Angeles.
- + The data for the samples collected on a high-wind day (July 16, 2006) at Palm Springs and Indio (226 µg/m³ and 313 µg/m³, respectively) were excluded in accordance with EPA's Natural Events Policy.



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^{*} Less than 12 full months of data. May not be representative.

^{**} Salton Sea Air Basin. e) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

f) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

			Carb	Carbon Monoxide ^{a)} Ozone								Nit	rogen Dio	xide d)		Sulfur	Dioxide 6	e)				
2007	7										No I	Days Star	ndard Exce	eeded								
2001				Max.	Max		Max.	Max.	Fourth	Health		Federal			te c)		Max	Annual		Max.	Max.	Annual
	Statio	on No.	No.	Conc.	Conc.	No.	Conc.	Conc.	High	Advisory						No.	Conc.	Average	No.	Conc.	Conc.	Average
Source/Receptor Area			Days	in	in	Days	in	in	Conc.	≥ 0.15	> 0.12	> 0.08	> 0.075	> 0.09	> 0.070	Days	in	AAM	Days	in	in	AAM
No. Location	State Code	District Code	of Data	ppm 1-hour	ppm 8-hour	of Data	ppm 1-hour	ppm 8-hour	ppm 8-hour	ppm 1-hour	ppm 1-hour	ppm 8-hour	ppm 8-hour	ppm 1-hour	ppm 8-hour	of Data	ppm 1-hour	Conc.	of Data	ppm 1-hour	ppm 24-hour	Conc. ppm
LOS ANGELES COUNTY			<u> </u>															- 11				
1 Central LA	70087	087	359	3	2.2	355	0.115	0.102	0.072	0	0	2	3	3	6	360	0.10	0.0299	351	0.01	0.003	0.0009
2 Northwest Coastal LA County	70091	091	365	3	1.9	360	0.117	0.087	0.067	0	0	1	2	2	2	353	0.08	0.0200				
3 Southwest Coastal LA County	70111	820	361	3	2.4	361	0.087	0.074	0.066	0	0	0	0	0	1	331*	0.08	0.0140	361	0.02	0.009	0.0028
4 South Coastal LA County 1	70072	072	347*	3	2.6	365	0.099	0.073	0.056	0	0	0	0	1	1	365	0.11	0.0207	365	0.11	0.011	0.0027
4 South Coastal LA County 2	70110	077																				
6 West San Fernando Valley	70074	074	358	4	2.8	358	0.129	0.104	0.092	0	1	8	28	21	43	358	0.08	0.0186				
7 East San Fernando Valley	70069	069	365	4	2.8	365	0.116	0.096	0.088	0	0	6	13	13	19	363	0.09	0.0289	365	0.01	0.003	0.0010
8 West San Gabriel Valley	70088	088	365	3	2.4	365	0.149	0.100	0.089	0	3	6	11	13	21	365	0.09	0.0246				
9 East San Gabriel Valley 1	70060	060	365	3	2.0	365	0.158	0.112	0.096	1	3	13	20	22	28	365	0.12	0.0253				
9 East San Gabriel Valley 2	70591	591	365	2	2.0	364	0.147	0.116	0.104	0	3	14	26	25	40	365	0.11	0.0227				
10 Pomona/Walnut Valley	70075	075	365	3	2.1	365	0.153	0.108	0.102	1	2	10	18	19	25	365	0.10	0.0318				
11 South San Gabriel Valley	70185	085	365	5	2.9	364	0.135	0.100	0.079	0	2	2	5	6	9	361	0.11	0.0249				
12 South Central LA County	70084	084	365	8	5.1	365	0.102	0.077	0.056	0	0	0	1	1	2	365	0.10	0.0291				
13 Santa Clarita Valley	70090	090	361	2	1.2	357	0.135	0.110	0.101	0	2	16	44	31	64	339*	0.08	0.0196				
ORANGE COUNTY																						
16 North Orange County	30177	3177	360	6	3.3	365	0.152	0.107	0.082	1	1	2	8	7	9	365	0.08	0.0219				
17 Central Orange County	30178	3176	346*	4	2.9	365	0.127	0.099	0.073	0	1	1	1	2	7	359	0.10	0.0208				
North Coastal Orange CountySaddleback Valley	30195	3195	362	5	3.1	362	0.082	0.072	0.065	0	0	0 2	0 5	0 5	2 10	362	0.07	0.0132	358	0.01	0.004	0.0010
	30002	3812	364	3	2.1	365	0.108	0.089	0.080	U	U		3	3	10							
RIVERSIDE COUNTY	22155																					
22 Norco/Corona	33155 33144	4155	364	4	2.9	265	0.121	0.111	0.099	0	2	1.5		31	69	364	0.07	0.0206	323*	0.02	0.002	0.0017
 Metropolitan Riverside County 1 Metropolitan Riverside County 2 	33144	4144 4146	365	4	2.9	365	0.131	0.111	0.099		2	15	46					0.0206				0.0017
23 Metropolitan Riverside County 223 Mira Loma	33146	5214	359	3	2.1	360	0.118	0.104	0.092	0	0	10	23	16	48	349*	0.07	0.0181				
24 Perris Vallev	33149	4149			2.1	365	0.118	0.104	0.103	0	4	37	73	66	88	349		0.0161				
25 Lake Elsinore	33158	4158		2	2.3	359	0.130		0.103	0	3	19	35	26	55	358	0.06	0.0174				
29 Banning Airport	33164	4158	365		2.3	365	0.130	0.108 0.113	0.097	0	1	19	43	28	63	363	0.08	0.0174				
30 Coachella Valley 1**	33137	4137	365	2	1.0	365	0.129	0.113	0.093	0	1	20	58	29	83	365	0.06	0.0147				
30 Coachella Valley 2**	33155	4157				365	0.106	0.094	0.087	0	0	6	29	8	48							
SAN BERNARDINO COUNTY	00100	1107				505	0.100	0.07.	0.007													
32 Northwest San Bernardino Valley	36175	5175	365	2	1.6	365	0.145	0.115	0.112	0	7	18	35	32	55	327*	0.10	0.0276				
33 Southwest San Bernardino Valley	36025	5817						0.113	0.112									0.0270				
34 Central San Bernardino Valley 1	36197	5197	359	3	1.8	359	0.144	0.122	0.112	0	9	19	43	40	60	358	0.09	0.0239	359	0.01	0.004	0.0019
34 Central San Bernardino Valley 2	36203	5203	365	4	2.3	365	0.153	0.121	0.117	1	8	24	51	48	74	351	0.08	0.0245				
35 East San Bernardino Valley	36204	5204				365	0.149	0.124	0.112	0	7	25	58	54	79							
37 Central San Bernardino Mountains	36181	5181				365	0.171	0.137	0.126	4	13	59	93	67	115							
38 East San Bernardino Mountains	36001	5818																				
DISTRICT MAXIMUM				8	5.1		0.171	0.137	0.126	4	13	59	93	67	115		0.12	0.0318		0.11	0.011	0.0028
SOUTH COAST AIR BASIN				8	5.1		0.171	0.137	0.126	5	18	79	108	96	128		0.12	0.0318		0.11	0.011	0.0028
nnm - Parts Per Million parts of air by volum	***		Λ Λ	M - A	nual Arith	matia M			Dollutor	nt not monit	o mo d				-							

ppm - Parts Per Million parts of air, by volume.

AAM = Annual Arithmetic Mean

-- - Pollutant not monitored.

** Salton Sea Air Basin.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded.



The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

^{*} Less than 12 full months of data; may not be representative.

The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005. U.S. EPA has revised the federal 8-hour ozone standard from 0.084 ppm to 0.075 ppm, effective May 27, 2008.

c) - The 8-hour average California ozone standard of 0.070 ppm was established effective May 17, 2006.

d) - The federal standard is annual arithmetic mean NO₂ > 0.0534 ppm. California Air Resources Board has revised the NO₂ 1-hour state standard from 0.25 ppm to 0.18 ppm and has established a new annual standard of 0.030 ppm, effective March 20, 2008.

e) - The state standards are 1-hour average $SO_2 > 0.25$ ppm and 24-hour average $SO_2 > 0.04$ ppm. The federal standards are annual arithmetic mean $SO_2 > 0.03$ ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO_2 standards were not exceeded.

2007 AIR QUALITY

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

					Suspend	led Particul	ates PM10 f))			Fine Partic	ulates PM2.	5 ^{g)}			Particulate	es h)	Le	ad h)	Su	fate h)
	2007		on No.	No.	Max. Conc.	Exce	Samples eeding dards State > 50	Annual Average Conc. i)	No.	Max. Conc.	98 th Percentile Conc. in	No. (%) S Excee Federal S Current > 35 ^{j)}	ding	Annual Average Conc. k)	No.	Max. Conc.	Annual Average Conc.	Max. Monthly Average	Max. Quarterly Average	Max. Conc. l)	%Samples Exceeding State Standard ≥ 25
Sou	arce/Receptor Area	State	District	Days of	$\mu g/m^3$	μg/m ³	$\mu g/m^3$	(AAM)	Days of	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	(AAM)	Days of	$\mu g/m^3$	(AAM)	Conc. I)	Conc. l)	$\mu g/m^3$	μg/m ³
No.	Location	Code	Code	Data	24-hour	24-hour	24-hour	μg/m ³	Data	24-hour	24-hour	24-hour	24-hour	μg/m ³	Data	24-hour	μg/m ³	$\mu g/m^3$	$\mu g/m^3$	24-hour	24-hour
LOS	ANGELES COUNTY																				
1	Central LA	70087	087	57	78	0	5(9)	33.3	324	64.2	51.2	20(0.6)	0	16.8	58	194	73.5				
2	Northwest Coastal LA County	70091	091												57	180	57.6				
3	Southwest Coastal LA County	70111	820	56	96	0	2(4)	27.7							55	286	51.8				
4	South Coastal LA County 1	70072	072	58	75+	0+ 0+	5(9)+	30.2+	332	82.9	40.8	12(3.6)	1(0.3)	14.6	59	732	76.5				
4	South Coastal LA County 2 West San Fernando Valley	70110 70074	077 074	57 	123+		17(30)+	41.7+	326 95	68.0 43.3	33.7 33.4	6(1.8) 1(1.1)	1(0.3)	13.7 13.1	58 	694	79.4	<u> </u>			
6 7	East San Fernando Valley	70074	069	55	109	0	11(20)	40.0	98	56.5	47.7	9(9.2)	0	16.8							
8	West San Gabriel Valley	70088	088		109				108	68.9	45.4	3(2.8)	1(0.9)	14.3	56	123	46.3				
9	East San Gabriel Valley 1	70060	060	57	83+	0+	11(19)+	35.6+	292*	63.8	49.3	19(6.5)	0	15.9	58	243	77.8				
9	East San Gabriel Valley 2	70591	591																		
10	Pomona/Walnut Valley	70075	075															<u> </u>			
11	South San Gabriel Valley	70185	085						101	63.6	49.5	5(5.0)	0	16.7	55	196	76.0				
12	South Central LA County	70084	084						106	49.0	46.1	4(3.8)	0	15.9	59	327	78.8				
13	Santa Clarita Valley	70090	090	58	131+	0+	5(9)+	29.9+													
ORA	NGE COUNTY																				
	North Orange County	30177	3177																		
	Central Orange County	30178	3176	59	75+	0+	5(9)+	31.0+	336	79.4	46.5	14(4.2)	1(0.3)	14.5							
	North Coastal Orange County	30195	3195																		
	Saddleback Valley	30002	3812	58	74	0	3(5)	23.0	98	46.9	35.0	2(2.0)	0	11.3						-	
	ERSIDE COUNTY	22155					10(15)	20.5													
	Norco/Corona	33155 33144	4155 4144	59 116	93+ 118+	0+ 0+	10(17)+	39.6+ 54.7+	 295*	75.7	54.3	33(11.2)	3(1.0)	 19.1	 57	237	111.0				
	Metropolitan Riverside County 1 Metropolitan Riverside County 2	33144	4144		110+		66(51)+	34.7+	101	68.6	57.3	8(7.9)	1(1.0)	18.1	60	674	88.9				
	Mira Loma	33165	5214	56	142	0	41(73)	68.5	110	69.7	60.1	13(11.8)	1(0.9)	21.0							
	Perris Valley	33149	4149	59	120+	0+	32(54)+	54.8+													
25	Lake Elsinore	33158	4158																		
	Banning Airport	33164	4164	49*	78	0	7(14)	33.3													
	Coachella Valley 1**	33137	4137	55	83	0	6(11)	30.5	104	32.5	20.5	0	0	8.7							
30	Coachella Valley 2**	33155	4157	87*	146+	0+	51(59)+	53.5+	97	26.8	26.5	0	0	9.8							
SAN	BERNARDINO COUNTY																				
	Northwest San Bernardino Valley	36175	5175												60	206	63.5				
	Southwest San Bernardino Valley	36025	5817	58	115+	0+	14(24)+	43.4+	102	72.8	53.0	6(5.9)	1(1.0)	17.9							
	Central San Bernardino Valley 1	36197	5197	58	111+	0+	33(57)+	54.9+	107	77.5	64.9	10(9.3)	2(1.9)	19.0	58	242	96.2	.			
	Central San Bernardino Valley 2 East San Bernardino Valley	36203 36204	5203 5204	58 60	136+ 97	0+	28(48)+ 19(32)	51.4+ 39.7	99 	72.1	68.4	11(11.1)	3(3.0)	18.3	59	536	106.9				
	Central San Bernardino Mountains	36181	5181	54	89	0	2(4)	27.2													
	East San Bernardino Mountains	36001	5818				2(4)		54	45.4	34.0	1(1.9)	0	10.4							
- 50	DISTRICT MAXIMUM	20001	2010		146+	0+	66+	68.5+		82.9	68.4	33	3	21.0		732	111.0				
-	SOUTH COAST AIR BASIN				142+	0+	79+	68.5+		82.9	68.4	48	8	21.0	 	732	111.0			<u>† </u>	_
	Mismo crames more subject motors of sin			<u> </u>	142+ 1M – Amou	UT	137	00.5+	Do1		00.4	40	U	21.0	<u> </u>	134	111.0	1	1	1	

μg/m³ - Micrograms per cubic meter of air.

AAM = Annual Arithmetic Mean

-- - Pollutant not monitored.

** Salton Sea Air Basin.

f) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

- h) Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.
- i) Federal annual PM10 standard (AAM > 50 μg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 μg/m³.
- j) U.S. EPA has revised the federal 24-hour PM2.5 standard from 65 μ g/m³ to 35 μ g/m³; effective December 17, 2006.
- k) Federal PM2.5 standard is annual average (AAM) > 15 μ g/m³. State standard is annual average (AAM) > 12 μ g/m³.
- Federal lead standard is quarterly average > 1.5 μg/m³; and state standard is monthly average ≥ 1.5 μg/m³. Lead and sulfate data analysis is incomplete and data is not available at this time.
- + The following PM10 data samples were excluded from compliance consideration in accordance with the EPA Exceptional Event Regulation: 210 and 157 ug/m3 on March 22 and April 6, respectively, at Coachella Valley 2 (high wind events); 167 ug/m3 on April 12 at Perris Valley (high wind event); 165 and 155 ug/m3 on July 5 at East San Gabriel 1 and Central San Bernardino Valley 1, respectively (fireworks displays); and high concentration throughout the District on October 21, with a maximum concentration of 559 ug/m3 at Metropolitan Riverside County 1 (high wind and wildfire event).



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^{*} Less than 12 full months of data; may not be representative.

g) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

			Carb	on Mono	xide a)	Ozone										Nit	rogen Dio	xide ^{d)}		Sulfur	Dioxide 6	e)
2008											No. I	Days Stan	dard Exce	eded								
4000				Max.	Max		Max	Max.	Fourth	Health		Federal b		Sta	te ^{c)}		Max	Annual		Max.	Max.	Annual
	Statio	on No.	No.	Conc.	Conc.	No.	Conc.	Conc.	High	Advisory		Leaciai				No.	Conc.	Average	No.	Conc.	Conc.	Average
Source/Receptor Area	Static		Days	in	in	Days	in	in	Conc.	≥ 0.150	> 0.12	> 0.08	> 0.075	> 0.09	> 0.070	Days	in	AAM	Days	in	in	AAM
•	State	District	of	ppm	ppm	of	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	of	ppm	Conc.	of	ppm	ppm	Conc.
No. Location	Code	Code	Data	1-hour	8-hour	Data	1-hour	8-hour	8-hour	1-hour	1-hour	8-hour	8-hour	1-hour	8-hour	Data	1-hour	ppm	Data	1-hour	24-hour	ppm
LOS ANGELES COUNTY																						
1 Central LA	70087	087	366	3	2.1	356	0.109	0.090	0.073	0	0	1	3	3	7	343	0.12	0.0275	366	0.01	0.002	0.0003
2 Northwest Coastal LA County	70091	091 820	366 358	3 4	2.0	366	0.11 0.086	0.097	0.073 0.065	0	0	0	2	3	8	364	0.09	0.0184 0.0143	357	0.02	0.005	0.0014
3 Southwest Coastal LA County 4 South Coastal LA County 1	70111 70072	820 072	366	3	2.5 2.6	360 366	0.086	0.075 0.074	0.065	0	0	0	0			359 366	0.10 0.13	0.0143	366	0.02	0.003	0.0014 0.0022
4 South Coastal LA County 1 4 South Coastal LA County 2	70072	072	300	3	2.0	300	0.093	0.074	0.064		0	0	U	0	1	300	0.13	0.0208	300	0.09	0.012	0.0022
6 West San Fernando Valley	70074	074	366	4	2.9	366	0.123	0.103	0.095	0	0	14	25	23	40	366	0.09	0.0180				
7 East San Fernando Valley	70069	069	366	3	2.6	366	0.123	0.103	0.093	0	1	8	17	20	35	364	0.09	0.0180	366	0.01	0.003	0.0008
8 West San Gabriel Valley	70089	088	366	3	2.0	366	0.133	0.109	0.092	0	0	6	16	16	26	365	0.11	0.0285	300	0.01	0.003	0.0008
9 East San Gabriel Valley 1	70060	060	366	2	1.6	366	0.122	0.100	0.101	0	7	14	28	34	39	366	0.11	0.0233				
9 East San Gabriel Valley 2	70591	591	366	3	3.0	366	0.156	0.111	0.101	2	12	25	45	48	61	366	0.10	0.0230				
10 Pomona/Walnut Valley	70075	075	366	3	2.0	366	0.130	0.110	0.112	0	5	19	35	32	47	366	0.10	0.0102				
11 South San Gabriel Valley	70073	073	357	3	2.0	366	0.141	0.110	0.100	0	0	19	5	7	13	341	0.11	0.0302				
12 South Central LA County	70183	084	310*	6*	4.3*	310*	0.107	0.060*	0.077	0*	0*	0*	0*	0*	0*	305*	0.10	0.0203				
13 Santa Clarita Valley	70090	090	363	2	1.1	363	0.160	0.131	0.108	2	8	35	60	54	81	363	0.07	0.0165				
	70090	090	303		1.1	303	0.100	0.151	0.100	2	0	33	00	J -1	01	303	0.07	0.0103				
ORANGE COUNTY 16 North Orange County	30177	3177	366	5	2.9	266	0.104	0.084	0.078	0	0	0	5	7	15	361	0.09	0.0206				
North Orange CountyCentral Orange County	30177	3176	366	4	3.6	366 366	0.104	0.084	0.078	0	0	0	4	2	10	366	0.09	0.0206				
18 North Coastal Orange County	30178	3176	366	3	2.0	366	0.103	0.086	0.076	0	0	0	3	0	6	365	0.09	0.0203	366	0.01	0.003	0.0011
19 Saddleback Vallev	30002	3812	365	2	1.1	365	0.094	0.104	0.073	0	0	6	15	9	25	303	0.08	0.0132	300	0.01	0.003	0.0011
RIVERSIDE COUNTY	30002	3012	303		1.1	303	0.110	0.104	0.072		U	· ·	13		23							
22 Norco/Corona	33155	4155																				
23 Metropolitan Riverside County 1	33144	4144	366	3	2.0	366	0.146	0.116	0.111	0	8	38	64	54	88	366	0.09	0.0192	366	0.01	0.003	0.0009
23 Metropolitan Riverside County 2	33144	4146	366	7	2.0		0.140		0.111							70*	0.09*	0.0192		0.01	0.003	0.0009
23 Mira Loma	33165	5214	366	3	1.9	366	0.135	0.107	0.104	0	4	23	47	38	62	366	0.10	0.0236				
24 Perris Valley	33149	4149				366	0.142	0.114	0.106	0	4	41	77	65	94							
25 Lake Elsinore	33158	4158	365	1	1.0	365	0.139	0.118	0.108	0	6	32	69	49	92	362	0.06	0.0129				
29 Banning Airport	33164	4164				365	0.149	0.120	0.108	0	10	45	74	57	95	366	0.08	0.0128				
30 Coachella Valley 1**	33137	4137	366	1	0.6	366	0.11	0.101	0.098	ő	0	20	51	26	70	366	0.05	0.0093				
30 Coachella Valley 2**	33155	4157				355	0.12	0.092	0.090	0	0	11	27	11	44							
SAN BERNARDINO COUNTY						1																
32 Northwest San Bernardino Valley	36175	5175	365	2	1.6	365	0.155	0.122	0.111	2	Q	30	50	51	65	365	0.09	0.0235				
33 Southwest San Bernardino Valley	36025	5817		2	1.0			0.122										0.0233				
34 Central San Bernardino Valley 1	36197	5197	363	2	1.9	364	0.162	0.124	0.111	1	8	35	58	55	82	364	0.10	0.0207	364	0.01	0.003	0.0018
34 Central San Bernardino Valley 2	36203	5203	366	2	1.8	366	0.157	0.122	0.113	2	11	43	62	62	90	366	0.09	0.0217				
35 East San Bernardino Valley	36204	5204				366	0.154	0.120	0.112	1	12	50	75	72	100							
37 Central San Bernardino Mountains	36181	5181				362	0.176	0.126	0.120	2	16	67	97	78	115							
38 East San Bernardino Mountains	36001	5818		-																		
DISTRICT MAXIMUM			366	7	4.3	366	0.176	0.131	0.120	2	17	75	97	79	115		0.13	0.0302		0.09	0.012	0.0022
SOUTH COAST AIR BASIN				7	4.3		0.176	0.131	0.120	7	28	80	120	102	140		0.13	0.0302		0.09	0.012	0.0022
ppm - Parts Per Million parts of air, by volum	10	-	Δ Δ	M - Anr	ual Arith	matia M				nt not monit			120	102	170	<u> </u>	0.13	0.0302	<u> </u>	0.07	0.012	J.0022

ppm - Parts Per Million parts of air, by volume.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005. U.S. EPA has revised the federal 8-hour ozone standard from 0.084 ppm to 0.075 ppm, effective May 27, 2008.

- c) The 8-hour average California ozone standard of 0.070 ppm was established effective May 17, 2006.
- d) The federal standard is annual arithmetic mean NO₂ > 0.0534 ppm. California Air Resources Board has revised the NO₂ 1-hour state standard from 0.25 ppm to 0.18 ppm and has established a new annual standard of 0.030 ppm, effective March 20, 2008.
- e) The state standards are 1-hour average SO₂ > 0.25 ppm and 24-hour average SO₂ > 0.04 ppm. The federal standards are annual arithmetic mean SO₂ > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO₂ standards were not exceeded.



The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

** Salton Sea Air Basin.

^{*} Less than 12 full months of data; may not be representative.

				Suspended Particulates PM10 f)						Fine Partic	ulates PM2	2.5 g)		I	Particulates	TSP h)	Le	ad h)	Sul	Ifate h)
2008				Max.	No. (% Exceedir	o) Samples ng Standards	-		Max.	98 th	Exce Federal	Samples eeding Standard	Annual		Max.	Annual	Max.	Max.	Max.	%Samples Exceeding State
			No.	Conc.	<u>Federal</u>	State	e i)	No.	Conc.	Percentile	Current	Old	Average k)	No.	Conc.	Average	Monthly	Quarterly	Conc.	Standard
	Static	n No.	Days	in	> 150	> 50	Conc. 1)	Days	in	Conc. in	> 35 ^{j)}	> 65 ^{j)}	Conc. k)	Days	in	Conc.	Average	Average	in	≥ 25
Source/Receptor Area	State	District	of	μg/m ³	μg/m ³	μg/m ³ 24-	(AAM)	of	μg/m ³	$\mu g/m^3$	μg/m ³	μg/m ³	(AAM)	of	$\mu g/m^3$	(AAM)	Conc. 1)	Conc. 1)	$\mu g/m^3$	μg/m ³
No. Location	Code	Code	Data	24-hour	24-hour	hour	μg/m ³	Data	24-hour	24-hour	24-hour	24-hour	μg/m ³	Data	24-hour	μg/m ³	μg/m ³	μg/m ³	24-hour	24-hour
LOS ANGELES COUNTY																				
1 Central LA	70087	087	42*	66*	0*	3(7%)*	32.2*	337	78.3	40.4	10(3.0)	1(0.3)	15.7							
2 Northwest Coastal LA County	70091	091																		
3 Southwest Coastal LA County	70111	820	60	50	0	0(0%)	25.6													
4 South Coastal LA County 1	70072	072	57	62	0	1(2%)	29.1	346	57.2	38.9	8(2.3)	0	14.2	\						
4 South Coastal LA County 2	70110	077	58	81	0	9(16%)	35.8	349	60.9	36.4	7(2.0)	0	13.7					_		
6 West San Fernando Valley	70074	074						113	50.5	26.2	2(1.8)	0	11.9							
7 East San Fernando Valley	70069	069	54	66	0	7(13%)	35.6	116	57.5	34.6	2(1.7)	0	14.1							
8 West San Gabriel Valley	70088	088						118	66.0	32.1	2(1.7)	1(0.9)	12.9							
9 East San Gabriel Valley 1	70060	060	49	98	0	13(27%)	35.3	321	53.1	34.8	5(1.6)	0	14.1							
9 East San Gabriel Valley 2	70591	591														•		_	•	
10 Pomona/Walnut Valley	70075	075							45.0				15.0							
11 South San Gabriel Valley	70185	085		-				114.	47.3	38.0	4(3.5)	0	15.0							
12 South Central LA County	70084	084				2(40()	25.0	118	44.2	36.5	3(2.5)		15.5							
13 Santa Clarita Valley	70090	090	57	91	0	2(4%)	25.8			-										
ORANGE COUNTY																				
16 North Orange County	30177	3177					l													
17 Central Orange County	30178	3176	58	61	0	3(5%)	28.6	336	67.9	39.4	13(3.9)	1(0.3)	13.7							
18 North Coastal Orange County	30195	3195	55			0(00()	22.6	120	22.6	27.1			10.4							
19 Saddleback Valley	30002	3812	33	42	0	0(0%)	22.6	120	32.6	27.1	0	0	10.4							
RIVERSIDE COUNTY	22155	41.55	61	0.6		0(150()	24.4													
22 Norco/Corona	33155	4155	61	86	0	9(15%)	34.4	240												
23 Metropolitan Riverside County 123 Metropolitan Riverside County 2	33144 33146	4144	119	115	0	49(41%)	47.0 57.4	348	57.7 43.0	41.5 39.1	14(4.0)	0	16.4							
23 Mira Loma	33146	4146 5214	61	135	0	35(57%)		116 111	50.9	47.1	4(3.4) 10(9.0)	0	13.4 18.2							
24 Perris Valley	33149	4149	45*	85*	0*	12(27%)*	38.3*		30.9	47.1	10(9.0)		16.2							
25 Lake Elsinore	33158	4158				12(27/0)								+		.		-	-	
29 Banning Airport	33164	4158	56	51	0	1(2%)	26.1													
30 Coachella Valley 1**	33137	4137	52	75	0	4(8%)	24.0	110	18.1	17.1	0	0	7.2							
30 Coachella Valley 2**	33157	4157	114	128	0	27(24%)	39.9	113	21.6	18.8	0	0	8.4							
SAN BERNARDINO COUNTY	,,,,,	,				(= 3)		110											İ	
32 Northwest San Bernardino Valley	36175	5175												1						
33 Southwest San Bernardino Valley	36025	5817	62	90	0	15(24%)	38.8	113	54.2	45.0	6(5.3)	0	15.8							
34 Central San Bernardino Valley 1	36197	5197	60	75	0	14(23%)	40.3	112	49.0	47.1	6(5.4)	0	15.4							
34 Central San Bernardino Valley 2	36203	5203	60	76	0	19(32%)	42.7	110	43.5	40.1	3(2.7)	0	13.5	†					-	
35 East San Bernardino Valley	36204	5204	61	58	0	4(7%)	29.0				3(2.7)									
37 Central San Bernardino Mountains	36181	5181	46	46	0	0(0%)	25.0													
38 East San Bernardino Mountains	36001	5818				7.		58	36.8	33.3	1(1.7)	0	9.2	1						
DISTRICT MAXIMUM				135	0	59	57.4		78.3	47.1	14	1	18.2							
SOUTH COAST AIR BASIN				135	0	68	57.4		78.3	47.1	28	2	18.2						1	
u a/m ³ Micro aroma non authia matar af air	_		<u> </u>	AM = Amm	1 1 1 1		31.4	Del		7/.1			10.2	1			ı		1	

μg/m³ - Micrograms per cubic meter of air.

AAM = Annual Arithmetic Mean

-- - Pollutant not monitored.

f) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

** Salton Sea Air Basin.



Paper

^{*} Less than 12 full months of data; may not be representative.

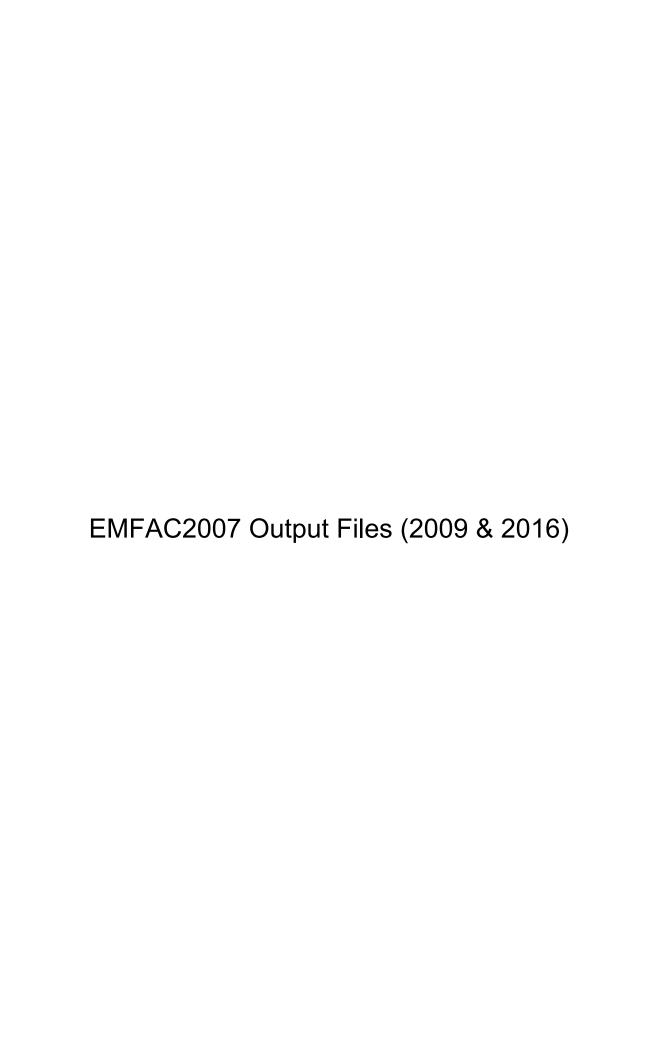
g) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

h) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.

i) - Federal annual PM10 standard (AAM > 50 µg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 µg/m³.

^{1) -} U.S. EPA has revised the federal 24-hour PM2.5 standard GAM) > 15 μg/m³ to 35 μg/m³; effective December 17, 2006.
k) - Federal PM2.5 standard is annual average (AAM) > 15 μg/m³. State standard is annual average (AAM) > 12 μg/m³.
l) - Federal lead standard is quarterly average > 1.5 μg/m³, and state standard is monthly average ≥ 1.5 μg/m³. U.S. EPA has established the federal standard of 0.15 ug/m³, rolling 3-month average, as of October 15, 2008.





Title : EMFAC 2009 & 2016

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2009/12/10 11:53:57

Scen Year: 2009 -- All model years in the range 1965 to 2009 selected

Season : Annual

Year: 2009 -- Model Years 1965 to 2009 Inclusive -- Annual

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average Los Angeles County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 63F Relative Humidity: 66%

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	3.786	9.586	0.000	0.000	0.884
20	0.133	0.184	0.318	1.382	1.404	2.836	0.240

Temperature: 63F Relative Humidity: 66% Pollutant Name: Carbon Monoxide

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0 20	0.000		23.351	44.879 10.145	0.000	0.000 23.576	4.843

Pollutant Name: Oxides of Nitrogen Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	3.604	80.464	0.000	0.000	3.897
20	0.250	0.458	0.856	12.481	17.771	1.100	0.952

Pollutant Name: Carbon Dioxide Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL	
0 20					0.000 2364.914			

Pollutant Name: Sulfur Dioxide Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	0.009	0.049	0.000	0.000	0.003
20	0.004	0.006	0.008	0.017	0.023	0.002	0.006

Temperature: 63F Relative Humidity: 66% Pollutant Name: PM10

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0 20	0.000			1.339 0.625			0.062

Polluta	nt Name: I	PM10 - Ti	re Wear	Te	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000	0.000	0.000 0.009	0.000 0.024	0.000 0.009	0.000 0.004			
D 11 .		2110		_		627	D 1		550
Polluta	nt Name: I	PM10 - Br	ake Wear	Te	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 0.013	0.000 0.013	0.000 0.013	0.000 0.021	0.000 0.013	0.000 0.006			
Polluta	nt Name: (Gasoline -	mi/gal	Te	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 19.031	0.000 15.283	0.000 10.981	0.000 9.635		0.000 44.290			
Polluta	nt Name: I	Diesel – m	ni/gal	Te	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 27.710	0.000 28.918	0.000 19.604	0.000 5.440	0.000 3.559	0.000	0.000 8.518		

Title : EMFAC 2009 & 2016

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2009/12/10 11:53:57

Scen Year: 2016 -- All model years in the range 1972 to 2016 selected

Season : Annual

Year: 2016 -- Model Years 1972 to 2016 Inclusive -- Annual

Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average Los Angeles County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	3.780	7.810	0.000	0.000	0.852
20	0.048	0.082	0.176	0.717	1.323	2.471	0.121

Temperature: 63F Relative Humidity: 66% Pollutant Name: Carbon Monoxide

Pollutant Name: Oxides of Nitrogen Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	4.004	89.481	0.000	0.000	4.847
20	0.124	0.262	0.514	6.248	14.657	1.057	0.547

Pollutant Name: Carbon Dioxide Temperature: 63F Relative Humidity: 66%

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0 20					0.000 2194.482		
20	453.002	5/1.945	784.109	1804./1/	2194.482	102.101	597.812

Pollutant Name: Sulfur Dioxide Temperature: 63F Relative Humidity: 66%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	0.010	0.051	0.000	0.000	0.004
20	0.004	0.006	0.008	0.017	0.021	0.002	0.006

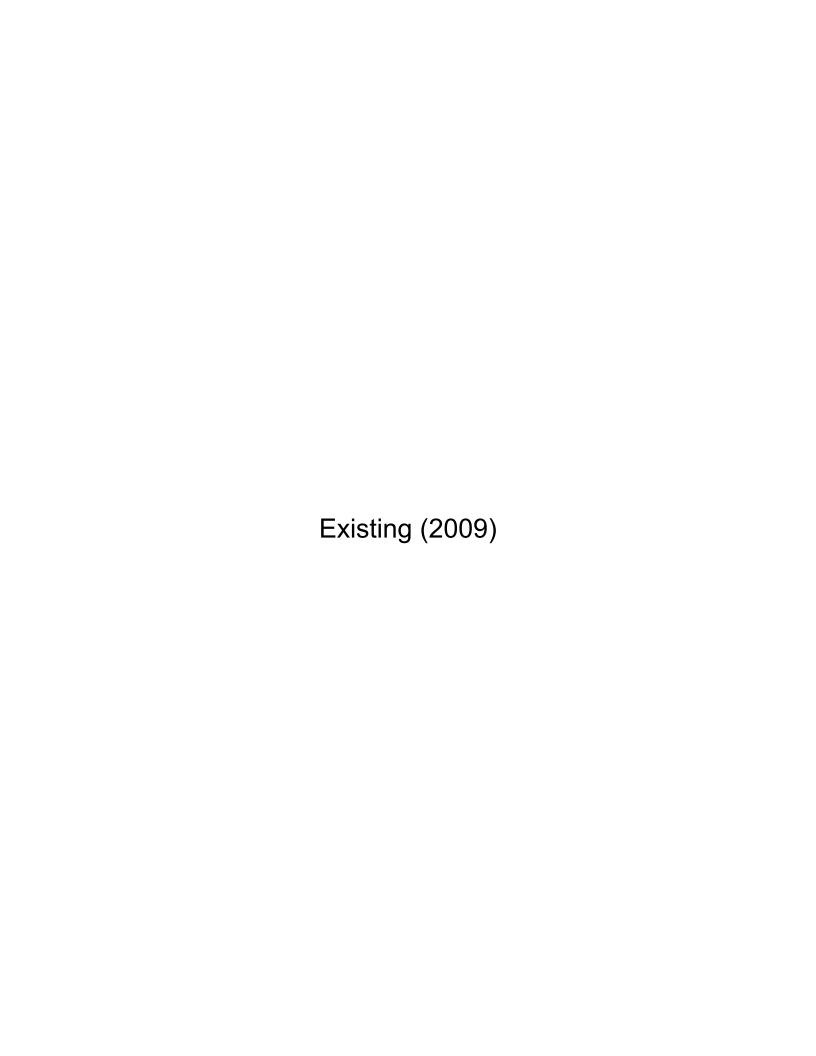
Temperature: 63F Relative Humidity: 66% Pollutant Name: PM10

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0.000	0.000	0.042	0.766	0.000	0.000	0.042
20	0.017	0.038	0.040	0.281	0.292	0.020	0.040

Polluta	nt Name: I	PM10 - Ti	ire Wear	Ter	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000	0.000	0.000 0.009	0.000 0.025	0.000	0.000 0.004			
Polluta	nt Name: I	PM10 - Br	rake Wear	Ter	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 0.013	0.000 0.013	0.000 0.013	0.000 0.022	0.000 0.013	0.000			
Dall	ah Namat (71		m _a ,		625	Dolobios	TT	C C 0.
Speed	nt Name: (asoline -	- MI/gai	Ter	mperature.	160	Relative	Humidity:	66%
MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 19.421	0.000 15.357	0.000 11.035	0.000 9.909	0.000 9.792	0.000 44.058			
Polluta	nt Name: I	Diesel – m	mi/gal	Ter	mperature:	63F	Relative	Humidity:	66%
Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL		
0 20	0.000 28.086	0.000 28.988	0.000 19.550	0.000 5.360	0.000 3.671	0.000	0.000 7.656		

Version Run Date Scen Year Season	BURDEN 20 Emfac2007 2009/12/1 2009 A Annual	V2.3 Nov 0 11:53:5 11 model	1 2006 7 years in t	he range 1	965 to 2009	e selected														
/M Stat :		Interim (sing I/M s	chedule for	r area 59 Lo	s Angeles	s (SC)												
	Tons Per		*****	*****	******	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
	Tia	ht Duty D	assenger C	are		- Light Duty	Trucke -			Medium Dut	Trucke		H				S Total HD	Urban	Motor-	All
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Total	Trucks	Trucks	Buses	cycles	Vehicle
******** Vehicles		3371680.	******** 8857.	3424590.	23502.	1732500.		1768820.	******** 8316.	667753.	24743.	700812.	4893.	54503.	******** 59396.	75827.	135223.	4314.	136965.	
VMT/1000	716.	115346.	193.	116255.	553.	64002.	407.	64962.	184.	25997.	1290.	27471.	47.	1389.	1436.	7966.	9402.	470.	1011.	
Trips	176163.	21315100.	48053.	21539400.	95625.	10973700.	78140.	11147500.	72943.	6562350.	299360.	6934660.	89432.	713524.	802956.	1358240.	2161200.	17256.	273904.	4207380
								Reactive	Organic G	as Emission	ıs									
Run Exh Idle Exh	5.07 0.00	8.05 0.00		13.17	4.07	6.09 0.00	0.04	10.21	1.48	4.92 0.12	0.23	6.64 0.13	0.37	1.40	1.77	8.57 0.61	10.34	0.59	3.81 0.00	
Start Ex	0.00	10.81	0.00	11.80	0.54	6.17	0.00	6.71	0.49	5.63	0.00	6.12	1.12	1.26	2.38	0.00	2.38	0.00	0.00	
Total Ex	6.07	18.85	0.04	24.97	4.61	12.26	0.04	16.92	1.98	10.67	0.23	12.88	1.49	2.69	4.19	9.19	13.37	0.61	4.52	73.
Diurnal	0.28	2.64	0.00	2.93	0.15	1.27	0.00	1.42	0.02	0.46	0.00	0.48	0.00	0.01	0.01	0.00	0.01	0.00	0.28	5.
Hot Soak	0.28	3.90	0.00	4.48	0.15	1.85	0.00	2.17	0.02	0.46	0.00	0.48	0.05	0.01	0.01	0.00	0.01	0.00	0.28	
Running	3.47	11.38	0.00	14.85	1.19	9.41	0.00	10.60	0.26	5.26	0.00	5.52	0.47	0.37	0.84	0.00	0.84	0.01	0.77	
Resting	0.20	1.68	0.00	1.88	0.11	0.84	0.00	0.95	0.01	0.31	0.00	0.32	0.00	0.00	0.01	0.00	0.01	0.00	0.16	3.
Total	10.60	38.46	0.04	49.10	6.38	25.62	0.04	32.05	2.34	17.48	0.23	20.05	2.01	3.11	5.12	9.19	14.30	0.62	5.88	122.
									Monoxide											
Run Exh Idle Exh	60.03 0.00	281.32 0.00		341.54 0.00	46.38 0.00	219.40 0.00	0.31	266.08 0.00	25.82 0.01	111.22 0.74	1.24	138.28 0.77	11.13 0.02	25.82 0.23	36.95 0.26	36.99 2.40	73.93 2.66	4.32 0.00	46.50 0.00	
Start Ex	5.80	122.79		128.59	3.20	77.62	0.00	80.82	3.79	66.53	0.00	70.32	11.36	20.44	31.80	0.00	31.80	0.27	2.86	314.
Total Ex	65.83	404.11	0.19	470.13	49.58	297.02	0.31	346.90	29.63	178.49	1.26	209.37	22.51	46.49	69.00	39.39	108.39	4.59	49.36	1188.7
										n Emissions										
Run Exh Idle Exh	3.39	26.62		30.32	2.60 0.00	27.75 0.00	0.66	31.01	1.21	18.55 0.01	8.38 0.07	28.14 0.07	0.32	5.75	6.07 0.00	125.69 5.42	131.77 5.42	9.20	1.38	
Start Ex	0.00	8.20		8.47	0.15	6.74	0.00	6.89	0.11	9.53	0.00	9.64	0.18	2.65	2.82	0.00	2.82	0.03	0.00	
Total Ex	3.67	34.81	0.31	38.79	2.74	34.49	0.66	37.90	1.32	28.09	8.45	37.85	0.50	8.40	8.90	131.11	140.01	9.22	1.47	265.
								Carbon D	ioxide Emi	ssions (000))									
Run Exh	0.43	50.92		51.43	0.33	35.10	0.16	35.58	0.14	19.57	0.74	20.45	0.04	1.04	1.07	15.14	16.22	1.21	0.15	
Idle Exh Start Ex	0.00	0.00 1.71	0.00	0.00 1.75	0.00	0.00 1.09	0.00	0.00 1.11	0.00	0.02	0.00	0.03	0.00	0.01	0.01	0.33	0.34	0.00	0.00	
Total Ex	0.47	52.64	0.08	53.18	0.35	36.18	0.16	36.69	0.16	20.22	0.74	21.12	0.06	1.07	1.13	15.47	16.60	1.21	0.17	128.
									M10 Emissi											
Run Exh	0.03	1.44		1.50	0.02	1.62	0.03	1.67	0.01	0.67	0.06	0.74	0.00	0.01	0.02	5.47	5.48	0.15	0.04	
Idle Exh	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	
Start Ex	0.00	0.13	0.00	0.14	0.00	0.13	0.00	0.13	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.
Total Ex	0.03	1.57	0.03	1.64	0.02	1.75	0.03	1.80	0.01	0.73	0.06	0.80	0.00	0.02	0.02	5.56	5.58	0.15	0.05	10.
TireWear	0.01	1.02	0.00	1.03	0.00	0.56	0.00	0.57	0.00	0.25	0.02	0.27	0.00	0.02	0.02	0.23	0.25	0.00	0.00	
BrakeWr		1.59		1.61	0.01		0.01	0.90	0.00	0.36	0.02	0.38	0.00		0.02	0.19	0.22		0.01	
Total	0.05	4.18	0.04	4.27	0.04	3.20	0.04	3.28	0.01	1.34	0.10	1.45	0.00	0.06	0.06	5.99	6.05	0.16	0.06	
Lead S0x	0.00 0.01	0.00 0.51	0.00	0.00 0.52	0.00	0.00 0.35	0.00	0.00 0.36	0.00	0.00 0.20	0.00	0.00 0.21	0.00	0.00	0.00	0.00 0.15	0.00 0.16	0.00 0.01	0.00	
								Fuel Con	sumption (000 gallons	 3)									
Gasoline Diesel	60.39	5460.54 0.00	0.00 6.96		45.42 0.00	3756.75 0.00	0.00 14.07	3802.17 14.07	21.47	2102.69	0.00 66.65	2124.16 66.65	9.84	118.37 0.00	128.21	0.00 1392.43	128.21 1392.43	10.03 100.62	26.87	11612. 1580.

Run Date :	2009/12/1	7 V2.3 Nov 10 11:53:5		ne range 10	172 to 2011	hetneles a														
eason :	Annual			ne range is	1/2 LO 2011	serected														
		les County Interim (:		sing I/M so	hedule for	r area 59 Lo	s Angele:	s (SC)												
missions:	Tons Per	Day				*****														
														eavy 1						
			assenger Ca			- Light Duty				- Medium Du			Gaso			Diesel	Total HD	Urban	Motor-	A11
******	Non-cat ******	Cat	Diesel	Total	Non-cat	Cat ******	Diesel	Total ******	Non-cat	Cat	Diesel ******	Total	Non-cat ******	Cat	Total	Trucks	Trucks	Buses	cycles	Vehicle
Vehicles	5723.		3477.	3722460.	4512.	1926630.	7736.	1938880.	3516.	748766.	30533.	782816.	853.	61747.	62600.	88922.	151522.	4616.	151147.	
/MT/1000	89.	120588.	70.	120746.	103.	67366.	222.	67691.	71.	27215.	1482.	28768.	8.	1417.	1426.	9744.	11170.	503.	1110.	22998
Trips	21828.	23219000.	17161.	23258000.	17208.	12003900.	44632.	12065800.	26769.	7309050.	375339.	7711160.	18042.	743717.	761759.	1588940.	2350700.	18463.	302263.	4570640
								Reactive												
Run Exh Idle Exh	0.66	4.31	0.01	4.98	0.82	3.96 0.00	0.02	4.80	0.63	3.08 0.13	0.21	3.93 0.13	0.05	0.74	0.80	5.50 0.53	6.29 0.57	0.59	3.52 0.00	24.
Start Ex	0.00	5.68	0.00	5.80	0.00	4.00	0.00	4.10	0.00	4.13	0.00	4.31	0.19	0.04	1.16	0.00	1.16	0.00	0.00	16.3
Fotal Ex	0.77	9.99	0.01	10.78	0.92	7.96	0.02	8.90	0.81	7.34	0.22	8.37	0.24	1.76	2.00	6.03	8.03	0.61	4.23	40.9
Diurnal Hot Soak	0.04	1.98	0.00	2.01 3.91	0.03	1.22	0.00	1.25	0.01	0.46	0.00	0.46	0.00	0.01	0.01	0.00	0.01	0.00	0.29	4.0 7.3
Running	0.36	8.56		8.92	0.14	9.32	0.00	9.46	0.09	5.28	0.00	5.37	0.08	0.36	0.43	0.00	0.43	0.02	0.45	24.6
Resting	0.03	1.59	0.00	1.62	0.02	1.03	0.00	1.05	0.01	0.38	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.16	3.2
Total	1.26	25.96	0.01	27.24	1.17	21.78	0.02	22.97	0.94	14.41	0.22	15.57	0.33	2.15	2.48	6.03	8.50	0.63	5.24	80.
								Carbon	Monoxide	Emissions										
Run Exh	6.93	177.38		184.38	8.36	159.64	0.17	168.16	9.95	78.73	1.35	90.03	1.56	14.40	15.96	26.58	42.55	3.88	33.38	522.3
Idle Exh	0.00 0.67	0.00 74.43	0.00	0.00 75.10	0.00 0.56	0.00 55.15	0.00	0.00 55.71	0.00 1.38	0.79 48.13	0.03	0.83	0.01	0.24 15.82	0.24 17.36	2.55	2.80 17.36	0.00	0.00 3.34	3.6 201.3
Start Ex												49.52								
Total Ex	7.60	251.81	0.07	259.48	8.91	214.79	0.17	223.87	11.34	127.66	1.38	140.37	3.11	30.45	33.56	29.14	62.70	4.17	36.72	727.3
									of Nitroge											
Run Exh Idle Exh	0.40	14.84		15.35 0.00	0.46	17.47 0.00	0.36	18.29 0.00	0.47	11.53	5.89	17.90 0.09	0.04	3.05 0.00	3.09 0.00	71.34 6.87	74.44 6.88	8.13 0.00	1.39	135.4
Start Ex	0.03	4.69		4.72	0.03	4.56	0.00	4.58	0.04	8.82	0.00	8.87	0.02	2.08	2.10	0.00	2.10	0.03	0.10	20.4
Total Ex	0.43	19.53	0.11	20.07	0.49	22.03	0.36	22.88	0.51	20.37	5.97	26.85	0.06	5.13	5.19	78.22	83.41	8.16	1.49	162.8
								Carbon D	iovide Emi	issions (00										
Run Exh	0.05	53.36	0.03	53.44	0.06	37.57	0.09	37.72	0.05	20.81	0.85	21.71	0.01	1.08	1.09	18.69	19.77	1.20	0.20	134.0
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.01	0.01	0.38	0.39	0.00	0.00	0.4
Start Ex	0.00	1.83	0.00	1.83	0.00	1.19	0.00	1.19	0.01	0.70	0.00	0.70	0.00	0.03	0.03	0.00	0.03	0.00	0.01	3.7
Total Ex	0.06	55.19	0.03	55.28	0.07	38.76	0.09	38.91	0.06	21.54	0.85	22.45	0.01	1.12	1.13	19.07	20.20	1.20	0.22	138.2
								P	M10 Emissi	ions										
Run Exh	0.00	1.77	0.01	1.78	0.00	2.19	0.01	2.21	0.00	0.89	0.05	0.94	0.00	0.01	0.01	3.32		0.13	0.03	8.4
Idle Exh Start Ex	0.00	0.00 0.16	0.00	0.00	0.00	0.00 0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.0
rotal Ex	0.00	1.93	0.01	1.94	0.00	2.37	0.01	2.39	0.00	0.97	0.05	1.03	0.00	0.02	0.02	3.38	3.40	0.13	0.03	8.9
TireWear	0.00	1.06		1.06	0.00	0.59	0.00		0.00	0.26	0.02	0.28	0.00	0.02	0.02	0.29		0.01	0.00	2.2
BrakeWr	0.00	1.67	0.00	1.67	0.00	0.93	0.00	0.94	0.00	0.38	0.02	0.40	0.00	0.02	0.02	0.24	0.27	0.01	0.01	3.2
rotal	0.01	4.66	0.01	4.68	0.01	3.89	0.02	3.92	0.00	1.61	0.09	1.71	0.00	0.06	0.06	3.92		0.14	0.05	14.
 Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
S0x	0.00	0.53	0.00	0.53	0.00	0.38	0.00	0.38	0.00	0.21	0.01	0.22	0.00	0.01	0.01	0.18	0.19	0.01	0.00	1.3
								Fuel Con	sumption ((000 gallon	s)									
Gasoline	7.50	5694.29	0.00	5701.79	8.51	4005.71	0.00	4014.23	8.39	2228.30	0.00	2236.70	1.67	119.85	121.52	0.00		13.06		12116.9
Diesel	0.00	0.00	2.48	2.48	0.00	0.00	7.66	7.66	0.00	0.00	76.52	76.52	0.00	0.00	0.00	1716.49	1716.49	96.74	0.00	1899.9



JOB: Century & Normandie - EX - PM RUN: Century & Normandie - EX - PM

DATE : 12/ 7/ 9 TIME : 13:36: 0

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

LINK DESCRIPTION	*	L	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
	*_					*							
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	711.	4.1	.0 56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	720.	4.1	.0 56.0		
3. nbq	*	518.0	464.0	518.0	418.6	*	45.	180. AG	23.	100.0	.0 36.0	.44	2.3
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	709.	4.1	.0 56.0		
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	735.	4.1	.0 56.0		
6. sbq	*	482.0	536.0	482.0	581.2	*	45.	360. AG	23.	100.0	.0 36.0	.44	2.3
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1237.	4.1	.0 56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1202.	4.1	.0 56.0		
9. ebq	*	464.0	482.0	414.4	482.0	*	50.	270. AG	14.	100.0	.0 36.0	.47	2.5
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1019.	4.1	.0 56.0		
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1019.	4.1	.0 56.0		
12. wbq	*	536.0	518.0	576.8	518.0	*	41.	90. AG	14.	100.0	.0 36.0	.39	2.1
	1. nba 2. nbd 3. nbq 4. sba 5. sbd 6. sbq 7. eba 8. ebd 9. ebq 10. wba 11. wbd	* 1. nba	* X1 1. nba	* X1 Y1	* X1 Y1 X2	* X1 Y1 X2 Y2	* X1 Y1 X2 Y2 *	* X1 Y1 X2 Y2 * (FT) * X1 Y1 X2 Y2 * (FT) 1. nba	* X1 Y1 X2 Y2 * (FT) (DEG) 1. nba	* X1 Y1 X2 Y2 * (FT) (DEG) * X1 Y1 X2 Y2 * (FT) (DEG) * X1 Y1 X2 Y2 * (FT) (DEG) * X1 Y1 X2 Y2 * (FT) (DEG) * X1 DEG	* X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) * X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) * X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) * 518.0 .0 518.0 500.0 * 500.0 360. AG 711. 4.1 2. nbd	* X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) (FT) (FT)	* X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) (FT) (FT)

RUN: Century & Normandie - EX - PM JOB: Century & Normandie - EX - PM

DATE : 12/ 7/ 9 TIME : 13:36: 0

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	35	3.0	711	1600	4.84	3	3
6. sbq	*	60	35	3.0	709	1600	4.84	3	3
9. ebq	*	60	22	3.0	1237	1600	4.84	3	3
12. wbq	*	60	22	3.0	1019	1600	4.84	3	3

		* COORDINATES (FT)						
	RECEPTOR	*	X	Y	Z	*		
		-*				- *		
1.	nw	*	454.0	546.0	5.4	*		
2.	ne	*	546.0	546.0	5.4	*		
3.	sw	*	454.0	454.0	5.4	*		
4.	se	*	546.0	454.0	5.4	*		

JOB: Century & Normandie - EX - PM

RUN: Century & Normandie - EX - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION								
ANGLE	*	(PPM)							
(DEGR)	*	REC1	REC2	REC3	REC4					
	. * .									
0.	*	. 2	. 2	. 5	. 5					
10.	*	. 4	. 0	.7	.3					
20.	*	. 3	. 0	. 6	.3					
30.	*	. 2	. 0	. 6	.3					
40.	*	.3	. 0	. 5	.3					
50.	*	. 3	. 0	. 5	.3					
60.	*	.3	.0	. 5	. 3					
70.	*	. 3	.0	.7	.5					
80.	*	. 3	. 0	. 8	.5					
90.	*	.6	. 3	.6	.3					
100.	*	. 9	.6	. 2	.1					
110. 120.	*	. 7	. 4	. 2	.0					
	*	.6	.4	. 2	.0					
130.	*	. 4	. 3	. 2	.0					
140. 150.	*	.5	. 2	. 2	.0					
160.	*	.5	. 2	. 2						
170.	*	.6	. 2	. 4	.0					
180.	*	. 6	. 4	.2	.0					
190.	*	.2	.6	.0	.4					
200.	*	. 2	.5	.0	.3					
210.	*	. 2	.5	.0	.2					
220.	*	.3	.5	.0	.3					
230.	*	.3	. 4	.0	.3					
240.	*	. 4	. 6	.0	.3					
250.	*	. 5	. 7	. 0	. 3					
260.	*	.6	. 8	.1	. 3					
270.	*	.3	.6	. 3	.7					
280.	*	.0	. 2	.5	1.0					
290.	*	.0	. 2	.5	.7					
300.	*	.0	. 2	. 4	.5					
310.	*	.0	. 2	.3	.5					
320.	*	.0	. 2	.3	.5					
330.	*	.0	. 2	.3	.6					
340.	*	.0	. 3	.3	.6					
350.	*	. 0	. 4	. 3	.7					
360.	*	. 2	. 2	.5	.5					
	. * .				1.0					
MAX DEGR.	*	.9 100	.8 260	. 8 80	1.0 280					
DEGK.		100	200	80	200					

THE HIGHEST CONCENTRATION OF $1.00\ \text{PPM}$ OCCURRED AT RECEPTOR REC4 .

JOB: Century & Western - EX - PM RUN: Century & Western - EX - PM

DATE : 12/ 7/ 9 TIME : 13:28:58

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	714.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	710.	4.1	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	413.2	*	51.	180. AG	25.	100.0	.0 36.0	.56	2.6
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	469.	4.1	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	603.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	569.3	*	33.	360. AG	25.	100.0	.0 36.0	.37	1.7
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1457.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1390.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	416.3	482.0	*	48.	270. AG	12.	100.0	.0 36.0	.49	2.4
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1063.	4.1	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1000.	4.1	.0 56.0		
	12. wbq	*	536.0	518.0	570.8	518.0	*	35.	90. AG	12.	100.0	.0 36.0	.36	1.8

PAGE 2

JOB: Century & Western - EX - PM RUN: Century & Western - EX - PM

DATE : 12/ 7/ 9 TIME : 13:28:58

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	39	3.0	714	1600	4.84	3	3
6. sbq	*	60	39	3.0	469	1600	4.84	3	3
9. ebq	*	60	18	3.0	1457	1600	4.84	3	3
12. wbq	*	60	18	3.0	1063	1600	4.84	3	3

		*	COOR	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Century & Western - EX - PM

RUN: Century & Western - EX - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

***************************************	* * *		NTRATION (PPM)		REC4
(DEGK)		KECI	ICEC 2	KECS	RECT
	*	. 1	. 2	. 4	
٠.	*	. 3	. –		.5
10.	*		.0	. 6	
20.		. 2	.0	. 6	.3
50.	*	. 2	.0	. 5	.3
10.	*	. 2	. 0	. 5	.3
50.	*	. 2	.0	. 5	.3
00.	*	. 3	.0	. 6	. 4
,	*	. 3	.0	. 7	.6
00.	*	.3	.1	.9	.7
90.	*	. 7	. 3	. 6	.3
100.	*	.9	.6	. 3	.1
110.	*	.7	. 5	. 3	.0
120.	*	.6	. 4	. 2	.0
130.	*	. 4	. 4	. 2	.0
140.	*	.5	. 4	. 2	.0
150.	*	.5	. 3	. 2	.0
160.	*	. 4	. 2	. 3	.0
170.	*	. 5	. 2	. 3	.0
	*	. 3	. 4	. 2	. 2
	*	. 2	. 6	.0	. 4
	*	. 2	. 5	.0	.3
	*	.3	.5	.0	.3
	*	. 4	.5	.0	.3
	*	. 4	.4	.0	.3
	*	. 4	.5	.0	.3
	*	.5	.6	. 0	.3
250.	*	.6	.7	.1	.3
	*	.3	. 5	. 4	.7
2/0.	*	.0	. 1	.6	1.0
200.	*	.0	.1		.7
200.	*		. 2	. 6	. /
500.	*	.0	. –		
J10.	*	.0	. 2	. 4	.5
520.		. 0	. 2	. 3	. 4
550.	*	. 0	. 2	. 3	.6
J40.	*	.0	. 3	. 3	.6
550.	*	. 0	. 4	. 3	.7
360.	*	.1	. 2	. 4	.5
MAX	* -	.9	.7	.9	1.0
MMA	*	100	260	80	280
DEGR.		100	200	80	200

THE HIGHEST CONCENTRATION OF $1.00\ \text{PPM}$ OCCURRED AT RECEPTOR REC4 .

JOB: Imperial & Crenshaw - Existing - AM RUN: Imperial & Crenshaw - EX - AM

DATE : 12/ 7/ 9 TIME : 13:19:45

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L:	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*_					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	975.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1085.	4.1	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1336.	4.1	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	416.0	*	48.	180. AG	18.	100.0	.0 36.0	.44	2.4
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1299.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	601.7	*	66.	360. AG	18.	100.0	.0 36.0	.60	3.3
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	714.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	680.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	425.0	482.0	*	39.	270. AG	19.	100.0	.0 36.0	.36	2.0
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1416.	4.1	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1377.	4.1	.0 56.0		
	12. wbq	*	536.0	518.0	613.4	518.0	*	77.	90. AG	19.	100.0	.0 36.0	.71	3.9

JOB: Imperial & Crenshaw - Existing - AM RUN: Imperial & Crenshaw - EX - AM

DATE : 12/ 7/ 9 TIME : 13:19:45

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL	
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE	
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)			
	*									
4. nbq	*	60	27	3.0	975	1600	4.84	3	3	
6. sbq	*	60	27	3.0	1336	1600	4.84	3	3	
9. ebq	*	60	30	3.0	714	1600	4.84	3	3	
12. wbq	*	60	30	3.0	1416	1600	4.84	3	3	

		*	COOR	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Crenshaw - Existing - AM RUN: Imperial & Crenshaw - EX - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE	*		TRATIO	ON	
(DEGR)		REC1	REC2	REC3	REC4
(DEGIC)	. * .				
0.	*	. 3	. 3	. 7	.6
10.	*	.7	.1	1.0	. 2
20.	*	. 6	. 0	. 7	. 2
30.	*	. 6	. 0	. 5	. 2
40.	*	. 4	.0	.7	. 2
50.	*	. 4	.0	.5	.3
60.	*	. 4	.0	.7	.3
70.	*	. 4	.0	.7	. 4
80.	*	. 4	.0	.8	. 4
90.	*	.7	. 2	. 4	. 2
100.	*	.9	.5	.3	.0
110.	*	.8	. 5	. 3	.0
120.	*	.7	. 5	. 3	.0
130.	*	.7	. 4	.3	.0
140.	*	.6	. 4	.3	.0
150.	*	.7	. 4	. 4	.0
160.	*	.8	. 4	.5	.0
170.	*	1.0	. 4	. 6	.0
180.	*	.7	. 8	. 3	. 2
190.	*	. 3	1.0	.1	.6
200.	*	.3	. 8	. 0	.5
210.	*	.3	. 7	. 0	. 4
220.	*	.3	. 4	.0	. 4
230.	*	. 3	. 7	.0	. 4
240.	*	. 4	.6	.0	.3
250.	*	. 5	. 6	.0	.3
260.	*	. 6	. 7	.0	. 3
270.	*	.3	.5		. 6 . 7
280. 290.	*	.0	. 2	.5	
300.	*	.0	. 2	.4	. 6 . 6
310.	*	.0	. 2	. 3	.6
320.	*	.0	. 4	. 4	.5
330.	*	.0	. 4	.3	.6
340.	*	.0	.5	.3	.7
350.	*	.1	.6	.3	.8
360.	*	.3	. 3	.7	.6
	. * .			. , 	
MAX	*	1.0	1.0	1.0	.8
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION OF $$1.00\ \mbox{PPM}$$ OCCURRED AT RECEPTOR REC3 .

RUN: Imperial & Crenshaw - EX - PM JOB: Imperial & Crenshaw - Existing - PM

DATE : 12/ 7/ 9 TIME : 13:19:29

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	I	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1295.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1348.	4.1	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1283.	4.1	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	400.4	*	64.	180. AG	18.	100.0	.0 36.0	.58	3.2
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1296.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	599.0	*	63.	360. AG	18.	100.0	.0 36.0	.57	3.2
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1395.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1394.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	387.7	482.0	*	76.	270. AG	19.	100.0	.0 36.0	.70	3.9
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	909.	4.1	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	844.	4.1	.0 56.0		
	12. wbg	*	536.0	518.0	585.7	518.0	*	50.	90. AG	19.	100.0	.0 36.0	.45	2.5

PAGE 2

JOB: Imperial & Crenshaw - Existing - PM RUN: Imperial & Crenshaw - EX - PM

DATE : 12/ 7/ 9 TIME : 13:19:29

ADDITIONAL QUEUE LINK PARAMETERS

1	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
4.	nbq	*	60	27	3.0	1295	1600	4.84	3	3
6.	sbq	*	60	27	3.0	1283	1600	4.84	3	3
9.	ebq	*	60	30	3.0	1395	1600	4.84	3	3
12.	wbq	*	60	30	3.0	909	1600	4.84	3	3

	*	COOR	DINATES (FT)	*
RECEPTOR	*	X	Y	Z	*
	*				-*
1. nw	*	454.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	454.0	454.0	5.4	*
4. se	*	546.0	454.0	5.4	*

JOB: Imperial & Crenshaw - Existing - PM

RUN: Imperial & Crenshaw - EX - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCE	TRATIC	ON	
ANGLE	*	((PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	*.				
0.	*	. 3	. 3	. 9	.8
10.	*	. 7	.1	1.1	.3
20.	*	. 5	.0	. 8	.3
30.	*	.6	.0	. 7	. 3
40.	*	.5	.0	.7	.3
50.	*	. 4	.0	. 8	. 3
60.	*	. 4	.0	. 7	. 4
70.	*	. 4	.0	. 7	.5
80.	*	. 4	.0	. 9	.6
90.	*	. 8	. 1	. 7	.3
100.	*	.9	. 5	. 3	.1
110.	*	. 8	. 4	.3	.0
120.	*	. 7	. 4	. 3	.0
130.	*	. 6	. 5	. 3	.0
140.	*	.7	. 4	. 4	.0
150.	*	.6	. 4	.5	.0
160.	*	.7	. 3	.5	.0
170.	*	. 9	. 3	.7	.1
180.	*	.7	. 8	. 3	.3
190.	*	. 2	1.0	.1	.7
200.	*	. 2	.7	.0	.5
210.	*	. 3	.7	.0	.6
220.	*	.3	. 7	.0	.5
230.	*	. 3	.6	.0	. 4
240.	*	. 4	. 7	. 0	. 4
250.	*	. 4	. 7	. 0	. 4
260.	*	.5	.7	.1	. 4
270.	*	. 2	.6	. 4	. 8
280.	*	. 0	. 3	. 6	. 9
290.	*	. 0	. 3	.6	.7
300.	*	.0	. 3	.5	.7
310.	*	. 0	. 3	. 4	. 8
320.		. 0	. 4	. 4	.7
330.	*	. 0	. 5	. 4	. 7
340.		. 0	. 6	. 4	. 8
350.	*	.1	.7	. 4	1.0
360.	*	. 3	. 3	. 9	.8
MAX	*	.9	1.0	1.1	1.0
DEGR.	*	170	190	10	350
					550

THE HIGHEST CONCENTRATION OF $1.10~{\rm PPM}$ OCCURRED AT RECEPTOR REC3 .

JOB: Imperial & I-110 NB Ramp - EX - AM RUN: Imperial & I-110 NB Ramp - EX - AM

DATE : 12/ 7/ 9 TIME : 13:45: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LII	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1637.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	472.	4.1	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	348.3	*	116.	180. AG	20.	100.0	.0 36.0	.85	5.9
	4. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	760.	4.1	.0 56.0		
	5. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1133.	4.1	.0 56.0		
	6. ebq	*	464.0	482.0	428.0	482.0	*	36.	270. AG	17.	100.0	.0 36.0	.33	1.8
	7. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1202.	4.1	.0 56.0		
	8. wbd	*	500.0	518.0	. 0	518.0	*	500.	270. AG	1994.	4.1	.0 56.0		
	9. wbq	*	536.0	518.0	592.9	518.0	*	57.	90. AG	17.	100.0	.0 36.0	.52	2.9

JOB: Imperial & I-110 NB Ramp - EX - AM RUN: Imperial & I-110 NB Ramp - EX - AM

DATE : 12/ 7/ 9 TIME : 13:45: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	31	3.0	1637	1600	4.84	3	3
6. ebq	*	60	26	3.0	760	1600	4.84	3	3
9. wbq	*	60	26	3.0	1202	1600	4.84	3	3

	*	C001	RDINATES (FT	')	*
RECEPTOR	*	X	Y	Z	*
	*				*
1. nw	*	454.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	454.0	454.0	5.4	*
4. se	*	546.0	454.0	5.4	*

JOB: Imperial & I-110 NB Ramp - EX - AM

RUN: Imperial & I-110 NB Ramp - EX - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	ON	
ANGLE	*	((PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	* -				
υ.	*	. 0	.1	. 4	. 5
10.	*	.1	.0	. 4	. 2
20.	*	.1	.0	. 4	. 2
50.	*	. 1	. 0	. 4	. 3
ŦU.	*	.1	. 0	. 3	. 3
50.		.1	.0	. 4	. 3
00.	*	.1	.0	. 5	. 4
70.		. 0	.0	.7	.5
00.	*	.0	.1	.8	.6
50.	*	. 4	.3	. 4	. 3
100.	*	. 7	. 6	. 2	. 1
TIU.	*	. 6	. 5	. 2	.0
120.	*	. 6	. 4	. 2	. 0
130.		. 6	. 4	. 2	.0
110.	*	. 6	. 4	. 2	.0
150.	*	. 6	. 4	. 2	. 0
100.	*	. 7	. 4	. 3	. 0
170.		. 7	. 4	. 2	. 1
100.	*	. 5	. 8	.0	. 4
190.	*	. 4	. 9	.0	. 7
200.	*	. 4	.6	.0	.5 .4
	*	. 4	. 5	.0	.4
	*	. 4	.5	.0	.4
	*	.5	.5	.0	.4
210.	*	.6	.6	.0	.3
	*	.8	.9	.0	.3
	*	.5	. 6	.3	.7
	*	.1	. 2	.6	.9
	*	.0	.1	.5	.7
	*	.0	.1	.5	.7
	*	. 0	. 1	. 3	.5
	*	.0	.1	.3	.6
	*	. 0	. 1	. 3	. 6
	*	. 0	.1	. 4	.5
	*	. 0	. 2	. 4	. 4
	*	. 0	.1	. 4	.5
	*.				
MAX	*	.8	.9	.8	.9
DEGR.	*	260	190	80	280

THE HIGHEST CONCENTRATION OF .90 PPM OCCURRED AT RECEPTOR REC2 .

RUN: Imperial & Vermont - EX - AM JOB: Imperial & Vermont - EX - AM

DATE : 12/ 7/ 9 TIME : 13:38:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)								, ,			, -, ,	. , . ,		
(/		*_					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	698.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	772.	4.1	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	431.0	*	33.	180. AG	17.	100.0	.0 36.0	.30	1.7
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	790.	4.1	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	666.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	573.4	*	37.	360. AG	17.	100.0	.0 36.0	.34	1.9
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	800.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	888.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	418.9	482.0	*	45.	270. AG	20.	100.0	.0 36.0	.42	2.3
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	445.	4.1	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	407.	4.1	.0 56.0		
	12. wbq	*	536.0	518.0	561.1	518.0	*	25.	90. AG	20.	100.0	.0 36.0	. 23	1.3

JOB: Imperial & Vermont - EX - AM RUN: Imperial & Vermont - EX - AM

DATE : 12/ 7/ 9 TIME : 13:38:30

ADDITIONAL QUEUE LINK PARAMETERS

J	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
3.	nbq	*	60	26	3.0	698	1600	4.84	3	3
6.	sbq	*	60	26	3.0	790	1600	4.84	3	3
9.	ebq	*	60	31	3.0	800	1600	4.84	3	3
12.	wbq	*	60	31	3.0	445	1600	4.84	3	3

		*	COORDI	NATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Vermont - EX - AM

RUN: Imperial & Vermont - EX - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	ON	
ANGLE	*	(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	. * .				
0.	*	. 2	. 2	. 4	.3
10.	*	. 4	.0	. 6	.1
20.	*	. 3	.0	. 4	.1
30.	*	. 3	.0	. 4	.1
40.	*	. 2	.0	.3	.1
50.	*	. 2	.0	.3	.3
60.	*	. 2	.0	.5	.3
70.	*	. 3	.0	.5	.3
80.	*	.3	.0	. 7	. 4
90.	*	. 4	. 1	. 4	. 2
100.	*	. 4	. 3	. 2	.0
110.	*	. 4	. 2	. 2	.0
120.	*	. 3	. 2	. 2	.0
130.	*	.3	. 2	. 2	.0
140.	*	. 4	. 2	. 2	.0
150.	*	.5	. 2	. 2	.0
160.	*	.5	. 2	. 3	.0
170.	*	.6	.3	. 3	.0
180.	*	.3	. 4	. 2	. 2
190.	*	. 2	.7	.0	. 4
200.	*	. 2	. 5	.0	. 3
210.	*	. 2	. 5	.0	. 2
220.	*	. 2	. 4	.0	. 2
230.	*	. 2	. 3	. 0	. 2
240.	*	. 2	. 4	.0	. 2
250.	*	.2	. 4	.0	.3
260.	*	. 2	. 4	. 0	. 3
270.	*	. 1	. 3	. 2	. 6
280.		. 0	. 2	. 4	. 6
290.	*	. 0	. 2	. 3	. 5
300.	*	.0	. 2	. 3	.5
310.	*	. 0	. 2	.1	.3
320.	*	. 0	. 2	. 2	.3
330.	*	. 0	. 3	. 2	. 4
340.	*	. 0	. 3	. 2	. 4
350.	*	. 0	. 4		.5
360.	*	. 2	. 2	. 4	.3
MAX	*	.6	.7	.7	.6
DEGR.	*	170	190	80	270
DEGK.	-	1/0	190	00	2/0

THE HIGHEST CONCENTRATION OF $$.70 PPM OCCURRED AT RECEPTOR REC3 .

RUN: Imperial & Vermont - EX - PM JOB: Imperial & Vermont - EX - PM

DATE : 12/ 7/ 9 TIME : 13:42:11

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)								, ,	/		, -, ,	. , . ,		
, ,		*_					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	504.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	661.	4.1	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	428.2	*	36.	180. AG	25.	100.0	.0 36.0	.39	1.8
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	656.	4.1	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	539.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	582.5	*	46.	360. AG	25.	100.0	.0 36.0	.51	2.4
	7. eba	*	. 0	482.0	500.0	482.0	*	500.	90. AG	1514.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1572.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	414.4	482.0	*	50.	270. AG	12.	100.0	.0 36.0	.51	2.5
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1040.	4.1	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	942.	4.1	.0 56.0		
	12. wbg	*	536.0	518.0	566.9	518.0	*	31.	90. AG	12.	100.0	.0 36.0	.32	1.6

JOB: Imperial & Vermont - EX - PM RUN: Imperial & Vermont - EX - PM

DATE : 12/ 7/ 9 TIME : 13:42:11

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
3.	nbq	*	60	39	3.0	504	1600	4.84	3	3
6.	sbq	*	60	39	3.0	656	1600	4.84	3	3
9.	ebq	*	60	18	3.0	1514	1600	4.84	3	3
12.	wbq	*	60	18	3.0	942	1600	4.84	3	3

		*	COOR	DINATES (FT)	*
	RECEPTOR	*	X	Y	Z	*
		*				-*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Vermont - EX - PM

RUN: Imperial & Vermont - EX - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

MILIAD	*	CONCEN		ON	
ANGLE (DEGR)			PPM) REC2	REC3	REC4
(DEGR)	* -	RECI	RECZ	REC3	REC4
0.	*	. 2	. 2	. 4	. 4
	*	. 3	.0	.6	.3
	*	.3	.0	.6	.3
	*	. 2	.0	.6	.3
	*	.3	.0	.5	.3
	*	.3	.0	.5	. 4
	*	. 3	. 0	. 5	. 4
70.	*	. 3	. 0	. 8	. 6
80.	*	. 3	.1	. 8	.7
90.	*	. 7	. 3	. 5	. 4
100.	*	1.0	. 6	. 2	.1
110.	*	. 8	.6	.1	.0
120.	*	.6	. 4	. 2	.0
130.	*	.5	. 4	. 2	.0
140.	*	. 5	. 4	. 2	.0
150.	*	.5	. 3	. 2	.0
160.	*	. 5	. 3	. 2	.0
170.	*	.6	. 2	.3	.0
180.	*	. 3	. 4	.1	.1
190.	*	. 2	. 5	.0	.3
200.	*	. 3	.6	.0	. 2
210.	*	. 3	. 4	.0	. 2
220.	*	. 3	.5	.0	. 2
250.	*	. 4	. 4	.0	.3
210.	*	. 4	.6	. 0	.3
250.	*	. 6	. 8	.0	.3
200.	*	. 5	. 9	. 1	.3
270.	*	. 2	. 6	. 4	.7
200.	*	. 0	. 3	. 6	1.0
200.	*	. 0	. 3	.6	. 9
500.	*	. 0	. 2	. 4	. 5
JIU.	*	. 0	. 2	. 4	. 5
520.	*	. 0	. 2	. 3	.5
550.	*	. 0	. 2	. 3	. 6
J T U .	*	. 0		. 3	. 6
550.	*	.0	.3	. 3	.6
360.	*	.2	.2	. 4	. 4
MAX	*	1.0	.9	.8	1.0
	*	100	260	70	280

THE HIGHEST CONCENTRATION OF $$1.00\ \mbox{PPM}$$ OCCURRED AT RECEPTOR REC4 .

RUN: Imperial & Western - EX - PM JOB: Imperial & Western - EX - PM

DATE : 12/ 7/ 9 TIME : 13:47:40

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	IATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)	
(VEH)													
		*-					*						
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1010.	4.1	.0 56.0	
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1058.	4.1	.0 56.0	
	3. nbq	*	518.0	464.0	518.0	403.4	*	61.	180. AG	21.	100.0	.0 36.0	.57 3.1
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	974.	4.1	.0 56.0	
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1011.	4.1	.0 56.0	
	6. sbq	*	482.0	536.0	482.0	594.5	*	58.	360. AG	21.	100.0	.0 36.0	.55 3.0
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1696.	4.1	.0 56.0	
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1583.	4.1	.0 56.0	
	9. ebq	*	464.0	482.0	389.9	482.0	*	74.	270. AG	16.	100.0	.0 36.0	.68 3.8
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	953.	4.1	.0 56.0	
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	981.	4.1	.0 56.0	
	12. wbq	*	536.0	518.0	577.6	518.0	*	42.	90. AG	16.	100.0	.0 36.0	.38 2.1

JOB: Imperial & Western - EX - PM RUN: Imperial & Western - EX - PM

DATE : 12/ 7/ 9 TIME : 13:47:40

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
3.	nbq	*	60	33	3.0	1010	1600	4.84	3	3
6.	sbq	*	60	33	3.0	974	1600	4.84	3	3
9.	ebq	*	60	24	3.0	1696	1600	4.84	3	3
12.	pdw	*	60	24	3.0	953	1600	4.84	3	3

		*	COORI	INATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Western - EX - PM

RUN: Imperial & Western - EX - PM

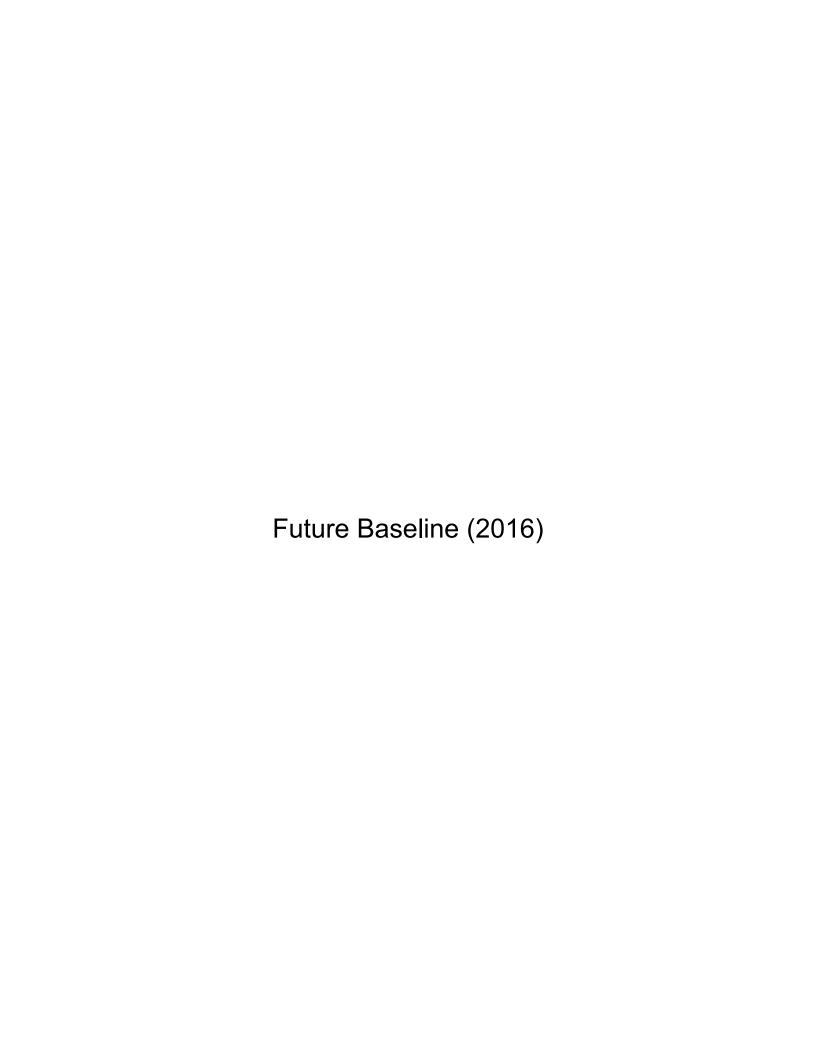
MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION							
ANGLE	*	(PPM)							
(DEGR)	*	REC1	REC2	REC3	REC4				
	*.								
0.	*	. 2	. 3	.6	.6				
10.	*	. 6	. 1	.9	.3				
20.	*	. 5	.0	. 8	.3				
30.	*	. 4	.0	.6	.3				
40.	*	. 4	.0	.5	.3				
50.	*	. 4	.0	.6	. 4				
60.	*	. 3	.0	.6	. 4				
70.	*	. 3	.0	.9	.6				
80.	*	.3	.0	1.1	.7				
90.	*	.7	. 2	.6	. 4				
100.	*	1.0	. 5	. 2	.1				
110.	*	.8	.6	. 2	.0				
120.	*	. 6	. 4	. 2	.0				
130.	*	. 5	. 4	. 3	.0				
110.	*	.6	. 3	. 3	.0				
150.	*	. 6	. 3	. 3	.0				
160.	*	. 8	. 3	.5	.0				
1,0.	*	.9	. 2	.5	.0				
100.	*	. 6	. 6	.3	.3				
100.	*	. 3	. 8	.0	.5				
200.	*	. 3	. 8	.0	.5				
210.	*	. 3	.6	.0	. 4				
220.	*	. 4	. 6	.0	. 4				
250.	*	. 4	.6	.0	. 4				
210.	*	. 4	. 6	. 0	. 3				
250.	*	.6	. 8	. 0	.3				
200.	*	.6	. 9	.1	. 3				
270.	*	. 2	. 6	. 4	. 8				
200.	*	. 0	. 2	. 7	1.1				
250.	*	. 0	. 2	. 7	. 9				
500.		.0	. 2	. 5	.7				
J I U .	*	. 0	. 3	. 5	. 6				
520.	*	.0	. 3	.5	. 6				
550.	*	.0	. 3	. 4	. 6				
J T U .	*	.0	. 5	. 3	. 8				
550.	*	.0	. 5	. 3	. 9				
360.	*	. 2	. 3	. 6	.6				
MAX	*	1.0	.9	1.1	1.1				
	*	100	260	80	280				
DIOIC.		100	200	00	200				

THE HIGHEST CONCENTRATION OF $1.10~{\rm PPM}$ OCCURRED AT RECEPTOR REC3 .



JOB: Century & Normandie - Baseline - PM RUN: Century & Normandie - Baseline - PM

DATE : 12/14/ 9 TIME : 10:49: 4

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	732.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	741.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	410.6	*	53.	180. AG	27.	100.0	.0 36.0	.61	2.7
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	710.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	738.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	587.6	*	52.	360. AG	27.	100.0	.0 36.0	.59	2.6
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1698.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1661.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	411.4	482.0	*	53.	270. AG	11.	100.0	.0 36.0	.56	2.7
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1708.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1708.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	588.9	518.0	*	53.	90. AG	11.	100.0	.0 36.0	.56	2.7

PAGE 2

JOB: Century & Normandie - Baseline - PM RUN: Century & Normandie - Baseline - PM

DATE : 12/14/ 9 TIME : 10:49: 4

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	40	3.0	732	1600	4.96	3	3
6. sbq	*	60	40	3.0	710	1600	4.96	3	3
9. ebq	*	60	17	3.0	1698	1600	4.96	3	3
12. wbq	*	60	17	3.0	1708	1600	4.96	3	3

		*	COORDI	NATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Century & Normandie - Baseline - PM

RUN: Century & Normandie - Baseline - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	ON	
ANGLE	*		(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	. * .				
0.	*	.1	.1	. 3	. 3
10.	*	. 2	. 0	. 4	. 2
20.	*	. 2	.0	. 4	. 2
30.	*	. 3	. 0	. 3	. 2
40.	*	. 3	. 0	. 3	. 2
50.		. 2	.0	. 3	. 3
60.	*	. 2	. 0	. 4	. 3
70.		. 2	.0	.6	.5
80.	*	. 2	.0	.7	. 4
90.	*	.5	. 2	. 5	. 2
100.	*	. 8	. 5	. 2	. 0
110.	*	. 6	. 5	. 2	.0
120.	*	. 4	. 3	.1	. 0
130.		. 3	. 3	.1	. 0
140.	*	.3	.3	. 2	.0
150.	*	. 3	. 2	. 2	.0
160.	*	. 4	. 2	. 2	.0
170.	*	. 4	. 2	. 3	.0
180.	*	. 3	. 3	.1	.1
190.	*	. 2	. 4	.0	. 3
200.		. 2	. 4	.0	. 2
210.	*	. 2	. 3	.0	. 3
220.	*	. 3	.3	.0	.3
230. 240.	*	.3	.3	.0	.2
250.	*	.5	.6	.0	.2
260.	*	.5	.7	.0	.2
270.	*	. 2	. 5	.2	.5
280.	*	.0	. 2	.5	.8
290.	*	.0	. 2	.5	.6
300.	*	.0	.1	.3	.4
310.	*	.0	.1	.3	.3
320.	*	.0	.1	.3	.3
330.	*	.0	. 2	.2	.3
340.	*	.0	. 2	.2	.4
350.	*	.0	.3	. 2	. 4
360.	*	.1	.1	. 3	.3
	. * .				
MAX	*	.8	.7	.7	.8
DEGR.	*	100	260	80	280

THE HIGHEST CONCENTRATION OF $$.80 PPM OCCURRED AT RECEPTOR REC1 .

RUN: Century & Western - Baseline - PM JOB: Century & Western - Baseline - PM

DATE : 12/14/ 9 TIME : 10:58:35

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1245.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1265.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	382.8	*	81.	180. AG	23.	100.0	.0 36.0	.74	4.1
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1130.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1125.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	605.9	*	70.	360. AG	23.	100.0	.0 36.0	.67	3.6
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1867.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1809.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	385.8	482.0	*	78.	270. AG	15.	100.0	.0 36.0	.73	4.0
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1774.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1817.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	610.3	518.0	*	74.	90. AG	15.	100.0	.0 36.0	.69	3.8

PAGE 2 RUN: Century & Western - Baseline - PM

JOB: Century & Western - Baseline - PM

DATE : 12/14/ 9 TIME : 10:58:35

ADDITIONAL QUEUE LINK PARAMETERS

:	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		_*								
3.	nbq	*	60	34	3.0	1245	1600	4.96	3	3
6.	sbq	*	60	34	3.0	1130	1600	4.96	3	3
9.	ebq	*	60	23	3.0	1867	1600	4.96	3	3
12.	wbq	*	60	23	3.0	1774	1600	4.96	3	3

		*	COORD	INATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_ *
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Century & Western - Baseline - PM

JOB: Century & Western - Baseline - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	NC	
ANGLE	*		PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	*.				
0.	*	. 2	. 2	. 3	. 4
10.	*	. 3	. 0	. 7	. 2
20.	*	.4	. 0	. 5	. 2
30.	*	.3	. 0	.5	
40.	*	.3	.0	. 4	.3
50. 60.	*	.3	.0	.5	.3
70.	*	.3	.0	.7	
	*				. 5
80.	*	. 3	. 0	. 8	.5
90.	*	. 6	. 3	. 5	.3
100.	*	. 9	. 5	. 2	.0
110.	*	. 7	.5	. 3	.0
120. 130.	*	.5		. 3	.0
	*	. 4	. 4	. 2	.0
140.	*	. 4	. 4	. 2	.0
150.	*	. 5	. 3	. 2	.0
160.	*	. 5	. 2	. 3	.0
170.	*	.6	. 2	. 3	.0
180.	*	.3	. 4	. 2	. 2
190. 200.	*	.2	. 5	.0	. 4
210.	*	.2	.5	.0	.4
220.	*	.3	. 4	.0	.3
230.	*	.3	.4	.0	.3
240.	*	.3	.5	.0	.3
250.	*	.5	.7	.0	.3
260.	*	.6	.8	.1	.3
270.	*	. 3	. 5	. 3	.6
280.	*	.1	. 2	.5	.9
290.	*	.0	.3	. 5	.7
300.	*	. 0	. 3	. 4	. 4
310.	*	. 0	. 2	. 4	. 4
320.	*	. 0	. 2	. 4	. 4
330.	*	.0	. 2	. 3	.5
340.	*	. 0	. 3	. 2	.5
350.	*	.0	. 4	. 2	.6
360.	*	. 2	. 2	.3	. 4
	*.				
MAX DEGR.	*	.9 100	.8 260	. 8 80	.9 280
DEGR.	-	100	200	80	280

THE HIGHEST CONCENTRATION OF $$.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Imperial & Crenshaw - Baseline - PM RUN: Imperial & Crenshaw - Baseline - PM

DATE : 12/14/ 9 TIME : 11:14:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LI	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1808.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1924.	2.3	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1450.	2.3	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	380.5	*	84.	180. AG	17.	100.0	.0 36.0	.75	4.2
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1339.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	602.0	*	66.	360. AG	17.	100.0	.0 36.0	.60	3.4
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1447.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1558.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	370.8	482.0	*	93.	270. AG	21.	100.0	.0 36.0	.79	4.7
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1180.	2.3	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1004.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	604.8	518.0	*	69.	90. AG	21.	100.0	.0 36.0	.64	3.5

PAGE 2

JOB: Imperial & Crenshaw - Baseline - PM RUN: Imperial & Crenshaw - Baseline - PM

DATE : 12/14/ 9 TIME : 11:14:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
	*								
4. nbq	*	60	25	3.0	1808	1600	4.96	3	3
6. sbq	*	60	25	3.0	1450	1600	4.96	3	3
9. ebq	*	60	32	3.0	1447	1600	4.96	3	3
12. wbq	*	60	32	3.0	1180	1600	4.96	3	3

		*	COOR	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Crenshaw - Baseline - PM JOB: Imperial & Crenshaw - Baseline - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND *		NTRATIO	ON	
ANGLE *		(PPM)		
(DEGR)*	REC1	REC2	REC3	REC4
0 *				
0. * 10. *	. 2	.3	.5	.5
20. *				.2
	. 4	.0	. 6	
30. * 40. *	.5	.0	.4	.2
50. *	.3	.0	. 4	. 2
60. *	.3	.0	.5	.3
70. *	.3	.0	.6	.3
80. *	.3	.0	.7	. 4
90. *	. 4	.1	. 4	.2
100. *	.6	.1	. 2	.0
110. *	.5	.3	.2	.0
120. *	.5	.3	.2	.0
130. *	. 4	.3	.2	.0
140. *	.4	.3	.2	.0
150. *	.5	.3	.3	.0
160. *	.6	.3	. 4	.0
170. *	.7	.3	.4	.0
180. *	. 4	.6	. 2	.3
190. *	.2	.8	.0	.5
200. *	. 2	.6	.0	.5
210. *	. 3	.5	.0	. 4
220. *	. 2	. 5	.0	. 4
230. *	. 2	. 3	.0	. 4
240. *	. 2	. 6	.0	. 3
250. *	. 3	. 4	. 0	.3
260. *	. 3	. 5	. 0	. 3
270. *	.1	. 4	. 2	.6
280. *	.0	. 2	. 4	.7
290. *	.0	. 2	. 4	.5
300. *	.0	. 3	. 4	.5
310. *	.0	. 3	. 3	. 4
320. *	.0	. 3	.3	. 4
330. *	.0	. 3	. 3	.5
340. *	.0	. 4	.3	.6
350. *	.0	. 5	. 3	.7
360. *	. 2	. 3	.5	.5
MAX *	.7	.8	.8	.7
DEGR. *	170	190	10	280

THE HIGHEST CONCENTRATION OF $$.80 PPM OCCURRED AT RECEPTOR REC3 .

JOB: Imperial & Crenshaw - Baseline - AM RUN: Imperial & Crenshaw - Baseline - AM

DATE : 12/14/ 9 TIME : 11: 8: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LI	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*_					*							
	1. nba	*	518.0	. 0	518.0	500.0	*	500.	360. AG	1149.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1272.	2.3	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1584.	2.3	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	409.5	*	54.	180. AG	17.	100.0	.0 36.0	.50	2.8
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1539.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	614.0	*	78.	360. AG	18.	100.0	.0 36.0	.71	4.0
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	800.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	787.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	420.4	482.0	*	44.	270. AG	20.	100.0	.0 36.0	.40	2.2
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1576.	2.3	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1511.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	630.5	518.0	*	95.	90. AG	20.	100.0	.0 36.0	.79	4.8

PAGE 2

JOB: Imperial & Crenshaw - Baseline - AM RUN: Imperial & Crenshaw - Baseline - AM

DATE : 12/14/ 9 TIME : 11: 8: 6

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
4.	nbq	*	60	26	3.0	1149	1600	4.96	3	3
6.	sbq	*	60	27	3.0	1584	1600	4.96	3	3
9.	ebq	*	60	30	3.0	800	1600	4.96	3	3
12.	wbq	*	60	30	3.0	1576	1600	4.96	3	3

		*	COORI	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				-*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Crenshaw - Baseline - AM JOB: Imperial & Crenshaw - Baseline - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	ON	
ANGLE	*	(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	*.				
0.	*	. 2	. 2	.6	. 4
10.	*	. 4	.0	. 8	. 2
20.	*	. 4	.0	.6	. 2
30.	*	. 4	.0	.5	. 2
40.	*	. 4	.0	. 4	. 2
50.	*	. 3	.0	.3	. 2
60.	*	. 3	.0	. 4	. 2
70.	*	. 3	.0	. 4	. 2
80.	*	.3	.0	. 4	. 3
90.	*	.6	.1	.3	.1
100.	*	.8	. 4	. 2	.0
110.	*	.6	. 4	. 2	.0
120.	*	. 5	. 4	. 2	.0
130.	*	. 2	. 4	. 2	.0
140.	*	. 3	. 2	. 3	.0
150.	*	. 4	. 2	.3	.0
160.	*	. 4	. 2	.3	.0
170.	*	.6	. 2	. 4	.0
180.	*	. 4	. 3	. 2	. 2
190.	*	.1	.6	.0	. 3
200.	*	.1	. 4	.0	.3
210.	*	.1	. 4	.0	. 2
220.	*	. 2	. 3	.0	. 3
230.	*	. 2	. 3	.0	.3
240.	*	.3	. 5	.0	. 3
250.	*	. 3	. 5	.0	.3
260.	*	. 4	. 5	.0	. 3
270.	*	. 2	. 4	.1	. 4
280.	*	.0	. 2	.3	. 4
290.	*	.0	. 2	. 2	. 4
300.	*	. 0	. 2	. 2	. 4
310.	*	.0	. 2	. 2	. 4
320.	*	. 0	. 2	. 3	. 4
330.	*	.0	. 2	. 3	. 5
340.	*	.0	. 3	.3	.6
350.	*	.0	. 4	. 3	.7
360.	*	. 2	. 2	.6	. 4
	*.				
MAX	*	.8	.6	.8	.7
DEGR.	^	100	190	10	350

THE HIGHEST CONCENTRATION OF $$.80 PPM OCCURRED AT RECEPTOR REC3 .

RUN: Imperial & Crenshaw - EX - PM JOB: Imperial & Crenshaw - Existing - PM

DATE : 12/ 7/ 9 TIME : 13:19:29

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	I	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1295.	4.1	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1348.	4.1	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1283.	4.1	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	400.4	*	64.	180. AG	18.	100.0	.0 36.0	.58	3.2
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1296.	4.1	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	599.0	*	63.	360. AG	18.	100.0	.0 36.0	.57	3.2
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1395.	4.1	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1394.	4.1	.0 56.0		
	9. ebq	*	464.0	482.0	387.7	482.0	*	76.	270. AG	19.	100.0	.0 36.0	.70	3.9
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	909.	4.1	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	844.	4.1	.0 56.0		
	12. wbg	*	536.0	518.0	585.7	518.0	*	50.	90. AG	19.	100.0	.0 36.0	.45	2.5

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JOB: Imperial & Crenshaw - Existing - PM RUN: Imperial & Crenshaw - EX - PM

DATE : 12/ 7/ 9 TIME : 13:19:29

ADDITIONAL QUEUE LINK PARAMETERS

1	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
4.	nbq	*	60	27	3.0	1295	1600	4.84	3	3
6.	sbq	*	60	27	3.0	1283	1600	4.84	3	3
9.	ebq	*	60	30	3.0	1395	1600	4.84	3	3
12.	wbq	*	60	30	3.0	909	1600	4.84	3	3

	*	COOR	DINATES (FT)	*
RECEPTOR	*	X	Y	Z	*
	*				-*
1. nw	*	454.0	546.0	5.4	*
2. ne	*	546.0	546.0	5.4	*
3. sw	*	454.0	454.0	5.4	*
4. se	*	546.0	454.0	5.4	*

JOB: Imperial & Crenshaw - Existing - PM

RUN: Imperial & Crenshaw - EX - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCE	TRATIC	ON	
ANGLE	*	((PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	*.				
0.	*	. 3	. 3	. 9	.8
10.	*	. 7	.1	1.1	.3
20.	*	. 5	.0	. 8	.3
30.	*	.6	.0	. 7	. 3
40.	*	.5	.0	.7	.3
50.	*	. 4	.0	. 8	. 3
60.	*	. 4	.0	. 7	. 4
70.	*	. 4	.0	. 7	.5
80.	*	. 4	.0	. 9	.6
90.	*	. 8	. 1	. 7	.3
100.	*	.9	. 5	. 3	.1
110.	*	. 8	. 4	.3	.0
120.	*	. 7	. 4	. 3	.0
130.	*	. 6	. 5	. 3	.0
140.	*	.7	. 4	. 4	.0
150.	*	.6	. 4	.5	.0
160.	*	.7	. 3	.5	.0
170.	*	. 9	. 3	.7	.1
180.	*	.7	. 8	. 3	.3
190.	*	. 2	1.0	.1	.7
200.	*	. 2	.7	.0	.5
210.	*	. 3	.7	.0	.6
220.	*	.3	. 7	.0	.5
230.	*	. 3	.6	.0	. 4
240.	*	. 4	. 7	. 0	. 4
250.	*	. 4	. 7	. 0	. 4
260.	*	.5	.7	.1	. 4
270.	*	. 2	.6	. 4	. 8
280.	*	. 0	. 3	. 6	. 9
290.	*	. 0	. 3	.6	.7
300.	*	.0	. 3	.5	.7
310.	*	. 0	. 3	. 4	. 8
320.		. 0	. 4	. 4	.7
330.	*	. 0	. 5	. 4	. 7
340.		. 0	. 6	. 4	. 8
350.	*	.1	.7	. 4	1.0
360.	*	. 3	. 3	. 9	.8
MAX	*	.9	1.0	1.1	1.0
DEGR.	*	170	190	10	350
					550

THE HIGHEST CONCENTRATION OF $1.10~{\rm PPM}$ OCCURRED AT RECEPTOR REC3 .

JOB: Imperial & I-110 NB Ramp - Baseline - AM RUN: Imperial & I-110 NB Ramp - Baseline - AM

DATE : 12/14/ 9 TIME : 12:19:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LI	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)	
(VEH)													
-		*					*						
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1701.	2.3	.0 56.0	
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	506.	2.3	.0 56.0	
	3. nbq	*	518.0	464.0	518.0	310.2	*	154.	180. AG	21.	100.0	.0 36.0	.92 7.8
	4. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	843.	2.3	.0 56.0	
	5. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1207.	2.3	.0 56.0	
	6. ebq	*	464.0	482.0	425.6	482.0	*	38.	270. AG	17.	100.0	.0 36.0	.35 2.0
	7. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1283.	2.3	.0 56.0	
	8. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	2114.	2.3	.0 56.0	
	9. wbq	*	536.0	518.0	594.4	518.0	*	58.	90. AG	17.	100.0	.0 36.0	.53 3.0

PAGE 2

JOB: Imperial & I-110 NB Ramp - Baseline - AM RUN: Imperial & I-110 NB Ramp - Baseline - AM

DATE : 12/14/ 9 TIME : 12:19:30

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION * CYCI
* LENC CLEARANCE VOL

60 32 25 25 3 3 3 3 3 3 3. nbq 3.0 1701 1600 4.96 6. ebq 9. wbq 60 3.0 843 1600 4.96 1283 60 3.0 1600 4.96

RECEPTOR LOCATIONS

COORDINATES (FT) *
X Y Z * 454.0 546.0 5.4 * 546.0 546.0 5.4 * 454.0 454.0 5.4 * 546.0 454.0 5.4 * 2. ne 4. se

RUN: Imperial & I-110 NB Ramp - Baseline - AM JOB: Imperial & I-110 NB Ramp - Baseline - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*		NTRATIO	ON	
ANGLE	*	,	(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	*				
0. 10.	*	.0	.1	.3	.4
20.	*	.0	.0	. 2	.2
30.	*	.0	.0	. 2	.2
40.	*	.0	.0	.2	. 2
50.	*	.0	.0	.2	.2
60.	*	.0	.0	. 4	.2
70.	*	.0	.0	. 3	.3
80.	*	.0	.0	. 4	.3
90.	*	.3	. 2	. 2	. 2
100.	*	. 4	. 4	.1	.0
110.	*	. 3	. 3	. 2	.0
120.	*	. 3	. 2	.1	.0
130.	*	. 4	. 3	.1	.0
140.	*	.3	. 3	. 2	.0
150.	*	. 4	. 3	. 2	.0
160.	*	.5	. 3	. 2	.0
170.	*	. 4	. 3	.1	.0
180.	*	. 2	. 5	.0	. 2
190.	*	. 2	.6	.0	.5
200.	*	. 2	. 4	.0	. 4
210.	*	. 3	. 3	.0	. 3
220.	*	.3	.1	.0	. 3
230.	*	. 3	. 2	. 0	. 3
240.	*	.3	.3	.0	. 2
250.	*	. 4	. 4	.0	. 2
260.	*	. 5	. 5	.0	. 2
270.	*	.3	.3	.1	.3
280. 290.	*	.0	.0	.4	.6
300.	*	.0	.0	. 3	. 4
310.	*	.0	.0	. 2	.3
320.	*	.0	.1	.2	.3
330.	*	.0	.1	.3	.3
340.	*	.0	.1	.3	.3
350.	*	.0	.1	.3	.4
360.	*	.0	.1	.3	.4
	*.				
MAX	*	.5	.6	. 4	.6
DEGR.	*	160	190	60	280

THE HIGHEST CONCENTRATION OF $$.60 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Imperial & Vermont - Baseline - AM RUN: Imperial & Vermont - Baseline - AM

DATE : 12/14/ 9 TIME : 12:39:12

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)	
	*_					*						
1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1906.	2.3	.0 56.0	
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1636.	2.3	.0 56.0	
3. nbq	*	518.0	464.0	518.0	360.3	*	104.	180. AG	17.	100.0	.0 36.0	.82 5.3
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1313.	2.3	.0 56.0	
5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1270.	2.3	.0 56.0	
6. sbq	*	482.0	536.0	482.0	598.1	*	62.	360. AG	17.	100.0	.0 36.0	.57 3.2
7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	986.	2.3	.0 56.0	
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1136.	2.3	.0 56.0	
9. ebq	*	464.0	482.0	408.4	482.0	*	56.	270. AG	21.	100.0	.0 36.0	.51 2.8
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1690.	2.3	.0 56.0	
11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1853.	2.3	.0 56.0	
12. wbq	*	536.0	518.0	664.5	518.0	*	128.	90. AG	21.	100.0	.0 36.0	.88 6.5
	1. nba 2. nbd 3. nbq 4. sba 5. sbd 6. sbq 7. eba 8. ebd 9. ebq 10. wba 11. wbd	1. nba	* X1 1. nba * 518.0 2. nbd * 518.0 3. nbq * 518.0 4. sba * 482.0 5. sbd * 482.0 6. sbq * 482.0 7. eba * .0 8. ebd * 500.0 9. ebq * 464.0 10. wba * 1000.0 11. wbd * 500.0	* X1 Y1	* X1 Y1 X2 1. nba	* X1 Y1 X2 Y2	* X1 Y1 X2 Y2 *	* X1 Y1 X2 Y2 * (FT)	* X1 Y1 X2 Y2 * (FT) (DEG) ***********************************	* X1 Y1 X2 Y2 * (FT) (DEG) ***********************************	* X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) *** 1. nba	* X1 Y1 X2 Y2 * (FT) (DEG) (G/MI) (FT) (FT) ***********************************

PAGE 2

JOB: Imperial & Vermont - Baseline - AM RUN: Imperial & Vermont - Baseline - AM

DATE : 12/14/ 9 TIME : 12:39:12

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
	_*								
nbq	*	60	26	3.0	1906	1600	4.96	3	3
sbq	*	60	26	3.0	1313	1600	4.96	3	3
ebq	*	60	31	3.0	986	1600	4.96	3	3
wbq	*	60	31	3.0	1690	1600	4.96	3	3
	LINK DESCRIPTION nbq sbq ebq wbq	*	* LENGTH * (SEC) nbq * 60 sbq * 60 ebq * 60	* LENGTH TIME * (SEC) (SEC) nbq * 60 26 sbq * 60 26 ebq * 60 31	* LENGTH TIME LOST TIME * (SEC) (SEC) (SEC) (SEC	* LENGTH TIME LOST TIME VOL. * (SEC) (SEC) (SEC) (VPH) * 60 26 3.0 1906 sbq * 60 26 3.0 1313 ebq * 60 31 3.0 986	* LENGTH TIME LOST TIME VOL FLOW RATE * (SEC) (SEC) (SEC) (VPH) (VPH) * 60 26 3.0 1906 1600 sbq * 60 26 3.0 1313 1600 ebq * 60 31 3.0 986 1600	* LENGTH TIME LOST TIME VOL FLOW RATE EM FAC * (SEC) (SEC) (SEC) (VPH) (VPH) (gm/hr) * 60 26 3.0 1906 1600 4.96 sbq * 60 26 3.0 1313 1600 4.96 ebq * 60 31 3.0 986 1600 4.96	* LENGTH TIME LOST TIME VOL FLOW RATE EM FAC TYPE * (SEC) (SEC) (SEC) (VPH) (VPH) (gm/hr) * 60 26 3.0 1906 1600 4.96 3 sbq * 60 26 3.0 1313 1600 4.96 3 ebq * 60 31 3.0 986 1600 4.96 3

		*	COOR	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				-*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Vermont - Baseline - AM JOB: Imperial & Vermont - Baseline - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION								
ANGLE	*	(PPM)							
(DEGR)	*	REC1	REC2	REC3	REC4					
	* -									
0.	*	. 2	. 2	.5	.5					
10.	*	. 4	. 0	. 8	.2					
20.	*	. 4	.0	. 6	. 2					
50.	*	. 4	. 0	. 5	. 2					
10.	*	. 3	. 0	. 4	.3					
50.	*	. 3	. 0	. 4	.3					
00.	*	. 3	.0	. 5	. 2					
,	*	. 3	. 0	. 7	. 4					
00.		. 3	. 0	.7	.3					
50.	*	. 6	. 2	. 3	.2					
100.	*	. 8	. 5	. 2	.0					
TIU.	*	. 6	. 5	. 2	.0					
120.	*	. 5	. 4	. 2	.0					
130.	*	. 4	. 4	. 2	.0					
110.	*	. 3	. 3	. 2	.0					
100.	*	. 4	. 3	. 3	.0					
100.	*	. 6	. 3	. 4	.0					
1/0.	*	. 7	. 3	.5	.1					
100.	*	.4	.6 .9	. 2	. 3					
100.	*	.2		.0	.5 .5					
200.	*	.2	.6	.0	. 4					
210.	*	. 2	. 4	.0	.4					
	*	.3	.4	.0	.4					
	*	.3	.5	.0	.3					
	*	. 4	.6	.0	.3					
	*	.5	.7	.0	.3					
	*	.3	. 5	.1	. 4					
	*	.1	. 2	.4	.7					
	*	.0	. 2	.4	.6					
	*	.0	. 2	. 3	.6					
	*	.0	. 2	.3	.3					
	*	.0	.3	.3	.4					
	*	. 0	. 3	. 3	.5					
	*	.0	. 4	.3	.6					
	*	. 0	. 4	. 3	.7					
	*	. 2	. 2	.5	.5					
	*.									
MAX	*	.8	.9	. 8	.7					
DEGR.	*	100	190	10	350					

THE HIGHEST CONCENTRATION OF $$.90 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

DATE : 12/14/ 9 TIME : 13:57:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE		
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1611.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1241.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	372.9	*	91.	180. AG	19.	100.0	.0 36.0	.77	4.6
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1124.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1182.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	595.3	*	59.	360. AG	19.	100.0	.0 36.0	.54	3.0
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1604.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1689.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	380.9	482.0	*	83.	270. AG	19.	100.0	.0 36.0	.74	4.2
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1147.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1374.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	594.5	518.0	*	58.	90. AG	19.	100.0	.0 36.0	.53	3.0

PAGE 2 JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

DATE : 12/14/ 9 TIME : 13:57:30

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		_*								
3.	nbq	*	60	29	3.0	1611	1600	4.96	3	3
6.	sbq	*	60	29	3.0	1124	1600	4.96	3	3
9.	ebq	*	60	28	3.0	1604	1600	4.96	3	3
12.	wbq	*	60	28	3.0	1147	1600	4.96	3	3

		*	COORD	INATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		_*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

MODEL RESULTS

MODEL RESULT

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION										
ANGLE	*		(PPM)									
(DEGR)	*	REC1	REC2	REC3	REC4							
	*											
0.	*	. 2	. 2	. 4	.5							
10.	*	. 3	. 0	. 6	. 2							
20.	*	.3	. 0	. 5	. 2							
30.	*	.3	. 0	. 5								
40.	*	.3	.0	.3	.2							
50. 60.	*	.3	.0	.5	.3							
	*	.3										
70.	*		. 0	.6	. 4							
80.	*	. 3	. 0	.7	. 4							
90.	*	. 4		. 5	. 2							
100.	*	. 8	. 3	. 2	.0							
110.	*	. 6	. 4	. 2	.0							
120. 130.	*	.5	.3	. 2	.0							
	*	. 4			.0							
140.	*	. 4	. 3	. 2	.0							
150.	*	.5	. 3	. 2	.0							
160.	*	. 6	. 3	. 4	.0							
170.	*	.7	. 3	. 3	.0							
180.	*	.3	.5	. 2	. 2							
190.	*	.2			. 4							
200. 210.	*	.2	.6	.0	.4							
210.	*	.2	. 4	.0	.4							
230.	*	.2	. 4	.0	.4							
240.	*	. 2	. 4	.0	.3							
250.	*	. 4	.6	.0	.3							
260.	*	.4	.7	.0	.3							
270.	*	.2	. 4	.2	.6							
280.	*	.0	. 2	. 4	.8							
290.	*	.0	. 2	.4	.6							
300.	*	.0	. 2	. 4	.5							
310.	*	. 0	. 2	. 4	. 3							
320.	*	.0	. 2	. 3	.4							
330.	*	. 0	. 2	. 3	.5							
340.	*	. 0	.3	. 3	.5							
350.	*	. 0	. 4	. 3	.6							
360.	*	. 2	. 2	. 4	.5							
	*.											
MAX	*	.8	.8	.7	.8							
DEGR.	*	100	190	80	280							

THE HIGHEST CONCENTRATION OF .80 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Imperial & Western - Baseline - PM RUN: Imperial & Western - Baseline - PM

DATE : 12/14/ 9 TIME : 14:11:22

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)	
(VEH)													
		*					*						
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1039.	2.3	.0 56.0	
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1091.	2.3	.0 56.0	
	3. nbq	*	518.0	464.0	518.0	399.7	*	64.	180. AG	23.	100.0	.0 36.0	.62 3.3
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1003.	2.3	.0 56.0	
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1041.	2.3	.0 56.0	
	6. sbq	*	482.0	536.0	482.0	598.1	*	62.	360. AG	23.	100.0	.0 36.0	.60 3.2
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1865.	2.3	.0 56.0	
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1748.	2.3	.0 56.0	
	9. ebq	*	464.0	482.0	385.9	482.0	*	78.	270. AG	15.	100.0	.0 36.0	.73 4.0
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1084.	2.3	.0 56.0	
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1111.	2.3	.0 56.0	
	12. wbq	*	536.0	518.0	581.4	518.0	*	45.	90. AG	15.	100.0	.0 36.0	.42 2.3

PAGE 2

JOB: Imperial & Western - Baseline - PM RUN: Imperial & Western - Baseline - PM

DATE : 12/14/ 9 TIME : 14:11:22

ADDITIONAL QUEUE LINK PARAMETERS

:	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		_*								
3.	nbq	*	60	34	3.0	1039	1600	4.96	3	3
6.	sbq	*	60	34	3.0	1003	1600	4.96	3	3
9.	ebq	*	60	23	3.0	1865	1600	4.96	3	3
12.	wbq	*	60	23	3.0	1084	1600	4.96	3	3

		*	COOR	DINATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Western - Baseline - PM RUN: Imperial & Western - Baseline - PM

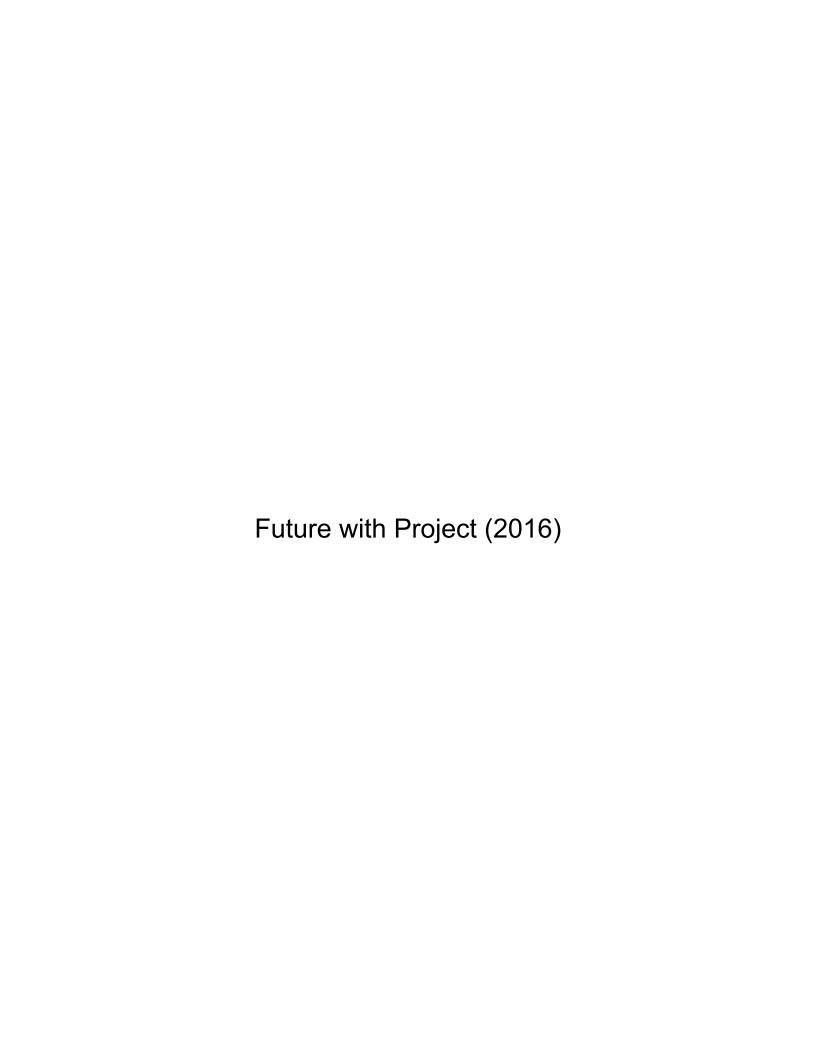
MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION								
ANGLE	*		(PPM)							
(DEGR)	*	REC1	REC2	REC3	REC4					
	. * .									
0.	*	.1	. 2	. 3	. 3					
10.	*	. 3	. 0	. 6	. 2					
20.	*	. 3	. 0	. 5	. 2					
30.	*	. 3	. 0	. 4	. 2					
40.	*	. 3	. 0	. 3	. 3					
50.		. 3	. 0	. 4	. 3					
60.	*	. 3	. 0	. 4	. 3					
70.		.3	.0	.6	. 4					
80.	*	. 3	. 0	.7	. 5					
90.	*	. 4	. 2	. 5	. 3					
100.	*	. 8	. 3	. 2	. 0					
110.	*	. 6	. 4	. 3	.0					
120.	*	. 4	. 2	. 2	. 0					
130.	*	. 3	. 2	. 2	. 0					
140.	*	. 4	. 2	. 2	.0					
150.	*	.5	. 2	. 2	.0					
160.	*	.5	. 2	.3	.0					
170.	*	.6	. 2	. 3	.0					
180.	*	. 3	. 3	.1	.1					
190.	*	. 2	. 6	.0	. 3					
200.	*	. 2	. 5	. 0	. 3					
210.	*	. 2	. 5	.0	. 3					
220.		. 2	. 4	. 0	. 3					
230.	*	. 2	. 3	.0	. 3					
240.	*	. 2	. 4	.0	. 3					
250.	*	. 4	. 6	.0	.3					
260.	*	. 4	.7	.1	. 3					
270. 280.	*	.2	.3	.3	.6 .8					
	*			. 4						
290. 300.	*	.0	.3	.4	.6 .4					
310.	*		. 2	. 4	.4					
310.	*	. 0	. 2							
	*	. 0	. 2	. 4	. 3					
330. 340.	*	.0	. 2	. 3	.4					
340.	*			. 2						
	*	.0	. 3	. 3	.6					
360.	. *				.3					
MAX	*	.8	.7	.7	.8					
DEGR.	*	100	260	80	280					
		-30		50						

THE HIGHEST CONCENTRATION OF .80 PPM OCCURRED AT RECEPTOR REC4 .



JOB: Century & Normandie - Project - PM RUN: Century & Normandie - Project - PM

DATE : 12/14/ 9 TIME : 10:53:59

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LI	NK COORDIN	ATES (FT)	*	LENGT	H BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2 *	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)													
		*				*							
	1. nba	*	518.0	.0	518.0	500.0 *	500.	360. AG	754.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0 *	500.	360. AG	763.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	410.5 *	54.	180. AG	26.	100.0	.0 36.0	.59	2.7
	4. sba	*	482.0	1000.0	482.0	500.0 *	500.	180. AG	777.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0 *	500.	180. AG	805.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	591.2 *	55.	360. AG	26.	100.0	.0 36.0	.61	2.8
	7. eba	*	.0	482.0	500.0	482.0 *	500.	90. AG	1699.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0 *	500.	90. AG	1662.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	408.3	482.0 *	56.	270. AG	12.	100.0	.0 36.0	.57	2.8
	10. wba	*	1000.0	518.0	500.0	518.0 *	500.	270. AG	1710.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0 *	500.	270. AG	1710.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	592.1	518.0 *	56.	90. AG	12.	100.0	.0 36.0	.58	2.8

PAGE 2

JOB: Century & Normandie - Project - PM RUN: Century & Normandie - Project - PM

DATE : 12/14/ 9 TIME : 10:53:59

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	39	3.0	754	1600	4.96	3	3
6. sbq	*	60	39	3.0	777	1600	4.96	3	3
9. ebq	*	60	18	3.0	1699	1600	4.96	3	3
12. wbq	*	60	18	3.0	1710	1600	4.96	3	3

		*	COORDINATES (FT) *								
	RECEPTOR	*	X	Y	Z	*					
		-*				_ *					
1.	nw	*	454.0	546.0	5.4	*					
2.	ne	*	546.0	546.0	5.4	*					
3.	sw	*	454.0	454.0	5.4	*					
4.	se	*	546.0	454.0	5.4	*					

JOB: Century & Normandie - Project - PM

RUN: Century & Normandie - Project - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATI	ON	
ANGLE	*	(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	* -				
0.	*	.1	. 1	. 3	. 3
±0.	*	. 3	.0	. 4	. 2
20.	*	. 2	.0	. 4	. 2
50.	*	. 3	. 0	. 4	. 2
40.	*	. 3	.0	. 3	. 2
50.	*	. 2	. 0	. 3	. 3
00.	*	. 2	. 0	. 4	.3
,	*	. 2	.0	. 6	.5
00.	*	. 2	.0	.7	. 4
50.	*	.5	. 2	.5	. 2
100.	*	. 8	. 5	. 2	.0
110.	*	.6	. 5	. 2	.0
120.	*	. 4	. 3	. 1	.0
150.	*	.3	. 3	.1	.0
110.	*	. 3	. 3	. 2	.0
150.	*	. 4	. 2	. 2	.0
100.	*	. 4	. 2	. 2	.0
1/0.	*	. 4	. 2	. 3	.0
100.	*	. 3	. 3	.1	.1
100.	*	. 2	. 4	.0	.3
200.	*	. 2	. 4	.0	. 2
210.	*	. 2	. 3	.0	.3
220.	*	.3	. 3	.0	.3
250.	*	.3	.3	.0	.3
	*	.5	.6	.0	. 2
	*	.5	.7	.0	.2
200.	*	. 2	. 5	.2	.5
270.	*	.0	. 2	.5	.8
	*	.0	. 2	.5	.6
	*	.0	. 1	.3	.4
	*	.0	.1	.3	.3
	*	.0	. 2	.3	.3
	*	. 0	. 2	. 2	. 3
	*	.0	. 2	. 2	. 4
350.	*	. 0	. 3	. 2	. 4
	*	.1	.1	. 3	. 3
	*.				
MAX	*	.8	.7	.7	.8
DEGR.	*	100	260	80	280

THE HIGHEST CONCENTRATION OF .80 PPM OCCURRED AT RECEPTOR REC1 .

RUN: Century & Western - Project - PM JOB: Century & Western - Project - PM

DATE : 12/14/ 9 TIME : 11: 0:14

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*_					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1279.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1303.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	378.5	*	86.	180. AG	23.	100.0	.0 36.0	.76	4.3
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1194.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1189.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	611.2	*	75.	360. AG	23.	100.0	.0 36.0	.71	3.8
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1869.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1810.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	385.6	482.0	*	78.	270. AG	15.	100.0	.0 36.0	.73	4.0
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1780.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1820.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	610.6	518.0	*	75.	90. AG	15.	100.0	.0 36.0	.70	3.8

PAGE 2

JOB: Century & Western - Project - PM RUN: Century & Western - Project - PM

DATE : 12/14/ 9 TIME : 11: 0:14

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	34	3.0	1279	1600	4.96	3	3
6. sbq	*	60	34	3.0	1194	1600	4.96	3	3
9. ebq	*	60	23	3.0	1869	1600	4.96	3	3
12. wbq	*	60	23	3.0	1780	1600	4.96	3	3

		*	COOR	DINATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Century & Western - Project - PM

RUN: Century & Western - Project - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION								
ANGLE	*	(PPM)								
(DEGR)	*	REC1	REC2	REC3	REC4					
	*.									
0.	*	. 2	. 2	. 3	. 4					
10.	*	. 3	.0	. 7	. 2					
20.	*	. 4	. 0	. 5	. 2					
50.	*	. 3	. 0	. 5	. 2					
10.	*	. 3	. 0	. 4	.3					
50.		. 3	. 0	. 4	.3					
00.	*	. 3	.0	. 5	.3					
70.	*	. 3	. 0	. 7	.5					
00.		. 3	. 0	. 8	.5					
50.	*	. 6	. 3	.5	.3					
100.	*	. 9	. 5	. 2	.0					
TIU.	*	. 7	. 5	. 3	.0					
120.	*	. 5	. 4	. 3	.0					
130.	*	. 4	. 4	. 2	.0					
110.	*	. 4	. 4	. 2	.0					
100.	*	. 5	. 3	. 2	.0					
100.	*	. 5	. 2	. 3	.0					
170.	*	. 6	. 2	. 3	.0					
100.	*	.3	. 4	. 2	. 2					
150.	*	.2	.7	.0	. 4					
200.	*	. 2	.5	.0	.4					
210.	*	. 2	. 4	.0	.3					
	*	.3	.4	.0	.3					
	*	.3	.5	.0	.3					
	*	.5	.7	.0	.3					
250.	*	.6	.8	.1	.3					
	*	.3	.5	.3	.6					
	*	.1	. 2	.5	.9					
	*	.0	.3	.5	.7					
	*	.0	.3	. 4	.5					
	*	.0	. 2	. 4	. 4					
	*	.0	. 2	.4	. 4					
	*	. 0	. 3	. 3	.5					
	*	. 0	. 3	. 2	.5					
	*	.0	. 4	. 2	.6					
	*	. 2	. 2	. 3	. 4					
	*.									
MAX	*	. 9	.8	. 8	.9					
DEGR.	*	100	260	80	280					

THE HIGHEST CONCENTRATION OF $$.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Imperial & Crenshaw - Project - AM RUN: Imperial & Crenshaw - Project - AM

DATE : 12/14/ 9 TIME : 11:10:17

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	LI	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1153.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1243.	2.3	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1596.	2.3	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	409.4	*	55.	180. AG	17.	100.0	.0 36.0	.50	2.8
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1539.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	611.6	*	76.	360. AG	17.	100.0	.0 36.0	.69	3.8
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	818.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	821.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	417.9	482.0	*	46.	270. AG	21.	100.0	.0 36.0	.43	2.3
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1549.	2.3	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1513.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	635.7	518.0	*	100.	90. AG	21.	100.0	.0 36.0	.81	5.1

PAGE 2 JOB: Imperial & Crenshaw - Project - AM RUN: Imperial & Crenshaw - Project - AM

DATE : 12/14/ 9 TIME : 11:10:17

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION		CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		*								
4.	nbq	*	60	26	3.0	1153	1600	4.96	3	3
6.	sbq	*	60	26	3.0	1596	1600	4.96	3	3
9.	ebq	*	60	31	3.0	818	1600	4.96	3	3
12.	wbq	*	60	31	3.0	1549	1600	4.96	3	3

		*	COORI	')	*	
	RECEPTOR	*	X	Y	Z	*
		*				-*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Crenshaw - Project - AM RUN: Imperial & Crenshaw - Project - AM

MODEL RESULTS

----- REDOUTE

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCENTRATION								
ANGLE	*	(PPM)								
(DEGR)	*	REC1	REC2	REC3	REC4					
	* -									
0.	*	. 2	. 2	. 6	. 4					
10.	*	. 4	. 0	. 8	. 2					
20.	*	. 3	.0	. 6	. 2					
50.	*	. 4	. 0	. 5	. 2					
10.	*	. 4	. 0	. 4	. 2					
50.	*	. 3	. 0	. 3	.2					
00.	*	. 3	.0	. 4	. 2					
,	*	. 3	. 0	. 4	. 2					
00.		. 3	. 0	. 4	.3					
50.	*	. 6	.1	.3	.1					
100.	*	. 8	. 4	. 2	.0					
TIU.	*	. 6	. 4	. 2	.0					
120.	*	.5	. 4	. 2	.0					
130.	*	. 2	. 3	. 2	.0					
110.	*	. 3	. 3	. 3	.0					
100.	*	. 4	. 3	. 3	.0					
100.	*	. 4	. 2	. 3	.0					
1/0.	*	. 6	. 2	. 4	.0					
100.	*	. 4	. 3	. 2	.2					
190.	*	.1	.6	.0	.3					
200.	*	.1	. 4	.0	. 3					
	*	.2	. 4	.0	.2					
	*	.2	.3	.0	.3					
	*	.3	.5	.0	.3					
	*	.3	.5	.0	.3					
	*	. 4	.5	.0	.3					
	*	.2	. 4	.1	. 4					
	*	.0	. 2	.3	. 4					
	*	.0	. 2	. 2	.4					
	*	.0	. 2	. 2	. 4					
	*	. 0	. 2	. 3	. 4					
	*	.0	. 2	.3	. 4					
	*	. 0	. 2	. 3	. 5					
	*	. 0	. 4	. 3	.6					
	*	. 0	. 4	. 3	.7					
	*	. 2	. 2	. 6	. 4					
	*.									
MAX	*	.8	.6	.8	.7					
DEGR.	*	100	190	10	350					

THE HIGHEST CONCENTRATION OF .80 PPM OCCURRED AT RECEPTOR REC3 .

JOB: Imperial & Crenshaw - Project - PM RUN: Imperial & Crenshaw - Project - PM

DATE : 12/14/ 9 TIME : 11:17:24

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	NK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	. 0	518.0	500.0	*	500.	360. AG	1811.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1930.	2.3	.0 56.0		
	3. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1461.	2.3	.0 56.0		
	4. nbq	*	518.0	464.0	518.0	372.9	*	91.	180. AG	17.	100.0	.0 36.0	.78	4.6
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1339.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	605.2	*	69.	360. AG	17.	100.0	.0 36.0	.63	3.5
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1465.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1589.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	376.1	482.0	*	88.	270. AG	21.	100.0	.0 36.0	.76	4.5
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1193.	2.3	.0 36.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1012.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	603.3	518.0	*	67.	90. AG	21.	100.0	.0 36.0	.62	3.4

PAGE 2

JOB: Imperial & Crenshaw - Project - PM RUN: Imperial & Crenshaw - Project - PM

DATE : 12/14/ 9 TIME : 11:17:24

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL				
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE				
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)						
	*												
4. nbq	*	60	26	3.0	1811	1600	4.96	3	3				
6. sbq	*	60	26	3.0	1461	1600	4.96	3	3				
9. ebq	*	60	31	3.0	1465	1600	4.96	3	3				
12. wbq	*	60	31	3.0	1193	1600	4.96	3	3				

		*	COORD	INATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		*				_ *
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	SW	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Crenshaw - Project - PM JOB: Imperial & Crenshaw - Project - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCE	TRATIO	ON							
ANGLE	*	(PPM)									
(DEGR)	*	REC1	REC2	REC3	REC4						
	* -										
0.	*	. 2	. 3	.5	. 5						
10.	*	. 5	.1	. 8	. 2						
20.	*	. 4	. 0	. 6	. 2						
50.	*	. 5	. 0	. 4	. 2						
ŦU.	*	. 3	. 0	. 3	. 2						
50.		. 3	. 0	. 4	. 3						
00.	*	.3	.0	.5	. 3						
70.		. 3	.0	.6	.3						
00.	*	.3	. 0	.7	. 4						
50.	*	. 4	.1	. 5	. 2						
100.	*	. 7	. 3	. 2	. 0						
TIU.	*	. 6	. 4	. 2	.0						
120.	*	. 5	. 3	. 2	. 0						
130.		. 4	. 3	. 2	. 0						
110.	*	. 4	. 3	. 2	.0						
100.	*	. 5	. 3	. 3	. 0						
100.	*	. 6	. 3	. 4	. 0						
170.		. 7	. 3	. 4	. 0						
100.	*	.5	. 6	. 2	. 3						
190.	*	. 2	. 8	.0	. 5						
200.	*	. 2	.6	.0	.5						
210.	*	.2	.5	.0	. 4						
	*	. 2	.3	.0	.4						
	*	. 2	.6	.0	.4						
	*	.3	.4	.0	.3						
	*	.3	.5	.0	.3						
	*	.1	. 4	.2	.6						
	*	.0	. 2	. 4	.7						
	*	.0	. 2	.4	.5						
	*	.0	. 3	. 4	.5						
	*	. 0	. 3	. 3	. 4						
	*	.0	.3	.3	. 4						
	*	. 0	. 3	. 3	. 5						
	*	.0	. 4	. 3	.6						
350.	*	.0	. 5	. 3	.7						
	*	. 2	. 3	.5	.5						
	*.										
MAX	*	.7	.8	.8	.7						
DEGR.	*	100	190	10	280						

THE HIGHEST CONCENTRATION OF $$.80 PPM OCCURRED AT RECEPTOR REC3 .

JOB: Imperial & I-110 NB Ramp - Project - AM RUN: Imperial & I-110 NB Ramp - Project - AM

DATE : 12/14/ 9 TIME : 12:33:50

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)	* LENGTH			H BRG TYPE VPH		PH EF H W		V/C QUEUE		
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT)	(FT)		
(VEH)															
-		*					*								
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1712.	2.3	.0	56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	508.	2.3	.0	56.0		
	3. nbq	*	518.0	464.0	518.0	306.7	*	157.	180. AG	21.	100.0	.0	36.0	.93	8.0
	4. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	849.	2.3	.0	56.0		
	5. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1211.	2.3	.0	56.0		
	6. ebq	*	464.0	482.0	425.3	482.0	*	39.	270. AG	17.	100.0	.0	36.0	.35	2.0
	7. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1320.	2.3	.0	56.0		
	8. wbd	*	500.0	518.0	. 0	518.0	*	500.	270. AG	2162.	2.3	.0	56.0		
	9. wbq	*	536.0	518.0	596.1	518.0	*	60.	90. AG	17.	100.0	.0	36.0	.55	3.1

PAGE 2

JOB: Imperial & I-110 NB Ramp - Project - AM RUN: Imperial & I-110 NB Ramp - Project - AM

DATE : 12/14/ 9 TIME : 12:33:50

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRI	PTION *	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL				
	*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE				
	*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)						
	*												
3. nbq	*	60	32	3.0	1712	1600	4.96	3	3				
6. ebq	*	60	25	3.0	849	1600	4.96	3	3				
9. wbq	*	60	25	3.0	1320	1600	4.96	3	3				

	*	COORDINATES (FT)							
RECEPTOR	*	X	Y	Z	*				
	*				-*				
1. nw	*	454.0	546.0	5.4	*				
2. ne	*	546.0	546.0	5.4	*				
3. sw	*	454.0	454.0	5.4	*				
4. se	*	546.0	454.0	5.4	*				

JOB: Imperial & I-110 NB Ramp - Project - AM

RUN: Imperial & I-110 NB Ramp - Project - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE	*	CONCENTRATION (PPM)							
(DEGR)	*	REC1	REC2	REC3	REC4				
	* -								
0.	*	. 0	.1	. 3	. 4				
10.	*	.0	.0	. 2	. 2				
20.	*	.0	.0	. 2	. 2				
30.	*	. 0	.0	. 2	. 2				
40.	*	. 0	.0	. 2	. 2				
50.		. 0	.0	. 2	. 2				
60.	*	. 0	.0	. 4	. 2				
70.	*	. 0	.0	. 3	. 3				
80.	*	. 0	.0	. 4	. 4				
90. 100.	*	. 3	. 2	. 2	. 2				
	*	. 4	. 4	.1	.0				
110.	*	.3	.3	.2	.0				
120.	*		. 3		.0				
130. 140.	*	. 4		.1	.0				
150.	*	. 4	. 3	. 2	.0				
160.	*	.5	. 3	.2	.0				
170.	*	. 4	.3	.1	.0				
180.	*	. 2	.5	.0	. 2				
190.	*	. 2	.6	.0	.5				
200.	*	. 2	.5	.0	. 4				
210.	*	. 3	.3	.0	. 3				
220.	*	. 3	. 2	.0	.3				
230.	*	. 3	. 2	.0	. 3				
240.	*	. 4	.3	.0	. 2				
250.	*	. 4	. 4	.0	. 2				
260.	*	. 5	.6	.0	. 2				
270.	*	. 3	. 3	.1	. 4				
280.	*	.1	.0	. 4	.6				
290.	*	.0	.0	. 3	.5				
300.	*	.0	.0	. 3	. 4				
310.	*	.0	.0	. 2	. 3				
320.	*	.0	.1	. 2	.3				
330.	*	.0	.1	. 3	.3				
340.	*	.0	. 1	. 3	.3				
350.	*	.0	. 1	. 3	. 4				
360.	*	. 0	.1	. 3	. 4				
MAX	* -	.5	.6	.4	.6				
DEGR.	*	160	190	60	280				
Dagie.		100	100	30	200				

THE HIGHEST CONCENTRATION OF $$.60 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Imperial & Vermont - Project - AM RUN: Imperial & Vermont - Project - AM

DATE : 12/14/ 9 TIME : 13:53: 0

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1943.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1639.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	354.6	*	109.	180. AG	17.	100.0	.0 36.0	.84	5.6
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1343.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1274.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	599.5	*	64.	360. AG	17.	100.0	.0 36.0	.58	3.2
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1000.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1143.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	407.6	482.0	*	56.	270. AG	21.	100.0	.0 36.0	.52	2.9
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1758.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1988.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	685.6	518.0	*	150.	90. AG	21.	100.0	.0 36.0	.92	7.6

PAGE 2

JOB: Imperial & Vermont - Project - AM RUN: Imperial & Vermont - Project - AM

DATE : 12/14/ 9 TIME : 13:53: 0

ADDITIONAL QUEUE LINK PARAMETERS

:	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		_*								
3.	nbq	*	60	26	3.0	1943	1600	4.96	3	3
6.	sbq	*	60	26	3.0	1343	1600	4.96	3	3
9.	ebq	*	60	31	3.0	1000	1600	4.96	3	3
12.	wbq	*	60	31	3.0	1758	1600	4.96	3	3

		*	COOR	DINATES (FT	')	*
	RECEPTOR	*	X	Y	Z	*
		*				-*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Vermont - Project - AM JOB: Imperial & Vermont - Project - AM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	*	CONCEN	TRATIO	ON	
ANGLE	*	(PPM)		
(DEGR)	*	REC1	REC2	REC3	REC4
	* -				
0.	*	. 2	. 2	.5	.5
10.	*	. 4	.0	. 8	. 2
20.	*	. 4	.0	. 6	. 2
30.	*	. 4	.0	.5	. 2
40.	*	. 3	.0	.5	. 3
50.	*	. 3	. 0	. 4	. 3
60.	*	. 3	. 0	.5	. 3
70.	*	. 3	.0	. 7	. 4
80.	*	. 3	.0	. 7	. 3
50.	*	.6	. 3	. 3	. 2
100.	*	. 8	.6	. 2	.0
110.	*	.6	.5	. 2	.0
120.	*	.5	. 4	. 2	.0
130.	*	.5	. 4	. 2	.0
140.	*	. 4	. 4	. 2	.0
150.	*	.5	. 3	. 3	.0
100.	*	.6	. 3	. 4	.0
170.	*	.7	. 3	.5	.1
180.	*	.5	. 6	. 2	. 3
100.	*	. 2	. 9	.0	.5
200.	*	. 2	. 6	. 0	.5
210.	*	. 3	. 5	. 0	. 4
220.	*	.3	. 4	.0	. 4
250.	*	. 3	. 4	.0	. 4
210.	*	. 3	. 5	. 0	. 4
250.	*	. 4	.6	.0	.3
260.	*	.5	.7	.0	.3
270.	*	.3	. 2	.1	. 7
280. 290.	*	.0	. 2	.4	. /
	*	.0	. 2	.4	. 6
500.	*	.0	. 2	. 3	. 7
320.	*	.0	. 2	.3	. 4
330.	*	.0	.3	.3	.5
340.	*	.0	. 4	.3	.6
350.	*	.0	.4	.3	.7
360.	*	. 2	. 2	.5	. 5
	*.				
MAX	*	.8	. 9	. 8	. 7
	*	100	190	10	350

THE HIGHEST CONCENTRATION OF $$.90 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

DATE : 12/14/ 9 TIME : 13:57:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	L	INK COORDIN	MATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*-					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1611.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1241.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	372.9	*	91.	180. AG	19.	100.0	.0 36.0	.77	4.6
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1124.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1182.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	595.3	*	59.	360. AG	19.	100.0	.0 36.0	.54	3.0
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1604.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1689.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	380.9	482.0	*	83.	270. AG	19.	100.0	.0 36.0	.74	4.2
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1147.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1374.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	594.5	518.0	*	58.	90. AG	19.	100.0	.0 36.0	.53	3.0

PAGE 2 JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

DATE : 12/14/ 9 TIME : 13:57:30

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	*	CYCLE	RED	CLEARANCE	APPROACH	SATURATION	IDLE	SIGNAL	ARRIVAL
		*	LENGTH	TIME	LOST TIME	VOL	FLOW RATE	EM FAC	TYPE	RATE
		*	(SEC)	(SEC)	(SEC)	(VPH)	(VPH)	(gm/hr)		
		_*								
3.	nbq	*	60	29	3.0	1611	1600	4.96	3	3
6.	sbq	*	60	29	3.0	1124	1600	4.96	3	3
9.	ebq	*	60	28	3.0	1604	1600	4.96	3	3
12.	wbq	*	60	28	3.0	1147	1600	4.96	3	3

		*	COORD	INATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		-*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

JOB: Imperial & Vermont - Baseline - PM RUN: Imperial & Vermont - Baseline - PM

MODEL RESULTS

MODEL RESULT

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	WIND * CONCENTRATION							
ANGLE	*	(PPM)						
(DEGR)	*	REC1	REC2	REC3	REC4			
	*.							
0.	*	. 2	. 2	. 4	.5			
10.	*	. 3	. 0	. 6	. 2			
20.	*	.3	. 0	. 5	. 2			
30.	*	.3	. 0	. 5				
40.	*	.3	.0	.3	.2			
50. 60.	*	.3	.0	.5	.3			
	*	.3						
70.	*		. 0	.6	. 4			
80.	*	. 3	.0	. 7	. 4			
90.	*	. 4		. 5	. 2			
100.	*	. 8	. 3	. 2	.0			
110.	*	. 6	. 4	. 2	.0			
120. 130.	*	.5	.3	. 2	.0			
	*	. 4			.0			
140.	*	. 4	. 3	. 2	.0			
150.	*	.5	. 3	. 2	.0			
160.	*	.6	. 3	. 4	.0			
170.	*	. 7	. 3	. 3	.0			
180.	*	.3	.5	. 2	. 2			
190.	*	.2			. 4			
200. 210.	*	.2	.6	.0	.4			
210.	*	.2	. 4	.0	.4			
230.	*	.2	.3	.0	.3			
240.	*	. 3	. 4	.0	.3			
250.	*	. 4	.6	.0	.3			
260.	*	.4	.7	.0	.3			
270.	*	. 2	. 4	.2	.6			
280.	*	.0	. 2	. 4	.8			
290.	*	.0	. 2	. 4	.6			
300.	*	. 0	. 2	. 4	.5			
310.	*	. 0	. 2	. 4	. 3			
320.	*	.0	. 2	. 3	.4			
330.	*	. 0	. 2	. 3	.5			
340.	*	. 0	. 3	. 3	.5			
350.	*	.0	. 4	. 3	.6			
360.	*	. 2	. 2	. 4	.5			
	*.							
MAX	*	.8	.8	.7	.8			
DEGR.	*	100	190	80	280			

THE HIGHEST CONCENTRATION OF .80 PPM OCCURRED AT RECEPTOR REC2 .

RUN: Imperial & Western - Project - PM JOB: Imperial & Western - Project - PM

DATE : 12/14/ 9 TIME : 14:18: 4

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

LINK VARIABLES

	LINK DESCRIPTION	*	1	LINK COORDIN	ATES (FT)		*	LENGTH	BRG TYPE	VPH	EF	H W	V/C	QUEUE
		*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT) (FT)		
(VEH)														
		*					*							
	1. nba	*	518.0	.0	518.0	500.0	*	500.	360. AG	1057.	2.3	.0 56.0		
	2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1124.	2.3	.0 56.0		
	3. nbq	*	518.0	464.0	518.0	398.6	*	65.	180. AG	23.	100.0	.0 36.0	.63	3.3
	4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1074.	2.3	.0 56.0		
	5. sbd	*	482.0	500.0	482.0	.0	*	500.	180. AG	1076.	2.3	.0 56.0		
	6. sbq	*	482.0	536.0	482.0	602.6	*	67.	360. AG	23.	100.0	.0 36.0	.64	3.4
	7. eba	*	.0	482.0	500.0	482.0	*	500.	90. AG	1920.	2.3	.0 56.0		
	8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1839.	2.3	.0 56.0		
	9. ebq	*	464.0	482.0	383.5	482.0	*	80.	270. AG	15.	100.0	.0 36.0	.75	4.1
	10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1125.	2.3	.0 56.0		
	11. wbd	*	500.0	518.0	.0	518.0	*	500.	270. AG	1137.	2.3	.0 56.0		
	12. wbq	*	536.0	518.0	583.2	518.0	*	47.	90. AG	15.	100.0	.0 36.0	.44	2.4

PAGE 2 JOB: Imperial & Western - Project - PM RUN: Imperial & Western - Project - PM

DATE : 12/14/ 9 TIME : 14:18: 4

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. nbq	*	60	34	3.0	1057	1600	4.96	3	3
6. sbq	*	60	34	3.0	1074	1600	4.96	3	3
9. ebq	*	60	23	3.0	1920	1600	4.96	3	3
12. wbq	*	60	23	3.0	1125	1600	4.96	3	3

		*	COORD	INATES (FT)		*
	RECEPTOR	*	X	Y	Z	*
		-*				_*
1.	nw	*	454.0	546.0	5.4	*
2.	ne	*	546.0	546.0	5.4	*
3.	sw	*	454.0	454.0	5.4	*
4.	se	*	546.0	454.0	5.4	*

RUN: Imperial & Western - Project - PM JOB: Imperial & Western - Project - PM

MODEL RESULTS

REMARKS: In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND	D * CONCENTRATION								
ANGLE	*								
(DEGR)	*	REC1	REC2	REC3	REC4				
	. * .								
0.	*	. 2	. 2	. 4	.3				
10.	*	. 3	.0	.6	. 2				
20.	*	. 3	.0	.5	. 2				
30.	*	. 3	.0	.6	. 2				
40.	*	. 3	.0	. 3	. 3				
50.	*	. 3	.0	. 4	.3				
60.	*	.3	.0	. 4	. 3				
70.	*	. 3	.0	. 6	. 4				
80.	*	. 3	.0	.7	.5				
90.	*	. 4	. 2	.5	.3				
100.	*	. 8	. 4	. 2	.1				
110.	*	.6	. 4	. 3	.0				
120.	*	. 4	.2	. 2	.0				
130.	*	. 3	. 2	. 2	.0				
140.	*	. 4	. 2	. 2	.0				
150.	*	.5	.2	. 2	.0				
160.	*	. 5	. 2	. 3	.0				
170.	*	.6	. 2	. 3	.0				
180.	*	.3	. 3	. 2	. 2				
190.	*	. 2	.6	. 0	. 3				
200.	*	. 2	. 5	. 0	. 3				
210.	*	. 2	. 5	.0	. 3				
220.		. 2	. 4	. 0	. 3				
230.	*	. 2	. 3	. 0	. 3				
240.	*	. 3	. 4	. 0	. 3				
250.	*	. 4	.6	.0	.3				
260. 270.	*	. 4	. 7	.1	6				
280.	*	.0	. 2	.5	.8				
290.	*	.0	. 3	. 4	.6				
300.	*	.0	.3	.4	. 4				
310.	*	.0	. 2	.4	.4				
320.	*	.0	.2	.4	.3				
330.	*	.0	. 2	.4	. 4				
340.	*	.0	. 3	. 2	.5				
350.	*	.0	.3	.2	.6				
360.	*	. 2	. 2	. 4	.3				
	. * .			.4					
MAX	*	.8	.7	.7	. 8				
DEGR.	*	100	260	80	280				

THE HIGHEST CONCENTRATION OF $$.80 PPM OCCURRED AT RECEPTOR REC4 .



13:56:47

*** SCREEN3 MODEL RUN ***

*** VERSION DATED 96043 ***

Northeast Parking Lot - Level 1

SIMPLE TERRAIN INPUTS:

SOURCE TYPE AREA EMISSION RATE (G/(S-M**2)) =0.468000E-05 SOURCE HEIGHT (M) = 3.0480 LENGTH OF LARGER SIDE (M) = 72.1157 LENGTH OF SMALLER SIDE (M) = 72.1157 RECEPTOR HEIGHT (M) 1.6459 URBAN/RURAL OPTION URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN DISCRETE DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	0.0 ===			MAX DIR
8.	33.85	5	1.0	1.0	10000.0	3.05	45.
15.	38.38	5	1.0	1.0	10000.0	3.05	45.
30.	46.58	5	1.0	1.0	10000.0	3.05	45.

CALCULATION	MAX CONC	DIST TO	TERRAIN
PROCEDURE	(UG/M**3)	MAX (M)	HT (M)
SIMPLE TERRAIN	46.58	30.	0.

^{**} REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

13:58:55

*** SCREEN3 MODEL RUN ***

*** VERSION DATED 96043 ***

Northeast Parking Lot - Level 2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA

EMISSION RATE (G/(S-M**2)) = 0.312000E-05

SOURCE HEIGHT (M) = 6.0960

LENGTH OF LARGER SIDE (M) = 72.1157

LENGTH OF SMALLER SIDE (M) = 72.1157

RECEPTOR HEIGHT (M) = 1.6459

URBAN/RURAL OPTION = URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	0.0 ===			MAX DIR (DEG)
8.	8.589	 3	1.0	1.0	320.0	6.10	45.
	9.868	3				6.10	45.
30.	12.44	4	1.0	1.0	320.0	6.10	45.

CALCULATION	MAX CONC	DIST TO	TERRAIN
PROCEDURE	(UG/M**3)	MAX (M)	HT (M)
SIMPLE TERRAIN	12.44	30.	0.

^{**} REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

14:00:18

*** SCREEN3 MODEL RUN ***

*** VERSION DATED 96043 ***

Northeast Parking Lot - Level 3

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA EMISSION RATE (G/(S-M**2)) = 0.156000E-05 SOURCE HEIGHT (M) = 9.1440 LENGTH OF LARGER SIDE (M) = 72.1157 LENGTH OF SMALLER SIDE (M) = 72.1157 RECEPTOR HEIGHT (M) = 1.6459 URBAN/RURAL OPTION = URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

*** TERRAIN HEIGHT OF $\hspace{0.1in}$ 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST	CONC		U10M	USTK	MIX HT	PLUME	MAX DIR
(M)	(UG/M**3)	STAB	(M/S)	(M/S)	(M)	HT (M)	(DEG)
8.	2.337	1	1.0	1.0	320.0	9.14	44.
15.	2.802	1	1.0	1.0	320.0	9.14	43.
30.	3.761	3	1.0	1.0	320.0	9.14	45.

CALCULATION	MAX CONC	DIST TO	TERRAIN
PROCEDURE	(UG/M**3)	MAX (M)	HT (M)
SIMPLE TERRAIN	3.761	30.	0.

 Construction Emission Calculations and Output Files

EMEACOOT DATES (****							
EMFAC2007 RATES (grain	ns per mile)						
Vehicle Type	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Year 2010							
Haul Truck @ 30 MPH	1.425	7.78	15.071	0.018	0.588	0.541	1867.83
Water Truck @ 5 MPH	14.523	29.052	37.698	0.036	2.646	2.434	3789.975
Cars @30 MPH	0.095	2.274	0.197	0.003	0.01	0.009	340.644
Light-Duty Trucks @ 30MPH	0.194	3.793	0.333	0.004	0.013	0.012	422.952
Year 2011							
Haul Truck @ 30 MPH	1.314	6.982	13.655	0.018	0.522	0.480	1873.18
Water Truck @ 5 MPH	13.373	26.447	34.264	0.036	2.322	2.136	3795.228
Worker Vehicle @30 MPH	0.083	2.068	0.177	0.003	0.01	0.009	339.765
Light-Duty Trucks @ 30MPH	0.169	3.447	0.301	0.004	0.013	0.012	422.803
Year 2012							
Haul Truck @ 30 MPH	1.201	6.197	12.247	0.018	0.46	0.423	1878.251
Water Truck @ 5 MPH	12.167	23.797	30.827	0.036	2.004	1.844	3800.207
Worker Vehicle @30 MPH	0.072	1.882	1.118	0.003	0.01	0.009	338.872
Light-Duty Trucks @ 30MPH	0.147	3.133	0.272	0.004	0.013	0.012	422.525
Assumptions:							
Construction Year	2010-2012						
Season	Annual						
Temperature	63°F						

EQUIPMENT EMISSI	ON FACTORS	(pounds pe	r hour)				
YEAR 2010							
	ROG	СО	NOX	SOX	PM10	PM2.5	CO2
Backhoe	0.1021	0.3930	0.6747	0.0008	0.0521	0.0479	66.8
Crane	0.1594	0.5431	1.4515	0.0014	0.0642	0.0591	128.7
Dozer	0.3379	1.4127	2.9891	0.0025	0.1288	0.1185	239.1
Industrial Saw	0.1270	0.4273	0.6566	0.0007	0.0552	0.0508	58.5
Forklift	0.0686	0.2319	0.5161	0.0006	0.0281	0.0258	54.4
Grader	0.1723	0.6314	1.4338	0.0015	0.0753	0.0693	132.7
Cement Mixer	0.0101	0.0434	0.0599	0.0001	0.0035	0.0033	7.2
Loader	0.1440	0.5078	1.1537	0.0012	0.0651	0.0599	108.6
Paver	0.1774	0.5644	0.9868	0.0009	0.0709	0.0652	77.9
Pump, Concrete	0.0936	0.3096	0.5545	0.0006	0.0393	0.0362	49.6
Roller	0.1176	0.4212	0.7749	0.0008	0.0547	0.0503	67.1
Scraper	0.3202	1.2424	2.9078	0.0027	0.1256	0.1155	262.5
YEAR 2011							
	ROG	СО	NOX	SOX	PM10	PM2.5	CO2
Backhoe	0.0938	0.3874	0.6276	0.0008	0.0482	0.0444	66.8
Crane	0.1507	0.5179	1.3617	0.0014	0.0599	0.0551	128.7
Dozer	0.3244	1.3284	2.8346	0.0025	0.1212	0.1115	239.1
Industrial Saw	0.1179	0.4209	0.6240	0.0007	0.0525	0.0483	58.5
Forklift	0.0635	0.2284	0.4742	0.0006	0.0257	0.0237	54.4
Grader	0.1626	0.6216	1.3404	0.0015	0.0707	0.0650	132.7
Cement Mixer	0.0096	0.0429	0.0575	0.0001	0.0032	0.0029	7.2
Loader	0.1354	0.4959	1.0771	0.0012	0.0608	0.0559	108.6
Paver	0.1684	0.5541	0.9421	0.0009	0.0679	0.0625	77.9
Pump, Concrete	0.0877	0.3040	0.5285	0.0006	0.0375	0.0345	49.6
Roller	0.1106	0.4157	0.7342	0.0008	0.0521	0.0480	67.1
Scraper	0.3055	1.1660	2.7336	0.0027	0.1172	0.1078	262.5
YEAR 2012							
	ROG	СО	NOX	sox	PM10	PM2.5	CO2
Backhoe	0.0862	0.3824	0.5816	0.0008	0.0435	0.0401	66.8
Crane	0.1425	0.4946	1.2753	0.0014	0.0553	0.0509	128.6
Dozer	0.3114	1.2491	2.6866	0.0025	0.1137	0.1046	239.1
Industrial Saw	0.1090	0.4148	0.5910	0.0007	0.0491	0.0452	58.5
Forklift	0.0585	0.2257	0.4330	0.0006	0.0231	0.0212	54.4
Grader	0.1533	0.6129	1.2503	0.0015	0.0649	0.0597	132.7
Cement Mixer	0.0093	0.0425	0.0564	0.0001	0.0029	0.0027	7.2
Loader	0.1272	0.4855	1.0034	0.0012	0.0558	0.0513	108.6
Paver	0.1596	0.5445	0.8980	0.0009	0.0642	0.0591	77.9
Pump, Concrete	0.0813	0.2983	0.4999	0.0006	0.0351	0.0323	49.6
Roller	0.1038	0.4107	0.6936	0.0008	0.0488	0.0449	67.1
Scraper	0.2916	1.0984	2.5680	0.0027	0.1087	0.1000	262.5

SOURCE: OFFROAD 2007

Worst Case - November 2010

EQUIPMENT		Equipment Emissions (ppd)								
	# Equipment	ROG	со	NOX	sox	PM10	PM2.5	CO2		
DEMOLITION										
Backhoe	4	3.27	12.57	21.59	0.02	1.67	1.53	2,137.76		
Industrial Saw	2	2.03	6.84	10.51	0.01	0.88	0.81	935.42		
TOTA	L 6	5.30	19.41	32.10	0.04	2.55	2.35	3,073.18		
GRADING										
Backhoe	6	4.90	18.86	32.39	0.04	2.50	2.30	3,206.64		
Dozer	6	16.22	67.81	143.48	0.12	6.18	5.69	11,476.87		
Grader	6	8.27	30.31	68.82	0.07	3.62	3.33	6,371.67		
тота	L 18	29.39	116.98	244.68	0.23	12.30	11.31	21,055.18		
BUILDING										
Backhoe	8	6.53	25.15	43.18	0.05	3.33	3.06	4,275.52		
Crane	4	5.10	17.38	46.45	0.04	2.05	1.89	4,116.97		
Forklift	8	4.39	14.84	33.03	0.04	1.80	1.65	3,481.33		
тотя	L 20	16.02	57.37	122.66	0.13	7.18	6.61	11,873.83		

WORKER VEHICLES			Worker Vehicle Emissions (ppd)								
	# of Workers	Total VMT/Day	ROG	co	NOX	sox	PM10	PM2.5	CO2		
Demolition Workers	7	186.20	0.06	1.29	0.11	0.001	0.005	0.004	159.0		
Cars	3.0	79.80	0.02	0.40	0.03	0.001	0.002	0.002	59.9		
Trucks	4.0	106.40	0.05	0.89	0.08	0.001	0.003	0.003	99.1		
Grading Workers	22	585.20	0.19	3.91	0.34	0.005	0.015	0.014	492.1		
Cars	11.0	292.60	0.06	1.47	0.13	0.002	0.006	0.006	219.5		
Trucks	11.0	292.60	0.13	2.44	0.21	0.003	0.008	0.008	272.6		
Construction Workers	25	665.00	0.21	4.49	0.39	0.005	0.017	0.016	561.7		
Cars	12.0	319.20	0.07	1.60	0.14	0.002	0.007	0.006	239.5		
Trucks	13.0	345.80	0.15	2.89	0.25	0.003	0.010	0.009	322.2		

HEAVY-DUTY TRUCK TRIPS		Heavy-duty Truck Emissions (ppd)										
		Round Trip										
	Trips per Day	Length	VMT/day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2		
Demolition	16	30	480	1.51	8.23	15.93	0.02	0.62	0.57	1,974.80		
Grading	18	20	360	1.13	6.17	11.95	0.01	0.47	0.43	1,481.10		
Construction	12	20	240	0.75	4.11	7.97	0.01	0.31	0.29	987.40		

WATER TRUCK USAGE [1]		Heavy-duty Truck Emissions (ppd)									
	# of Water Trucks	Hours of Operation	VMT/day	ROG	со	NOX	sox	PM10	PM2.5	CO2	
Grading	2	3.00	30.00	0.96	1.92	2.49	0.0024	0.175	0.161	250.44	
Construction	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74	

FUGITIVE DUST			·
	Max Daily Demo		
	(ft ³)	PM10	PM2.5
Demolition [2]	4,320	1.81	0.38
	Max Daily Grading		
	(acres)	PM10	PM2.5
Grading [3]	1.20	17.9	3.7

TOTAL EMISSIONS				Emissions (ppd)			
	ROG	со	NOX	SOX	PM10	PM2.5	CO2
Demolition	6.87	28.93	48.14	0.06	4.99	3.30	5,206.98
On-Site	5.30	19.41	32.10	0.04	4.36	2.72	3,073.18
Off-Site	1.57	9.51	16.05	0.02	0.63	0.58	2,133.80
Grading	31.66	128.98	259.47	0.25	30.83	15.63	23,278.85
On-Site	30.35	118.90	247.17	0.23	30.35	15.19	21,305.62
Off-Site	1.32	10.08	12.29	0.02	0.48	0.44	1,973.23
Construction	17.15	66.29	131.43	0.15	7.54	6.94	13,464.62
On-Site	16.18	57.69	123.08	0.13	7.21	6.64	11,915.57
Off-Site	0.97	8.60	8.36	0.01	0.33	0.30	1,549.05
Regional Daily Maximum	32	129	259	0	31	16	
REGIONAL THRESHOLD	75	550	100	150	150	55	
IMPACT?	No	No	Yes	No	No	No	
On-Site Daily Maximum	30	119	247	0	30	15	
LOCALIZED THRESHOLD	N/A	1,234	151	N/A	10	6	
IMPACT?	N/A	No	Yes	N/A	Yes	Yes	

^[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

^[2] Used URBEMIS2007's rate for demolition dust. PM10 pounds/day = (0.00042 pounds/cubic feet) * (total cubic feet of material) / Number of days in Demolition Schedule. Maximum Daily Demolition = (haul truck trips per day) * (10 cubic yards/truck) * 27 [cubic yards to cubic feet conversion factor].

^[3] Used UREBEMIS2007's rate for grading dust of 38.2 pounds per acre, and applied 61% reduction based on Rule 403 compliance.

Worst Case - November 2010

EQUIPMENT					Equip	oment Emissions	(ppd)		
		# Equipment	ROG	со	NOX	sox	PM10	PM2.5	CO2
DEMOLITION									
Backhoe		4	3.10	11.95	20.51	0.02	1.58	1.46	2,030.87
Industrial Saw		2	1.93	6.50	9.98	0.01	0.84	0.77	888.65
TO	DTAL	6	5.03	18.44	30.49	0.03	2.42	2.23	2,919.52
GRADING									
Backhoe		6	4.65	17.92	30.77	0.04	2.37	2.18	3,046.31
Dozer		6	15.41	64.42	136.30	0.11	5.87	5.40	10,903.03
Grader		6	7.86	28.79	65.38	0.07	3.44	3.16	6,053.09
TO	DTAL	18	27.92	111.13	232.45	0.22	11.68	10.75	20,002.42
BUILDING									
Backhoe		8	6.20	23.89	41.02	0.05	3.16	2.91	4,061.75
Crane		4	4.85	16.51	44.13	0.04	1.95	1.80	3,911.13
Forklift		8	4.17	14.10	31.38	0.04	1.71	1.57	3,307.26
TO	DTAL =	20	15.22	54.50	116.53	0.13	6.83	6.28	11,280.13

WORKER VEHICLES			Worker Vehicle Emissions (ppd)									
	# of Workers	Total VMT/Day	ROG	со	NOX	sox	PM10	PM2.5	CO2			
Demolition Workers	7	186.20	0.06	1.29	0.11	0.001	0.005	0.004	159.0			
Cars	3.0	79.80	0.02	0.40	0.03	0.001	0.002	0.002	59.9			
Trucks	4.0	106.40	0.05	0.89	0.08	0.001	0.003	0.003	99.1			
Grading Workers	22	585.20	0.19	3.91	0.34	0.005	0.015	0.014	492.1			
Cars	11.0	292.60	0.06	1.47	0.13	0.002	0.006	0.006	219.5			
Trucks	11.0	292.60	0.13	2.44	0.21	0.003	0.008	0.008	272.6			
Construction Workers	25	665.00	0.21	4.49	0.39	0.005	0.017	0.016	561.7			
Cars	12.0	319.20	0.07	1.60	0.14	0.002	0.007	0.006	239.5			
Trucks	13.0	345.80	0.15	2.89	0.25	0.003	0.010	0.009	322.2			

HEAVY-DUTY TRUCK TRIPS Heavy-duty Truck Emissions (ppd)										
		Round Trip								
	Trips per Day	Length	VMT/day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Demolition	16	30	480	1.51	8.23	15.93	0.02	0.62	0.57	1,974.80
Grading	18	20	360	1.13	6.17	11.95	0.01	0.47	0.43	1,481.10
Construction	12	20	240	0.75	4.11	7.97	0.01	0.31	0.29	987.40

WATER TRUCK USAGE [1] Heavy-duty Truck Emissions (ppd)										
	# of Water Trucks	Hours of Operation	VMT/day	ROG	со	NOX	sox	PM10	PM2.5	CO2
Grading	2	3.00	30.00	0.96	1.92	2.49	0.0024	0.175	0.161	250.44
Construction	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74

FUGITIVE DUST			
	Max Daily Demo	PM10	PM2.5
	(ft ³)	PIVITU	PIVIZ.5
Demolition [2]	4,320	1.81	0.38
	Max Daily Grading		
	(acres)	PM10	PM2.5
Grading [3]	1.20	17.9	3.7

TOTAL EMISSIONS				Emissions (ppd)			
	ROG	СО	NOX	SOX	PM10	PM2.5	CO2
Demolition	6.60	27.96	46.54	0.05	4.86	3.18	5,053.32
On-Site	5.03	18.44	30.49	0.03	4.24	2.61	2,919.52
Off-Site	1.57	9.51	16.05	0.02	0.63	0.58	2,133.80
Grading	30.19	123.13	247.23	0.24	30.21	15.07	22,226.09
On-Site	28.88	113.05	234.94	0.22	29.73	14.63	20,252.86
Off-Site	1.32	10.08	12.29	0.02	0.48	0.44	1,973.23
Construction	16.35	63.42	125.30	0.14	7.18	6.61	12,870.93
On-Site	15.38	54.82	116.94	0.13	6.85	6.31	11,321.87
Off-Site	0.97	8.60	8.36	0.01	0.33	0.30	1,549.05
Regional Daily Maximum	30	123	247	0	30	15	
REGIONAL THRESHOLD	75	550	100	150	150	55	
IMPACT?	No	No	Yes	No	No	No	
On-Site Daily Maximum	29	113	235	0	30	15	
LOCALIZED THRESHOLD	N/A	1,234	151	N/A	10	6	
IMPACT?	N/A	No	Yes	N/A	Yes	Yes	

^[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

^[2] Used URBEMIS2007's rate for demolition dust. PM10 pounds/day = (0.00042 pounds/cubic feet) * (total cubic feet of material) / Number of days in Demolition Schedule. Maximum Daily Demolition = (haul truck trips per day) * (10 cubic yards/truck) * 27 [cubic yards to cubic feet conversion factor].

^[3] Used UREBEMIS2007's rate for grading dust of 38.2 pounds per acre, and applied 61% reduction based on Rule 403 compliance.

WORST CASE - FINISHING FMISSIONS

EQUIPMENT					Equip	ment Emissions (ppd)		
		# Equipment	ROG	со	NOX	sox	PM10	PM2.5	CO2
GRADING									
Backhoe		1	0.75	3.10	5.02	0.01	0.39	0.35	534.43
Dozer		1	2.60	10.63	22.68	0.02	0.97	0.89	1,912.80
Grader		1	1.30	4.97	10.72	0.01	0.57	0.52	1,061.94
	TOTAL	3	4.65	18.70	38.42	0.04	1.92	1.77	3,509.17
BUILDING									
Backhoe		14	10.51	43.38	70.29	0.09	5.40	4.97	7,482.06
Crane	Ī	7	8.44	29.00	76.26	0.08	3.35	3.08	7,204.41
Forklift	Ī	14	7.11	25.59	53.11	0.07	2.88	2.65	6,092.33
	TOTAL	35	26.06	97.97	199.66	0.23	11.63	10.70	20,778.79
FINISHING									
Backhoe		2	1.50	6.20	10.04	0.01	0.77	0.71	1,068.87
Cement Mixer		8	0.62	2.74	3.68	0.01	0.20	0.19	463.88
Paver		2	2.69	8.86	15.07	0.01	1.09	1.00	1,246.96
Roller		2	1.77	6.65	11.75	0.01	0.83	0.77	1,072.85
	TOTAL	14	6.58	24.46	40.54	0.05	2.89	2.66	3,852.56

WORKER VEHICLES			Worker Vehicle Emissions (ppd)								
	# of Workers	Total VMT/Day	ROG	со	NOX	sox	PM10	PM2.5	CO2		
Grading Workers	3	79.80	0.03	0.58	0.05	0.001	0.002	0.002	69.5		
Cars	1.0	26.60	0.01	0.13	0.01	0.000	0.001	0.001	20.0		
Trucks	2.0	53.20	0.02	0.44	0.04	0.000	0.002	0.001	49.6		
Construction Workers	43	1,143.80	0.37	7.69	0.67	0.009	0.029	0.027	964.3		
Cars	21.0	558.60	0.12	2.80	0.24	0.004	0.012	0.011	419.1		
Trucks	22.0	585.20	0.25	4.89	0.43	0.005	0.017	0.015	545.2		
Finishing Workers	17	452.20	0.15	3.07	0.27	0.004	0.012	0.011	382.7		
Cars	8.0	212.80	0.04	1.07	0.09	0.001	0.005	0.004	159.7		
Trucks	9.0	239.40	0.10	2.00	0.18	0.002	0.007	0.006	223.0		

HEAVY-DUTY TRUCK TRIPS Heavy-duty Truck Emissions (ppd)										
		Round Trip								
	Trips per Day	Length	VMT/day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Grading	3	20	60	0.19	1.03	1.99	0.00	0.08	0.07	246.85
Construction	21	20	420	1.32	7.20	13.94	0.02	0.54	0.50	1,727.95
Finishing	6	20	120	0.38	2.06	3.98	0.00	0.16	0.14	493.70

WATER TRUCK USAGE [1] Heavy-duty Truck Emissions (ppd)										
	# of Water Trucks	Hours of Operation	VMT/day	ROG	со	NOX	sox	PM10	PM2.5	CO2
Grading	2	3.00	30.00	0.96	1.92	2.49	0.0024	0.175	0.161	250.44
Construction	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74
Finishing	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74

FUGITIVE DUST			
	Max Daily Demo (ft ³)	PM10	PM2.5
Demolition [2]	0	0.00	0.00
	Max Daily Grading (acres)	PM10	PM2.5
Grading [3]	0.20	3.0	0.6

ARCHITECTURAL COATING [4]											
	Months of Arch Coating	Total SQ FT	Interior SQ FT	Exterior SQ FT	ROG per SQ FT	ROG (ppd)					
Residential	0.25		0.00	0.00	0.012	-					
Non-Residential	0.25	5,000	7,500	2,500	0.012	21.05					
					TOTAL	21.05					

Asphalt Paving [5]					
	Total Acres to be Paved	Paving Days (Schedule)	Acres Paved Per Day	ROG/Acre	ROG (ppd)
Paving	0.1	1	0.1	2.62	0.26

TOTAL EMISSIONS				Emissions (ppd)			
	ROG	со	NOX	SOX	PM10	PM2.5	CO2
Grading	4.86	20.30	40.46	0.04	4.98	2.46	3,825.54
On-Site	4.65	18.70	38.42	0.04	4.90	2.39	3,509.17
Off-Site	0.22	1.61	2.04	0.00	0.08	0.07	316.37
Construction	27.90	113.17	214.69	0.26	12.24	11.26	23,512.79
On-Site	26.22	98.29	200.07	0.23	11.66	10.73	20,820.53
Off-Site	1.69	14.88	14.61	0.03	0.57	0.53	2,692.26
Finishing	28.58	29.90	45.21	0.05	3.09	2.84	4,770.69
On-Site	28.06	24.78	40.96	0.05	2.92	2.69	3,894.30
Off-Site	0.52	5.12	4.25	0.01	0.17	0.15	876.40
Regional Daily Maximum	29	113	215	0	12	11	
THRESHOLD	75	550	100	150	150	55	•
IMPACT?	No	No	Yes	No	No	No	
On-Site Daily Maximum	28	98	200	0	12	11	•

^[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

^[2] Used URBEMIS2007's rate for demolition dust. PM10 pounds/day = (0.00042 pounds/cubic feet) * (total cubic feet of material) / Number of days in Demolition Schedule. Maximum Daily Demolition = (haul truck trips per day) * (10 cubic yards/truck) * 27 [cubic yards to cubic feet conversion factor].

^[3] Used UREBEMIS2007's rate for grading dust of 38.2 pounds per acre, and applied 61% reduction based on Rule 403 compliance.

^[4] Used UREBEMIS2007's architectural coating calculations for interior and exterior square footage to be painted, and calculations for ROG per square foot.

^[5] Used UREBEMIS2007's asphalt paving calculations for ROG per acre paved. Acres to be paved was provided by project proponent.

Parking Structure - Unmitigated

EQUIPMENT					Equip	oment Emissions ((ppd)		
		# Equipment	ROG	со	NOX	sox	PM10	PM2.5	CO2
DEMOLITION				·		·	·		
Backhoe		3	2.45	9.43	16.19	0.02	1.25	1.15	1,603.32
Industrial Saw		1	1.02	3.42	5.25	0.01	0.44	0.41	467.71
	TOTAL	4	3.47	12.85	21.45	0.02	1.69	1.56	2,071.03
GRADING									
Backhoe		2	1.63	6.29	10.80	0.01	0.83	0.77	1,068.88
Dozer		1	2.70	11.30	23.91	0.02	1.03	0.95	1,912.81
Grader		1	1.38	5.05	11.47	0.01	0.60	0.55	1,061.94
	TOTAL	4	5.71	22.64	46.18	0.04	2.47	2.27	4,043.64
BUILDING									
Backhoe		1	0.82	3.14	5.40	0.01	0.42	0.38	534.44
Crane		1	1.28	4.35	11.61	0.01	0.51	0.47	1,029.24
Forklift		1	0.55	1.86	4.13	0.00	0.22	0.21	435.17
	TOTAL	3	2.64	9.34	21.14	0.02	1.15	1.06	1,998.85
FINISHING									
Backhoe		2	1.50	6.20	10.04	0.01	0.77	0.71	1,068.87
Cement Mixer	Ī	1	0.08	0.34	0.46	0.00	0.03	0.02	57.99
Paver		1	1.35	4.43	7.54	0.01	0.54	0.50	623.48
Roller	Ī	1	0.88	3.33	5.87	0.01	0.42	0.38	536.43
	TOTAL	5	3.81	14.30	23.91	0.03	1.76	1.62	2,286.76

WORKER VEHICLES			Worker Vehicle Emissions (ppd)								
	# of Workers	Total VMT/Day	ROG	co	NOX	sox	PM10	PM2.5	CO2		
Demolition Workers	5	133.00	0.05	0.93	0.08	0.001	0.003	0.003	114.3		
Cars	2.0	53.20	0.01	0.27	0.02	0.000	0.001	0.001	39.9		
Trucks	3.0	79.80	0.03	0.67	0.06	0.001	0.002	0.002	74.3		
Grading Workers	5	133.00	0.05	0.93	0.08	0.001	0.003	0.003	114.3		
Cars	2.0	53.20	0.01	0.27	0.02	0.000	0.001	0.001	39.9		
Trucks	3.0	79.80	0.03	0.67	0.06	0.001	0.002	0.002	74.3		
Construction Workers	3	79.80	0.03	0.58	0.05	0.001	0.002	0.002	69.5		
Cars	1.0	26.60	0.01	0.13	0.01	0.000	0.001	0.001	20.0		
Trucks	2.0	53.20	0.02	0.44	0.04	0.000	0.002	0.001	49.6		
Finishing	6	159.60	0.05	1.07	0.09	0.001	0.004	0.004	134.2		
Cars	3.0	79.80	0.02	0.40	0.03	0.001	0.002	0.002	59.9		
Trucks	3.0	79.80	0.03	0.67	0.06	0.001	0.002	0.002	74.3		

HEAVY-DUTY TRUCK TRIPS						Heavy-duty Truck	Emissions (ppd)			
	Trips per Day	Round Trip Length	VMT/day	ROG	CO	NOX	sox	PM10	PM2.5	CO2
Demolition	5	30	150	0.47	2.57	4.98	0.01	0.19	0.18	617.12
Grading	5	20	100	0.31	1.71	3.32	0.00	0.13	0.12	411.42
Construction	5	20	100	0.31	1.71	3.32	0.00	0.13	0.12	411.42
Finishing	5	20	100	0.31	1.71	3.32	0.00	0.13	0.12	411.42

WATER TRUCK USAGE [1] Heavy-duty Truck Emissions (ppd)										
	# of Water Trucks	Hours of Operation	VMT/day	ROG	со	NOX	sox	PM10	PM2.5	CO2
Grading	1	3.00	15.00	0.48	0.96	1.25	0.0012	0.087	0.080	125.22
Construction	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74

FUGITIVE DUST			
	Max Daily Demo (ft ³)	PM10	PM2.5
	(π)	1 10110	I MZ.J
Demolition [2]	10,890	4.57	0.95
	Max Daily Grading		
	(acres)	PM10	PM2.5
Grading [3]	1.00	14.9	3.1

Asphalt Paving [4]											
	Total Acres to be Paved	Paving Days (Schedule)	Acres Paved Per Day	ROG/Acre	ROG (ppd)						
Paving	1.29	1	1.29	2.62	3.37						

TOTAL EMISSIONS				Emissions (ppd)			
	ROG	СО	NOX	sox	PM10	PM2.5	CO2
Demolition	3.98	16.35	26.51	0.03	6.46	2.69	2,802.41
On-Site	3.47	12.85	21.45	0.02	6.26	2.51	2,071.03
Off-Site	0.52	3.50	5.06	0.01	0.20	0.18	731.38
Grading	6.55	26.25	50.83	0.05	17.58	5.57	4,694.53
On-Site	6.19	23.60	47.42	0.05	17.45	5.45	4,168.86
Off-Site	0.36	2.65	3.40	0.01	0.13	0.12	525.68
Construction	3.14	11.96	24.92	0.03	1.32	1.21	2,521.53
On-Site	2.80	9.66	21.55	0.02	1.18	1.09	2,040.59
Off-Site	0.34	2.29	3.37	0.00	0.13	0.12	480.94
Finishing	7.54	17.08	27.32	0.03	1.89	1.74	2,832.39
On-Site	7.18	14.30	23.91	0.03	1.76	1.62	2,286.76
Off-Site	0.36	2.78	3.41	0.01	0.13	0.12	545.63
Regional Daily Maximum	8	26	51	0	18	6	
REGIONAL THRESHOLD	75	550	100	150	150	55	
IMPACT?	No	No	No	No	No	No	
On-Site Daily Maximum	7	24	47	0	17	5	
LOCALIZED THRESHOLD	N/A	674	91	N/A	5	3	
IMPACT?	N/A	No	No	N/A	Yes	Yes	

^[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

^[2] Used URBEMIS2007's rate for demolition dust. PM10 pounds/day = (0.00042 pounds/cubic feet) * (total cubic feet of material) / Number of days in Demolition Schedule. Maximum Daily Demolition = (square feet of surface area being demolished) * (0.25 feet deep[asphalt demolition]).

^[3] Used UREBEMIS2007's rate for grading dust of 38.2 pounds per acre, and applied 61% reduction based on Rule 403 compliance.

 $[\]begin{tabular}{l} \textbf{[4] Used UREBEMIS2007's asphalt paving calculations for ROG per acre paved.} Acres to be paved was provided by project proponent. \end{tabular}$

Caltrans Site 16

EQUIPMENT		Equipment Emissions (ppd)								
	# Equipment	ROG	со	NOX	sox	PM10	PM2.5	CO2		
Heavy Equipment	5	4.08	15.72	26.99	0.03	2.08	1.92	2,672.20		
TOTAL	5	4.08	15.72	26.99	0.03	2.08	1.92	2,672.20		

WORKER VEHICLES			Worker	Vehicle Emission	ns (ppd)				
	# of Workers	Total VMT/Day	ROG CO NOX SOX PM10 PM2.5						CO2
Workers	6	159.60	0.05	1.07	0.09	0.001	0.004	0.004	134.2
Cars	3.0	79.80	0.02	0.40	0.03	0.001	0.002	0.002	59.9
Trucks	3.0	79.80	0.03	0.67	0.06	0.001	0.002	0.002	74.3

HEAVY-DUTY TRUCK TRIPS Heavy-duty Truck Emissions (ppd)										
		Round Trip								
	Trips per Day	Length	VMT/day	ROG	со	NOX	sox	PM10	PM2.5	CO2
					•				•	
Haul Trucks	50	30	1,500	4.71	25.70	49.79	0.06	1.94	1.79	6,171.24

WATER TRUCK USAGE [1] Heavy-duty Truck Emissions (ppd)										
	# of Water Hours of Trucks Operation VMT/day ROG CO NOX SOX PM10 PM2.5							CO2		
Water Trucks	1	3.00	15.00	0.48	0.96	1.25	0.0012	0.087	0.080	125.22

FUGITIVE DUST			·
	Max Daily Grading (acres)	PM10	PM2.5
Grading [2]	0.60	8.9	1.9

TOTAL EMISSIONS		Emissions (ppd)									
	ROG	co	NOX	SOX	PM10	PM2.5	CO2				
Demolition	9.32	43.45	78.12	0.09	13.06	5.65	9,102.88				
On-Site	4.56	16.68	28.23	0.03	11.11	3.86	2,797.42				
Off-Site	4.76	26.77	49.89	0.06	1.95	1.79	6,305.46				
Regional Daily Maximum	9	43	78	0	13	6	•				
REGIONAL THRESHOLD	75	550	100	150	150	55					
IMPACT?	No	No	No	No	No	No					
On-Site Daily Maximum	5	17	28	0	11	4					
LOCALIZED THRESHOLD	N/A	674	91	N/A	5	3					
IMPACT?	N/A	No	No	N/A	Yes	Yes					

^[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

^[2] Assumed approximately 26,000 square feet (650 feet in length and 40 feet wide) for a 2-lane access road with sidewalks running east-west from Normandie Avenue to the existing campus road system. Used UREBEMIS2007's rate for grading dust of 38.2 pounds per acre, and applied 61% reduction based on Rule 403 compliance.

Operational Emission Calculations and Output Files

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: J:\Projects\Southwest College Master Plan Update 2009-071\Air Quality\Operations\Operations.urb924

Project Name: Southwest College Operations

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version: Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	PM10	PM2.5	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.31	2.60	3.72	0.00	0.01	0.01	3,097.69
OPERATIONAL (VEHICLE) EMISSION ESTIMATES							
	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	35.32	27.83	253.55	0.42	70.03	13.61	41,508.78
SUM OF AREA SOURCE AND OPERATIONAL EMISSIC	ON ESTIMATES						
	ROG	<u>NOx</u>	CO	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	35.63	30.43	257.27	0.42	70.04	13.62	44,606.47

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
Natural Gas	0.19	2.58	2.17	0.00	0.00	0.00	3,094.88
Hearth							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings							
TOTALS (lbs/day, unmitigated)	0.31	2.60	3.72	0.00	0.01	0.01	3,097.69

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	СО	SO2	PM10	PM25	CO2
Junior college (2 yrs)	35.32	27.83	253.55	0.42	70.03	13.61	41,508.78
TOTALS (lbs/day, unmitigated)	35.32	27.83	253.55	0.42	70.03	13.61	41,508.78

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2016 Temperature (F): 80 Season: Summer

Emfac: Version: Emfac2007 V2.3 Nov 1 2006

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Urban Trip Length (miles)

12/9/2009 0.24.54 PW						
	Sun	mary of Land U	<u>ses</u>			
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Junior college (2 yrs)		1.54	students	2,900.00	4,466.00	40,562.44
					4,466.00	40,562.44
		Vehicle Fleet N	<u>⁄lix</u>			
Vehicle Type	Percer	it Type	Non-Cataly	est	Catalyst	Diesel
Light Auto		53.2	0	.2	99.6	0.2
Light Truck < 3750 lbs		6.7	0	.0	98.5	1.5
Light Truck 3751-5750 lbs		23.0	0	.0	100.0	0.0
Med Truck 5751-8500 lbs		10.2	0	.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs		1.5	0	.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs		0.5	0	.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs		0.9	0	.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs		0.5	0	.0	0.0	100.0
Other Bus		0.1	0	.0	0.0	100.0
Urban Bus		0.1	0	.0	0.0	100.0
Motorcycle		2.4	45	.8	54.2	0.0
School Bus		0.1	0	.0	0.0	100.0
Motor Home		0.8	0	.0	87.5	12.5
		Travel Condition	ons			
	Resid	dential			Commercial	
	Home-Work H	ome-Shop	Home-Other	Commu	te Non-Work	Customer

7.0

9.5

13.3

7.4

8.9

12.7

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Travel Conditions

		Residential			Commercial	al		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer		
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6		
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0		
% of Trips - Residential	32.9	18.0	49.1					
% of Trips - Commercial (by land use)								
Junior college (2 yrs)				5.0	2.5	92.5		

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: J:\Projects\Southwest College Master Plan Update 2009-071\Air Quality\Operations\Operations.urb924

Project Name: Southwest College Operations

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version: Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.19	2.58	2.17	0.00	0.00	0.00	3,094.88
OPERATIONAL (VEHICLE) EMISSION ESTIMATES							
	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	29.20	33.50	238.47	0.35	70.03	13.61	37,515.42
SUM OF AREA SOURCE AND OPERATIONAL EMISSIC	N ESTIMATES						
	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
TOTALS (lbs/dav. unmitigated)	29.39	36.08	240.64	0.35	70.03	13.61	40,610.30

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.19	2.58	2.17	0.00	0.00	0.00	3,094.88
Hearth							
Landscaping - No Winter Emission	ns						
Consumer Products	0.00						
Architectural Coatings							
TOTALS (lbs/day, unmitigated)	0.19	2.58	2.17	0.00	0.00	0.00	3,094.88

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Junior college (2 yrs)	29.20	33.50	238.47	0.35	70.03	13.61	37,515.42
TOTALS (lbs/day, unmitigated)	29.20	33.50	238.47	0.35	70.03	13.61	37,515.42

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2016 Temperature (F): 60 Season: Winter

Emfac: Version: Emfac2007 V2.3 Nov 1 2006

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Urban Trip Length (miles)

12/9/2009 6.25.01 PW													
Summary of Land Uses													
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT							
Junior college (2 yrs)		1.54	students	2,900.00	4,466.00	40,562.44							
				4,466.00	40,562.44								
Vehicle Type	Percer	t Type	Non-Cataly	st	Catalyst	Diesel							
Light Auto		53.2	0	.2	99.6	0.2							
Light Truck < 3750 lbs		6.7	0	.0	98.5	1.5							
Light Truck 3751-5750 lbs		23.0	0	.0	100.0	0.0							
Med Truck 5751-8500 lbs		10.2	0	.0	100.0	0.0							
Lite-Heavy Truck 8501-10,000 lbs		1.5	0	.0	80.0	20.0							
Lite-Heavy Truck 10,001-14,000 lbs		0.5	0	.0	60.0	40.0							
Med-Heavy Truck 14,001-33,000 lbs		0.9	0	.0	22.2	77.8							
Heavy-Heavy Truck 33,001-60,000 lbs		0.5	0	.0	0.0	100.0							
Other Bus		0.1	0	.0	0.0	100.0							
Urban Bus		0.1	0	.0	0.0	100.0							
Motorcycle		2.4	45	.8	54.2	0.0							
School Bus		0.1	0	.0	0.0	100.0							
Motor Home		0.8	0	.0	87.5	12.5							
	Resid	lential		Commercial									
	Home-Work Ho	ome-Shop	Home-Other	Commut	e Non-Work	Customer							

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Travel Conditions

		Residential				
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Junior college (2 yrs)				5.0	2.5	92.5

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: J:\Projects\Southwest College Master Plan Update 2009-071\Air Quality\Operations\operational emissions 2015.urb924

Project Name: Southwest College GHG Operations

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version: Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	<u>NOx</u>	CO	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>					
TOTALS (tons/year, unmitigated)	0.16	1.95	1.92	0.00	0.00	0.00	2,337.68					
OPERATIONAL (VEHICLE) EMISSION ESTIMATES												
	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>					
TOTALS (tons/year, unmitigated)	23.61	19.35	163.25	0.24	41.18	7.98	23,649.07					
SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES												
	ROG	<u>NOx</u>	CO	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>					
TOTALS (tons/year, unmitigated)	23.77	21.30	165.17	0.24	41.18	7.98	25,986.75					

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.14	1.95	1.64	0.00	0.00	0.00	2,337.17
Hearth							
Landscape	0.02	0.00	0.28	0.00	0.00	0.00	0.51
Consumer Products	0.00						
Architectural Coatings							
TOTALS (tons/year, unmitigated)	0.16	1.95	1.92	0.00	0.00	0.00	2,337.68

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Junior college (2 yrs)	23.61	19.35	163.25	0.24	41.18	7.98	23,649.07
TOTALS (tons/year, unmitigated)	23.61	19.35	163.25	0.24	41.18	7.98	23,649.07

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2015 Season: Annual

Emfac: Version: Emfac2007 V2.3 Nov 1 2006

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Urban Trip Length (miles)

,,,													
Summary of Land Uses													
Land Use Type	Acreag	e Trip Rate	Unit Type	No. Units	Total Trips	Total VMT							
Junior college (2 yrs)		1.20	students	12,000.00	14,400.00	130,788.00							
					14,400.00	130,788.00							
Vehicle Fleet Mix													
Vehicle Type	Perc	ent Type	Non-Cataly	/st	Catalyst	Diesel							
Light Auto		53.2	C).2	99.6	0.2							
Light Truck < 3750 lbs		6.7	1	1.5	97.0	1.5							
Light Truck 3751-5750 lbs		23.0	C	0.0	100.0	0.0							
Med Truck 5751-8500 lbs		10.2	1	0.1	99.0	0.0							
Lite-Heavy Truck 8501-10,000 lbs		1.5	C	0.0	80.0	20.0							
Lite-Heavy Truck 10,001-14,000 lbs		0.5	C	0.0	60.0	40.0							
Med-Heavy Truck 14,001-33,000 lbs		0.9	C	0.0	22.2	77.8							
Heavy-Heavy Truck 33,001-60,000 lbs		0.5	(0.0	0.0	100.0							
Other Bus		0.1	(0.0	0.0	100.0							
Urban Bus		0.1	(0.0	0.0	100.0							
Motorcycle		2.4	50	0.0	50.0	0.0							
School Bus		0.1	C	0.0	0.0	100.0							
Motor Home		0.8	C	0.0	87.5	12.5							
		Travel Condition	<u>ons</u>										
	Re	sidential		Commercial									
	Home-Work	Home-Shop	Home-Other	Commu	ute Non-Worl	k Customer							

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Page: 4 12/9/2009 6:25:38 PM

Travel Conditions

		Residential		Commercial					
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer			
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6			
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0			
% of Trips - Residential	32.9	18.0	49.1						
% of Trips - Commercial (by land use)									
Junior college (2 yrs)				5.0	2.5	92.5			

		10 11:53:57		ne range 19	65 to 2009	selected														
eason :	Annual	les County																		
/M Stat :	Enhanced	Interim (2		sing I/M so	hedule for	area 59 Lo	s Angeles	s (SC)												
	Tons Per		*****	******	*****	*****	*****	*****	******	*****	******	*****	*****	******	*****	*****	*****	*****	*****	*****
			_											eavy I				1		
	Lig Non-cat	ght Duty Pa Cat	ssenger Ca Diesel	ars Total	Non-cat	 Light Duty Cat 	Trucks - Diesel	Total	Non-cat	Medium Dut	y Trucks Diesel	Total	Gaso Non-cat	line Trucks Cat	Total	Diesel Trucks	Total HD Trucks	Urban Buses	Motor- cycles	All Vehicle:
	*****	******	*****	*****	******	******	*****	*****	*******	*****	*****	*****	******	*****	******	*****	******	*****	******	*****
Vehicles VMT/1000	44054. 716.	3371680. 115346.	8857. 193.	3424590. 116255.	23502. 553.	1732500. 64002.	12812. 407.	1768820. 64962.	8316. 184.	667753. 25997.	24743. 1290.	700812. 27471.	4893. 47.	54503. 1389.	59396. 1436.	75827. 7966.	135223. 9402.	4314. 470.	136965. 1011.	
rips		21315100.		21539400.		10973700.		11147500.	72943.	6562350.	299360.	6934660.	89432.	713524.	802956.	1358240.	2161200.	17256.		4207380
								 Me	thane Emis	sions										
Run Exh	0.28	3.50	0.00	3.78	0.22	2.40	0.00	2.63	0.08	1.29	0.01	1.38	0.02	0.14	0.16	0.40	0.56	0.03	0.27	8.6
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.03	0.03	0.00	0.00	
Start Ex	0.07	0.61	0.00	0.68	0.04	0.35	0.00	0.39	0.03	0.32	0.00	0.35	0.08	0.07	0.15	0.00	0.15	0.00	0.05	1.6
Total Ex	0.35	4.11	0.00	4.46	0.26	2.75	0.00	3.01	0.11	1.61	0.01	1.74	0.10	0.22	0.32	0.43	0.74	0.03	0.32	10.3
Diurnal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Hot Soak	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Running Resting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	0.35	4.11	0.00	4.46	0.26	2.75	0.00	3.01	0.11	1.61	0.01	1.74	0.10	0.22	0.32	0.43	0.74	0.03	0.32	10.3
Run Exh	60.03	281.32	0.19	341.54	46.38	219.40	0.31	Carbon 266.08	Monoxide 25.82	Emissions 111.22	1.24	138.28	11.13	25.82	36.95	36.99	73.93	4.32	46.50	870.6
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.74	0.02	0.77	0.02	0.23	0.26	2.40	2.66	0.00	0.00	
Start Ex	5.80	122.79	0.00	128.59	3.20	77.62	0.00	80.82	3.79	66.53	0.00	70.32	11.36	20.44	31.80	0.00	31.80	0.27	2.86	314.6
Total Ex	65.83	404.11	0.19	470.13	49.58	297.02	0.31	346.90	29.63	178.49	1.26	209.37	22.51	46.49	69.00	39.39	108.39	4.59	49.36	
									of Nitroge											
Run Exh	3.39 0.00	26.62 0.00	0.31	30.32	2.60 0.00	27.75 0.00	0.66	31.01 0.00	1.21	18.55 0.01	8.38 0.07	28.14 0.07	0.32	5.75 0.00	6.07 0.00	125.69 5.42	131.77 5.42	9.20	1.38	
Idle Exh Start Ex	0.00	8.20	0.00	8.47	0.00	6.74	0.00	6.89	0.00	9.53	0.00	9.64	0.00	2.65	2.82	0.00	2.82	0.00	0.00	
Total Ex	3.67	34.81	0.31	38.79	2.74	34.49	0.66	37.90	1.32	28.09	8.45	37.85	0.50	8.40	8.90	131.11	140.01	9.22	1.47	265.2
								Carbon D	ioxide Emi	ssions (00)))									
Run Exh	0.43	50.92	0.08	51.43	0.33	35.10	0.16	35.58	0.14	19.57	0.74	20.45	0.04	1.04	1.07	15.14	16.22	1.21	0.15	
Idle Exh Start Ex	0.00	0.00 1.71	0.00	0.00 1.75	0.00	0.00 1.09	0.00	0.00	0.00	0.02	0.00	0.03	0.00	0.01	0.01	0.33	0.34	0.00	0.00	
Start EX	0.04	1./1		1./5		1.09							0.02				0.05			
Fotal Ex	0.47	52.64	0.08	53.18	0.35	36.18	0.16	36.69	0.16	20.22	0.74	21.12	0.06	1.07	1.13	15.47	16.60	1.21	0.17	128.9
	0.00		0.00	1 50	0.00	1.60	0.00		M10 Emissi		0.05	0.74	0.00	0.01	0.00	5 45	5 40	0.15	0.04	0.5
Run Exh Idle Exh	0.03	1.44	0.03	1.50	0.02	1.62 0.00	0.03	1.67	0.01	0.67	0.06	0.74	0.00	0.01	0.02	5.47 0.10	5.48 0.10	0.15	0.04	
Start Ex	0.00	0.13	0.00	0.14	0.00	0.13	0.00	0.13	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.3
Total Ex	0.03	1.57	0.03	1.64	0.02	1.75	0.03	1.80	0.01	0.73	0.06	0.80	0.00	0.02	0.02	5.56	5.58	0.15	0.05	10.0
FireWear BrakeWr	0.01	1.02	0.00	1.03	0.00	0.56	0.00	0.57	0.00	0.25	0.02	0.27	0.00	0.02	0.02	0.23	0.25 0.22	0.00	0.00	
rotal	0.05	4.18	0.04	4.27	0.04	3.20	0.04	3.28	0.01	1.34	0.10	1.45	0.00	0.06	0.06	5.99	6.05	0.16	0.06	
Lead SOx	0.00	0.00 0.51	0.00	0.00 0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.21	0.00	0.00	0.00	0.00 0.15	0.00 0.16	0.00	0.00	
										000 gallon										
Gasoline	60.39	5460.54	0.00	5520.93	45.42	3756.75	0.00	3802.17	21.47	2102.69	0.00	2124.16	9.84	118.37	128.21	0.00	128.21	10.03		11612.3
Diesel	0.00	0.00	6.96	6.96	0.00	0.00	14.07	14.07	0.00	0.00	66.65	66.65	0.00	0.00	0.00	1392.43	1392.43	100.62	0.00	1580.7

Title : GHG 2009 & 2016

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2009/12/10 11:53:57

Scen Year: 2016 - All model years in the range 1972 to 2016 selected

Season : Annual

Area : Los Angeles County Average

I/M Stat : Enhanced Interim (2005) -- Using I/M schedule for area 59 Los Angeles (SC)

Emissions: Tons Per Day

*******	*****	******	*****	*****	******	******	******	*****	******	*****	*****	*****					*****	*****	*****	******
			~				m 1				. m 1		H					** 1		
	Non-cat	nic Ducy Pas Cat	Diesel		Non-cat	Light Duty Cat	Diesel		Non-cat	Cat	Diesel		Non-cat	Cat	Total	Trucks	Total HD Trucks	Urban Buses	Motor-	All Vehicles
******						*****														******
Vehicles	5723.	3713260.	3477.	3722460.	4512.	1926630.	7736.	1938880.	3516.	748766.	30533.	782816.	853.	61747.	62600.	88922.	151522.	4616.	151147.	6751440.
VMT/1000		120588.		120746.	103.	67366.	222.	67691.	71.	27215.	1482.	28768.	8.	1417.	1426.	9744.	11170.	503.	1110.	229988.
Trips	21828.	23219000.	17161.	23258000.	17208.	12003900.	44632.	12065800.	26769.	7309050.	375339.	7711160.	18042.	743717.	761759.	1588940.	2350700.	18463.	302263.	45706400.
								Me	ethane Emis	sions										
Run Exh	0.04	2.22	0.00	2.26	0.04	1.85	0.00	1.90	0.03	0.96	0.01	1.00	0.00	0.08	0.08	0.26	0.34	0.03	0.27	5.80
Idle Exh	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.02	0.03	0.00	0.00	
Start Ex	0.01	0.32	0.00	0.33	0.01	0.23	0.00	0.23	0.01	0.23	0.00	0.25	0.01	0.05	0.07	0.00	0.07	0.00	0.05	0.92
Total Ex		2.54	0.00	2.58		2.08	0.00	2.13	0.05	1.20	0.01	1.26		0.14	0.15	0.28	0.43	0.03	0.31	
Diurnal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot Soak	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	
Running	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	2.54	0.00	2.58	0.05	2.08	0.00	2.13	0.05	1.20	0.01	1.26	0.02	0.14	0.15	0.28	0.43	0.03	0.31	6.75
								Carbo	n Monoxide	Emissions										
Run Exh	6.93	177.38	0.07	184.38	8.36	159.64	0.17	168.16	9.95	78.73	1.35	90.03	1.56	14.40	15.96	26.58	42.55	3.88	33.38	522.38
Idle Exh		0.00	0.00			0.00	0.00	0.00	0.00	0.79	0.03	0.83		0.24	0.24	2.55		0.00	0.00	
Start Ex	0.67	74.43	0.00	75.10	0.56	55.15	0.00	55.71	1.38	48.13	0.00	49.52	1.54	15.82	17.36	0.00	17.36	0.29	3.34	201.31
Total Ex		251.81	0.07	259.48	8.91	214.79	0.17	223.87	11.34	127.66	1.38	140.37	3.11	30.45	33.56	29.14	62.70	4.17	36.72	727.32
								Oxides	of Nitroge	n Emission	5									
Run Exh	0.40	14.84	0.11	15.35		17.47	0.36	18.29	0.47	11.53	5.89	17.90		3.05	3.09	71.34	74.44	8.13	1.39	
Idle Exh	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.01	0.08	0.09		0.00	0.00	6.87	6.88	0.00	0.00	
Start Ex	0.03	4.69	0.00	4.72	0.03	4.56	0.00	4.58	0.04	8.82	0.00	8.87	0.02	2.08	2.10	0.00	2.10	0.03	0.10	20.41
Total Ex	0.43	19.53	0.11	20.07	0.49	22.03	0.36	22.88	0.51	20.37	5.97	26.85	0.06	5.13	5.19	78.22	83.41	8.16	1.49	162.87
								Carbon 1	Dioxide Emi	ssions (00)	D)									
Run Exh	0.05	53.36	0.03			37.57	0.09	37.72	0.05	20.81	0.85	21.71		1.08	1.09	18.69	19.77	1.20	0.20	
Idle Exh	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.03	0.00	0.03		0.01	0.01	0.38		0.00	0.00	
Start Ex	0.00	1.83	0.00	1.83	0.00	1.19	0.00	1.19	0.01	0.70	0.00	0.70	0.00	0.03	0.03	0.00	0.03	0.00	0.01	3.78
Total Ex	0.06	55.19	0.03	55.28	0.07	38.76	0.09	38.91	0.06	21.54	0.85	22.45	0.01	1.12	1.13	19.07	20.20	1.20	0.22	138.25
									PM10 Emissi											
Run Exh	0.00	1.77	0.01	1.78		2.19	0.01	2.21	0.00	0.89	0.05	0.94		0.01	0.01	3.32		0.13	0.03	
Idle Exh	0.00	0.00 0.16	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.05		0.00	0.00	
Start Ex		0.16	0.00	0.16		0.18	0.00	0.18		0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00		0.43
Total Ex	0.00	1.93	0.01	1.94	0.00	2.37	0.01	2.39	0.00	0.97	0.05	1.03	0.00	0.02	0.02	3.38	3.40	0.13	0.03	8.92
TireWear	0.00	1.06	0.00			0.59	0.00	0.60	0.00	0.26	0.02	0.28		0.02	0.02	0.29	0.31	0.01	0.00	
BrakeWr	0.00	1.67	0.00	1.67	0.00	0.93	0.00	0.94	0.00	0.38	0.02	0.40	0.00	0.02	0.02	0.24	0.27	0.01	0.01	3.28
Total	0.01	4.66	0.01	4.68	0.01	3.89	0.02	3.92	0.00	1.61	0.09	1.71	0.00	0.06	0.06	3.92	3.97	0.14	0.05	14.47
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.00	0.53	0.00	0.53	0.00	0.38	0.00	0.38	0.00	0.21	0.01	0.22	0.00	0.01	0.01	0.18	0.19	0.01	0.00	1.34
										000 gallon										
Gasoline		5694.29	0.00				0.00	4014.23	8.39	2228.30	0.00	2236.70		119.85	121.52	0.00		13.06		12116.96
Diesel	0.00	0.00	2.48	2.48	0.00	0.00	7.66	7.66	0.00	0.00	76.52	76.52	0.00	0.00	0.00	1716.49	1716.49	96.74	0.00	1899.90

GREENHOUSE GAS EMISSIONS CALCULATION - Mobile Source

INPUTS (From Traffic Study & URBEMIS2007)
Estimated VMT for Proposed Project ^a	187,207

INPUTS	(From	EMFA	C 2007	for	project	operati	ional	year)	

Daily VMT	229,238,000
NO _X (tons/day)	162.87
CH ₄ (tons/day)	6.75

NO _X (tons/mi)	0.000000710
N ₂ O (tons/mi)	0.000000034
CH ₄ (tons/mi)	0.000000029
N ₂ O to NO _X Ratio	0.048

Estimated Greenhouse Gas Emissions (mobile sources)			
Land Use	N_2O	$\mathrm{CH_4}$	
	tons/year	tons/year	
Project	2.330	2.012	

OUTPUTS		
Estimated Carbon Equivalent (mobile sources)		
Land Use	N_2O	$\mathrm{CH_4}$
Carbon Equivalent	310	21
	tons/year	tons/year
Project	722.39	42.25

a) URBEMIS2007

Note: CO₂ emissions obtained from URBEMIS2007.

GREENHOUSE GAS EMISSIONS CALCULATION - Area Source

Natural Gas Usage Rate

INPUTS			
		Natural Gas Use	Natural Gas Use
	<u>Units/Sq. Feet</u>	(cubic ft./month) ^a	(mmBTU/year)
Project	600,000	1,740,000	21

Emission Factor (kg/mmBTU) ^b			
	N_2O	$\mathbf{CH_4}$	
	0.0001	0	.0050

Estimated Greenhouse Gas Emissions (Na	ntural Gas)		
Land Use	N_2O	$\mathbf{CH_4}$	
	tons	tons	
Project	0.0021		0.1044

OUTPUTS		
Estimated Carbon Equivalent (Natural G	as)	
Land Use	N_2O	$\mathrm{CH_4}$
Carbon Equivalent	310	21
	tons	tons
Project	0.65	2.19

a) Natural gas usage rates from Table A9-12-A of the SCAQMD CEQA Air Quality Handbook. The values for "Retail/Shopping Center" were used as the most representative of a school facility.

Note: CO₂ emissions obtained from URBEMIS2007.

b) Emissions factors obtained from California Climate Action Registry General Reporting Protocol, January 2009.

GREENHOUSE GAS EMISSIONS CALCULATION - General Electricity

Electricity Usage Rates

INPUTS	
	Electricity Usage
	(Kwh/Yr) ^a
Project	6,930,000.00

Emission Factor (pounds/Kwh) ^b			
	N_2O	$\mathrm{CH_4}$	CO_2
	0.0000081	0.0000302	0.7241200

	N_2O	CH_4	CO2
	tons	tons	tons
Project	0.0281	0.1046	2509.0758

OUTPUTS					
Estimated Carbon Equivalent (Electricity)					
	N_2O	CH_4	CO2		
Carbon Equivalent	310	21	1		
	tons	tons	tons		
Project	8.7	2.2	2509.1		

a) Electricity usage rates from applicant.

b) California Climate Action Registry, General Reporting Protocol, March 2007.

GREENHOUSE GAS EMISSIONS CALCULATION - Water-Related Electricity Electrical Usage Rate

INPUTS			
	GPD ^a	MG/Yr	Kwh/Yr
Potable Water Usage	288,000.00	105.12	1,335,024.00
Recycled Water Usage	43,200.00	15.77	200,253.60
Total	331,200.00	120.89	1,535,277.60

Water Cycle Usage Factor		
Unit	Usage Factor	
Kilowatt-Hour/Million Gallons/Year	12,700	

Emission Factor (pounds/Kwh) ^b			
	N_2O	$\mathrm{CH_4}$	CO_2
	0.0000037	0.0000067	0.8050000

Estimated Greenhouse Gas Emissions			
Land Use	N_2O	$\mathrm{CH_4}$	CO2
	tons	tons	tons
Project	0.0028	0.0051	617.9492

OUTPUTS			
Estimated Carbon Equivalent (Electricity)			
Land Use	N_2O	$\mathrm{CH_4}$	CO2
Carbon Equivalent	310	21	1
	tons	tons	tons
Project	0.88	0.11	617.95

a) Water cycle electricity rate obtained from California Energy Comission 2005 Integrated Energy Policy Report, November 2005.

b) California Climate Action Registry, General Reporting Protocol, March 2007.

OUTPUT SUMMARY

MOBILE EMISSIONS		
N ₂ O	CH₄	CO ₂
722.3918	42.2524	23,647.0700

NATURAL GAS EMISSIO	ONS	
N ₂ O	CH₄	CO ₂
0.64728	2.19240	2,337.6800

ELECTRICITY EMISSION	IS	
N ₂ O	CH₄	CO ₂
8.7006	2.1975	2,509.0758

WATER CYCLE ELECTR	RICITY EMISSIONS	
N ₂ O	CH₄	CO ₂
0.4674	0.0573	328.0336

GRAND TOTAL	
CO ₂ E	
	29,601

Percent of 528,820,000 0.0056%



(Adopted May 7, 1976) (Amended November 6, 1992) (Amended July 9, 1993) (Amended February 14, 1997) (Amended December 11, 1998)(Amended April 2, 2004) (Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- (2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.
- (3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.
- (4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.
- (5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

- (6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.
- (8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.
- (10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.
- (13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

- produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.
- (14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
 - (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - (B) been paved or otherwise covered by a permanent structure; or
 - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- (17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.
- (18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.
- (20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- (21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

- meters (5,000 cubic yards) or more three times during the most recent 365-day period.
- (22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- (24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- (25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- (27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.
- (28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.
- (29) SIMULTANEOUS SAMPLING means the operation of two PM₁₀ samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- (30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

- County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.
- (31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
- (32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- (33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.
- (34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
- (35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- (36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.
- (37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

- (A) the dust remains visible in the atmosphere beyond the property line of the emission source; or
- (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
- (2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.
- (3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:
 - (A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM₁₀.
 - (B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.
- (4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.
- (5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.
 - (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

- (B) Pave the surface extending at least 100 feet and at least 20 feet wide.
- (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
- (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
- (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
- (6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

- (1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:
 - (A) submit a fully executed Large Operation Notification (Form 403
 N) to the Executive Officer within 7 days of qualifying as a large operation;
 - (B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
 - (C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

- (D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
- (E) identify a dust control supervisor that:
 - (i) is employed by or contracted with the property owner or developer;
 - (ii) is on the site or available on-site within 30 minutes during working hours;
 - (iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;
 - (iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and
- (F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).
- (2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

- (1) The provisions of this Rule shall not apply to:
 - (A) Dairy farms.
 - (B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.
 - (C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.
 - (D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.
 - (E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.

- (F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
- (G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
- (H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.
- (I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earthmoving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.
- (J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:
 - (i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and
 - (ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.
- (K) sandblasting operations.
- (2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:
 - (A) When wind gusts exceed 25 miles per hour, provided that:

- (i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;
- (ii) records are maintained in accordance with subparagraph (e)(1)(C).
- (B) To unpaved roads, provided such roads:
 - (i) are used solely for the maintenance of wind-generating equipment; or
 - (ii) are unpaved public alleys as defined in Rule 1186; or
 - (iii) are service roads that meet all of the following criteria:
 - (a) are less than 50 feet in width at all points along the road;
 - (b) are within 25 feet of the property line; and
 - (c) have a traffic volume less than 20 vehicle-trips per day.
- (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
- (3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.
- (4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:
 - (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
 - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
- (5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

- each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).
- (6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.
- (7) The provisions of subdivision (e) shall not apply to:
 - (A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.
 - (B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.
 - (C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.
- (8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

Guidance	 Mix backfill soil with water prior to moving Dedicate water truck or high capacity hose to backfilling equipment Empty loader bucket slowly so that no dust plumes are generated Minimize drop height from loader bucket 	 Maintain live perennial vegetation where possible Apply water in sufficient quantity to prevent generation of dust plumes 	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements	 Follow permit conditions for crushing equipment Pre-water material prior to loading into crusher Monitor crusher emissions opacity Apply water to crushed material to prevent dust plumes
Control Measure	Stabilize backfill material when not actively handling; and Stabilize backfill material during handling; and Stabilize soil at completion of activity.	Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and Stabilize soil during clearing and grubbing activities; and Stabilize soil immediately after clearing and grubbing activities.	Use water spray to clear forms; or Use sweeping and water spray to clear forms; or Use vacuum system to clear forms.	Stabilize surface soils prior to operation of support equipment; and Stabilize material after crushing.
_	01-1 01-2 01-3	02-1 02-2 02-3	03-1 03-2 03-3	04-1
Source Category	Backfilling	Clearing and grubbing	Clearing forms	Crushing

Source Category		Control Measure	Guidance
Cut and fill	05-1	Pre-water soils prior to cut and fill activities; and	 For large sites, pre-water with sprinklers or water trucks and allow time for penetration
	05-2	Stabilize soil during and after cut and fill activities.	 Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1	Stabilize wind erodible surfaces to reduce dust; and	 Apply water in sufficient quantities to prevent the generation of visible dust plumes
	06-2 06-3 06-4	Stabilize surface soil where support equipment and vehicles will operate; and Stabilize loose soil and demolition debris; and Comply with AQMD Rule 1403.	
Disturbed soil	07-1	Stabilize disturbed soil throughout the construction	✓ Limit vehicular traffic and disturbances on
	07-2	Stabilize disturbed soil between structures	✓ If interior block walls are planned, install as
			 early as possible Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust alumes
			generation of visions dust prumes
Earth-moving	08-1 08-2	Pre-apply water to depth of proposed cuts; and Re-apply water as necessary to maintain soils in a	 Grade each project phase separately, timed to coincide with construction phase
		damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and	 Upwind fencing can prevent material
	08-3	Stabilize soils once earth-moving activities are complete.	Apply water or a stabilizing agent in sufficient quantities to prevent the
			generation of visible dust plumes

Source Category		Control Measure	Guidance
Importing/exporting of bulk materials	09-1 09-2 09-3 09-4	Stabilize material while loading to reduce fugitive dust emissions; and Maintain at least six inches of freeboard on haul vehicles; and Stabilize material while transporting to reduce fugitive dust emissions; and Stabilize material while unloading to reduce fugitive dust emissions; and Comply with Vehicle Code Section 23114.	 Ves tarps or other suitable enclosures on haul trucks Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage Comply with track-out prevention/mitigation requirements Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1	Stabilize soils, materials, slopes	 Apply water to materials to stabilize Maintain materials in a crusted condition Maintain effective cover over materials Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes Hydroseed prior to rain season
Road shoulder maintenance	11-1	Apply water to unpaved shoulders prior to clearing; and Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	 Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

Source Category		Control Measure	Guidance
Screening	12-1 12-2 12-3	Pre-water material prior to screening; and Limit fugitive dust emissions to opacity and plume length standards; and Stabilize material immediately after screening.	 Dedicate water truck or high capacity hose to screening operation Drop material through the screen slowly and minimize drop height Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1	Stabilize staging areas during use; and Stabilize staging area soils at project completion.	 Limit size of staging area Limit vehicle speeds to 15 miles per hour Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1	Stabilize stockpiled materials. Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	 Add or remove material from the downwind portion of the storage pile Maintain storage piles to avoid steep sides or faces

Source Category		Control Measure	Guidance
Traffic areas for construction activities	15-1 15-2 15-3	Stabilize all off-road traffic and parking areas; and Stabilize all haul routes; and Direct construction traffic over established haul routes.	 Apply gravel/paving to all haul routes as soon as possible to all future roadway areas Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1	Stabilize surface soils where trencher or excavator and support equipment will operate; and Stabilize soils at the completion of trenching activities.	 Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1	Pre-water material prior to loading; and Ensure that freeboard exceeds six inches (CVC 23114)	 Empty loader bucket such that no visible dust plumes are created Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1	Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and Cover haul vehicles prior to exiting the site.	 Haul waste material immediately off-site

Source Category		Control Measure	Guidance
Unpaved roads/parking lots	19-1	19-1 Stabilize soils to meet the applicable performance standards; and	 Restricting vehicular access to established unpaved travel paths and parking lots can
	19-2	19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	reduce stabilization requirements
Vacant land	20-1	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

		UKES FOR LARGE OF EKATIONS
FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a) (3b) (3c)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a) (5b)	Apply chemical stabilizers; OR Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as
		equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL MEASURES
Earth-moving	(1A)	Cease all active operations; OR
	(2A)	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	(1B) (2B)	Apply chemical stabilizers prior to wind event; OR Apply water to all unstabilized disturbed areas 3
	(=2)	times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	(3B)	Take the actions specified in Table 2, Item (3c); OR
	(4B)	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C)	Apply chemical stabilizers prior to wind event; OR
	(2C)	Apply water twice per hour during active operation; OR
	(3C)	Stop all vehicular traffic.
Open storage piles	(1D)	Apply water twice per hour; OR
	(2D)	Install temporary coverings.
Paved road track-out	(1E)	Cover all haul vehicles; OR
	(2E)	Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4 (Conservation Management Practices for Confined Animal Facilities)

		agement Fractices for Commed Ammai Facilities)
SOURCE CATEGORY		CONSERVATION MANAGEMENT PRACTICES
CATEGORY		
Manure	(1a)	Cover manure prior to removing material off-site; AND
Handling	(1b)	Spread the manure before 11:00 AM and when wind conditions
		are less than 25 miles per hour; AND
(Only	(1c)	Utilize coning and drying manure management by removing
applicable to		manure at laying hen houses at least twice per year and maintain
Commercial		a base of no less than 6 inches of dry manure after clean out; or
Poultry		in lieu of complying with conservation management practice
Ranches)	(1.1)	(1c), comply with conservation management practice (1d).
	(1d)	Utilize frequent manure removal by removing the manure from
		laying hen houses at least every seven days and immediately
	-	thin bed dry the material.
Feedstock	(2a)	Utilize a sock or boot on the feed truck auger when filling feed
Handling	100	storage bins.
Disturbed	(3a)	Maintain at least 70 percent vegetative cover on vacant portions
Surfaces		of the facility; OR
	(3b)	Utilize conservation tillage practices to manage the amount,
		orientation and distribution of crop and other plant residues on
		the soil surface year-round, while growing crops (if applicable)
		in narrow slots or tilled strips; OR
	(3c)	Apply dust suppressants in sufficient concentrations and
TT	(4)	frequencies to maintain a stabilized surface.
Unpaved	(4a)	Restrict access to private unpaved roads either through signage
Roads		or physical access restrictions and control vehicular speeds to
		no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR
	(4b)	Cover frequently traveled unpaved roads with low silt content
	(4b)	material (i.e., asphalt, concrete, recycled road base, or gravel to
		a minimum depth of four inches); OR
	(4c)	Treat unpaved roads with water, mulch, chemical dust
		suppressants or other cover to maintain a stabilized surface.
Equipment	(5a)	Apply dust suppressants in sufficient quantity and frequency to
Parking Areas		maintain a stabilized surface; OR
	(5b)	Apply material with low silt content (i.e., asphalt, concrete,
	(= -)	recycled road base, or gravel to a depth of four inches).

Appendix C

Phase I Environmental Assessment



9937 Jefferson Blvd., Suite 200 Culver City, CA 90232 Toll Free: (888) 705-6300 Tel: (310) 854-6300 Fax: (310) 854-0199

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT and BASELINE STUDY OF ENVIRONMENTAL CONDITIONS

PERFORMED AT

Caltrans Site 16 APN #s 6079-003-906 and 6079-003-907 West Athens, California 90044

Project No.: 0808-624

PREPARED FOR

Los Angeles Community College District 915 Wilshire Boulevard, Suite 1800 Los Angeles, California 90017

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EXECUTIVE SUMMARY

SUMMARY

General Site Description

Andersen Environmental (AE) has performed a Phase I Environmental Site Assessment (ESA) and Baseline Study of Environmental Conditions for an undeveloped property located north of the Century Freeway (Interstate 105) and west of South Normandie Avenue, assessors parcel numbers 6079-003-906 and 6079-003-907, in Los Angeles County and the census-designated place of West Athens, California. According to our research and information provided by the client, no addresses have been found to be associated with the target property. First groundwater is estimated to be approximately 100-feet below the mean surface of the site and regional groundwater is expected at approximately 160-feet below the mean surface of the site.

Caltrans currently owns the property which is widely known to be a historical landfill. Caltrans assumed ownership by eminent domain to construct the Century Freeway (Interstate 105). It is our understanding that the Los Angeles Community College District (LACCD) is looking to lease or purchase the target property in order to utilize the land as a parking lot, as a green house facility, to install solar panels for energy, or for other uses related to sustainability. This assessment evaluates the environmental conditions, risks, requirements, and responsibilities related to the ownership or use of the property.

Historical Land Use of the Area

The area of the site was undeveloped prior to 1928. By 1938, the area appeared to be utilized for agricultural purposes. Beginning approximately in the early 1940s, the area was explored for oil, becoming part of an oil field. Several oil derricks were located on surrounding properties, including the west and south adjoining properties, many of which were abandoned in the late 1980s and early 1990s. In 1947, the areas north of the property were being developed for residential purposes. By 1956, the immediate area of the target property was utilized for landfill purposes with the surrounding land being developed for residential purposes, until at least 1965. From at least 1976 until the present, the area has been developed further with a mix of commercial and residential properties. The Century Freeway (Interstate 105) was completed to the south of the target property in 1994.

Site Reconnaissance / Interviews

The target property is located on the west side of South Normandie Avenue, approximately 700 feet south of Imperial Highway, in the unincorporated area of Los Angeles County known as the census designated place of West Athens. The site is approximately 5.6 acres in size and is undeveloped with limited vegetation. The surrounding area is occupied by a college campus, a church, commercial and residential structures, and a freeway. During the site inspection, it was observed that the site was not secured as the gate which should normally be locked, had its lock cut open. No significant hazardous material storage or illegal dumping was observed at the surface of the site. No evidence of recognized environmental conditions were readily observable at the site with the exception of monitoring wells which are related to the ongoing monitoring of landfill gasses from the landfill located beneath the property. The landfill is discussed in the Environmental Data Search Section of this report. Those interviewed, as persons familiar with the site, are aware of negative environmental conditions associated with the property with respect to the existence of a landfill and maintenance of the property brought about by the existence of the landfill.

Environmental Data Search – Target Property

The target property is listed on several environmental databases under the entities 'Normandy Mound Caltrans Site #16', 'Caltrans I-105 #16 and 17', and 'Imperial Highway Dump'. The site is listed on the CERCLIS, WUDS, State Response Sites (RESPONSE), Deed Restriction Listing (DEED), EnviroStor (ENVIROSTOR), and Calsites (HIST Cal-Sites) databases. In addition to a review of the database listings,

the Department of Toxic Substances Controls (DTSC) was contacted regarding files pertaining to the property.

According to the databases, DTSC files, and other historical sources, the site was undeveloped from before 1928. By 1938, the site was apparently used for agricultural purposes. The property was utilized as a landfill during three time frames beginning in the early 1940s and extending through approximately 1984. The three time frames of the landfill are thought to be the mid 1940s until 1953, the mid 1960s until the early 1970s, and a single event in 1983 (Caltrans, 1992). Materials that have been found to be in these landfills include but are not limited to construction rubble, glass, metals, ash, and rubbish. Additionally, some hazardous materials have been identified to exist within the debris. The landfills were never regulated and no permits were recorded by any regulatory agencies for the dumping that occurred. Currently, the landfill is capped and the site is undeveloped with minimal vegetation observed.

By means of eminent domain, Caltrans acquired property for the construction of the Century Freeway (Interstate 105) which included the target property, the northern portion of Site 16 that would remain after the construction of the freeway. In conjunction with the construction of the Century Freeway (Interstate 105), a plan was established in 1992 for the removal of debris and soil from the site. A total of 517,000 cubic yards of contaminated soils were proposed to be removed from Site 16 to reduce the elevation of the target property and for the freeway right of way. Caltrans certified that approximately 350,000 cubic yards of contaminated soils was removed from the target property alone. Following the removal of material at the site, a geotextile fabric and clay cap was placed on the site in 1993, in order to provide public health protection for those entering the site or occupying surrounding properties, as well as to prevent the infiltration of rain / water into the landfill material that could aid leaching of the contaminants within the landfill to the groundwater beneath the site. A storm water drainage system to convey storm water off of the cap and away from the landfill was installed concurrent to the installation of the cap.

In 1994, at the conclusion of the construction activities, the DTSC placed a land use covenant / deed restriction on the property limiting its future use. The covenant restricts sensitive uses which include no access to the property by persons under the age of 21, use as a school, hospital, or for senior citizens. Furthermore, the covenant requires prior approval from the DTSC for any activities at the site which may alter the cap or landfill or if the property is sold or leased.

The target property is under the oversight of the DTSC. All activities at the property must comply with the regulations provided by the DTSC, including the continuation of long term monitoring and maintenance. According to the information reviewed from the DTSC, soil vapor sampling should be conducted at the property on an annual basis. Currently, three soil vapor monitoring wells are installed at the property for soil vapor monitoring. Additionally, the cap and drainage system should be maintained to contain and prevent contaminants from affecting the surrounding properties or causing any potential risk to public health according to the DTSC requirements.

As agreed upon by Caltrans and the DTSC, a long term vapor monitoring program was implemented to monitor the potential for vapors to accumulate beneath the cap. Although monitoring was to be completed on an annual basis, the first soil vapor monitoring event occurred in 1996, a second in 1998 and an attempt in 2002, as the wells were damaged. The most recent soil vapor monitoring event at the property occurred in 2007. According to the monitoring report "constituents including methane, vinyl chloride, methylene chloride, benzene, and 1,4-dichlorobenzene, were detected at concentrations that exceeded either the Cal-EPA CHHSLs (California Human Health Screening Levels) for the residential vapor intrusion pathway or the USEPA Region 9 PRG (Preliminary Remediation Goals) for the ambient air pathway" were detected in the soil vapor samples collected from the landfill. Furthermore, ambient air samples collected during field activities were analyzed and found to contain similar constituents as found in the landfill prompting a Caltrans consultant to conclude that "many of the detected constituents are actively being vented through the damaged landfill cap". Recommendations were made to conduct the annual soil vapor monitoring in

the first quarter of 2008, to modify vapor sample techniques, and to conduct a health-based risk evaluation or repair/replace the cap.

The DTSC responded that due to the levels of the constituents at the site and their presence in the ambient air that "immediate remedial measures to alleviate the threat to residents and or users of the adjacent lots" need to be implemented. From our research with the DTSC, it appears that no response from Caltrans has been identified prior to issuing this report. Furthermore, there is no documentation for an annual soil vapor monitoring event having occurred as of yet for 2008.

Environmental Data Search – Adjoining Properties

The west adjoining property (1600 West Imperial Highway) had two entities identified, their listings are as follows:

The west adjoining property (Los Angeles Southwest College) is listed on the hazardous materials manifest (HAZNET), site mitigation list (LA CO Site Mitigation), historical hazardous substance storage container database (HIST UST), National Emissions Inventory Data (EMI), EnviroStor (ENVIROSTOR) databases. The HIST UST database indicates that two underground storage tanks were historically installed at the property, one 8,000 gallon gasoline and one 1,500 gallon waste. Based on a review of files for the property at the Department of Public Works (DPW), the waste UST was actually a clarifier. A discussion of this review at DPW is discussed below. According to the HAZNET listing, hazardous materials are disposed of at recyclers and include "asbestos-containing waste, polychlorinated biphenyls and material containing PCB's," "tank bottom waste," "waste oil and mixed oil," and "liquids with mercury > 20 mg/l." Additionally, hazardous materials are disposed of at transfer stations and include "laboratory waste chemicals," "other organic solids," "other inorganic solids," "unspecified alkaline solution," "alkaline solution without metals (pH > 12.5)," "unspecified aqueous solution," "oxygenated solvents (acetone, butanol, ethyl acetate, etc)," "off-specification, aged, or surplus organics," "liquids with pH <UN-> 2," and "unspecified solvent mixture waste." These wastes have to do with demolition, construction, and science classroom activities. No violations were reported. Based on the EMI database, the site has been permitted by the South Coast AOMD for emissions dating back to 1984 for a fueling facility and currently, active permits for electric generators. Violations were on file; however compliance was achieved on each. According to the LA CO Site Mitigation and ENVIROSTOR databases, the property had been investigated for an abandoned elevator pit. The contamination at the property associated with the abandoned elevator pit was abated with oversight from the Los Angeles County Fire Department.

The west adjoining property (LACCD – Accounts Pay) is listed on the hazardous material manifest (HAZNET), Facility Inventory List (CA FID UST), Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS), and Statewide Environmental Evaluation and Planning System (SWEEPS UST) databases. According to the HAZNET listing, hazardous materials are disposed of at transfer stations and include "household waste," "unspecified organic liquid mixture," and "waste oil and mixed oil." No violations were reported. The CA FID UST and SWEEPS UST databases indicate that at least one underground storage tank has been present at the property. Based on the LOS ANGELES CO HMS database there is one closed and one permitted industrial waste permit for the property under the DPW. Additionally, one underground storage tank permit from DPW, noted the UST to have been removed from the property.

Based on a review of the file for the west adjoining property at the DPW one 8,000 gallon gasoline UST and one clarifier, previously indicated as a waste tank, were present at the site. The UST was removed from the site in 1988, soil samples were collected and analyzed, and consequently the site was given closure for the UST in 1989. In 1996, the structure in which the clarifier was located was demolished and according to the contractors a clean and dry concrete pit was demolished that may have

been an abandoned clarifier. Consequently, closure of the clarifier was granted as it was completely removed.

As the west adjoining property is down gradient from the target property, wastes were properly disposed, and closure was granted for the UST and clarifier at the site, it is our opinion that the adjoining property is not of significant environmental concern for the target property. Furthermore, this site is in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as it "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Environmental Data Search – Surrounding Properties

- An orphan site listing which includes the target property, adjoining properties, and surrounding properties (Caltrans I-105 Freeway Project 4, Parcels 16 & 17, I-105 Freeway between Hawthorn Boulevard and Long Beach) are listed on the California Bond Expenditure Plan (CABOND EXP PLAN) database. According to the database, Caltrans is in an agreement with the Department of Health Services to receive funds for the oversight and monitoring of the I-105 projects which included other landfills, in addition to the historical landfill, located at the target property.
- A surrounding up gradient property approximately 844-feet north northeast of the target property (George Manor Auto & RV Repair, 1360 Imperial Highway West) is listed on the hazardous materials manifest (HAZNET), Geotracker's Leaking Underground Fuel Tank Report (LUST), and the Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS) databases. According to the HAZNET listing, hazardous materials including "tank bottom waste" are disposed of at a recycler. No violations were reported. According to the LOS ANGELES CO HMS database there is one closed industrial waste permit and one 'removed' UST permit for the property under the Department of Public Works (DPW). Based on the LUST listing, a leak was discovered in 2002 from a waste oil UST. No other details were provided after the 2002 discovery; however the site is listed as an open undergoing site assessment.
- The surrounding up gradient property located approximately 1146-feet northeast of the target property (ISD Storage Building, 1304 Imperial Highway West) is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a leak was reported during repair, in 2000, of a tank that affected the soil only. A preliminary site assessment work plan was submitted, however according to the information provided no other activities have occurred.
- The surrounding up gradient orphan property (Exxon Service Station, 1377 Imperial Highway West) is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a gasoline leak was reported in 1991 to have affected other groundwater. Pollution characterization and preliminary site assessment was conducted at the site. Since 1993, a remediation plan has been in place at the site and currently the site submits quarterly groundwater monitoring reports to the regulatory agency. Based on an independent review of the information provided on Geotracker, the RWQCB's public website, groundwater at the site is at approximately 42 to 45 feet below ground surface in a perched aquifer and 85 to 99 feet below ground surface in a regional aquifer. In the perched aquifer groundwater gradient is noted to be westward, while in the regional aquifer the gradient is south southwesterly.
- In our opinion, none of the other sites listed pose a significant threat to the target property as there is no indication of a release at the respective sites, a release has occurred but the case is closed, or the sites are located cross or down gradient of the target property. Furthermore, these sites are in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as they "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Additional Issues

- Although no structures are present at the site, there is a potential for lead based paints and asbestos containing materials to be within the historical landfill debris beneath the site.
- According to our research, the potential for oil and gas exploration and radon potential at the target property is considered low.
- If the target property is developed with any structures in the future, a proper methane mitigation system should be established.

CONCLUSIONS

Andersen Environmental has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 and Baseline Study of Environmental Conditions, of APNs 6079-003-906 and 6079-003-907, West Athens, California, the target property. Any exceptions to or deletions from this practice are described in the individual sections of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, with the exception of the historical use of the property as a landfill, the landfill debris that remains at the site, its current long term monitoring requirements and use restrictions. Furthermore, several surrounding properties are known to have hydrocarbon releases to a perched aquifer which may extend beneath the target property.

Based on our review of the available documentation, immediate issues in need of attention include an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater into the landfill. Potentially, a mitigation system to release the accumulation of vapors within the landfill may also be necessary. An inventory of the soil vapor monitoring wells should be conducted along with an assessment of their integrity. In addition, surface drainage systems are in need of maintenance. Furthermore, a secure perimeter should be reestablished around the site.

In the future, continued maintenance of the cap and annual soil vapor monitoring is required. Any mitigation measures to correct vapor issues, problems with the cap, or drainage issues would be required by DTSC, the regulator.

No recent site specific groundwater data is available for the site. As such, the client may wish to advance groundwater monitoring wells at the periphery of the site to ascertain the current groundwater conditions at the site and attempt to determine if any significant release has occurred from the historical landfill or if releases at surrounding properties have affected the groundwater beneath the site.

If the client chooses to lease the property, an indemnity agreement clearly stipulating the responsibilities of the maintenance and monitoring of the landfill by Caltrans should be agreed upon by both parties and the DTSC.

If the client chooses to purchase the property, the potential for environmental liability relating to the historical landfill in our opinion is low, as Caltrans has been named as the responsible party for the historical landfill. Nonetheless, we recommend that an indemnity agreement clearly stipulating the responsibilities of the maintenance and monitoring of the landfill by Caltrans should be agreed upon by both parties and the DTSC. Furthermore, a Prospective Purchaser Agreement should be entered into with the DTSC to provide the client with the fullest environmental liability protection. These items should be discussed and completed with the assistance of an environmental attorney.

INTRODUCTION

Andersen Environmental (AE) has performed a Phase I Environmental Site Assessment (ESA) and Baseline Study of Environmental Conditions for an undeveloped property located north of the Century Freeway (Interstate 105) and west of South Normandie Avenue, assessors parcel numbers 6079-003-906 and 6079-003-907, in Los Angeles County and the census-designated place of West Athens, California ("Target Property"). This report has been prepared for the sole use of the Los Angeles Community College District (LACCD). The shelf life of this Environmental Site Assessment is 180 days as per ASTM E 1527-05.

The research conducted for this study and the report prepared are in general conformance with the EPA "All Appropriate Inquiries" standard and the ASTM E 1527-05 "Standard Practices for Environmental Site Assessments: Phase I Environmental Site Assessment Process". The primary purpose for performing a Phase I ESA is to "...permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations (commonly known as landowner liability protections) on Comprehensive Emergency Response Compensation and Liability Act (CERCLA) liability." (ASTM, 2005) Further, it is the goal of this study to identify business risks associated with the property associated with environmental conditions.

The goal of this process is to identify recognized environmental conditions associated with the property. A recognized environmental condition is defined as "...the presence or likely presence of any hazardous substances or petroleum products on a property that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." This definition does not include "de minimis conditions that generally do not pose a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" (ASTM, 2005).

In order to identify environmental conditions at the site, the Phase I ESA includes a site inspection, interviews with parties familiar with the property, historical research into the past uses of the property, and hazardous materials research with regard to the target property, adjoining properties, and surrounding area. In addition, Andersen Environmental provides general information regarding asbestos containing materials, lead-based paints, radon, and oil and gas exploration as part of this report.

In addition, specific research with respect to the landfill, remediation, construction of the cap, monitoring of the landfill and current physical and regulatory disposition of the landfill is included. Furthermore, an assessment of the continuing obligations with respect to the monitoring and maintenance of the landfill will be made.

In order to maintain landowner liability protections, the user has a "continuing obligation to not interfere with activity and use limitations associated with the property" must take "reasonable steps to prevent releases" and must "comply with legal release reporting obligations." (ASTM, 2005)

Reviewing those documents that are "reasonably ascertainable" controls the completeness of this assessment. Documents that are reasonably ascertainable are publicly available, may be obtained within a reasonable time and cost constraints, and are practically reviewable to make an evaluation in a reasonable time frame in regard to property transaction activities.

GENERAL SITE DESCRIPTION

SITE LOCATION

Andersen Environmental has performed a Phase I Environmental Site Assessment (ESA) for an undeveloped property located north of the Century Freeway (Interstate 105) and west of South Normandie Avenue, assessors parcel numbers 6079-003-906 and 6079-003-907, in Los Angeles County and the census-designated place of West Athens, California. Historically, the parcels of the target property were the northern portion of the historical Caltrans Site 16. Following the construction of the Century Freeway (Interstate 105), the parcels of the target property were what remained of Caltrans Site 16, as it is known today. The site is approximately 5.6 acres in size and is undeveloped with limited vegetation.

CURRENT AND HISTORICAL ADDRESSES

According to our research and information provided by the client, no addresses have been found to be associated with the target property.

LEGAL DESCRIPTION

According to the Los Angeles County Assessors Office, the target property is located in an unincorporated area of Los Angeles County known as the census designated place of West Athens, and is described by the assessors parcel numbers 6079-003-906 and 6079-003-907.

PHYSICAL AND HYDROGEOLOGIC SETTING

The elevation of the target property is approximately 205 feet above sea level (USGS Inglewood 7.5 minute topographic quadrangle). Based on our review of the GeoCheck Section of the EDR Radius report, the target property is not situated within a 100-year FEMA Flood Zone. No wetlands were identified at the property or adjoining properties. Based on the groundwater data from the California Geological Survey, historical high groundwater depth in the vicinity of the site is estimated to be in excess of 50-feet below ground surface. Based on our review of groundwater data presented in the EPA Geotracker website, groundwater was detected at a leaking underground storage tank site approximately 800-feet north of the target property at a range of 41.85 to 106.44-feet below ground surface indicating the potential presence of perched aquifer in the area of the site. First groundwater is estimated to be approximately 100-feet below the mean surface of the site and regional groundwater is expected at approximately 160-feet below the mean surface of the site. Based on the surface topography, the groundwater flow direction is estimated to be to the southwest.

Regional geologic maps indicate the site is located in the northwestern portion of the Peninsular Ranges geomorphic province, within the Rosecrans Hills, which are associated with uplift along the northwest-trending Newport-Inglewood structural zone. The site region is underlain by Pleistocene-age old alluvial flood plain deposits, consisting of moderately well consolidated, poorly sorted, permeable, commonly slightly dissected gravel, sand, silt, and clay-bearing alluvium. The site is located on the southwestern margin of the Central Basin. The basin is bounded in this area by the Newport-Inglewood uplift, which is a partial barrier to movement of groundwater from the Central Basin into the adjacent West Coast Basin.

The Central Basin is bounded on the north by a surface divide called the La Brea high, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills. The southeast boundary between Central Basin and Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage province boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Basin on their way to the Pacific Ocean. Average precipitation throughout the subbasin ranges from 11 to 13 inches.

SITE RECONNAISSANCE / INTERVIEWS

SITE RECONNAISSANCE

On August 1, 2008, Matthew Rodda conducted a site reconnaissance of the target property accompanied by Caltrans Staff and LACCD Staff. The site inspection was conducted to identify current hazardous substance use and hazardous substance storage and to attempt to identify evidence of past hazardous substance use and hazardous substance storage. Specifically, we observed the site with regard to hazardous substances and petroleum products, storage tanks, odors, pools of liquid, drums, hazardous substance and petroleum product containers, unidentified substance containers, PCBs, heating and cooling systems, stains or corrosion, drains and sumps, pits, ponds, or lagoons, stained soil or pavement, stressed vegetation, solid waste, waste water, wells, and septic systems. All areas of the target property were inspected as well as areas of the adjoining properties as observable from the target property and public right-of-ways. The following paragraphs describe our observations.

General Description

The target property is located on the west side of South Normandie Avenue, approximately 700 feet south of Imperial Highway, in the unincorporated area of Los Angeles County known as the census designated place of West Athens. The site is approximately 5.6 acres in size and is undeveloped with limited vegetation. Historically, the parcels of the target property were the northern portion of the historical Caltrans Site 16. Following the construction of the Century Freeway (Interstate 105), the parcels of the target property were what remained of Caltrans Site 16, as it is known today. The surrounding area is occupied by a college campus, a church, commercial and residential structures, and a freeway.

Interior Observations

There are no structures located at the target property.

Exterior Observations

The property appears to be an area of soil that is raised relative to most adjoining properties and is moderately vegetated by annual grasses and other plants. Minimal illegal dumping of what appears to be construction debris consisting of concrete, concrete blocks, steel pipes, and possibly crushed base material was observed. The site is gated or walls are present on all sides, however, the access gate at South Normandie was open and the lock appears to have been broken. As the site surface was examined, rodent holes were observed in all areas of the site.

Due to the excess vegetation, only two of the three reportedly operational vapor monitoring wells were observed, the well covers were not opened, however the well covers appeared to be in good condition and no indication of a compromise of the wells was observed. One well location, appeared to be of a damaged well, however was reported by Caltrans Staff to be abandoned and replaced in an alternate location was observed in the northwest portion of the site.

The topography of the site slopes gently to the southeast where a storm drain was observed. The eastern edge of the property sits an estimated 20 feet above South Normandie Avenue and no drainage controls were observed on the hillside between the target property and South Normandie Avenue. The southern portion of the property sits an estimated at 75-feet above the Century Freeway (Interstate 105). No drainage controls were observed on the hillside between the target property and the freeway. The western portion of the site sits an estimated 20 feet above the adjoining college property and no storm water controls were observed on the target property side of the property line with the exception of a severely deteriorated concrete swale in the northwest corner of the property, apparently ushering water to the college property. On the college side of the property line, a concrete swale was observed between the property line and the

college maintenance building. The northern portion of the property was generally at an even elevation with the north adjoining property, with the exception of the eastern portion of the site where an access road from South Normandie Avenue was observed.

No recognized environmental conditions were readily observable at the site with the exception of monitoring wells which are reportedly related to the ongoing monitoring of landfill gasses from the landfill located beneath the property. The landfill is discussed in the Environmental Data Search Section of this report.

No use, storage or illegal dumping of hazardous chemicals or waste was observed at the site; however secured access should be reestablished. In addition, based on the observation of a damaged or abandoned well and only two seemingly operational wells, AE recommends a survey of the condition of all of the wells at the site. Any wells which are no longer operational should be appropriately abandoned to avoid unintentional introduction of storm water, debris, or chemicals to the landfill.

Adjoining Properties

- The adjoining property to the west was historically undeveloped and is currently occupied by the Los Angeles County Community College District, Los Angeles Southwest College Campus (1600 West Imperial Highway). The portion of the campus immediately adjoining the subject property is the college maintenance facility and associated parking lot.
- The adjoining property to the north (1430 West Imperial Highway) is occupied by St. Francis X Cabrini Church. A parking lot and athletic field associated with the church immediately adjoin the subject property. Also observed between the church and subject property was a cellular tower located near the northwest corner of the subject property. To the west of the church and beyond an access road for the church parking lot are multi-family residences.
- The adjoining property to the east across South Normandie Avenue is occupied by multi-family residences. Beyond and surrounding the residences to the north is a parking lot associated with a county structure further to the east.
- The adjoining property to the south was historically associated with Caltrans Site 16 and is now a Caltrans Highway Easement that consists of a manicured hillside which leads down to the Century Freeway (Interstate 105).

INTERVIEWS

- **Property Owner** The target property is owned by the State of California, under the direction of the Department of Transportation (Caltrans).
- **Key Site Manager** Steve Chan, representative from Caltrans was interviewed during the site inspection regarding the target property. Mr. Chan had no information beyond that which is described in the environmental reports relating to the site.
- **Property Occupants** No structures are located at the site, in addition to limitations being placed on the property of who may enter the site, therefore no occupants are currently present at the property.
- Past Owners, Operators and Occupants Past owners, operators and occupants were not able to be identified for an interview for this report.

USER PROVIDED INFORMATION

The United States Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) and ASTM E 1527-05 Phase I Standards require that the user conduct independent research and consider certain

information before purchasing a property. Andersen Environmental recommends that the user documents completion of the following items:

- Obtain a recent (less than 180 days old) title report prepared for the subject property. The report should be reviewed to obtain information regarding environmental clean-up liens or activity and use limitations with regard to the subject property. If environmental cleanup liens or activity and use limitations encumbering the subject property or in connection with the subject property are identified, the user should provide that information to the Environmental Professional (Andersen Environmental). If the user has actual knowledge of environmental cleanup liens or activity and use limitations encumbering the subject property or in connection with the subject property, the user should provide that information to the Environmental Professional (Andersen Environmental).
 - o Andersen Environmental was not provided a title report for the subject property, however based on our review from DTSC, a deed restriction / land use covenant was identified. The covenant restricts sensitive uses which include no access to the property by persons under the age of 21, use as a school, hospital, or for senior citizens. Furthermore, the covenant requires prior approval from the DTSC for any activities at the site which may alter the cap or landfill or if the property is sold or leased. A copy of the deed restriction / land use covenant can be viewed in the Other Documents section of this report.
- The user should provide the Environmental Professional (Andersen Environmental) with any specialized knowledge the user has with regard to recognized environmental conditions in connection with the property.
 - o The user has specialized knowledge with respect to recognized environmental conditions in connection with the property. The user provided documentation pertaining to the landfill at the property.
- If the user is aware of any commonly known information in the community about the subject property with respect to recognized environmental conditions, the user should provide the information to the Environmental Professional (Andersen Environmental).
 - o The user is aware of commonly known information in the community about the subject property with respect to recognized environmental conditions. The user provided documentation pertaining to the conditions of the property.
- If this Phase I ESA was prepared as due diligence for a property transaction, it is the responsibility of the user to consider the relationship of the purchase price to the fair market value of the property. If the purchase price is significantly lower than the fair market value, the user should identify the alternate reason for the low purchase price if the lower purchase price is not related to the property being affected by hazardous substances or petroleum products.
 - o According to the user, the purchase price is to be determined.

User Provided Documents

• The user provided some Caltrans reports relating to the landfill and conditions of the property. All reports are discussed in the Environmental Data Search section of this report.

RECONNAISSANCE/INTERVIEW DATA GAPS

No significant data gaps were experienced during the reconnaissance including adjoining property observations and interviews.

HISTORICAL LAND USE

BUILDING PERMIT REVIEW

The addresses identified as current and historical addresses for the target property were researched at the County of Los Angeles Building Division. Items considered in the course of the building permit review are previous site usage, previous ownership, and the construction or demolition of any structures that may have had a negative environmental impact on the property.

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• As there are no addresses associated with the target property and it has been undeveloped historically, there were no building permits identified for the property.

AERIAL PHOTOGRAPH REVIEW

Aerial Photography of many portions of the United States dates back to the 1920's. Items searched for in each photograph included, but were not limited to: evidence of tanks, gas stations, industrial site usage, water drainage pathways, areas which show evidence of drums or excessive debris, discolored or stained soils, areas of distressed vegetation, etcetera. Aerial Photograph Coverage was available for the target property for the years 1928, 1938, 1947, 1956, 1965, 1976, 1989, 1994, 2002, and 2005. A summary of our observations are presented in the following table.

1928	Target Property	Adjoinii	ng Properties	Surrounding Properties
	The target property is an	North:	Undeveloped	Undeveloped
	undeveloped area within	South:	Undeveloped	
	an undulated topography	East:	Undeveloped	
		West:	Undeveloped	
1938	Target Property	Adjoinii	ng Properties	Surrounding Properties
	The target property appears to be utilized for agricultural purposes	North:	Appears to be continuation of agricultural crop of the target property	Undeveloped / Agricultural
		South:	Appears to be continuation of agricultural crop of the target property	
		East:	Appears to be continuation of	
			agricultural crop of the target	
			property	
		West:	Unchanged	
1947	Target Property	·	ng Properties	Surrounding Properties
	The property appears to be uneven with altered	North:	Continuation of activities occurring at the target property	Residential to the north, undeveloped and oil
	topography. The altered	South:	Continuation of activities	exploration to the south
	topography could be		occurring at the target property	
	attributed to grading	East:	Continuation of activities	
	activities associated with		occurring at the target property]
	a landfill.	West:	Continuation of activities	
			occurring at the target property	

1956	Target Property	Adioinii	ng Properties	Surrounding Properties
1300	The property appears to	North:	Appears to be under	Landfill property with
	have vegetation growing		development with a parking	surrounding residential
	upon it, with an access		area adjoining to the property	properties
	road going through its		with associated commercial	
	center northeast to		structures	
	southwest	South:	Appears to be occupied by	
			above ground storage tanks that	
			stored oil with an access road	
		East:	Appears to be undeveloped and	
			possibly graded for	
			development, however is not	
			fully depicted in the aerial	
			photo	
		West:	Appears to be a landfill that is	
			associated with target property	
1965	Target Property		ng Properties	Surrounding Properties
	Unchanged	North:	Appears to be occupied with a	Unchanged
			parking area with associated	
			commercial structures and	
			residential structures along	
		G .1	Normandie	
		South:	Unchanged	
		East:	Appears to be under	
		337	construction	
1976	Tanget Duamenty	West:	Unchanged Properties	Surrounding Properties
1970	Target Property Appears to be an isolated	North:	Unchanged	Primarily residential with
	and elevated area that	South:	Continuation of the isolated and	some new construction
	continues to the south	Doutii.	elevated area of the target	and commercial
			property with a southern access	structures observed
			road toward the railroad tracks	
			beyond	
		East:	Appears to be developed with	
			residential structures with a	
			parking lot and commercial	
			structure beyond	
		West:	Appears to have been graded to	
			an even topography with	
			structures being constructed	
1989	Target Property	Adjoinii	ng Properties	Surrounding Properties
	Appears to be an elevated	North:	Unchanged	Unchanged,
	area with several	South:	Continuation of the activities	I-105 under construction
	different access roads		occurring at the target property	
		East:	Unchanged	
		West:	Undeveloped land with some vegetation	

1994	Target Property	Adjoinii	ng Properties	Surrounding Properties
	Property appears to be	North:	Unchanged	I-105 completed
	graded yet still elevated	South:	Interstate 105 Century Freeway	
		East:	Unchanged	
		West:	Several commercial structures	
			added as part of community	
			college	
2002	Target Property	Adjoining Properties		Surrounding Properties
2005	Unchanged	North:	Unchanged	Unchanged
		South:	Unchanged	
		East:	Unchanged	
		West:	Appears that a parking lot	
			immediately adjoins with the	
			target property with baseball	
			beyond	

CITY DIRECTORY REVIEW

City directories have been published since the 1800's and provide detailed occupant information for the property and its surrounding area at five-year intervals. The purpose of the City Directory research is to attempt to determine the businesses that historically occupied the target property.

• As there are no addresses associated with the target property and it has been undeveloped historically, there were no listings for the property.

SANBORN MAP REVIEW

Sanborn Maps were originally compiled by the Sanborn Map Company of Pelham, New York for fire insurance companies to assess fire risks related to building materials and hazardous materials storage. Today, Sanborn Maps are an invaluable tool for Environmental Professionals in determining historical site use and the potential for environmental conditions. Sanborn Map Coverage is available from as early as 1867 in some cities. Although Sanborn maps were created for approximately twelve thousand cities and towns in the United States, Canada, and Mexico, Sanborn Map Coverage is not available in newer and more rural communities.

• No Sanborn Map Coverage was available for the target property. The remaining Historical Land Use data in our opinion is sufficient to accurately ascertain the historical site use.

HISTORICAL DATA GAPS

No significant data gaps were encountered during our review of the historical data.

ENVIRONMENTAL DATA SEARCH

REGULATORY DATABASE RESEARCH

A radial search was conducted in accordance to the specification defined in ASTM E 1527-05 which sets the radial distance limits for each database searched. A complete listing of the databases with descriptions and the results is presented in the appendices of this report. The following table summarizes required databases reviewed and the approximate search distances, and indicates if the subject site, adjoining properties or surrounding sites are listed:

DATABASE	Search Distance	Subject Site	Adjacent Site	Other Sites
	(Miles)	(Yes/No)	(Yes/No)	(#)
Federal NPL	1.0	NO	NO	0
Federal De-listed NPL	1.0	NO	NO	0
Federal CERCLIS	0.5	YES	NO	1
Federal CERCLIS NFRAP	0.5	NO	NO	0
Federal RCRA CORRACTS	1.0	NO	NO	0
Federal RCRA non-CORRACTS TSD	0.5	NO	NO	0
Federal RCRA Generators	0.25	NO	NO	1
Federal Institutional/Engineering Controls	0.5	NO	NO	0
Federal ERNS	Property	NO	NO	0
State/Tribal Equivalent NPL	1.0	NO	NO	0
State/Tribal Equivalent CERCLIS	0.5	NO	NO	0
State/Tribal Landfill	0.5	YES	NO	7
State/Tribal UST	0.25	NO	NO	8
State/Tribal Leaking UST	0.5	NO	NO	9
State/Tribal Institutional/Engineering Controls	0.5	NO	NO	0
State/Tribal Voluntary Clean-up Sites	0.5	NO	NO	0
State/Tribal Brownfield Sites	0.5	NO	NO	0

Target Site

Normandy Mound Caltrans Site #16 (corner of Normandy Ave and SW College) – The target property is listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Facility Index System (FINDS) databases. According to the information provided, the site is not a federal facility and does not have NPL status. The investigation by the USEPA began in 1990. Consequently a preliminary assessment was completed in 1991 with a designated low priority for further assessment given at that time by the USEPA as indicated on the CERCLIS database.

Imperial Highway Dump (Imperial Highway / Normandie Avenue) – The target property is listed on the Waste Management Unit Database (WUDS/SWAT). The database indicates that one WUDS was located at the site. No further information was provided, however it is known that the site was historically a landfill.

Caltrans I-105 #16 and 17 (I-5 Freeway between Normandie Boulevard and Imperial Highway) – The target property is listed on the State Response Sites (RESPONSE), Deed Restriction Listing (DEED), EnviroStor (ENVIROSTOR), and Calsites (HIST Cal-Sites) databases. According to the databases the property was historically utilized as a landfill and has had proper certified operation and management plans in place since 1994. Additionally, a deed restriction exists for the property that limits its use as discussed below. The Department of Toxic Substances Controls (DTSC) is the lead regulatory agency identified for

the property. Based on the information provided, Caltrans is the responsible party and is in agreement of performing long term monitoring and remedial actions. According to the listing, high levels of VOCs and methane have been detected at the site. In 1992, 350,000 cubic yards of soil known to contain hazardous materials was removed and shipped by train to Kettleman Hills in Kings County for disposal. Following the removal of material at the site, a geotextile fabric and clay cap was placed on the site in 1993. Several reports were reviewed from the DTSC and are discussed below in the Additional Regulatory Research section.

Adjoining Properties

1600 West Imperial Highway – Two entities were identified for the west adjoining property; their listings are as follows:

Los Angeles Southwest College – The west adjoining property is listed on the hazardous materials manifest (HAZNET), site mitigation list (LA CO Site Mitigation), historical hazardous substance storage container database (HIST UST), National Emissions Inventory Data (EMI), EnviroStor (ENVIROSTOR) databases. The HIST UST database indicates that two underground storage tanks were historically installed at the property, one 8,000 gallon gasoline and one 1,500 gallon waste. Based on a review of files for the property at the Department of Public Works (DPW), the waste UST was actually a clarifier. A discussion of this review at DPW is discussed below. According to the HAZNET listing, hazardous materials are disposed of at recyclers and include "asbestos-containing waste, polychlorinated biphenyls and material containing PCB's," "tank bottom waste," "waste oil and mixed oil," and "liquids with mercury > 20 mg/l." Additionally, hazardous materials are disposed of at transfer stations and include "laboratory waste chemicals," "other organic solids," "other inorganic solids," "unspecified alkaline solution," "alkaline solution without metals (pH > 12.5)," "unspecified aqueous solution," "oxygenated solvents (acetone, butanol, ethyl acetate, etc)," "off-specification, aged, or surplus organics," "liquids with pH <UN-> 2," and "unspecified solvent mixture waste." These wastes have to do with construction and science classroom activities. No violations were reported. Based on the EMI database, the site has been permitted by the South Coast AQMD for emissions dating back to 1984 for a gas station and currently, active permits for electric generators. Violations were on file, however compliance was achieved on each. According to the LA CO Site Mitigation and ENVIROSTOR databases, the property had been investigated for an abandoned elevator pit. The contamination at the property associated with the abandoned elevator pit was abated with oversight from the Los Angeles County Fire Department.

LACCD – Accounts Pay – The west adjoining property is listed on the hazardous material manifest (HAZNET), Facility Inventory List (CA FID UST), Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS), and Statewide Environmental Evaluation and Planning System (SWEEPS UST) databases. According to the HAZNET listing, hazardous materials are disposed of at transfer stations and include "household waste," "unspecified organic liquid mixture," and "waste oil and mixed oil." No violations were reported. The CA FID UST and SWEEPS UST databases indicate that at least one underground storage tank has been present at the property. Based on the LOS ANGELES CO HMS database there is one closed and one permitted industrial waste permit for the property under the DPW. Additionally, one underground storage tank permit from DPW noted the UST to have been removed from the property.

Based on a review of the file for the west adjoining property at the DPW one 8,000 gallon gasoline UST and one clarifier, previously indicated as a waste tank, were present at the site. The UST was removed from the site in 1988, soil samples were collected and analyzed, and consequently the site was given closure for the UST in 1989. In 1996, the structure in which the clarifier was located was demolished and according to the contractors a clean and dry concrete pit was demolished that may have

been an abandoned clarifier. Consequently, closure of the clarifier was granted as it was completely removed.

As the west adjoining property is down gradient from the target property, wastes were properly disposed, and closure was granted for the UST and clarifier at the site, it is our opinion that the adjoining property is not of significant environmental concern for the target property. Furthermore, this site is in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as it "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Surrounding Area

George Manor Auto & RV Repair (1360 Imperial Highway West) – The surrounding up gradient property approximately 844-feet north northeast of the target property is listed on the hazardous materials manifest (HAZNET), Geotracker's Leaking Underground Fuel Tank Report (LUST), and the Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS) databases. According to the HAZNET listing, hazardous materials including "tank bottom waste" are disposed of at a recycler. No violations were reported. According to the LOS ANGELES CO HMS database there is one closed industrial waste permit and one 'removed' UST permit for the property under the Department of Public Works (DPW). Based on the LUST listing, a leak was discovered in 2002 from a waste oil UST. No other details were provided after the 2002 discovery; however the site is listed as an open undergoing site assessment.

ISD Storage Building (1304 Imperial Highway West) – The surrounding up gradient property is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a leak was reported in 2000, during repair of a tank that affected the soil only. A preliminary site assessment work plan was submitted, however according to the information provided no other activities have occurred.

Cal Trans I-105 Fwy Project 3, Parcel 15 (NE of intersection of Western Avenue and 120 Street) – The surrounding down gradient property is located approximately 1/3 mile southwest of the target property and is listed on EnviroStor, the DTSC's public information website. According to the information provided the property was an uncontrolled dump location from at least 1928. Groundwater monitoring wells were installed to monitor onsite contamination that historically included petroleum, metals, volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

As the site is down gradient from the target property and has groundwater monitoring wells are located on site, the "Final Site Investigation Report" written by SECOR International Incorporated, dated April 4, 2007, was reviewed to assess if contaminants known to exist at the target property have significantly impacted regional groundwater. According to the sampling results of the monitoring well located closest to the target property (MW-3), no VOCs or SVOCs were detected in the groundwater from the well. This provides anecdotal evidence that a release from the target property has not caused regional impact. However, as this data is not specific to the target property, the client may wish to advance groundwater monitoring wells at the periphery of the target property to ascertain the current groundwater conditions at the site and attempt to determine if any significant release has occurred from the historical landfill or if releases at surrounding properties have affected the groundwater beneath the site.

In our opinion, none of the other sites listed pose a significant threat to the target property as there is no indication of a release at the respective sites, a release has occurred but the case is closed, or the sites are located cross or down gradient of the target property. Furthermore, these sites are in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as they "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Orphan Sites

Orphan Sites are unmappable sites which appear in a list form in the Radius Map Report rather than on the standard Radius Map. Twelve Orphan sites were identified in the Radius Map Report prepared for this site. The sites were manually mapped to determine the location of the site relative to the target property and groundwater gradient. In addition, the case information for each site was reviewed. The following conclusions were made:

- Caltrans I-105 Freeway Project 4, Parcels 16 & 17 (I-105 Freeway between Hawthorn Boulevard and Long Beach) An orphan site listing which includes the target property, adjoining properties, and surrounding properties are listed on the California Bond Expenditure Plan (CABOND EXP PLAN) database. According to the database, Caltrans is in an agreement with the Department of Health Services to receive funds for the oversight and monitoring of the I-105 projects which included other landfills, in addition to the historical landfill, located at the target property.
- Exxon Service Station (1377 Imperial Highway West) The surrounding orphan property is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a gasoline leak was reported in 1991 to have affected other groundwater. Pollution characterization and preliminary site assessment was conducted at the site. Since 1993, a remediation plan has been in place at the site and currently the site submits quarterly groundwater monitoring reports to the regulatory agency. Based on an independent review of the information provided on Geotracker, the RWQCB's public website, groundwater at the site is at approximately 42 to 45 feet bgs in a perched aquifer and 85 to 99 feet bgs in a regional aquifer. In the perched aquifer groundwater gradient is noted to be westward, while in the regional aquifer the gradient is south southwesterly.
- In our opinion, none of the other orphan sites listed pose a significant threat to the target property as there is no indication of a release at the respective sites, a release has occurred but the case is closed, or the sites are located cross or down gradient of the target property. Furthermore, these sites are in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as they "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

ADDITIONAL REGULATORY RESEARCH

Local Hazardous Materials / Underground Storage Tank Research

The Los Angeles County, Department of Public Works was contacted regarding underground storage tanks at the target property. According to our correspondence, no files were found for the target property.

The Los Angeles County, Department of Public Health was contacted regarding hazardous materials storage at the target property. According to our correspondence, no files were found for the target property.

The Sanitation District of Los Angeles County was contacted regarding industrial waste discharge records for the target property. According to our correspondence with William Roggenkamp, there are no records for the property except for ownership by the state.

The Department of Toxic Substances Controls (DTSC) was contacted regarding files pertaining to the remedial actions that have been conducted at the target property in addition to its long term monitoring and maintenance. The following reports discussed below were provided by the DTSC and EnviroStor, their public website.

- "Remedial Design Report for Century Freeway, Site 16 and 17 (Project #33), Los Angeles, California" prepared by State of California, Department of Transportation (Caltrans) dated December 1992. The report indicates the plan set forth by Caltrans for the disposal of soils from the site and the construction of the Century Freeway through portions of these sites that were historically landfills. Portions of both Site 16 and 17 were to be excavated for the right away for the freeway. A section of Site 16 would remain and need to be maintained as to contain hazardous materials in the debris and soil vapors from decomposition of the landfill material. An impermeable geomembrane and geocomposite drainage system was to be constructed on Site 16, extending down the slope to the freeway as landfill debris would be exposed in the downgrade beyond the target property.
- "Workplan for Site Investigation" prepared by SECOR International Incorporated dated December 21, 2006. The scope of work was prepared by SECOR for the annual soil vapor monitoring of Caltrans Site 16 in order to comply with DTSC's requirements. Since 1996, the site has been regulated by DTSC under an Operation and Maintenance Agreement (O & M). Two previous sampling events occurred at the site in 1996 and 1998, with a third attempted in 2002 to discover that the gas probes had collapsed in the wells. SECOR's work plan includes the abandonment of the two collapsed wells and installation of three new soil vapor wells at the site in order to complete annual sampling.
- "Site Investigation Report, Site 16 Soil Vapor Well Installation and Sampling" for Site 16 prepared by SECOR International Incorporated dated May 9, 2007. According to the report of the most recent soil vapor monitoring activities indicated "constituents including methane, vinyl chloride, methylene chloride, benzene, and 1,4-dichlorobenzene, were detected at concentrations that exceeded either the Cal- EPA CHHSLs for the residential vapor intrusion pathway or the USEPA Region 9 PRG for the ambient air pathway." Additionally many of the constituents were detected in ambient air therefore suggesting the vapor could be coming from the potentially damaged cap on the landfill debris. Recommendations were made to conduct the annual soil vapor monitoring in the first quarter of 2008, have the cap checked for leaks, and to conduct a health-based risk evaluation or repair/replace the cap.

A response letter from the DTSC indicated that due to the levels of the constituents at the site and their presence in the ambient air that "immediate remedial measures to alleviate the threat to residents and or users of the adjacent lots" need to be implemented.

ENVIRONMENTAL LIEN SEARCH

The EDR Environmental Lien Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

• Based on our review from DTSC, a deed restriction / land use covenant was identified. The covenant restricts sensitive uses which include no access to the property by persons under the age of 21, use as a school, hospital, or for senior citizens. Furthermore, the covenant requires prior approval from the DTSC for any activities at the site which may alter the cap or landfill or if the property is sold or leased. A copy of the deed restriction / land use covenant can be viewed in the Other Documents section of this report.

ENVIRONMENTAL DATA GAPS

No significant data gaps were encountered during our environmental data research.



LADFILLS

History

Beginning in the early 1940s and extending through approximately 1984, the target property was utilized as a landfill during three time frames. The three time frames of the landfill are thought to be the mid 1940s until 1953, the mid 1960s until the early 1970s, and a single event in 1983 (Caltrans, 1992). Materials that have been found to be in these landfills include but are not limited to construction rubble, glass, metals, ash, and rubbish. Additionally, some hazardous materials have been identified to exist within the debris. The landfills were never regulated and no permits were recorded by any regulatory agencies for the dumping that occurred.

By means of eminent domain, Caltrans acquired property for the construction of the Century Freeway (Interstate 105) which included the target property, the northern portion of Site 16, that would remain after the construction of the freeway. In conjunction with the construction of the Century Freeway (Interstate 105), a plan was established in 1992 for the removal of debris and soil from the site. A total of 517,000 cubic yards of contaminated soils were proposed to be removed from Site 16 to reduce the elevation of the target property and the freeway right of way. Caltrans certified that approximately 350,000 cubic yards of contaminated soils was removed from the target property alone. Following the removal of material at the site, a geotextile fabric and clay cap was placed on the site in 1993, in order to provide public health protection for those entering the site or occupying surrounding properties, as well as to prevent the infiltration of rain / water into the landfill material that could aid leaching of the contaminants within the landfill to the groundwater beneath the site. A storm water drainage system to convey storm water off of the cap and away from the landfill was installed concurrent to the installation of the cap. In 1994, DTSC placed a land covenant / deed restriction on the property limiting its future use. The first soil vapor monitoring event occurred in 1996, a second in 1998 and an attempt in 2002. The most recent soil vapor monitoring event at the property occurred in 2007. Caltrans has remained the responsible party, as the owner, for maintaining the property, conducting soil vapor monitoring events and keeping the property access secured. Currently, the site remains undeveloped with minimal vegetation and restricted access.

Regulatory Oversight

The target property is under the oversight of the Department of Substances Controls (DTSC). All activities at the property must comply with the regulations provided by the DTSC, including the continuation of long term monitoring and maintenance. According to the information reviewed from the DTSC, soil vapor sampling should be conducted at the property on an annual basis. Currently, three soil vapor monitoring wells are installed at the property for soil vapor monitoring. Additionally, the cap and drainage system should be maintained to contain and prevent contaminants from affecting the surrounding properties or causing any potential risk to public health according to the DTSC requirements.

As agreed upon by Caltrans and the DTSC, a long term vapor monitoring program was to be implemented to monitor the potential for vapors to accumulate beneath the cap. Although monitoring was to be completed on an annual basis, the first soil vapor monitoring event occurred in 1996, a second in 1998 and an attempt in 2002, as the wells were damaged. The most recent soil vapor monitoring event at the property occurred in 2007. According to the monitoring report "constituents including methane, vinyl chloride, methylene chloride, benzene, and 1,4-dichlorobenzene, were detected at concentrations that exceeded either the Cal- EPA CHHSLs for the residential vapor intrusion pathway or the USEPA Region 9 PRG for the ambient air pathway" were detected in the soil vapor samples collected from the landfill. Furthermore, ambient air samples collected during field activities were analyzed and found to contain similar constituents as found in the landfill prompting a Caltrans consultant to conclude that "many of the detected constituents

are actively being vented through the damaged landfill cap". Recommendations were made to conduct the annual soil vapor monitoring in the first quarter of 2008, to modify vapor sample techniques, and to conduct a health-based risk evaluation or repair/replace the cap.

The DTSC responded that due to the levels of the constituents at the site and their presence in the ambient air that "immediate remedial measures to alleviate the threat to residents and or users of the adjacent lots" need to be implemented. From our research with the DTSC, it appears that no response from Caltrans has been identified prior to issuing this report. Furthermore, there is no documentation for an annual soil vapor monitoring event having occurred as of yet for 2008.

Current Condition

From the documentation reviewed, it appears that annual soil vapor monitoring events have not occurred on an annual basis. Additionally, there is no mention of any remedial measures to alleviate the release of vapors from the property, which was the response from DTSC dated July 5, 2007 after the last monitoring event in January / February 2007. Not to mention there is no documentation for an annual soil vapor monitoring event having occurred as of yet for 2008.

Currently, the property is considered to be poorly-maintained per the site walk conducted by AE with Caltrans Staff and LACCD Staff. The site is fenced however secure access has been compromised due to the observation of the lock which appeared to be broken. Only two of three reportedly functional soil vapor monitoring wells were observed due to overgrown vegetation at the site. The third well observed appeared to be damaged or may be an abandoned well as indicated by Caltrans staff and relocated to another location. A third functioning monitoring well was not observed during AE's site walk. In addition, rodent holes were observed that may suggest the condition of the cap is possibly compromised.

Continuing Monitoring and Maintenance Obligations

Under the Operation and Management Plan by the DTSC for the site, Caltrans is in agreement to maintain and remediate the property as to not cause harm to public health, or the spread of contamination. Whoever owns the property at any time will be held to the regulations set forth by DTSC. In the future, continuous annual soil vapor monitoring needs to be conducted at the property. Additionally, the cap and drainage of the property needs to be maintained.

At this moment, based on documentation and the opinion of AE, immediate issues in need of attention include an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater into the landfill. Potentially, a mitigation system to release the accumulation of vapors within the landfill may also be necessary. An inventory of the soil vapor monitoring wells should be conducted along with an assessment of their integrity; if any wells are no longer operational they should be appropriately abandoned. In addition, surface drainage systems are in need of maintenance. Furthermore, a secure perimeter should be reestablished around the site.

In the future, the current conditions of the property should be avoided, as proper maintenance and monitoring occur according to DTSC regulations.

ADDITIONAL ISSUES

ASBESTOS

Asbestos is the name given to a group of naturally occurring minerals used in certain products, such as building materials and vehicle brakes, to resist heat and corrosion. Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these materials that have been chemically treated and/or altered.

The inhalation of asbestos fibers by workers can cause serious diseases of the lungs and other organs that may not appear until years after the exposure has occurred. For instance, asbestosis can cause a buildup of scar-like tissue in the lungs and result in loss of lung function. Asbestos fibers associated with these health risks are too small to be seen with the naked eye, and smokers are at higher risk of developing some asbestos-related diseases.

Asbestos-containing materials (ACM) do not always pose a hazard to occupants and workers in buildings that contain these materials. Intact, undisturbed ACMs generally do not pose a health risk. ACMs may become hazardous and pose an inhalation risk when they are damaged, disturbed in some manner, or deteriorate over time and asbestos fibers are released into building air.

ACM can be found in a multitude of building products which include acoustical texture, fire-proofing, joint compound, attic and wall insulation, resilient flooring, mastic, recessed lighting fixtures, wiring, elevator brakes, fire doors, piping insulation, piping joints, duct insulation, duct tape, siding and roofing materials (tar/shingles), textured paint, stucco, concrete, and swimming pool plaster.

Local jurisdictions have specific laws and regulations regarding asbestos and actions including building renovations and building demolition.

• There is a potential for asbestos containing materials to be within the historical landfill debris beneath the site, although no structures are present at the site.

LEAD-BASED PAINT

Although lead-based paint has long since been taken off the market, it is approximated that 80 percent of buildings built before 1978 contain lead paint. Even at low levels, lead poisoning can cause IQ deficiencies, reading and learning disabilities, impaired hearing, reduced attention spans, hyperactivity and other behavior problems with children 6 years old and under being at most risk.

Lead is a highly toxic metal that was used for many years in products found in and around our homes and commercial buildings. Lead can be found in dust from moving parts of windows and doors that are painted with lead-based paint, wood trim, walls, cabinets in kitchens and bathrooms, porches, stairs, railings, fire escapes, lamp posts, and soil.

Since the 1980's, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or has been limited in use in consumer products.

Between the Environmental Protection Agency (EPA), Department of Housing and Urban Development (HUD), Occupational Safety & Health Administration (OSHA), Department of Health (DOH), each state has various action limits have been placed with the overall objective being an attempt to prevent human exposure and contamination of the surrounding environment.

• There is a potential for lead based paints to be within the historical landfill debris beneath the site, although no structures are present at the site.

RADON

Radon is a radioactive gas that has been found in structures all over the United States. It comes from the natural breakdown of uranium in soil, rock and water and gets into the air you breathe. Radon typically moves up through the ground to the air above and into structures through cracks and other holes in the foundation. Movement of radon through the earth is strongly influenced by moisture content and permeability of soil, porosity and degree of fracturing in rocks, as well as surface meteorological conditions. High levels of radon have been discovered in every state.

Radon cannot be seen, smelled, or tasted. Breathing air-containing radon may increase the risk of getting lung cancer. The Surgeon General of the United States has warned that radon is the second leading cause of lung cancer in the United States today.

Testing for the presence of radon is fairly inexpensive, simple and the only way to be certain of the concentration. Various types of sampling methods exist to determine the concentration. Please consult Andersen Environmental should sampling for radon be of interest so we can assist in identifying the best method for your needs.

• Based on our research at the United States Environmental Protection Agency (USEPA), the average radon concentrations for Los Angeles County are between 2.0 pCi/L and 4.0 pCi/L, below the 4.0 pCi/L action level set by the USEPA.

OIL AND GAS EXPLORATION

The Division of Oil, Gas and Geothermal Resources (DOGGR) regulates the drilling, operation, maintenance, plugging and abandonment of oil, natural gas and geothermal resources throughout the State of California.

• The DOGGR Wildcat Map W1-5 and Oil Field Map 124 were reviewed to determine the location of petroleum activity in the area of the property. The target property is located in Township 3-South, Range 14-West and Section 12. According to the map reviewed, no oil wells appear to be located on the target property. Six oil wells appearing to be located on the west and south adjoining properties were observed on the map reviewed. Furthermore, aboveground storage tanks (ASTs) associated with oil exploration were observed on the adjoining properties. No ASTs were observed on the parcels of the target property from our research. Based on our correspondence and review of files for the wells at the Division of Oil and Gas, the following table summarizes the information corresponding to the oil wells confirmed to be on the adjoining properties:

Oil Well	Location	Drilled	Abandoned
Pauley Petroleum Inc. 'SCL & E' 1	South adjoining property	1952	1974, 1992
Pauley Petroleum Inc. 'S.R.G. Community' 1	South adjoining property	1950	1974, 1992
Pauley Petroleum Inc. 'Geddes' 1	South adjoining property	1953	1974, 1992
Santa Fe Energy Operating Partners, L.P. 'Union-Poindexter' 1	West adjoining property	1947	1989
Santa Fe Energy Operating Partners, L.P. 'Union-Poindexter' 2	West adjoining property	1948	1990
Santa Fe Energy Operating Partners, L.P. 'Union-Poindexter' 3	West adjoining property	1948	1990

METHANE

Due to the historical use of the target property as a landfill and the oil exploration activities in the area of the site, there is a potential for methane to exist at the site. According to the vapor monitoring being conducted at the site on an annual basis, methane has been detected in the landfill at the site. If the property is to be developed with any permanent structures, a methane mitigation system may be warranted.

SUMMARY AND CONCLUSIONS

SUMMARY

General Site Description

Andersen Environmental (AE) has performed a Phase I Environmental Site Assessment (ESA) and Baseline Study of Environmental Conditions for an undeveloped property located north of the Century Freeway (Interstate 105) and west of South Normandie Avenue, assessors parcel numbers 6079-003-906 and 6079-003-907, in Los Angeles County and the census-designated place of West Athens, California. According to our research and information provided by the client, no addresses have been found to be associated with the target property. First groundwater is estimated to be approximately 100-feet below the mean surface of the site and regional groundwater is expected at approximately 160-feet below the mean surface of the site.

Caltrans currently owns the property which is widely known to be a historical landfill. Caltrans assumed ownership by eminent domain to construct the Century Freeway (Interstate 105). It is our understanding that the Los Angeles Community College District (LACCD) is looking to lease or purchase the target property in order to utilize the land as a parking lot, as a green house facility, to install solar panels for energy, or for other uses related to sustainability. This assessment evaluates the environmental conditions, risks, requirements, and responsibilities related to the ownership or use of the property.

Historical Land Use of the Area

The area of the site was undeveloped prior to 1928. By 1938, the area appeared to be utilized for agricultural purposes. Beginning approximately in the early 1940s, the area was explored for oil, becoming part of an oil field. Several oil derricks were located on surrounding properties, including the west and south adjoining properties, many of which were abandoned in the late 1980s and early 1990s. In 1947, the areas north of the property were being developed for residential purposes. By 1956, the immediate area of the target property was utilized for landfill purposes with the surrounding land being developed for residential purposes, until at least 1965. From at least 1976 until the present, the area has been developed further with a mix of commercial and residential properties. The Century Freeway (Interstate 105) was completed to the south in 1994.

Site Reconnaissance / Interviews

The target property is located on the west side of South Normandie Avenue, approximately 700 feet south of Imperial Highway, in the unincorporated area of Los Angeles County known as the census designated place of West Athens. The site is approximately 5.6 acres in size and is undeveloped with limited vegetation. The surrounding area is occupied by a college campus, a church, commercial and residential structures, and a freeway. During the site inspection, it was observed that the site was not secured as the gate which should normally be locked, had its lock cut open. No significant hazardous material storage or illegal dumping was observed at the surface of the site. No evidence of recognized environmental conditions were readily observable at the site with the exception of monitoring wells which are related to the ongoing monitoring of landfill gasses from the landfill located beneath the property. The landfill is discussed in the Environmental Data Search Section of this report. Those interviewed, as persons familiar with the site, are aware of negative environmental conditions associated with the property with respect to the existence of a landfill and maintenance of the property brought about by the existence of the landfill.

Environmental Data Search – Target Property

The target property is listed on several environmental databases under the entities 'Normandy Mound Caltrans Site #16', 'Caltrans I-105 #16 and 17', and 'Imperial Highway Dump'. The site is listed on the CERCLIS, WUDS, State Response Sites (RESPONSE), Deed Restriction Listing (DEED), EnviroStor (ENVIROSTOR), and Calsites (HIST Cal-Sites) databases. In addition to a review of the database listings,

the Department of Toxic Substances Controls (DTSC) was contacted regarding files pertaining to the property.

According to the databases, DTSC files, and other historical sources, the site was undeveloped from before 1928. By 1938, the site was apparently used for agricultural purposes. The property was utilized as a landfill during three time frames beginning in the early 1940s and extending through approximately 1984. The three time frames of the landfill are thought to be the mid 1940s until 1953, the mid 1960s until the early 1970s, and a single event in 1983 (Caltrans, 1992). Materials that have been found to be in these landfills include but are not limited to construction rubble, glass, metals, ash, and rubbish. Additionally, some hazardous materials have been identified to exist within the debris. The landfills were never regulated and no permits were recorded by any regulatory agencies for the dumping that occurred. Currently, the landfill is capped and the site is undeveloped with minimal vegetation observed.

By means of eminent domain, Caltrans acquired property for the construction of the Century Freeway (Interstate 105) which included the target property, the northern portion of Site 16, that would remain after the construction of the freeway. In conjunction with the construction of the Century Freeway (Interstate 105), a plan was established in 1992 for the removal of debris and soil from the site. A total of 517,000 cubic yards of contaminated soils were proposed to be removed from Site 16 to reduce the elevation of the target property and for the freeway right of way. Caltrans certified that approximately 350,000 cubic yards of contaminated soils was removed from the target property alone. Following the removal of material at the site, a geotextile fabric and clay cap was placed on the site in 1993, in order to provide public health protection for those entering the site or occupying surrounding properties, as well as to prevent the infiltration of rain / water into the landfill material that could aid leaching of the contaminants within the landfill to the groundwater beneath the site. A storm water drainage system to convey storm water off of the cap and away from the landfill was installed concurrent to the installation of the cap.

In 1994, at the conclusion of the construction activities, the DTSC placed a land use covenant / deed restriction on the property limiting its future use. The covenant restricts sensitive uses which include no access to the property by persons under the age of 21, use as a school, hospital, or for senior citizens. Furthermore, the covenant requires prior approval from the DTSC for any activities at the site which may alter the cap or landfill or if the property is sold or leased.

The target property is under the oversight of the DTSC. All activities at the property must comply with the regulations provided by the DTSC, including the continuation of long term monitoring and maintenance. According to the information reviewed from the DTSC, soil vapor sampling should be conducted at the property on an annual basis. Currently, three soil vapor monitoring wells are installed at the property for soil vapor monitoring. Additionally, the cap and drainage system should be maintained to contain and prevent contaminants from affecting the surrounding properties or causing any potential risk to public health according to the DTSC requirements.

As agreed upon by Caltrans and the DTSC, a long term vapor monitoring program was implemented to monitor the potential for vapors to accumulate beneath the cap. Although monitoring was to be completed on an annual basis, the first soil vapor monitoring event occurred in 1996, a second in 1998 and an attempt in 2002, as the wells were damaged. The most recent soil vapor monitoring event at the property occurred in 2007. According to the monitoring report "constituents including methane, vinyl chloride, methylene chloride, benzene, and 1,4-dichlorobenzene, were detected at concentrations that exceeded either the Cal-EPA CHHSLs (California Human Health Screening Levels) for the residential vapor intrusion pathway or the USEPA Region 9 PRG (Preliminary Remediation Goals) for the ambient air pathway" were detected in the soil vapor samples collected from the landfill. Furthermore, ambient air samples collected during field activities were analyzed and found to contain similar constituents as found in the landfill prompting a Caltrans consultant to conclude that "many of the detected constituents are actively being vented through the damaged landfill cap". Recommendations were made to conduct the annual soil vapor monitoring in

the first quarter of 2008, to modify vapor sample techniques, and to conduct a health-based risk evaluation or repair/replace the cap.

The DTSC responded that due to the levels of the constituents at the site and their presence in the ambient air that "immediate remedial measures to alleviate the threat to residents and or users of the adjacent lots" need to be implemented. From our research with the DTSC, it appears that no response from Caltrans has been identified prior to issuing this report. Furthermore, there is no documentation for an annual soil vapor monitoring event having occurred as of yet for 2008.

Environmental Data Search – Adjoining Properties

The west adjoining property (1600 West Imperial Highway) had two entities identified, their listings are as follows:

The west adjoining property (Los Angeles Southwest College) is listed on the hazardous materials manifest (HAZNET), site mitigation list (LA CO Site Mitigation), historical hazardous substance storage container database (HIST UST), National Emissions Inventory Data (EMI), EnviroStor (ENVIROSTOR) databases. The HIST UST database indicates that two underground storage tanks were historically installed at the property, one 8,000 gallon gasoline and one 1,500 gallon waste. Based on a review of files for the property at the Department of Public Works (DPW), the waste UST was actually a clarifier. A discussion of this review at DPW is discussed below. According to the HAZNET listing, hazardous materials are disposed of at recyclers and include "asbestos-containing waste, polychlorinated biphenyls and material containing PCB's," "tank bottom waste," "waste oil and mixed oil," and "liquids with mercury > 20 mg/l." Additionally, hazardous materials are disposed of at transfer stations and include "laboratory waste chemicals," "other organic solids," "other inorganic solids," "unspecified alkaline solution," "alkaline solution without metals (pH > 12.5)," "unspecified aqueous solution," "oxygenated solvents (acetone, butanol, ethyl acetate, etc)," "off-specification, aged, or surplus organics," "liquids with pH <UN-> 2," and "unspecified solvent mixture waste." These wastes have to do with demolition, construction, and science classroom activities. No violations were reported. Based on the EMI database, the site has been permitted by the South Coast AOMD for emissions dating back to 1984 for a fueling facility and currently, active permits for electric generators. Violations were on file; however compliance was achieved on each. According to the LA CO Site Mitigation and ENVIROSTOR databases, the property had been investigated for an abandoned elevator pit. The contamination at the property associated with the abandoned elevator pit was abated with oversight from the Los Angeles County Fire Department.

The west adjoining property (LACCD – Accounts Pay) is listed on the hazardous material manifest (HAZNET), Facility Inventory List (CA FID UST), Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS), and Statewide Environmental Evaluation and Planning System (SWEEPS UST) databases. According to the HAZNET listing, hazardous materials are disposed of at transfer stations and include "household waste," "unspecified organic liquid mixture," and "waste oil and mixed oil." No violations were reported. The CA FID UST and SWEEPS UST databases indicate that at least one underground storage tank has been present at the property. Based on the LOS ANGELES CO HMS database there is one closed and one permitted industrial waste permit for the property under the DPW. Additionally, one underground storage tank permit from DPW, noted the UST to have been removed from the property.

Based on a review of the file for the west adjoining property at the DPW one 8,000 gallon gasoline UST and one clarifier, previously indicated as a waste tank, were present at the site. The UST was removed from the site in 1988, soil samples were collected and analyzed, and consequently the site was given closure for the UST in 1989. In 1996, the structure in which the clarifier was located was demolished and according to the contractors a clean and dry concrete pit was demolished that may have

been an abandoned clarifier. Consequently, closure of the clarifier was granted as it was completely removed.

As the west adjoining property is down gradient from the target property, wastes were properly disposed, and closure was granted for the UST and clarifier at the site, it is our opinion that the adjoining property is not of significant environmental concern for the target property. Furthermore, this site is in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as it "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Environmental Data Search – Surrounding Properties

- An orphan site listing which includes the target property, adjoining properties, and surrounding properties (Caltrans I-105 Freeway Project 4, Parcels 16 & 17, I-105 Freeway between Hawthorn Boulevard and Long Beach) are listed on the California Bond Expenditure Plan (CABOND EXP PLAN) database. According to the database, Caltrans is in an agreement with the Department of Health Services to receive funds for the oversight and monitoring of the I-105 projects which included other landfills, in addition to the historical landfill, located at the target property.
- A surrounding up gradient property approximately 844-feet north northeast of the target property (George Manor Auto & RV Repair, 1360 Imperial Highway West) is listed on the hazardous materials manifest (HAZNET), Geotracker's Leaking Underground Fuel Tank Report (LUST), and the Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles CO HMS) databases. According to the HAZNET listing, hazardous materials including "tank bottom waste" are disposed of at a recycler. No violations were reported. According to the LOS ANGELES CO HMS database there is one closed industrial waste permit and one 'removed' UST permit for the property under the Department of Public Works (DPW). Based on the LUST listing, a leak was discovered in 2002 from a waste oil UST. No other details were provided after the 2002 discovery; however the site is listed as an open undergoing site assessment.
- The surrounding up gradient property located approximately 1146-feet northeast of the target property (ISD Storage Building, 1304 Imperial Highway West) is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a leak was reported during repair, in 2000, of a tank that affected the soil only. A preliminary site assessment work plan was submitted, however according to the information provided no other activities have occurred.
- The surrounding up gradient orphan property (Exxon Service Station, 1377 Imperial Highway West) is listed on Geotracker's Leaking Underground Fuel Tank Report (LUST) database. According to the listing, a gasoline leak was reported in 1991 to have affected other groundwater. Pollution characterization and preliminary site assessment was conducted at the site. Since 1993, a remediation plan has been in place at the site and currently the site submits quarterly groundwater monitoring reports to the regulatory agency. Based on an independent review of the information provided on Geotracker, the RWQCB's public website, groundwater at the site is at approximately 42 to 45 feet below ground surface in a perched aquifer and 85 to 99 feet below ground surface in a regional aquifer. In the perched aquifer groundwater gradient is noted to be westward, while in the regional aquifer the gradient is south southwesterly.
- In our opinion, none of the other sites listed pose a significant threat to the target property as there is no indication of a release at the respective sites, a release has occurred but the case is closed, or the sites are located cross or down gradient of the target property. Furthermore, these sites are in our opinion considered a *de minimis* condition, (under ASTM Standard E 1527-05), as they "generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies" with regard to the target property.

Additional Issues

- Although no structures are present at the site, there is a potential for lead based paints and asbestos containing materials to be within the historical landfill debris beneath the site.
- According to our research, the potential for oil and gas exploration and radon potential at the target property is considered low.
- If the target property is developed with any structures in the future, a proper methane mitigation system should be established.

CONCLUSIONS

Andersen Environmental has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 and Baseline Study of Environmental Conditions, of APNs 6079-003-906 and 6079-003-907, West Athens, California, the target property. Any exceptions to or deletions from this practice are described in the individual sections of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, with the exception of the historical use of the property as a landfill, the landfill debris that remains at the site, its current long term monitoring requirements and use restrictions. Furthermore, several surrounding properties are known to have hydrocarbon releases to a perched aquifer which may extend beneath the target property.

Based on our review of the available documentation, immediate issues in need of attention include an evaluation and remediation of the cap to maintain an appropriate seal to prevent the unmitigated release of vapors and to prevent the infiltration of groundwater into the landfill. Potentially, a mitigation system to release the accumulation of vapors within the landfill may also be necessary. An inventory of the soil vapor monitoring wells should be conducted along with an assessment of their integrity. In addition, surface drainage systems are in need of maintenance. Furthermore, a secure perimeter should be reestablished around the site.

In the future, continued maintenance of the cap and annual soil vapor monitoring is required. Any mitigation measures to correct vapor issues, problems with the cap, or drainage issues would be required by DTSC, the regulator.

No recent site specific groundwater data is available for the site. As such, the client may wish to advance groundwater monitoring wells at the periphery of the site to ascertain the current groundwater conditions at the site and attempt to determine if any significant release has occurred from the historical landfill or if releases at surrounding properties have affected the groundwater beneath the site.

If the client chooses to lease the property, an indemnity agreement clearly stipulating the responsibilities of the maintenance and monitoring of the landfill by Caltrans should be agreed upon by both parties and the DTSC.

If the client chooses to purchase the property, the potential for environmental liability relating to the historical landfill in our opinion is low, as Caltrans has been named as the responsible party for the historical landfill. Nonetheless, we recommend that an indemnity agreement clearly stipulating the responsibilities of the maintenance and monitoring of the landfill by Caltrans should be agreed upon by both parties and the DTSC. Furthermore, a Prospective Purchaser Agreement should be entered into with the DTSC to provide the client with the fullest environmental liability protection. These items should be discussed and completed with the assistance of an environmental attorney.

SIGNATURES

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. We have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by: Date: October 30, 2008

Heather Nilson

Environmental Specialist

Heather Milson

Reviewed By:

Matthew Rodda REA No.: 07934

Registered Environmental Assessor

Project Manager

REAI-07934
Expires: 6/30/09

Date: October 30, 2008

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ILLUSTRATIONS

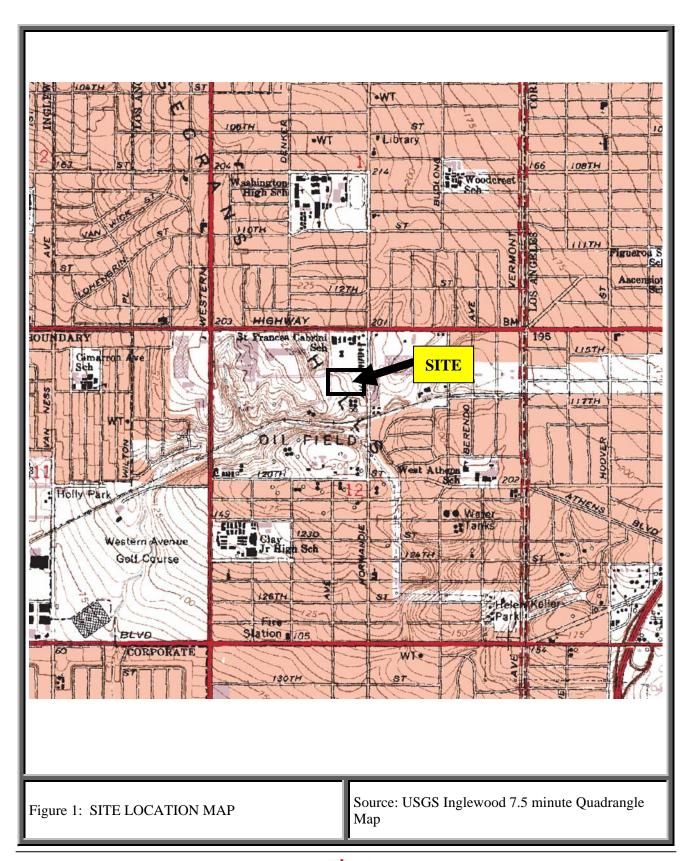






Figure 2: SITE PLAN

Source: Google Earth



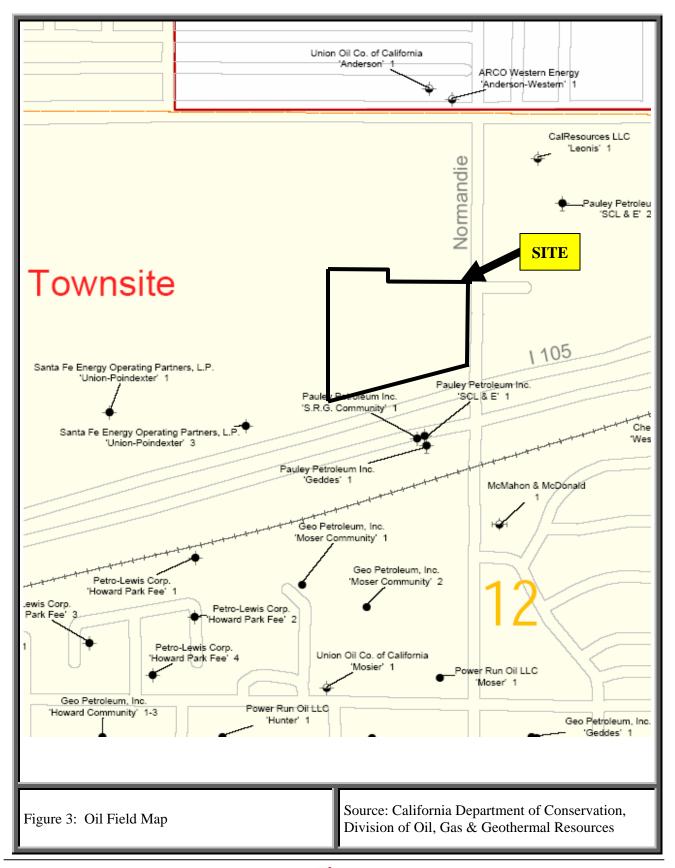


Figure 3: SITE PHOTOGRAPHS



View of the target property facing west from the northeast portion



View of the church adjoining the northern portion of the target property



View compromised gate at northeast corner of the target property



View of a soil vapor monitoring well in the northeast portion of the target property



View of eastern side of the target property and the adjoining properties to the east



View of drainage system on southeast portion of the target property



View of culvert drain at southeast corner of the target property



View of southern side of the target property and the adjoining freeway



View of limited construction debris observed at the target property



View of rodent holes observed in soil above cap



View of western side of target property and the adjoining college campus



View of the target property facing northeast from the southwest portion of property



View of a possibly abandoned or damaged monitoring well in northwest portion of the target property



View of drainage on college side of the target property line

APN 6079-003-906 S Normandie Ave & Laurel St Los Angeles, CA 90047

Inquiry Number: 2303451.2s

August 25, 2008

The EDR Radius Map™ Report with GeoCheck®

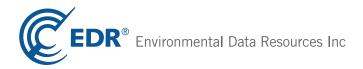


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Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

S NORMANDIE AVE & LAUREL ST LOS ANGELES, CA 90047

COORDINATES

Latitude (North): 33.928280 - 33° 55' 41.8" Longitude (West): 118.301720 - 118° 18' 6.2"

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 379681.4 UTM Y (Meters): 3754772.5

Elevation: 205 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 33118-H3 INGLEWOOD, CA

Most Recent Revision: 1981

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL..... National Priority List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

LIENS 2...... CERCLA Lien Information CORRACTS..... Corrective Action Report

RCRA-TSDF......RCRA - Transporters, Storage and Disposal

RCRA-LQG______RCRA - Large Quantity Generators

RCRA-CESQG...... RCRA - Conditionally Exempt Small Quantity Generator

RCRA-NonGen_____ RCRA - Non Generators US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL...... Sites with Institutional Controls

ERNS..... Emergency Response Notification System

HMIRS..... Hazardous Materials Information Reporting System

DOT OPS..... Incident and Accident Data US CDL..... Clandestine Drug Labs US BROWNFIELDS..... A Listing of Brownfields Sites DOD...... Department of Defense Sites FUDS..... Formerly Used Defense Sites

LUCIS.....Land Use Control Information System CONSENT...... Superfund (CERCLA) Consent Decrees

ROD...... Records Of Decision UMTRA..... Uranium Mill Tailings Sites

DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory MINES..... Mines Master Index File

TRIS_____ Toxic Chemical Release Inventory System

TSCA..... Toxic Substances Control Act

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS..... Integrated Compliance Information System

PADS...... PCB Activity Database System MLTS..... Material Licensing Tracking System RADINFO...... Radiation Information Database

FINDS...... Facility Index System/Facility Registry System RAATS......RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

CA BOND EXP. PLAN..... Bond Expenditure Plan Toxic Pits...... Toxic Pits Cleanup Act Sites CA WDS...... Waste Discharge System SWRCY..... Recycler Database SLIC..... Statewide SLIC Cases

AOCONCERN..... San Gabriel Valley Areas of Concern

UST..... Active UST Facilities

LIENS..... Environmental Liens Listing

AST..... Aboveground Petroleum Storage Tank Facilities CHMIRS...... California Hazardous Material Incident Report System

LA Co. Site Mitigation..... Site Mitigation List

VCP......Voluntary Cleanup Program Properties

DRYCLEANERS...... Cleaner Facilities
LOS ANGELES CO. HMS.... HMS: Street Number List

WIP..... Well Investigation Program Case List

CDL..... Clandestine Drug Labs HAZNET Facility and Manifest Data EMI..... Emissions Inventory Data

HAULERS..... Registered Waste Tire Haulers Listing

TRIBAL RECORDS

INDIAN RESERV..... Indian Reservations

EDR PROPRIETARY RECORDS

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants EDR Historical Auto Stations... EDR Proprietary Historic Gas Stations EDR Historical Cleaners...... EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 07/09/2008 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
NORMANDY MOUND CAL TRANS SITE	CORNER OF NORMANDY AVE	0 - 1/8 WSV	V 1	6

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 05/12/2008 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TESORO GASOLINE DIGAS NORMANDI	1300 W IMPERIAL HWY	1/8 - 1/4 NE	E16	33

STATE AND LOCAL RECORDS

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CALTRANS I-105 #16 & 17	I-5 FWY BTW NORMANDIE B	1/8 - 1/4 N	2	7

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category, depending on the level of threat to public health and safety or the, environment they pose.

A review of the SCH list, as provided by EDR, and dated 05/27/2008 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
PROPOSED SOUTH REGION HIGH SCH	1600 WEST IMPERIAL HIGH	1/8 - 1/4 NW	D14	28

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 06/09/2008 has revealed that there are 2 SWF/LF sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LEINARD FLYNN . CALTRANS SITE	11515 BUDLONG AVENUE	1/4 - 1/2 E	20	37
Lower Elevation	Address	Dist / Dir	Map ID	Page
SAMUELSON, ERIC	11920 SO WESTERN AVE /	1/4 - 1/2WSV	<i>l</i> 24	45

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 5 WMUDS/SWAT sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ELYMM, LEONARD A.	1300 WEST IMPERIAL HIGH	1/8 - 1/4 NE	E18	35
Lower Elevation	Address	Dist / Dir	Map ID	Page
IMPERIAL HIGHWAY DUMP 120TH STREET DUMP	IMPERIAL HWY / NORMAN 1401 WEST 120TH STREET	1/8 - 1/4NNE 1/4 - 1/2SSE		12 36
SAMUELSON, ERIC 121ST STREET DUMP	11920 SOUTH WESTERN AVE 121ST / BUDLONG	1/4 - 1/2WSW 1/4 - 1/2SE	27 28	50 51

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

A review of the Cortese list, as provided by EDR, and dated 04/01/2001 has revealed that there are 4 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SHELL	1550 IMPERIAL HWY	1/8 - 1/4 NNW	B5	13
CALTRANS SITE #25-3	1600 IMPERIAL	1/8 - 1/4 NW	D13	27
UNOCAL #3173	11404 WESTERN AVE S	1/4 - 1/2 WNW	′ G 26	47
Lower Elevation	Address	Dist / Dir	Map ID	Page
SHELL #204-4539-4008	1816 IMPERIAL HWY W	1/4 - 1/2 WNW	29	52

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 07/03/2008 has revealed that there are 8 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SHELL Facility Status: Remedial action (cleanup) Und	1550 IMPERIAL HWY erway	1/8 - 1/4 NNW	B5	13
I S D STORAGE BUILDING Facility Status: Preliminary site assessment wo	1304 IMPERIAL HWY W orkplan submitted	1/8 - 1/4 NE	E15	31
MOBIL #18-KYW Facility Status: Pollution Characterization	1769 IMPERIAL HWY. W.	1/4 - 1/2WNW	F22	41
MOBIL #18-KYW (FORMER #11-KYW) Facility Status: Case Closed	1769 IMPERIAL HWY W	1/4 - 1/2WNW	F23	43
LA SOUTHWEST COLLEGE Facility Status: Case Closed	11404 SOUTH WESTERN AVE	1/4 - 1/2WNW	G25	46
UNOCAL #3173 Facility Status: Case Closed	11404 WESTERN AVE S	1/4 - 1/2 WNW	′ G26	47
Lower Elevation	Address	Dist / Dir	Map ID	Page
GEORGE MANOR AUTO & RV REPAIR Facility Status: Leak being confirmed	1360 IMPERIAL HWY. W.	1/8 - 1/4 NNE	6	16
SHELL #204-4539-4008 Facility Status: Case Closed	1816 IMPERIAL HWY W	1/4 - 1/2 WNW	29	52

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
L A C C DIST-ACCOUNTS PAY	1600 W IMPERIAL HWY	1/8 - 1/4 NW	D12	25
Lower Elevation	Address	Dist / Dir	Map ID	Page
FXXON SERVICE STATION	1377 W IMPERIAL HWY	1/8 - 1/4 NNF	A7	19

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
THE WHITE FLOWER NURSERY COMPA LOS ANGELES SOUTHWEST COLLEGE DIGAS	1535 W 120TH ST 1600 W IMPERIAL HWY 1300 W IMPERIAL HWY	1/8 - 1/4 SSW 1/8 - 1/4 NW 1/8 - 1/4 NE	C9 D11 E17	21 22 34
Lower Elevation	Address	Dist / Dir	Map ID	Page
EXXON SERVICE STATION	1377 IMPERIAL	1/8 - 1/4 NNE	A8	20

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WHITE FLOWER NURSERY LACCOUNTS PAY	1535 W 120TH ST 1600 W IMPERIAL HWY	1/8 - 1/4 SSW 1/8 - 1/4 NW	C10 D12	21 25
Lower Elevation	Address	Dist / Dir	Map ID	Page
EXXON SERVICE STATION	1377 W IMPERIAL HWY	1/8 - 1/4NNE	A7	19

Notify 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data come from the State Water Resources Control Board's Proposition 65 database.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SHELL SERVICE STATION	1550 IMPERIAL HWY	1/8 - 1/4 NNW E	34	13

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 06/30/2008 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CALTRANS I-105 #16 & 17	I-5 FWY BTW NORMANDIE B	1/8 - 1/4 N	2	7

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 05/27/2008 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CALTRANS I-105 #16 & 17	I-5 FWY BTW NORMANDIE B	1/8 - 1/4 N	2	7

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/27/2008 has revealed that there are 7 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CALTRANS I-105 #16 & 17 Facility Status: Certified / Operation & Maintena	I-5 FWY BTW NORMANDIE B	1/8 - 1/4N	2	7
LOS ANGELES SOUTHWEST COLLEGE Facility Status: Refer: 1248 Local Agency	1600 W IMPERIAL HWY	1/8 - 1/4NW	D11	22
PROPOSED SOUTH REGION HIGH SCH Facility Status: Active			D14	28
SOUTH REGION HIGH SCHOOL #6, S Facility Status: Inactive - Needs Evaluation	IMPERIAL HIGHWAY/HOBART	1/4 - 1/2 WNV	V 21	38
Lower Elevation	Address	Dist / Dir	Map ID	Page
WASHINGTON NEW PRIMARY CENTER Facility Status: No Further Action	VERMONT AVENUE/112TH ST	1/2 - 1 ENE	30	54
HELEN KELLER PARK Facility Status: Refer: Other Agency	1045 WEST 126TH STREET	1/2 - 1 SSE	31	58

Due to poor or inadequate address information, the following sites were not mapped:

Site Name

NORTHROP CORP AIRCRAFT DIV

1X MCKESSON DRUG CO EXXON #7-3591 (FORMER) NORTHROP CORP AIRCRAFT DIV

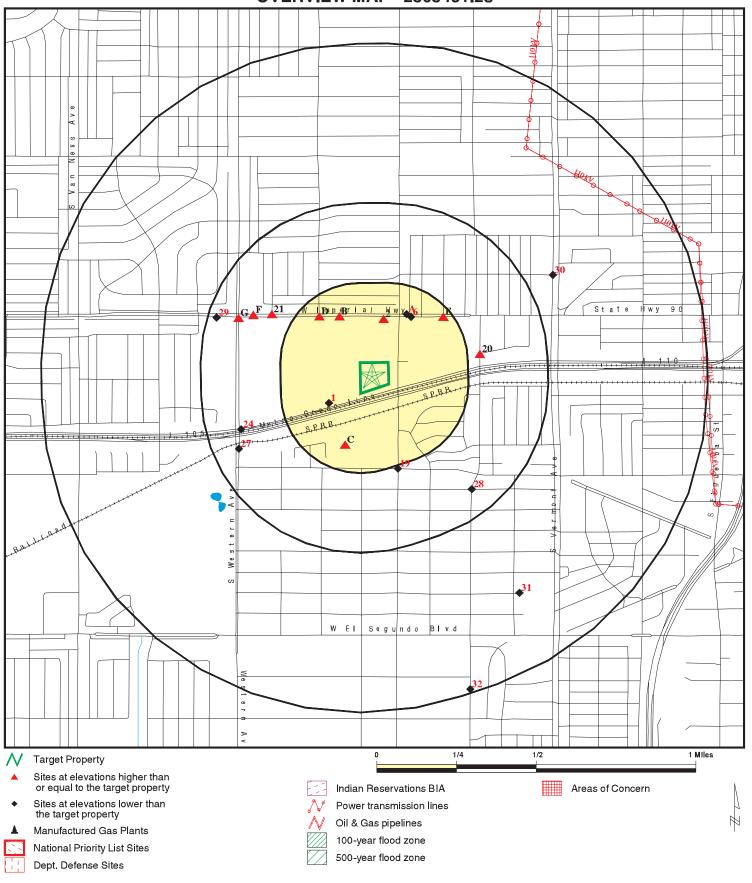
NORTHROP CORP AIRCRAFT DIV

THOUSAND OAKS COUNTY 1962
ARCO #5016
MATSON TERMINAL
EXXON SERVICE STATION
CALTRANS I-105 FREEWAY PROJECT 3, PARCELS 7 & 15
CALTRANS I-105 FREEWAY PROJECT 4, PARCELS 16 & 17
COCKATOO SCHOOL SITE

Database(s)

FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS, **CERC-NFRAP** HAZNET, LUST, CHMIRS LUST, Cortese FINDS, CORRACTS, RCRA-NonGen FINDS, CORRACTS, RCRA-NonGen SWF/LF LUST LUST HIST UST CA BOND EXP. PLAN CA BOND EXP. PLAN SCH, ENVIROSTOR

OVERVIEW MAP - 2303451.2s



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: APN 6079-003-906

ADDRESS: S Normandie Ave & Laurel St

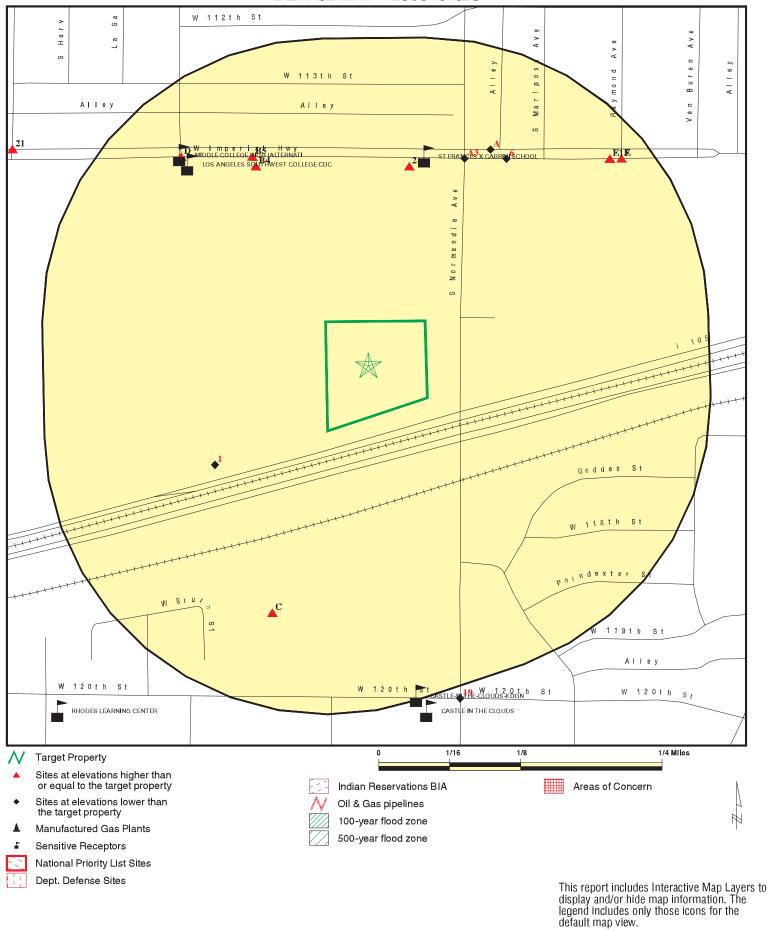
Los Angeles CA 90047 LAT/LONG: 33.9283/118.3017

CLIENT: Andersen Envir CONTACT: Heather Nilson Andersen Environmental

INQUIRY #: 2303451.2s DATE:

August 25, 2008 7:31 pm Copyright © 2008 EDR, Inc. © 2007 Tele Atlas Rel. 07/2006.

DETAIL MAP - 2303451.2s



SITE NAME: APN 6079-003-906
ADDRESS: S Normandie Ave & Laurel St
Los Angeles CA 90047
LAT/LONG: 33.9283 / 118.3017

CLIENT: Andersen Environmental
CONTACT: Heather Nilson
INQUIRY #: 2303451.2s
DATE: August 25, 2008 7:31 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL Proposed NPL Delisted NPL NPL LIENS CERCLIS CERC-NFRAP LIENS 2 CORRACTS RCRA-TSDF RCRA-LQG RCRA-SQG RCRA-CESQG RCRA-NonGen US ENG CONTROLS US INST CONTROL ERNS HMIRS DOT OPS US CDL US BROWNFIELDS DOD FUDS LUCIS CONSENT ROD UMTRA DEBRIS REGION 9 ODI MINES TRIS TSCA FTTS HIST FTTS SSTS ICIS PADS MLTS RADINFO FINDS		1.000 1.000 1.000 1.000 TP 0.500 0.500 TP 1.000 0.250 0.250 0.250 0.500 0.500 TP TP TP TP TP TP 0.500 1.000 1.000 0.500 0.500 0.500 0.500 TP TP TP TP TP TP TP TP TP TP TP TP TP	0 0 0 R 1 0 R 0 0 0 0 0 0 0 0 R R R R R	0 0 0 R 0 0 R 0 0 0 1 0 0 0 0 0 R R R R	O O O R O O R R R R O O R R R R R O O O O O O O O O O R	000 R R R R O R R R R R R R R R R R O O R O O R	NR	0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RAATS STATE AND LOCAL RECOR	DS	TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites CA BOND EXP. PLAN SCH Toxic Pits SWF/LF		1.000 1.000 0.250 1.000 0.500	0 0 0 0	1 0 1 0 0	0 0 NR 0 2	0 0 NR 0 NR	NR NR NR NR NR	1 0 1 0 2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
WMUDS/SWAT		0.500	0	2	3	NR	NR	5
CA WDS		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	2	2	NR	NR	4
SWRCY		0.500	0	0	0	NR	NR	0
LUST		0.500	0	3	5	NR	NR	8
CA FID UST		0.250	0	2	NR	NR	NR	2
SLIC		0.500	0	0	0	NR	NR	0
AOCONCERN		1.000	0	0	0	0	NR	0
UST		0.250	0	0	NR	NR	NR	0
HIST UST		0.250	0	4	NR	NR	NR	4
LIENS		TP	NR	NR	NR	NR	NR	0
AST SWEEPS UST		0.250 0.250	0 0	0 3	NR NR	NR NR	NR NR	0 3
CHMIRS		0.250 TP	NR	NR	NR NR	NR NR	NR NR	0
Notify 65		1.000	0	1	0	0	NR	1
LA Co. Site Mitigation		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	1	0	NR	NR	1
VCP		0.500	0	Ö	0	NR	NR	Ö
DRYCLEANERS		0.250	0	Ö	NR	NR	NR	0
LOS ANGELES CO. HMS		TP	NR	NR	NR	NR	NR	ŏ
WIP		0.250	0	0	NR	NR	NR	Ö
CDL		TP	NR	NR	NR	NR	NR	Ö
RESPONSE		1.000	0	1	0	0	NR	1
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	3	1	3	NR	7
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY RECOR	RDS							
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Statio	ns	0.250	Ő	ő	NR	NR	NR	Ö
EDR Historical Cleaners		0.250	Ö	Ö	NR	NR	NR	ŏ
			•	J	• •			-

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

1 NORMANDY MOUND CAL TRANS SITE #16 CERCLIS 1000295669
WSW CORNER OF NORMANDY AVE AND SW COLLEGE FINDS CAD982391708

< 1/8 LOS ANGELES, CA 90012

0.104 mi. 548 ft.

Relative: CERCLIS:

Lower Site ID: 0903702

Federal Facility: Not a Federal Facility

Actual: NPL Status: Not on the NPL

182 ft. Non NPL Status: SI Start Needed

CERCLIS Site Contact Name(s):

Contact Name: Dawn Richmond Contact Tel: (415) 972-3097

Contact Title: Site Assessment Manager (SAM)

Contact Name: Karen Jurist Contact Tel: (415) 972-3219

Contact Title: Site Assessment Manager (SAM)

Contact Name: Jeff Inglis Contact Tel: (415) 972-3095

Contact Title: Site Assessment Manager (SAM)

Site Description: Not reported

CERCLIS Assessment History:

Action: DISCOVERY
Date Started: Not reported
Date Completed: 01/19/1990
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT

Date Started: Not reported
Date Completed: 05/13/1991

Priority Level: Low priority for further assessment

FINDS:

Other Pertinent Environmental Activity Identified at Site

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

EDR ID Number

Direction Distance

Elevation Site Database(s) EPA ID Number

2 CALTRANS I-105 #16 & 17 RESPONSE S101481080
North I-5 FWY BTW NORMANDIE BLV / IMPERIAL HWY DEED N/A

1/8-1/4 LOS ANGELES, CA 90047

0.137 mi. 721 ft. SELES, CA 90047 ENVIROSTOR HIST Cal-Sites

Relative: RESPONSE:

Higher Facility ID: 19990003 Site Type: State Res

Site Type: State Response

Actual: Site Type Detail: State Response or NPL

209 ft. Acres: 13.5 +

National Priorities List:

NO
Cleanup Oversight Agencies:
Lead Agency:
Lead Agency Description:

NO
SMBRP
Not reported

Project Manager: ALBERTO VALMIDIANO

Supervisor: Juli Oborne
Division Branch: Chatsworth
Site Code: 300203
Assembly: 51
Senate: 25

Special Program Status: Not reported

Status: Certified / Operation & Maintenance

 Status Date:
 1994-06-30 00:00:00

 Restricted Use:
 YES

 Funding:
 Responsible Party

 Latitude:
 33.9288888888889

Longitude: -118.3 Alias Name: 300203

Alias Type: Project Code (Site Code)

Alias Name: Not reported
Alias Type: PCode
Alias Name: 19990003

Alias Type: Envirostor ID Number
Alias Name: Not reported
Alias Type: Alternate Name
Alias Name: Not reported
Alias Type: Alternate Name

APN: NONE SPECIFIED APN Description: Not reported

Comments: Due to high VOC and methane readings, DTSC ask Caltrans to submit

remedial plan to alleviate the buildup of soil gas. Caltrans certifies that 350,000 cubic yards of hazardous waste is removed and shipped by

rail to Kettleman Hills December 1992 and installation of an

impervious clay caps and geocomposite drainage systems in April 1993, pursuant to the Remedial DesiThe Department has certified that all remedial actions have been completed.Removal Action: Soil

excavation.gn Report (February 1993) and the RAP.

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Long Term Monitoring Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan

Completed Date: / /

EDR ID Number

Direction Distance

Elevation Site Database(s) EPA ID Number

CALTRANS I-105 #16 & 17 (Continued)

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Remedial Investigation / Feasibility Study

Completed Date: /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Public Participation Plan / Community Relations Plan

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Deed Restriction / Land Use Covenant

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Operations and Maintenance Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Completed Date: /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Long Term Monitoring Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification

Completed Date: / /

30028,30015 Confirmed: Confirmed Description: Vinyl chlo Confirmed Description: Methane Future Area Name: Not reported Not reported Future Sub Area Name: Future Document Type: Not reported Future Due Date: Not reported 30015, 30028 Media Affected: Media Affected Desc: Not reported Media Affected Desc: Not reported

Management:

Management Required: REM, DAY, ELD, HOS, LUC, MON, EX, SCH, COV

EDR ID Number

S101481080

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

CALTRANS I-105 #16 & 17 (Continued)

S101481080

Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Potential: SOIL, SV, IA Potenital Description: Not reported Not reported Potenital Description: Not reported Potenital Description: Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported

PastUse: LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC

DEED:

Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE

Status: CERTIFIED / OPERATION & MAINTENANCE

Deed Date(s): 11/21/1994

ENVIROSTOR:

Site Type: State Response
Site Type Detailed: State Response or NPL

Acres: 13.5 + NPL: NO Regulatory Agencies: SMBRP Lead Agency: SMBRP

Program Manager: ALBERTO VALMIDIANO

Supervisor: Juli Oborne
Division Branch: Chatsworth
Facility ID: 19990003
Site Code: 300203
Assembly: 51
Senate: 25

Special Program: Not reported

Status: Certified / Operation & Maintenance

Status Date: 1994-06-30 00:00:00

Restricted Use: YES

Funding: Responsible Party Latitude: 33.9288888888889

Longitude: -118.3 Alias Name: 300203

Alias Type: Project Code (Site Code)

Alias Name: Not reported Alias Type: PCode Alias Name: 19990003

Alias Type: Envirostor ID Number

Alias Name: Not reported
Alias Type: Alternate Name

Direction Distance Elevation

vation Site Database(s) EPA ID Number

CALTRANS I-105 #16 & 17 (Continued)

S101481080

EDR ID Number

Alias Name: Not reported
Alias Type: Alternate Name

APN: NONE SPECIFIED APN Description: Not reported

Comments: Due to high VOC and methane readings, DTSC ask Caltrans to submit

remedial plan to alleviate the buildup of soil gas. Caltrans certifies that 350,000 cubic yards of hazardous waste is removed and shipped by

rail to Kettleman Hills December 1992 and installation of an

impervious clay caps and geocomposite drainage systems in April 1993, pursuant to the Remedial DesiThe Department has certified that all remedial actions have been completed.Removal Action: Soil

excavation.gn Report (February 1993) and the RAP.

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Long Term Monitoring Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Remedial Investigation / Feasibility Study

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Public Participation Plan / Community Relations Plan

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Deed Restriction / Land Use Covenant

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Operations and Maintenance Report

Completed Date: /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

CALTRANS I-105 #16 & 17 (Continued)

S101481080

Completed Date: / /

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported

Completed Document Type: Long Term Monitoring Report

Completed Date:

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported Completed Document Type: Certification

Completed Date: 11

30028,30015 Confirmed: Confirmed Description: Vinyl chlo Confirmed Description: Methane Future Area Name: Not reported Not reported Future Sub Area Name: Future Document Type: Not reported Future Due Date: Not reported 30015, 30028 Media Affected: Media Affected Desc: Not reported Media Affected Desc: Not reported

Management:

REM, DAY, ELD, HOS, LUC, MON, EX, SCH, COV Management Required:

Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported Management Required Desc: Not reported SOIL, SV, IA Potential: Not reported Potenital Description: Not reported Potenital Description: Potenital Description: Not reported Schedule Area Name: Not reported

Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Schedule Due Date: Not reported Schedule Revised Date: Not reported

PastUse: LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC

HISTORICAL CAL-SITES:

Branch:

Facility ID: 19990003 Region: Region Name: **GLENDALE**

SO CAL - GLENDALE Branch Name:

SA

File Name: Not reported 06301994 State Senate District:

COM - CERTIFIED OPERATION AND MAINTENANCE, ALL PLANNED ACTIVITIES Status:

IMPLEMENTED REMEDIATION CONTINUES

Status Name: **CERTIFIED / OPERATION & MAINTENANCE**

Lead Agency: **DTSC**

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

CALTRANS I-105 #16 & 17 (Continued)

S101481080

S103441556

N/A

Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL

Facility Type:

Type Name: RESPONSIBLE PARTY

NPL: Not Listed

SIC Code: 99

SIC Name: NONCLASSIFIABLE ESTABLISHMENTS

Access: Not reported Cortese: Not reported

Hazardous Ranking Score: Not reported Date Site Hazard Ranked: Not reported Groundwater Contamination: Unknown Staff Member Responsible for Site: LPARNASS Supervisor Responsible for Site: Not reported

Region Water Control Board: LA

Region Water Control Board Name: LOS ANGELES Lat/Long Direction: Not reported Lat/Long (dms): 000/000 Lat/long Method: Not reported Lat/Long Description: Not reported

State Assembly District Code: 51 State Senate District Code: 25

> Click this hyperlink while viewing on your computer to access additional CA_CALSITE: detail in the EDR Site Report.

WMUDS/SWAT

A3 IMPERIAL HIGHWAY DUMP NNE IMPERIAL HWY / NORMANDIE AVE

1/8-1/4 LOS ANGELES, CA

0.148 mi.

779 ft. Site 1 of 3 in cluster A

WMUDS/SWAT: Relative:

Not reported Lower Edit Date: Not reported Complexity: Actual: Primary Waste: Not reported

204 ft. Primary Waste Type: Not reported Secondary Waste: Not reported Secondary Waste Type: Not reported Base Meridian: Not reported NPID: Not reported

Tonnage:

Regional Board ID: Not reported Municipal Solid Waste: False Superorder: False Open To Public: False Waste List: False Not reported Agency Type: Not reported Agency Name: Agency Department: Not reported Agency Address: Not reported Agency City, St, Zip: Not reported Agency Contact: Not reported Agency Telephone: Not reported Land Owner Name: Not reported

Land Owner City, St, Zip: CA

Land Owner Address:

Land Owner Contact: Not reported Land Owner Phone: Not reported

Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

IMPERIAL HIGHWAY DUMP (Continued)

S103441556

Notify 65 \$100178425

N/A

Region: 4

Not reported Facility Type: Facility Description: Not reported Facility Telephone: Not reported SWAT Facility Name: Not reported Primary SIC: Not reported Secondary SIC: Not reported Comments: Not reported Last Facility Editors: Not reported Waste Discharge System: False

Solid Waste Assessment Test Program: True Toxic Pits Cleanup Act Program: False Resource Conservation Recovery Act: False Department of Defence: False Solid Waste Assessment Test Program: Not reported

Threat to Water Quality: Not reported Sub Chapter 15: False Regional Board Project Officer: LT Number of WMUDS at Facility:

Not reported Section Range: RCRA Facility: Not reported Waste Discharge Requirements: Not reported Self-Monitoring Rept. Frequency: Not reported 4 190324NUR Waste Discharge System ID: Solid Waste Information ID: Not reported

В4 **SHELL SERVICE STATION**

NNW 1550 IMPERIAL HWY 1/8-1/4 LOS ANGELES, CA

0.150 mi.

793 ft. Site 1 of 2 in cluster B

Notify 65: Relative:

Date Reported: Not reported Higher

Staff Initials: Not reported Actual: Board File Number: Not reported 209 ft. Facility Type: Not reported

Discharge Date: Not reported Incident Description: Not reported

B5 LUST S102436836 SHELL NNW 1550 IMPERIAL HWY Cortese N/A

1/8-1/4 LOS ANGELES, CA 90047

0.159 mi.

Site 2 of 2 in cluster B 841 ft.

LUST: Relative:

Region: STATE Higher Status: Remedial action (cleanup) Underway

Actual: 003001 Case Number:

212 ft. Local Case #: Not reported Chemical: Gasoline Qtv Leaked: Not reported

Abate Method: Not reported Release Date: 1987-07-17 00:00:00 Discover Date: 1987-07-17 00:00:00

Direction Distance

Elevation Site Database(s) EPA ID Number

SHELL (Continued) S102436836

Report Date: Not reported Enforcement Dt: Not reported

Review Date: 1987-07-17 00:00:00 Enter Date: 1987-08-10 00:00:00

Stop Date: Not reported Confirm Leak: Not reported Soil only Case Type: Not reported Cross Street: Enf Type: Not reported Funding: Not reported Not reported How Discovered: Not reported How Stopped: UNK Leak Cause: Leak Source: UNK

Global Id: T0603700036
Workplan: Not reported
Prelim Assess: Not reported

Pollution Char: 1987-07-17 00:00:00

Remed Plan: Not reported

Remed Action: 1993-10-21 00:00:00

Monitoring: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported

County: 19

Org Name: Not reported
Reg Board: Los Angeles Region
Contact Person: Not reported
Responsible Party: SHELL OIL
RP Address: Not reported
Interim: Not reported

Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1

MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.

Staff: YR Staff Initials: TP

Lead Agency: Local Agency
Local Agency: 19050

Hydr Basin #: SAN FERNANDO VALLEY

Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Work Suspended: Not reported Operator: Not reported Water System Name:Not reported Well Name: Not reported

Distance To Lust: 0

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: Not reported

LUST REG 4:

Region: 4

EDR ID Number

Direction Distance

Elevation Site Database(s) EPA ID Number

SHELL (Continued) S102436836

Regional Board: 04

County: Los Angeles facid: 003001

Status: Pollution Characterization

Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil

Abatement Method Used at the Site: Not reported

Global ID: T0603700036
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: 7/17/1987

Date Leak First Reported: 7/17/1987

Date Leak Record Entered: 8/10/1987
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported

Date Case Last Changed on Database: 7/17/1987
Date the Case was Closed: Not reported

How Leak Discovered:
How Leak Stopped:
Cause of Leak:
Leak Source:
Water System:
Well Name:
Not reported
Not reported
Not reported
Not reported
Not reported

Approx. Dist To Production Well (ft): 4056.343969218263317576375244

Source of Cleanup Funding: UNK Preliminary Site Assessment Workplan Submitted: Not reported Preliminary Site Assessment Began: Not reported Pollution Characterization Began: 7/17/1987 Remediation Plan Submitted: Not reported Remedial Action Underway: Not reported Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Soil Qualifier: Not reported Organization: Not reported Owner Contact: Not reported Responsible Party: SHELL OIL RP Address: Not reported Program: LUST 33.9307298 / -1 Lat/Long:

Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

EDR ID Number

Direction Distance

Elevation Site Database(s) EPA ID Number

SHELL (Continued) S102436836

Cortese:

Region: CORTESE

Facility Addr2: 1550 IMPERIAL HWY

Region: CORTESE Facility Addr2: Not reported

GEORGE MANOR AUTO & RV REPAIR HAZNET U003062359

NNE 1360 IMPERIAL HWY. W. 1/8-1/4 LOS ANGELES, CA 90044

0.160 mi. 844 ft.

Relative: HAZNET:

Lower Gepaid: CAC002550332
Contact: GEORGE W MANOR

Actual: Telephone: 3234180583

195 ft. Facility Addr2: Not reported

Mailing Name: Net reported

Mailing Name: Not reported
Mailing Address: 1360 W IMPEI

Mailing Address: 1360 W IMPERIAL HWY
Mailing City,St,Zip: LOS ANGELES, CA 90044

Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Tank bottom waste

Disposal Method: Recycler Tons: 0.62

Facility County: Not reported

LUST:

Region: STATE

Status: Leak being confirmed

Case Number: R-31995
Local Case #: 06463-31995
Chemical: Waste Oil
Qty Leaked: Not reported
Abate Method: Not reported

Release Date: 2002-05-24 00:00:00
Discover Date: 2002-05-08 00:00:00
Report Date: Not reported

Report Date: Not reported
Enforcement Dt: Not reported
Review Date: Not reported
Enter Date: Not reported
Not reported
Vot reported
Stop Date: 2002-05-08 00

 Stop Date:
 2002-05-08 00:00:00

 Confirm Leak:
 2002-05-24 00:00:00

Case Type: Undefined

Cross Street: NORMANDIE AVE.
Enf Type: Not reported
Funding: Not reported
How Discovered: OM

How Stopped: Close Tank
Leak Cause: UNK
Leak Source: UNK

Global Id: T0603753656
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported

EDR ID Number

LUST

LOS ANGELES CO. HMS

N/A

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

GEORGE MANOR AUTO & RV REPAIR (Continued)

U003062359

Remed Plan: Not reported Not reported Remed Action: Not reported Monitoring: MTBE Date: Not reported GW Qualifier: Not reported Soil Qualifier: Not reported Max MTBE GW ppb: Not reported Max MTBE Soil ppb: Not reported County:

Org Name: Not reported Reg Board: Los Angeles Region Contact Person: Not reported GEORGE MANOR Responsible Party: RP Address: 1360 W. IMPERIAL HWY.

Interim: Not reported Oversight Prgm: LUST MTBE Class: MTBE Conc: 0 MTBE Fuel:

Not Required to be Tested. MTBE Tested:

Staff: YR Staff Initials: TS Lead Agency: Local Agency Local Agency: 19000 Hydr Basin #:

Not reported Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Not reported Work Suspended: Operator: Not reported Water System Name:Not reported Well Name: Not reported

Distance To Lust:

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Not reported Summary:

LUST REG 4:

Region: Regional Board: 04

County: Los Angeles facid: R-31995

Status: Leak being confirmed

Substance: Waste Oil Substance Quantity: Not reported 06463-31995 Local Case No: Case Type: Undefined

Abatement Method Used at the Site: Not reported

Global ID: T0603753656 W Global ID: Not reported Staff: UNK Local Agency: 19000

Cross Street: NORMANDIE AVE. Enforcement Type: Not reported Date Leak Discovered: 5/8/2002

Date Leak First Reported: 5/24/2002

Date Leak Record Entered: Not reported

Direction Distance

Elevation Site Database(s) **EPA ID Number**

GEORGE MANOR AUTO & RV REPAIR (Continued)

U003062359

EDR ID Number

Date Confirmation Began: 5/24/2002 5/8/2002 Date Leak Stopped:

Date Case Last Changed on Database: Not reported Date the Case was Closed: Not reported

How Leak Discovered:

Close Tank How Leak Stopped: UNK Cause of Leak: UNK Leak Source: Operator: Not reported Water System: Not reported Well Name: Not reported

Approx. Dist To Production Well (ft): Not reported

Source of Cleanup Funding: UNK

Preliminary Site Assessment Workplan Submitted: Not reported Preliminary Site Assessment Began: Not reported Pollution Characterization Began: Not reported Not reported Remediation Plan Submitted: Remedial Action Underway: Not reported Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Soil Qualifier: Not reported Organization: Not reported Owner Contact: Not reported GEORGE MANOR Responsible Party: 1360 W. IMPERIAL HWY. RP Address:

LUST Program: Lat/Long: 0/0 Local Agency Staff: Not reported Beneficial Use: Not reported Not reported Priority: Cleanup Fund Id: Not reported Not reported Suspended: Assigned Name: Not reported Summary: Not reported

LOS ANGELES CO. HMS:

Region:

Facility Id: 006463-031995 Facility Status: Removed Area: 29 Permit Number: 344209 Permit Status: Removed Facility Type: T1

Region: LA

Facility Id: 006463-106683

Facility Status: Permit Area: 29 Permit Number: 6239 Permit Status: Closed Facility Type: 101

Direction Distance

Elevation Site Database(s) EPA ID Number

A7 EXXON SERVICE STATION CA FID UST S101629787
NNE 1377 W IMPERIAL HWY LOS ANGELES CO. HMS N/A
1/8-1/4 LOS ANGELES, CA 90044 SWEEPS UST

0.162 mi.

854 ft. Site 2 of 3 in cluster A

Relative: CA FID UST:

Lower Facility ID: 19003362
Regulated By: UTNKA

Actual: Regulated ID: Not reported
197 ft. Cortese Code: Not reported

Cortese Code: Not reported SIC Code: Not reported Facility Phone: 2137797817 Mail To: Not reported

Mailing Address: 1377 W IMPERIAL HWY

Mailing Address 2: Not reported

Mailing City, St, Zip: LOS ANGELES 900440000

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

LOS ANGELES CO. HMS:

Region: LA

Facility Id: 002926-003027 Facility Status: Removed Area: 29

Permit Number: 00004531T Permit Status: Removed Facility Type: T0

SWEEPS UST:

Not reported Status: Comp Number: 3943 Number: Not reported Board Of Equalization: Not reported Not reported Ref Date: Not reported Act Date: Not reported Created Date: Tank Status: Not reported Owner Tank Id: Not reported Not reported Swrcb Tank Id: Not reported Actv Date: Not reported Capacity: Tank Use: Not reported Stg: Not reported Content: Not reported Number Of Tanks: Not reported **EDR ID Number**

Direction Distance

Elevation Site Database(s) **EPA ID Number**

A8 EXXON SERVICE STATION HIST UST U001561760 N/A

NNE 1377 IMPERIAL

1/8-1/4 LOS ANGELES, CA 90044

0.162 mi.

854 ft. Site 3 of 3 in cluster A

Relative:

Actual:

HIST UST:

Lower Region:

STATE 00000029166 Facility ID: Gas Station Facility Type: Other Type: Not reported

197 ft. Total Tanks: 0004 Contact Name: KUNG KIM Telephone: 2137797817

EXXON COMPANY U.S.A. Owner Name: Owner Address: 16945 NORTHCHASE BLVD. Owner City, St, Zip: HOUSTON, TX 77210

Tank Num: 001 Container Num: 1 Year Installed: 1969 00006000 Tank Capacity: Tank Used for: **PRODUCT** Type of Fuel: **PREMIUM** Tank Construction: Not reported Leak Detection: Stock Inventor

Tank Num: 002 Container Num: 2 Year Installed: 1969 0008000 Tank Capacity: **PRODUCT** Tank Used for: **REGULAR** Type of Fuel: Tank Construction: Not reported Leak Detection: Stock Inventor

003 Tank Num: Container Num: 3 Year Installed: 1969 Tank Capacity: 00010000 **PRODUCT** Tank Used for: Type of Fuel: UNLEADED Tank Construction: Not reported Leak Detection: Stock Inventor

Tank Num: 004 Container Num: 4 1969 Year Installed: Tank Capacity: 00001000 **PRODUCT** Tank Used for: Type of Fuel: WASTE OIL Tank Construction: Not reported Leak Detection: Stock Inventor **EDR ID Number**

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

C9 THE WHITE FLOWER NURSERY COMPA HIST UST U001561946 N/A

SSW 1535 W 120TH ST

1/8-1/4 LOS ANGELES, CA 90047

0.167 mi.

884 ft. Site 1 of 2 in cluster C

Relative: Higher

HIST UST:

STATE Region: 00000050613 Facility ID: Facility Type: Other

Actual: 210 ft.

Other Type: PLANT NURSERY

Total Tanks: 0002

Contact Name: GERALD Y. SHIZOKI

Telephone: 2137770471

THE WHITE FLOWER NURSERY COMPA Owner Name:

Owner Address: 1535 W. 120TH ST. Owner City, St, Zip: LOS ANGELES, CA 90047

Tank Num: 001 Container Num:

Year Installed: Not reported 00001000 Tank Capacity: **PRODUCT** Tank Used for: Type of Fuel: **UNLEADED** Tank Construction: Not reported Leak Detection: None

Tank Num: 002 Container Num:

Year Installed: Not reported 00002000 Tank Capacity: **PRODUCT** Tank Used for: Type of Fuel: UNLEADED Tank Construction: Not reported Leak Detection: None

C10 WHITE FLOWER NURSERY

SSW 1535 W 120TH ST INGLEWOOD, CA 90301 1/8-1/4

0.167 mi.

884 ft. Site 2 of 2 in cluster C

Relative: Higher

210 ft.

SWEEPS UST:

Status: Comp Number: 14041 Actual: Number: 9

> Board Of Equalization: Not reported Ref Date: 03-15-91 Act Date: 03-15-91 Created Date: 06-30-89 Tank Status: Not reported Owner Tank Id: Not reported Swrcb Tank Id: Not reported Not reported Actv Date: Capacity: Not reported Tank Use: Not reported Stg: Not reported Content: Not reported Number Of Tanks: Not reported

> > TC2303451.2s Page 21

S106934443

N/A

SWEEPS UST

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

D11 LOS ANGELES SOUTHWEST COLLEGE **HAZNET** 1000102096

LA Co. Site Mitigation NW 1600 W IMPERIAL HWY N/A

1/8-1/4 LOS ANGELES, CA 90047 **HIST UST** 0.194 mi. **EMI** 1022 ft. **ENVIROSTOR** Site 1 of 4 in cluster D

HAZNET:

Relative: CAD982014946 Higher Gepaid:

L A COMMUNITY COLLEGE DIST Contact:

Actual: Telephone: 2138912000 210 ft. Facility Addr2: Not reported Mailing Name: Not reported

> 1600 W IMPERIAL HWY Mailing Address: Mailing City, St, Zip: LOS ANGELES, CA 900474810

Gen County: Los Angeles TSD EPA ID: Not reported

TSD County:

Waste Category: Asbestos-containing waste

Disposal Method: Not reported Tons: .0000 Facility County: Los Angeles

Gepaid: CAD982014946

L A COMMUNITY COLLEGE DIST Contact:

Telephone: 2138912000 Facility Addr2: Not reported Mailing Name: Not reported

Mailing Address: 1600 W IMPERIAL HWY Mailing City, St, Zip: LOS ANGELES, CA 900474810

Gen County: Los Angeles AZR000005454 TSD EPA ID:

TSD County:

Polychlorinated biphenyls and material containing PCB's Waste Category:

Disposal Method: Recycler Tons: .8265 Facility County: Los Angeles

CAD982014946 Gepaid:

DOUG CAMPBELL FACILITIES MGR Contact:

Telephone: 3232415238 Facility Addr2: Not reported Mailing Name: Not reported

Mailing Address: 1600 W IMPERIAL HWY Mailing City, St, Zip: LOS ANGELES, CA 900474810

Gen County: Los Angeles TSD EPA ID: CAT080013352 TSD County: Los Angeles Waste Category: Tank bottom waste

Disposal Method: Recycler Tons: 1.66 Facility County: Not reported

CAD982014946 Gepaid:

L A COMMUNITY COLLEGE DIST Contact:

2138912000 Telephone: Facility Addr2: Not reported Mailing Name: Not reported

Mailing Address: 1600 W IMPERIAL HWY Mailing City, St, Zip: LOS ANGELES, CA 900474810

Direction Distance

Elevation Site Database(s) EPA ID Number

LOS ANGELES SOUTHWEST COLLEGE (Continued)

1000102096

EDR ID Number

Gen County: Los Angeles
TSD EPA ID: CAT080033681
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Disposal, Other

Tons: .6000
Facility County: Los Angeles

Gepaid: CAD982014946

Contact: DOUG CAMPBELL FACILITIES MGR

Telephone: 3232415238 Facility Addr2: Not reported Mailing Name: Not reported

Mailing Address: 1600 W IMPERIAL HWY
Mailing City, St, Zip: LOS ANGELES, CA 900474810

Gen County: Los Angeles TSD EPA ID: AZ0000337360

TSD County: 99

Waste Category: Liquids with mercury > 20 mg/l

Disposal Method: Recycler

Tons: 0

Facility County: Los Angeles

<u>Click this hyperlink</u> while viewing on your computer to access 33 additional CA_HAZNET: record(s) in the EDR Site Report.

LA Co. Site Mitigation:

 Facility ID:
 FA0014296

 Site ID:
 SD0000169

 Case ID:
 RO0000173

 Abated:
 Yes

Assigned To: Shahin Nourishad Entered Date: 10/17/2005 Abated Date: 11/21/2007

HIST UST:

Region: STATE
Facility ID: 00000047032
Facility Type: Other

Other Type: COLLEGE CAMPUS

Total Tanks: 0002 Contact Name: Not reported Telephone: 2137772225

Owner Name: LOS ANGELES COMMUNITY COLLEGE

Owner Address: 617 WEST 7TH STREET
Owner City,St,Zip: LOS ANGELES, CA 90017

Tank Num: 001 Container Num: #1 Year Installed: 1974 Tank Capacity: 0008000 **PRODUCT** Tank Used for: Type of Fuel: **REGULAR** Tank Construction: Not reported Leak Detection: None

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

LOS ANGELES SOUTHWEST COLLEGE (Continued)

1000102096

Tank Num: 002 Container Num: #2 1975 Year Installed: Tank Capacity: 00001500 Tank Used for: WASTE Type of Fuel: Not reported Tank Construction: 8 inches Leak Detection: None

EMI:

1987 Year: County Code: 19 Air Basin: SC Facility ID: 14769 Air District Name: SC SIC Code: 8221

SOUTH COAST AQMD Air District Name:

Community Health Air Pollution Info System: Not reported Consolidated Emission Reporting Rule: Not reported

Total Organic Hydrocarbon Gases Tons/Yr: 0 Reactive Organic Gases Tons/Yr: 0 Carbon Monoxide Emissions Tons/Yr: 0 NOX - Oxides of Nitrogen Tons/Yr: 0 SOX - Oxides of Sulphur Tons/Yr: 0 Particulate Matter Tons/Yr: 0 Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

ENVIROSTOR:

Evaluation Site Type: Site Type Detailed: Evaluation Acres: Not reported NPL:

LA CNTY FIRE DEPT. (BILLING AND UST), LOS ANGELES COUNTY Regulatory Agencies:

NONE SPECIFIED Lead Agency: Program Manager: Not reported Supervisor: Greg Holmes Division Branch: Cypress 60000158 Facility ID: Not reported Site Code:

Assembly: 48 25 Senate:

Special Program: Not reported

Refer: 1248 Local Agency Status: 2006-01-12 00:00:00 Status Date:

Restricted Use: NO

Funding: Not Applicable

Latitude: Longitude: 0

Alias Name: 60000158

Envirostor ID Number Alias Type:

NONE SPECIFIED APN: APN Description: Not reported Comments: Not reported

Completed Info:

Completed Area Name: Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

LOS ANGELES SOUTHWEST COLLEGE (Continued)

1000102096

HAZNET

CA FID UST

SWEEPS UST

LOS ANGELES CO. HMS

S101585832

N/A

Completed Sub Area Name: Not reported Completed Document Type: Not reported Completed Date: Not reported

NONE SPECIFIED Confirmed: Confirmed Description: Not reported Not reported Future Area Name: Future Sub Area Name: Not reported Future Document Type: Not reported Future Due Date: Not reported NONE SPECIFIED Media Affected: Media Affected Desc: Not reported

Management:

Management Required: NONE SPECIFIED Management Required Desc: Not reported Potential: NONE SPECIFIED Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Not reported Schedule Due Date: Schedule Revised Date: Not reported PastUse: NONE SPECIFIED

D12 LACCDIST-ACCOUNTS PAY NW 1600 W IMPERIAL HWY 1/8-1/4 INGLEWOOD, CA 90301 0.194 mi.

1022 ft. Site 2 of 4 in cluster D

Relative:

Higher

HAZNET: Gepaid:

Actual: 210 ft.

CAH111000914 JOE REILLY Contact: 5626997411 Telephone: Facility Addr2: Not reported Mailing Name: Not reported

1955 WORKMAN MILL RD Mailing Address: Mailing City, St, Zip: WHITTIER, CA 906010000

Gen County: Los Angeles TSD EPA ID: Not reported TSD County: Los Angeles Household waste Waste Category: Disposal Method: Not reported Tons: 10.62 Facility County: Not reported

Gepaid: CAH111000914 Contact: JOE REILLY Telephone: 5626997411 Facility Addr2: Not reported Mailing Name: Not reported

Mailing Address: 1955 WORKMAN MILL RD Mailing City, St, Zip: WHITTIER, CA 906010000

Gen County: Los Angeles TSD EPA ID: Not reported TSD County: Los Angeles Household waste Waste Category:

Direction Distance

Elevation Site Database(s) EPA ID Number

LACCDIST-ACCOUNTS PAY (Continued)

Disposal Method: Transfer Station

Tons: 2.40

Facility County: Not reported

Gepaid: CAH111000914
Contact: JOE REILLY
Telephone: 5626997411
Facility Addr2: Not reported
Mailing Name: Not reported

Mailing Address: 1955 WORKMAN MILL RD Mailing City,St,Zip: WHITTIER, CA 906010000

Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: San Bernardino

Waste Category: Unspecified organic liquid mixture

Disposal Method: Transfer Station

Tons: 1.12

Facility County: Not reported

Gepaid: CAH111000914
Contact: JOE REILLY
Telephone: 5626997411
Facility Addr2: Not reported
Mailing Name: Not reported

Mailing Address: 1955 WORKMAN MILL RD Mailing City,St,Zip: WHITTIER, CA 906010000

Gen County: Los Angeles
TSD EPA ID: Not reported
TSD County: San Bernardino
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station

Tons: 2.91

Facility County: Not reported

Click this hyperlink while viewing on your computer to access -1 additional CA_HAZNET: record(s) in the EDR Site Report.

CA FID UST:

19030775 Facility ID: Regulated By: UTNKA Regulated ID: 00047032 Cortese Code: Not reported SIC Code: Not reported Facility Phone: 8180000000 Mail To: Not reported 617 W 007TH ST Mailing Address: Mailing Address 2: Not reported Mailing City, St, Zip: **INGLEWOOD 90301**

Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

EDR ID Number

S101585832

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

L A C C DIST-ACCOUNTS PAY (Continued)

S101585832

LOS ANGELES CO. HMS:

Region: Facility Id: 004113-I04259

Facility Status: Closed Area: 29 4810 Permit Number: Closed Permit Status: Facility Type: 102

Region: LA

004113-045785 Facility Id:

Facility Status: Permit Area: 29 Permit Number: 466810 Permit Status: Permit IS4 Facility Type:

Region: LA

004113-004259 Facility Id: Facility Status: Removed

Area: 29

Permit Number: 00001860T Permit Status: Removed Facility Type:

SWEEPS UST:

Status: Α Comp Number: 4259

Number: 9

Board Of Equalization: Not reported Ref Date: 03-20-91 Act Date: 03-20-91 Created Date: 06-30-89

Not reported Tank Status: Owner Tank Id: Not reported Swrcb Tank Id: Not reported Actv Date: Not reported Not reported Capacity: Not reported Tank Use: Not reported Stg: Not reported Content: Number Of Tanks: Not reported

D13 **CALTRANS SITE #25-3** NW 1600 IMPERIAL

LOS ANGELES, CA 90047 1/8-1/4

0.194 mi.

1022 ft. Site 3 of 4 in cluster D

Cortese: Relative:

CORTESE Higher Region: Facility Addr2: Not reported

Actual: 210 ft.

S103065511

N/A

Cortese

Direction Distance

Elevation Site Database(s) EPA ID Number

D14 PROPOSED SOUTH REGION HIGH SCHOOL #6, SITE 13

SCH S108974335 ENVIROSTOR N/A

EDR ID Number

NW 1600 WEST IMPERIAL HIGHWAY 1/8-1/4 LOS ANGELES, CA 90047

0.194 mi.

1022 ft. Site 4 of 4 in cluster D

Relative: Higher SCH:

Actual:

210 ft.

Facility ID: 60000796
Site Type: School Cleanup

Site Type Detail: School
Acres: 1.85
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP

NONE SPECIFIED Lead Agency: Lead Agency Description: Not reported Project Manager: **ASLAM SHAREEF** Supervisor: Tawfiq Deek Cypress Division Branch: 304584-11 Site Code: Assembly: 47, 48, 51 25, 26 Senate: Special Program Status: Not reported

Status: Active

Status Date: 2008-01-18 00:00:00

Restricted Use: NO

Funding: School District

Latitude: 0

Longitude: 0

Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: 60000796

Alias Type: Envirostor ID Number

APN: NONE SPECIFIED APN Description: Not reported

Comments: The Department of Toxic Substances (DTSC) reviewed the Revised

Preliminary Environmental Assessment (PEA) Scoping Document for the Proposed South Region High School #6-13 Site (Site), prepared by The Planning Center, Inc. dated February 19, 2008 and Site added to Master Environmental Oversight Agreementreceived on March 4, 2008. The corrected sampling plan figure (figure 5-Proposed Plant Facilities and Agricultural Sample Locations) was received on March 5, 2008. The PEA Scoping Document was revised based on the Site walk on February 13, 2008; the Scoping Meeting on February 15, 2008; and conversations over the phone. DTSC comments are adequately addressed and DTSC concurs with the Revised PEA Scoping Document, with an exception of further delineating the Site (in Supplemental Site Investigation stage), if elevated levels of contaminants are detected. If you have

any questions, feel free to contact me at 714-484-5308.

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Direction Distance

Elevation Site Database(s) EPA ID Number

PROPOSED SOUTH REGION HIGH SCHOOL #6, SITE 13 (Continued)

S108974335

EDR ID Number

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Master Agreement

Completed Date: / /

Confirmed: NONE SPECIFIED
Confirmed Description: Not reported
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

Future Document Type: Preliminary Endangerment Assessment Report

Future Due Date: 2008

Media Affected: NONE SPECIFIED
Media Affected Desc: Not reported

Management:

NONE SPECIFIED Management Required: Management Required Desc: Not reported Potential: IA, SOIL, SV, UE Potenital Description: Not reported Potenital Description: Not reported Potenital Description: Not reported Potenital Description: Not reported Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Schedule Document Type: Not reported Not reported Schedule Due Date: Schedule Revised Date: Not reported

PastUse: AGRICULTURAL - LIVESTOCK, AGRICULTURAL - ORCHARD, FUEL - VEHICLE

STORAGE/ REFUELING, LANDFILL - DOMESTIC, MAINTENANCE / CLEANING, OIL

FIELD, SCHOOL - COLLEGE, VEHICLE MAINTENANCE

ENVIROSTOR:

Site Type: School Cleanup
Site Type Detailed: School
Acres: 1.85
NPL: NO
Regulatory Agencies: SMBRP

NONE SPECIFIED Lead Agency: Program Manager: **ASLAM SHAREEF** Supervisor: Tawfiq Deek Division Branch: Cypress Facility ID: 60000796 Site Code: 304584-11 Assembly: 47, 48, 51 Senate: 25, 26

Special Program: Not reported Status: Active

Status Date: 2008-01-18 00:00:00

Restricted Use: NO

Funding: School District

Latitude: 0 Longitude: 0

Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: 60000796

Direction Distance Elevation

ation Site Database(s) EPA ID Number

PROPOSED SOUTH REGION HIGH SCHOOL #6, SITE 13 (Continued)

S108974335

EDR ID Number

Alias Type: Envirostor ID Number

APN: NONE SPECIFIED APN Description: Not reported

Comments: The Department of Toxic Substances (DTSC) reviewed the Revised

Preliminary Environmental Assessment (PEA) Scoping Document for the Proposed South Region High School #6-13 Site (Site), prepared by The Planning Center, Inc. dated February 19, 2008 and Site added to Master Environmental Oversight Agreementreceived on March 4, 2008. The corrected sampling plan figure (figure 5-Proposed Plant Facilities and Agricultural Sample Locations) was received on March 5, 2008. The PEA Scoping Document was revised based on the Site walk on February 13, 2008; the Scoping Meeting on February 15, 2008; and conversations over the phone. DTSC comments are adequately addressed and DTSC concurs with the Revised PEA Scoping Document, with an exception of further delineating the Site (in Supplemental Site Investigation stage), if elevated levels of contaminants are detected. If you have

any questions, feel free to contact me at 714-484-5308.

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Master Agreement

Completed Date: //

Confirmed: NONE SPECIFIED
Confirmed Description: Not reported
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

Future Document Type: Preliminary Endangerment Assessment Report

Future Due Date: 2008

Media Affected: NONE SPECIFIED
Media Affected Desc: Not reported

Management:

Management Required: NONE SPECIFIED Management Required Desc: Not reported Potential: IA, SOIL, SV, UE Potenital Description: Not reported Potenital Description: Not reported Not reported Potenital Description: Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported

PastUse: AGRICULTURAL - LIVESTOCK, AGRICULTURAL - ORCHARD, FUEL - VEHICLE

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

PROPOSED SOUTH REGION HIGH SCHOOL #6, SITE 13 (Continued)

S108974335

STORAGE/ REFUELING, LANDFILL - DOMESTIC, MAINTENANCE / CLEANING, OIL FIELD, SCHOOL - COLLEGE, VEHICLE MAINTENANCE

E15 **IS D STORAGE BUILDING** LUST S104891063 NE 1304 IMPERIAL HWY W N/A

1/8-1/4 LOS ANGELES, CA 90044

0.217 mi.

1146 ft. Site 1 of 4 in cluster E

LUST: Relative:

STATE Region: Higher

Status: Preliminary site assessment workplan submitted

Actual: Case Number: R-33044 206 ft. Not reported Local Case #: 7664417 Chemical: Qty Leaked: Not reported

Abate Method: Other

Release Date: 2000-12-11 00:00:00 Discover Date: 2000-07-11 00:00:00 Not reported Report Date: Enforcement Dt: Not reported

Review Date: 2000-12-11 00:00:00 Enter Date: Not reported

Not reported Stop Date: Confirm Leak: Not reported Case Type: Soil only

Cross Street: NORMANDIE AVE Enf Type: Not reported Not reported Funding: How Discovered: Repair Tank How Stopped: Not reported Leak Cause: Not reported Tank Leak Source:

T0603790018 Global Id:

2000-07-11 00:00:00 Workplan:

Prelim Assess: Not reported Pollution Char: Not reported Not reported Remed Plan: Not reported Remed Action: Not reported Monitoring: MTBE Date: Not reported GW Qualifier: Not reported Soil Qualifier: Not reported Max MTBE GW ppb: Not reported Max MTBE Soil ppb: Not reported

County: 19

Not reported Org Name: Reg Board: Los Angeles Region Contact Person: Not reported

Responsible Party: LA COUNTY INTERNAL SERVICE DEP

RP Address: 1100 N. EASTERN AVE., LOS ANGELES, CA 90063

Interim: Not reported LUST

Oversight Prgm: MTBE Class: MTBE Conc: 0 MTBE Fuel:

MTBE Tested: Not Required to be Tested.

Staff:

Direction Distance

Elevation Site Database(s) EPA ID Number

ISD STORAGE BUILDING (Continued)

S104891063

EDR ID Number

Staff Initials: JA

Lead Agency: Local Agency

Local Agency: 19000

Hydr Basin #: SAN FERNANDO VALLEY

Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Work Suspended: Not reported Operator: Not reported Water System Name:Not reported Well Name: Not reported

Distance To Lust: 0

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: Not reported

LUST REG 4:

Region: 4 Regional Board: 04

County: Los Angeles facid: R-33044

Status: Preliminary site assessment workplan submitted

OT

Substance: 7664417
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil

Abatement Method Used at the Site:

Global ID: T0603790018
W Global ID: Not reported
Staff: UNK
Local Agency: 19000

Cross Street: NORMANDIE AVE
Enforcement Type: Not reported
Date Leak Discovered: 7/11/2000

Date Leak First Reported: 12/11/2000

Date Leak Record Entered: Not reported Date Confirmation Began: Not reported Date Leak Stopped: Not reported

Date Case Last Changed on Database: 12/11/2000
Date the Case was Closed: Not reported

How Leak Discovered: Repair Tank
How Leak Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Tank
Operator: Not reported
Water System: Not reported
Well Name: Not reported

Approx. Dist To Production Well (ft): 5169.8426084962927296902137605

Source of Cleanup Funding: Tank Preliminary Site Assessment Workplan Submitted: 7/11/2000 Preliminary Site Assessment Began: Not reported Pollution Characterization Began: Not reported Remediation Plan Submitted: Not reported Remedial Action Underway: Not reported Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

ISD STORAGE BUILDING (Continued)

S104891063

1000341676

CAD000627919

RCRA-SQG

FINDS

Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Soil Qualifier: Not reported Organization: Not reported Owner Contact: Not reported

Responsible Party: LA COUNTY INTERNAL SERVICE DEP

RP Address: 1100 N. EASTERN AVE., LOS ANGELES, CA 90063

Program: LUST Lat/Long: 33.930763 / -1 Not reported Local Agency Staff: Beneficial Use: Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Not reported Assigned Name: Summary: Not reported

E16 **TESORO GASOLINE DIGAS NORMANDIE**

ΝE 1300 W IMPERIAL HWY 1/8-1/4 LOS ANGELES, CA 90044

0.225 mi.

Actual:

1187 ft. Site 2 of 4 in cluster E

RCRA-SQG: Relative:

Date form received by agency: 09/01/1996 Higher

Facility name: TESORO GASOLINE DIGAS NORMANDIE Facility address: 1300 W IMPERIAL HWY

206 ft. LOS ANGELES, CA 90044

EPA ID: CAD000627919

> Mailing address: 9201 W OLYMPIC BLVD

BEVERLY HILLS, CA 90212

Contact: Not reported Contact address: Not reported Not reported Contact country: Not reported Contact telephone: Not reported Contact email: Not reported

EPA Region:

Classification: Small Small Quantity Generator

Description: Handler: generates more than 100 and less than 1000 kg of hazardous

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of

hazardous waste at any time

Owner/Operator Summary:

TESORO GASOLINE MARKETING CO Owner/operator name:

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212 Legal status: Private Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

TESORO GASOLINE DIGAS NORMANDIE (Continued)

1000341676

Owner/operator name: NOT REQUIRED Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported Owner/operator telephone: (415) 555-1212 Legal status: Private Owner/Operator Type: Operator Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: Unknown Mixed waste (haz. and radioactive): Unknown Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: Unknown Furnace exemption: Unknown Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: Nο

Off-site waste receiver: Commercial status unknown

Historical Generators:

Date form received by agency: 08/18/1980

Facility name: TESORO GASOLINE DIGAS NORMANDIE

Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST UST U001561759 E17 **DIGAS** N/A

1300 W IMPERIAL HWY ΝE 1/8-1/4 LOS ANGELES, CA 90044

0.225 mi.

1187 ft. Site 3 of 4 in cluster E

HIST UST: Relative:

STATE Region: Higher Facility ID: 00000029628 Actual: Facility Type: Gas Station 206 ft. Other Type: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

DIGAS (Continued) U001561759

Total Tanks: 0003

Contact Name: HENSLEY BARBOUR

Telephone: 2132782160

Owner Name: TESORO GASOLINE MARKETING CO.

Owner Address: 9201 W. OLYMPIC BLVD.
Owner City, St, Zip: BEVERLY HILLS, CA 90212

Tank Num: 001 Container Num: 3

Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

Tank Num: 002 Container Num: 2

Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

Tank Num: 003 Container Num: 1

Year Installed: Not reported
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

E18 ELYMM, LEONARD A.
NE 1300 WEST IMPERIAL HIGHWAY

1/8-1/4 HAWTHORNE, CA

0.225 mi.

1187 ft. Site 4 of 4 in cluster E

Relative: Higher WMUDS/SWAT:

Actual: 206 ft.

Edit Date: Not reported Complexity: Not reported Primary Waste: Not reported Primary Waste Type: Not reported Secondary Waste: Not reported Secondary Waste Type: Not reported Base Meridian: Not reported NPID: Not reported

Tonnage: 0
Regional Board ID: Not r

Regional Board ID:
Municipal Solid Waste:
Superorder:
Open To Public:
Waste List:
Not reported
False
False
False
False

Agency Type: Not reported
Agency Name: LEONARD A. ELYMM

Agency Department: Not reported

U003057079

N/A

WMUDS/SWAT

LOS ANGELES CO. HMS

EDR ID Number

Direction Distance

Elevation Site Database(s) **EPA ID Number**

ELYMM, LEONARD A. (Continued)

U003057079

EDR ID Number

Agency Address: Not reported Agency City, St, Zip: Not reported Not reported Agency Contact: Agency Telephone: Not reported Land Owner Name: Not reported Land Owner Address: Not reported Land Owner City, St, Zip: CA

Land Owner Contact: Not reported Land Owner Phone: Not reported

Region:

Facility Type: Not reported Facility Description: Not reported Facility Telephone: Not reported SWAT Facility Name: Not reported Primary SIC: Not reported Secondary SIC: Not reported Not reported Comments: Last Facility Editors: Not reported

Waste Discharge System: False

Solid Waste Assessment Test Program: True Toxic Pits Cleanup Act Program: False Resource Conservation Recovery Act: False Department of Defence: False

Solid Waste Assessment Test Program: LEONARD A. ELYMM

Threat to Water Quality: Not reported False Sub Chapter 15:

Regional Board Project Officer: LT Number of WMUDS at Facility:

Section Range: Not reported RCRA Facility: Not reported Waste Discharge Requirements: Not reported Self-Monitoring Rept. Frequency: Not reported Waste Discharge System ID: 4 190366NUR Solid Waste Information ID: Not reported

LOS ANGELES CO. HMS:

Region:

Facility Id: 000658-100662

OPEN Facility Status: Area: 29

Permit Number: Not reported Permit Status: Not reported Facility Type: Not reported

120TH STREET DUMP 1401 WEST 120TH STREET LOS ANGELES, CA

1/4-1/2 0.261 mi. 1377 ft.

19

SSE

WMUDS/SWAT: Relative:

Edit Date: Not reported Lower

Complexity: Not reported Actual: Primary Waste: Not reported 194 ft. Primary Waste Type: Not reported

Secondary Waste: Not reported Secondary Waste Type: Not reported S104156326

N/A

WMUDS/SWAT

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

120TH STREET DUMP (Continued)

S104156326

Base Meridian: Not reported NPID: Not reported

Tonnage: 0

Regional Board ID: Not reported Municipal Solid Waste: False False Superorder: Open To Public: False Waste List: False Not reported Agency Type: Agency Name: Not reported Agency Department: Not reported Agency Address: Not reported Agency City, St, Zip: Not reported Agency Contact: Not reported Agency Telephone: Not reported Land Owner Name: Not reported Land Owner Address: Not reported

Land Owner City, St, Zip: CA

Land Owner Contact: Not reported Land Owner Phone: Not reported

Region:

Facility Type: Not reported Facility Description: Not reported Facility Telephone: Not reported SWAT Facility Name: Not reported Primary SIC: Not reported Secondary SIC: Not reported Comments: Not reported Last Facility Editors: Not reported Waste Discharge System: False

Solid Waste Assessment Test Program: True Toxic Pits Cleanup Act Program: False Resource Conservation Recovery Act: False Department of Defence: False

Solid Waste Assessment Test Program: Not reported Not reported Threat to Water Quality: Sub Chapter 15: False Regional Board Project Officer: LT Number of WMUDS at Facility:

Section Range: Not reported RCRA Facility: Not reported Waste Discharge Requirements: Not reported Self-Monitoring Rept. Frequency: Not reported 4 190104NUR Waste Discharge System ID: Solid Waste Information ID: Not reported

20 **LEINARD FLYNN. CALTRANS SITE 17**

East 11515 BUDLONG AVENUE WESTMONT, CA

1/4-1/2 0.289 mi.

1528 ft.

SWF/LF: Relative:

STATE Region: Higher Facility ID: 19-AA-5088

Actual: Lat/Long: 33.92957 / -118.29611 209 ft. Owner Name: **Eexcel Buglong LTD** Owner Telephone: Not reported

TC2303451.2s Page 37

S106528942

N/A

SWF/LF

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

LEINARD FLYNN. CALTRANS SITE 17 (Continued)

S106528942

Owner Address: Leonard Flynn

11515 Budlong Avenue Owner Address2: Owner City,St,Zip: Westmont, CA 90044

Operator: Not reported Operator Phone: Not reported Operator Address: Not reported Operator Address2: Not reported Operator City,St,Zip: Not reported Operator's Status: Closed Permit Date: Not reported Permit Status: Not reported Permitted Acreage: Not reported

Solid Waste Disposal Site Activity:

Regulation Status: Pre-regulations

Landuse Name: Residential, Commercial

GIS Source: Мар Disposal Category: Unit Number: 01 Inspection Frequency: Quarterly Mixed municipal Accepted Waste: 12/31/1949 Closure Date: Closure Type: Estimated Disposal Acreage: Not reported Swisnumber: 19-AA-5088 Issue & Observations: Not reported Program Type: Not reported

Permitted Throughput with Units: Not reported Actual Throughput with Units: Not reported Permitted Capacity with Units: Not reported Remaining Capacity: Not reported Remaining Capacity with Units: Not reported

SOUTH REGION HIGH SCHOOL #6, SITE 3 IMPERIAL HIGHWAY/HOBART BLVD.

LOS ANGELES, CA 90047

Senate:

1/4-1/2 0.315 mi. 1665 ft.

21

WNW

SCH: Relative:

Higher

Facility ID: 60000419

Actual: Site Type: School Investigation 217 ft. Site Type Detail: School

2.88 Acres: National Priorities List: NO Cleanup Oversight Agencies: **SMBRP SMBRP** Lead Agency: Lead Agency Description: Not reported Project Manager: S. STEVEN HARIRI Supervisor: Tawfiq Deek Division Branch: Cypress Site Code: 304539-11 Assembly: 53

Special Program Status: Not reported

Status: Inactive - Needs Evaluation Status Date: 2007-02-23 00:00:00

28

Restricted Use: NO SCH

ENVIROSTOR

S108054428

N/A

Direction Distance

Elevation Site Database(s) EPA ID Number

SOUTH REGION HIGH SCHOOL #6, SITE 3 (Continued)

S108054428

EDR ID Number

Funding: Responsible Party Latitude: 33.9294

Longitude: -118.3102
Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: 60000419

Alias Type: Envirostor ID Number

APN: NONE SPECIFIED APN Description: Not reported

Comments: DTSC Approved the Scoping DocumentProject CRU completed.ISL Mailed out

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inactive Status Letter

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Cost Recovery Closeout Memo

Completed Date: / /

Confirmed: 31001 Confirmed Description: Not reported Not reported Future Area Name: Future Sub Area Name: Not reported Future Document Type: Not reported Future Due Date: Not reported 31001 Media Affected: Media Affected Desc: Not reported

Management:

Management Required: NONE SPECIFIED Management Required Desc: Not reported

Potential: UE

Potenital Description:
Schedule Area Name:
Schedule Sub Area Name:
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Not reported
Retall

ENVIROSTOR:

Site Type: School Investigation

Site Type Detailed: School
Acres: 2.88
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP

Program Manager: S. STEVEN HARIRI Supervisor: Tawfiq Deek

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

SOUTH REGION HIGH SCHOOL #6, SITE 3 (Continued)

S108054428

Division Branch: Cypress 60000419 Facility ID: Site Code: 304539-11 Assembly: 53 Senate: 28

Special Program: Not reported

Inactive - Needs Evaluation Status: 2007-02-23 00:00:00 Status Date:

Restricted Use:

Funding: Responsible Party

Latitude: 33.9294 Longitude: -118.3102 Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: 60000419

Alias Type: **Envirostor ID Number**

NONE SPECIFIED APN: APN Description: Not reported

Comments: DTSC Approved the Scoping DocumentProject CRU completed.ISL Mailed out

Completed Info:

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date:

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported Completed Document Type: Inactive Status Letter

Completed Date:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Cost Recovery Closeout Memo

Completed Date:

Confirmed: 31001 Confirmed Description: Not reported Not reported Future Area Name: Not reported Future Sub Area Name: Not reported Future Document Type: Future Due Date: Not reported Media Affected: 31001 Media Affected Desc: Not reported

Management:

Management Required: NONE SPECIFIED Management Required Desc: Not reported

Potential: UE

Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported PastUse: RETAIL

Direction Distance

Elevation Site Database(s) EPA ID Number

F22 MOBIL #18-KYW LUST S106116236 WNW 1769 IMPERIAL HWY. W. N/A

1/4-1/2 LOS ANGELES, CA 90047

0.366 mi.

1933 ft. Site 1 of 2 in cluster F

Relative: LUST:

Higher Region: STATE

Status: Pollution Characterization

Actual: Case Number: I-06198A
210 ft. Local Case #: Not reported

Local Case #: Not reported
Chemical: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Release Date: 2003-05-22 00:00:00

Discover Date: 2003-05-22 00:00:00

Report Date: Not reported

Enforcement Dt: Not reported

Review Date: Not reported

Enter Date: Not reported

 Stop Date:
 2003-05-22 00:00:00

 Confirm Leak:
 2003-05-22 00:00:00

 Case Type:
 Other ground water affected

Cross Street: Not reported
Enf Type: Not reported
Funding: 13267R
How Discovered: OM
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK

Global Id: T0603741174
Workplan: Not reported
Prelim Assess: 2003-05-22 00:00:00
Pollution Char: 2007-06-08 00:00:00

Remed Plan: Not reported Remed Action: Not reported Monitoring: Not reported MTBE Date: Not reported GW Qualifier: Not reported Soil Qualifier: Not reported Max MTBE GW ppb: Not reported Max MTBE Soil ppb: Not reported

County: 19

Org Name: Not reported
Reg Board: Los Angeles Region
Contact Person: Not reported
Responsible Party: GEORGE SALLEY

RP Address: 3700 W. 190TH ST., TPT #2-4

Interim: Not reported Oversight Prgm: LUST

MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1

MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected

Staff: JW Staff Initials: JA

Lead Agency: Regional Board Local Agency: 19000 Hydr Basin #: Not reported **EDR ID Number**

Direction Distance

Elevation Site Database(s) EPA ID Number

MOBIL #18-KYW (Continued)

S106116236

EDR ID Number

Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Operator: Not reported
Water System Name:Not reported
Well Name: Not reported

Distance To Lust: 0

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: Not reported

LUST REG 4:

Region: 4 Regional Board: 04

County: Los Angeles facid: I-06198A

Status: Preliminary site assessment underway

Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater

Abatement Method Used at the Site: Not reported

Global ID: T0603741174
W Global ID: Not reported
Staff: JW
Local Agency: 19050
Cross Street: Not reported
Enforcement Type: SEL

Date Leak Discovered: 5/22/2003

Date Leak First Reported: 5/22/2003

Date Leak Record Entered: Not reported Date Confirmation Began: 5/22/2003
Date Leak Stopped: 5/22/2003

Date Case Last Changed on Database: Not reported Date the Case was Closed: Not reported

How Leak Discovered: OM

How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: Not reported
Water System: Not reported
Well Name: Not reported

Approx. Dist To Production Well (ft): Not reported Source of Cleanup Funding: UNK Preliminary Site Assessment Workplan Submitted: Not reported Preliminary Site Assessment Began: 5/22/2003 Pollution Characterization Began: Not reported Remediation Plan Submitted: Not reported Remedial Action Underway: Not reported Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: 5/12/2003 Hist Max MTBE Conc in Groundwater: 60

Hist Max MTBE Conc in Soil: 7.8
Significant Interim Remedial Action Taken: Not reported

GW Qualifier:

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

MOBIL #18-KYW (Continued)

S106116236

S104406566

N/A

LUST

Soil Qualifier:

Organization: Not reported Not reported Owner Contact: Responsible Party: JENEE BRIGGS

RP Address: 3700 W. 190TH ST., TPT-2

Program: LUST Lat/Long: 0/0 Local Agency Staff: Not reported Beneficial Use: Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Assigned Name: Not reported Summary: Not reported

F23 MOBIL #18-KYW (FORMER #11-KYW)

WNW 1769 IMPERIAL HWY W LOS ANGELES, CA 90047 1/4-1/2

0.366 mi.

1933 ft. Site 2 of 2 in cluster F

LUST: Relative:

STATE Region: Higher Status:

Case Closed Actual: Case Number: I-06198 210 ft. Local Case #: Not reported Chemical: Gasoline

Qty Leaked: Not reported Not reported Abate Method: Release Date: 1991-03-26 00:00:00

Discover Date: 1991-03-26 00:00:00 Report Date: 1998-03-19 00:00:00

Enforcement Dt: Not reported Review Date: 1998-08-27 00:00:00 Enter Date: 1991-05-22 00:00:00 Stop Date: 1991-03-26 00:00:00

Confirm Leak: Not reported

Case Type: Other ground water affected

WESTERN Cross Street:

Enf Type:

Funding: Not reported How Discovered: Tank Closure How Stopped: Not reported Leak Cause: UNK Leak Source: UNK

Global Id: T0603703180 1989-01-02 00:00:00 Workplan: 1989-03-02 00:00:00 Prelim Assess:

Pollution Char: Not reported

Remed Plan: 1990-03-01 00:00:00 Remed Action: 1991-05-08 00:00:00

Monitoring: Not reported

MTBE Date: 1965-01-01 00:00:00

GW Qualifier: Not reported Soil Qualifier: Not reported

Max MTBE GW ppb: ND

Max MTBE Soil ppb: Not reported

County: 19

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

MOBIL #18-KYW (FORMER #11-KYW) (Continued)

S104406566

Org Name: Not reported Reg Board: Los Angeles Region Contact Person: Not reported Responsible Party: MOBIL OIL CORP.

RP Address: 3700 W 190TH ST., TPT2, TORRANCE CA 90509-2929

Interim: Not reported Oversight Prgm: LUST MTBE Class: MTBE Conc: 1 MTBE Fuel:

MTBE Detected. Site tested for MTBE and MTBE detected MTBE Tested:

EHI Staff: Staff Initials: JA

Lead Agency: Regional Board

19000 Local Agency:

SAN FERNANDO VALLEY Hydr Basin #:

Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Work Suspended: Not reported Operator: LUCAS, DEANNIE Water System Name: Not reported Well Name: Not reported

Distance To Lust:

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: PLUME HAS MOVED OFFSITE, GW @ 103' TO WNW, MTBE=ND 08/26/97 - 2ND QTR

> PROGRESS RPT 1997 11/05/97 - 3RD QTR PROGRESS RPT 1997

08/27/98 - WELL ABANDONMENT REPORT

LUST REG 4:

Region: 4 Regional Board: 04

Los Angeles County: I-06198 facid: Case Closed Status: Substance: Gasoline Substance Quantity: Not reported Local Case No: Not reported Groundwater Case Type:

Abatement Method Used at the Site: Not reported

Global ID: T0603703180 W Global ID: Not reported EHI Staff: Local Agency: 19000 Cross Street: WESTERN **Enforcement Type:** Not reported Date Leak Discovered: 3/26/1991

Date Leak First Reported: 3/26/1991

Date Leak Record Entered: 5/22/1991 Date Confirmation Began: Not reported Date Leak Stopped: 3/26/1991

Date Case Last Changed on Database: 8/27/1998 3/19/1998 Date the Case was Closed:

How Leak Discovered: Tank Closure How Leak Stopped: Not reported UNK Cause of Leak:

Direction Distance

Elevation Site Database(s) EPA ID Number

MOBIL #18-KYW (FORMER #11-KYW) (Continued)

S104406566

EDR ID Number

Leak Source: UNK

Operator: LUCAS, DEANNIE
Water System: Not reported
Well Name: Not reported

Approx. Dist To Production Well (ft): 2648.6114195155818959772345867

Source of Cleanup Funding: UNK Preliminary Site Assessment Workplan Submitted: 1/2/1989 Preliminary Site Assessment Began: 3/2/1989 Pollution Characterization Began: Not reported 3/1/1990 Remediation Plan Submitted: 5/8/1991 Remedial Action Underway: Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: MOBIL OIL CORP.

RP Address: 3700 W 190TH ST., TPT2, TORRANCE CA 90509-2929

Program: LUST

Lat/Long: 33.9311067 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported

Summary: PLUME HAS MOVED OFFSITE, GW @ 103' TO WNW, MTBE=ND 08/26/97 -

2ND QTR PROGRESS RPT 1997 11/05/97 - 3RD QTR PROGRESS RPT 1997 08/27/98 - WELL ABANDONMENT

REPORT

SAMUELSON, ERIC

11920 SO WESTERN AVE / W.120TH ST.

1/4-1/2 LOS ANGELES (CITY), CA

0.391 mi. 2066 ft.

24 WSW

Relative: SWF/LF:

Lower Region: STATE

 Actual:
 Lat/Long:
 33.92778 / -118.3

 163 ft.
 Owner Name:
 Not reported

Owner Telephone: Not reported Owner Address: Not reported Owner Address2: Not reported Owner City, St, Zip: Not reported Not reported Operator: Operator Phone: Not reported Operator Address: Not reported Operator Address2: Not reported Operator City,St,Zip: Not reported Operator's Status: Closed Permit Date: Not reported

SWF/LF

S101612935

N/A

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

SAMUELSON, ERIC (Continued)

S101612935

LUST S107863233

N/A

Permit Status: Not reported \$0.00 Permitted Acreage:

Solid Waste Disposal Site Activity: Regulation Status: To Be Determined Landuse Name: Residential, Commercial

GIS Source: Map Category: Disposal Unit Number: 01 Inspection Frequency: Quarterly Accepted Waste: Not reported Closure Date: Not reported Closure Type: Not reported Disposal Acreage: \$0.00 Swisnumber: 19-AA-5204 Issue & Observations: Not reported Program Type: Not reported Permitted Throughput with Units:

Actual Throughput with Units: Not reported

Permitted Capacity with Units: 0 Remaining Capacity: 0

Remaining Capacity with Units: Not reported

STATE

G25 LA SOUTHWEST COLLEGE WNW 11404 SOUTH WESTERN AVE 1/4-1/2 LOS ANGELES, CA 90047

0.406 mi.

2142 ft. Site 1 of 2 in cluster G

LUST: Relative: Region: Higher

Actual: 207 ft.

Status: Case Closed Case Number: Not reported 3022-44037 Local Case #: Chemical: Gasoline Qty Leaked: Not reported Abate Method: Not reported

2005-07-13 00:00:00 Release Date: 2005-07-08 00:00:00 Discover Date: 2007-04-27 00:00:00 Report Date:

Enforcement Dt: Not reported Review Date: Not reported Enter Date: Not reported Stop Date: Not reported

2006-03-07 00:00:00 Confirm Leak:

Case Type: Soil only IMPERIAL HWY Cross Street: COSTRE Enf Type: Funding: Not reported How Discovered: Tank Closure How Stopped: Close Tank Leak Cause: UNK UNK Leak Source:

Global Id: T0603764149 Workplan: Not reported Prelim Assess: Not reported Pollution Char: Not reported Remed Plan: Not reported Remed Action: Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

LA SOUTHWEST COLLEGE (Continued)

S107863233

Monitoring: Not reported MTBE Date: Not reported Not reported GW Qualifier: Soil Qualifier: Not reported Max MTBE GW ppb: Not reported Max MTBE Soil ppb: Not reported County: 19

Org Name: Not reported Reg Board: Los Angeles Region Contact Person: Not reported **JEFF JONES** Responsible Party:

RP Address: 11404 S WESTERN AVE

Interim: Not reported Oversight Prgm: LUST MTBE Class: MTBE Conc: 0 MTBE Fuel:

MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.

Staff: MRR Staff Initials: Lead Agency: Local Agency Local Agency: 19000 Hydr Basin #: Not reported Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Work Suspended: Not reported Operator: Not reported Water System Name: Not reported Well Name:

Distance To Lust:

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Not reported

Summary: Not reported

UNOCAL #3173 11404 WESTERN AVE S

WNW 1/4-1/2 LOS ANGELES, CA 90047 0.406 mi.

2142 ft. Site 2 of 2 in cluster G

Relative: Higher

Actual:

207 ft.

G26

LUST:

Region: STATE Status: Case Closed R-03128 Case Number: Local Case #: Not reported

Chemical: Gasoline Qty Leaked: Not reported Abate Method: Other

Release Date: 1995-06-07 00:00:00 Discover Date: 1987-04-14 00:00:00 Report Date: 1996-12-18 00:00:00

Enforcement Dt: Not reported

Review Date: 1997-02-20 00:00:00 Enter Date: 1987-12-18 00:00:00 Stop Date: 1987-04-14 00:00:00

Confirm Leak: Not reported Case Type: Soil only

LUST

Cortese

S102439905

N/A

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

UNOCAL #3173 (Continued)

S102439905

Cross Street: **IMPERIAL** Enf Type: Not reported Not reported Funding: How Discovered: Tank Closure How Stopped: Not reported UNK Leak Cause: Leak Source: Tank

Global Id: T0603704606 Workplan: Not reported Prelim Assess: 1987-11-09 00:00:00 Pollution Char: 1993-01-04 00:00:00 Remed Plan: Not reported

1996-07-15 00:00:00 Remed Action: Monitoring: Not reported MTBE Date: Not reported GW Qualifier: Not reported Not reported Soil Qualifier: Max MTBE GW ppb: Not reported

County: 19

Org Name: Not reported Reg Board: Los Angeles Region

Contact Person: Not reported

Max MTBE Soil ppb: Not reported

Responsible Party: **UNOCAL CORPORATION**

RP Address: 376 S VALENCIA AVE, BREA CA 92621

Interim: Not reported Oversight Prgm: LUST MTBE Class: 0 MTBE Conc: MTBE Fuel:

MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.

Staff: YR Staff Initials: JA

Regional Board Lead Agency:

19000 Local Agency:

Hydr Basin #: SAN FERNANDO VALLEY

Beneficial: Not reported Priority: Not reported Cleanup Fund Id: Not reported Not reported Work Suspended: KIM, SEUNG HYUN Operator: Water System Name: Not reported

Well Name: Not reported

Distance To Lust:

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: TANKS WERE ROUTINELY REMOVED AND REPLACED. UPON REMOVAL, HCS WERE FOUND TO BE

> AT HIGH LEVELS AT 2' BELOW TANK BOTTOMS. DISCOVERED BACKFILL WAS AERATED TO BELOW 30 PPM. SAMPLING CONFOUNDED DURING RETRIEVAL DUE TO TANK HOLE COL

LUST REG 4:

Region: Regional Board: 04

County: Los Angeles R-03128 facid: Status: Case Closed Substance: Gasoline

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

ОТ

UNOCAL #3173 (Continued) S102439905

Substance Quantity: Not reported Not reported Local Case No: Case Type: Soil Abatement Method Used at the Site:

Global ID: T0603704606 W Global ID: Not reported Staff: UNK 19000 Local Agency: Cross Street: **IMPERIAL Enforcement Type:** Not reported

Date Leak First Reported: 6/7/1995

4/14/1987

Date Leak Record Entered: 12/18/1987 Date Confirmation Began: Not reported Date Leak Stopped: 4/14/1987

Date Leak Discovered:

Date Case Last Changed on Database: 2/20/1997 Date the Case was Closed: 12/18/1996

Tank Closure How Leak Discovered: How Leak Stopped: Not reported UNK Cause of Leak: Leak Source: Tank

Operator: KIM, SEUNG HYUN Water System: Not reported Well Name: Not reported

Approx. Dist To Production Well (ft): 2760.6587207036568817613533083

Source of Cleanup Funding: Tank Preliminary Site Assessment Workplan Submitted: Not reported Preliminary Site Assessment Began: 11/9/1987 1/4/1993 Pollution Characterization Began: Remediation Plan Submitted: Not reported Remedial Action Underway: 7/15/1996 Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Not reported Historical Max MTBE Date: Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Not reported Soil Qualifier: Organization: Not reported Owner Contact: Not reported

Responsible Party: **UNOCAL CORPORATION**

RP Address: 376 S VALENCIA AVE, BREA CA 92621

Program: LUST

Lat/Long: 33.9293577 / -1 Local Agency Staff: Not reported Beneficial Use: Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Assigned Name: Not reported

TANKS WERE ROUTINELY REMOVED AND REPLACED. UPON REMOVAL, HCS WERE Summary:

> FOUND TO BE AT HIGH LEVELS AT 2' BELOW TANK BOTTOMS. DISCOVERED BACKFILL WAS AERATED TO BELOW 30 PPM. SAMPLING CONFOUNDED DURING

RETRIEVAL DUE TO TANK HOLE COL

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

UNOCAL #3173 (Continued)

Not reported

S102439905

Cortese:

LOS ANGELES, CA

Edit Date:

Region: **CORTESE**

Facility Addr2: 11404 WESTERN AVE S

27 SAMUELSON, ERIC WMUDS/SWAT S104156330 wsw 11920 SOUTH WESTERN AVENUE N/A

1/4-1/2 0.419 mi. 2214 ft.

Lower

WMUDS/SWAT: Relative:

Complexity: Not reported Actual: Primary Waste: Not reported 126 ft. Primary Waste Type: Not reported Secondary Waste:

Not reported Secondary Waste Type: Not reported Base Meridian: Not reported NPID: Not reported Tonnage: 0

Regional Board ID: Not reported Municipal Solid Waste: False Superorder: False Open To Public: False Waste List: False

Agency Type: Not reported Agency Name: **ERIC SAMUELSON** Agency Department: Not reported

Agency Address: Not reported Agency City, St, Zip: Not reported Agency Contact: Not reported Agency Telephone: Not reported Land Owner Name: Not reported Land Owner Address: Not reported

Land Owner City, St, Zip: CA

Land Owner Contact: Not reported Land Owner Phone: Not reported

Region:

Facility Type: Not reported Facility Description: Not reported Facility Telephone: Not reported SWAT Facility Name: Not reported Primary SIC: Not reported Secondary SIC: Not reported Comments: Not reported Last Facility Editors: Not reported Waste Discharge System: False

Solid Waste Assessment Test Program: True Toxic Pits Cleanup Act Program: False Resource Conservation Recovery Act: False Department of Defence: False

Solid Waste Assessment Test Program: **ERIC SAMUELSON** Threat to Water Quality: Not reported Sub Chapter 15: False

Regional Board Project Officer: LT Number of WMUDS at Facility:

Not reported Section Range:

MAP FINDINGS Map ID Direction

Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

SAMUELSON, ERIC (Continued)

S104156330

RCRA Facility: Not reported Not reported Waste Discharge Requirements: Self-Monitoring Rept. Frequency: Not reported Waste Discharge System ID: 4 190134NUR Solid Waste Information ID: Not reported

121ST STREET DUMP 28 SE 121ST / BUDLONG 1/4-1/2 LOS ANGELES, CA 0.420 mi.

WMUDS/SWAT S103441372 N/A

Relative: Lower

2216 ft.

WMUDS/SWAT: Edit Date:

Not reported Complexity: Not reported Actual: Primary Waste: Not reported 186 ft. Primary Waste Type: Not reported Secondary Waste: Not reported

Secondary Waste Type: Not reported Base Meridian: Not reported NPID: Not reported

Tonnage:

Regional Board ID: Not reported Municipal Solid Waste: False Superorder: False Open To Public: False Waste List: False Agency Type: Not reported Agency Name: Not reported Agency Department: Not reported Agency Address: Not reported Agency City, St, Zip: Not reported Agency Contact: Not reported Not reported Agency Telephone: Land Owner Name: Not reported Land Owner Address: Not reported

Land Owner City, St, Zip: CA Land Owner Contact: Not reported Not reported Land Owner Phone: Region:

Facility Type: Not reported Facility Description: Not reported Facility Telephone: Not reported Not reported SWAT Facility Name: Primary SIC: Not reported Secondary SIC: Not reported Comments: Not reported Last Facility Editors: Not reported Waste Discharge System: False

Solid Waste Assessment Test Program: True Toxic Pits Cleanup Act Program: False Resource Conservation Recovery Act: False Department of Defence: False

Solid Waste Assessment Test Program: Not reported Threat to Water Quality: Not reported Sub Chapter 15: False Regional Board Project Officer: LT Number of WMUDS at Facility: 1

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

121ST STREET DUMP (Continued)

S103441372

S102437037

N/A

LUST

Cortese

Section Range: Not reported Not reported RCRA Facility: Waste Discharge Requirements: Not reported Self-Monitoring Rept. Frequency: Not reported Waste Discharge System ID: 4 190105NUR Solid Waste Information ID: Not reported

29 SHELL #204-4539-4008 WNW 1816 IMPERIAL HWY W 1/4-1/2 LOS ANGELES, CA 90047 0.471 mi.

2489 ft.

LUST: Relative: Lower Region:

Status: Case Closed Actual: Case Number: I-05614 196 ft. Local Case #: Not reported Chemical: Gasoline

> Not reported Qty Leaked: Abate Method: Not reported Release Date: 1989-08-01 00:00:00 Discover Date: 1989-05-12 00:00:00 Report Date: 1996-10-11 00:00:00

STATE

Enforcement Dt: Not reported

1997-04-29 00:00:00 Review Date: Enter Date: 1989-08-11 00:00:00

Stop Date: Not reported Confirm Leak: Not reported Soil only Case Type: Cross Street: **WESTERN**

Enf Type:

Funding: Not reported

How Discovered: OM

How Stopped: Not reported Leak Cause: UNK Leak Source: UNK

T0603703091 Global Id: Workplan: Not reported Not reported Prelim Assess: Pollution Char: Not reported Remed Plan: Not reported Remed Action: Not reported Not reported Monitoring: Not reported MTBE Date: GW Qualifier: Not reported Not reported Soil Qualifier: Max MTBE GW ppb: Not reported Max MTBE Soil ppb: Not reported

County:

Org Name: Not reported Los Angeles Region Reg Board:

Contact Person: Not reported

Responsible Party: SHELL OIL PRODUCTS CO

RP Address: P.O. BOX 25370, SANTA ANA CA 92799

Interim: Not reported Oversight Prgm: LUST MTBE Class:

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

SHELL #204-4539-4008 (Continued)

S102437037

MTBE Conc: 0 MTBE Fuel:

MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.

Staff: YR Staff Initials: JA

Regional Board Lead Agency:

19000 Local Agency:

Hydr Basin #: SAN FERNANDO VALLEY

Beneficial: Not reported Priority: Not reported Not reported Cleanup Fund Id: Not reported Work Suspended:

KYOUNG CHAN YOO Operator:

Water System Name: Not reported Well Name: Not reported

Distance To Lust:

Waste Discharge Global ID: Not reported Waste Disch Assigned Name: Not reported

Summary: Not reported

LUST REG 4:

Region: Regional Board: 04

Los Angeles County: I-05614 facid: Status: Case Closed Substance: Gasoline Substance Quantity: Not reported Local Case No: Not reported Case Type: Soil

Abatement Method Used at the Site: Not reported

Global ID: T0603703091 W Global ID: Not reported Staff: UNK Local Agency: 19000 Cross Street: WESTERN **Enforcement Type:** Not reported Date Leak Discovered: 5/12/1989

8/1/1989 Date Leak First Reported:

Date Leak Record Entered: 8/11/1989 Date Confirmation Began: Not reported Date Leak Stopped: Not reported

Date Case Last Changed on Database: 4/29/1997 Date the Case was Closed: 10/11/1996

How Leak Discovered: OM

How Leak Stopped: Not reported Cause of Leak: UNK UNK Leak Source:

KYOUNG CHAN YOO Operator:

Water System: Not reported Well Name: Not reported

Approx. Dist To Production Well (ft): 2355.8714336918979301632754559

Source of Cleanup Funding: UNK Preliminary Site Assessment Workplan Submitted: Not reported Preliminary Site Assessment Began: Not reported Pollution Characterization Began: Not reported Remediation Plan Submitted: Not reported

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

SHELL #204-4539-4008 (Continued)

S102437037

Remedial Action Underway: Not reported Post Remedial Action Monitoring Began: Not reported **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Soil Qualifier: Not reported Organization: Not reported Owner Contact: Not reported

SHELL OIL PRODUCTS CO Responsible Party:

P.O. BOX 25370, SANTA ANA CA 92799 RP Address:

Program: 33.9307217 / -1 Lat/Long: Local Agency Staff: Not reported Beneficial Use: Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Assigned Name: Not reported Summary: Not reported

Cortese:

CORTESE Region:

Facility Addr2: 1816 IMPERIAL HWY W

30 **WASHINGTON NEW PRIMARY CENTER NO. 1 ENE VERMONT AVENUE/112TH STREET** 1/2-1 LOS ANGELES, CA 90044

SCH **ENVIROSTOR** N/A

S105628494

0.585 mi. 3087 ft.

SCH: Relative:

Lower

Facility ID: 19240023

Actual: Site Type: School Investigation 195 ft. Site Type Detail: School

> Acres: 2.09 National Priorities List: NO Cleanup Oversight Agencies: **SMBRP** SMBRP Lead Agency: Lead Agency Description: Not reported Project Manager: JUAN OSORNIO Supervisor: Shahir Haddad Division Branch: Chatsworth 304306-11 Site Code: Assembly: 48

Senate: 25 Special Program Status: Not reported No Further Action Status: Status Date: 2003-01-29 00:00:00

Restricted Use: NO

School District Fundina: Latitude: 33.9328 Longitude: -118.2903 Alias Name: 19240023

Direction Distance

Elevation Site Database(s) EPA ID Number

WASHINGTON NEW PRIMARY CENTER NO. 1 (Continued)

S105628494

EDR ID Number

Alias Type: Envirostor ID Number

Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alternate Name Alias Type: Alias Name: Not reported Alias Type: Alternate Name

APN: NONE SPECIFIED
APN Description: Not reported
Comments: Not reported

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Cost Recovery Closeout Memo

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Environmental Oversight Agreement

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Confirmed:

Confirmed Description:

Future Area Name:

Future Sub Area Name:

Future Document Type:

Future Due Date:

NONE SPECIFIED

Not reported

Not reported

Not reported

Not reported

Not reported

Media Affected: , 30153, 30550, 30108, 30003, 30593, 30272, 30013

Media Affected Desc:
Media Affected Desc:
Media Affected Desc:
Media Affected Desc:
Media Affected Desc:
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Mot reported
Media Affected Desc:
Mot reported

Direction
Distance

Elevation Site Database(s) EPA ID Number

WASHINGTON NEW PRIMARY CENTER NO. 1 (Continued)

S105628494

EDR ID Number

Media Affected Desc: Not reported

Management:

NONE SPECIFIED Management Required: Management Required Desc: Not reported Potential: SOIL, SURFW Potenital Description: Not reported Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported

PastUse: MANUFACTURING - LUMBER/WOOD PRODUCTS

ENVIROSTOR:

Site Type: School Investigation

Site Type Detailed: School
Acres: 2.09
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP

Program Manager: JUAN OSORNIO
Supervisor: Shahir Haddad
Division Branch: Chatsworth
Facility ID: 19240023
Site Code: 304306-11
Assembly: 48
Senate: 25

Special Program: Not reported
Status: No Further Action
Status Date: 2003-01-29 00:00:00

Restricted Use: NO

Funding: School District
Latitude: 33.9328
Longitude: -118.2903
Alias Name: 19240023

Alias Type: Envirostor ID Number

Alias Name: Not reported

Alias Type: Project Code (Site Code)

Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alias Type: Alternate Name Alias Name: Not reported Alternate Name Alias Type:

APN: NONE SPECIFIED
APN Description: Not reported
Comments: Not reported

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

WASHINGTON NEW PRIMARY CENTER NO. 1 (Continued)

S105628494

EDR ID Number

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Cost Recovery Closeout Memo

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Environmental Oversight Agreement

Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report

Completed Date: / /

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: / /

Confirmed:

Confirmed Description:

Future Area Name:

Future Sub Area Name:

Future Document Type:

Future Due Date:

NONE SPECIFIED

Not reported

Not reported

Not reported

Not reported

Media Affected: , 30153, 30550, 30108, 30003, 30593, 30272, 30013

Media Affected Desc: Not reported Media Affected Desc: Not reported Media Affected Desc: Not reported Media Affected Desc: Not reported Not reported Media Affected Desc: Media Affected Desc: Not reported Media Affected Desc: Not reported Media Affected Desc: Not reported

Management:

NONE SPECIFIED Management Required: Management Required Desc: Not reported Potential: SOIL, SURFW Potenital Description: Not reported Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported

PastUse: MANUFACTURING - LUMBER/WOOD PRODUCTS

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

31 HELEN KELLER PARK ENVIROSTOR 1000206572 SSE 1045 WEST 126TH STREET N/A

1/2-1 0.772 mi. 4076 ft.

Relative: ENVIROSTOR:

Lower Site Type: Historical Site Type Detailed: * Historical

LOS ANGELES, CA 90044

Site Type Detailed: * Historical

Actual: Acres: Not reported

167 ft. NPL: NO

Regulatory Agencies: NONE SPECIFIED Lead Agency: NONE SPECIFIED Program Manager: Not reported

Supervisor: Referred - Not Assigned

Division Branch: Chatsworth
Facility ID: 19790001
Site Code: Not reported

Assembly: 51 Senate: 25

Special Program: * RCRA 3012 - Past Haz Waste Disp Inven Site

Status: Refer: Other Agency Status Date: 1984-01-17 00:00:00

Restricted Use: NO

Funding: Not reported
Latitude: 33.9183333333333333334
Longitude: -118.2933333333333
Alias Name: Not reported

Alias Type: EPA Identification Number

Alias Name: 19790001

Alias Type: Envirostor ID Number

APN: NONE SPECIFIED APN Description: Not reported

Comments: FACILITY IDENTIFIED ID FROM ERRISSOURCE ACT UNKNOWN, PRESENTY A

RECREATNL PARK(2+ ACRES). SITE HISTORY (CL II LDFL WAS SPARSE. NO GAS MIGRATION WASE EN- COUNTERED IN CO ENGR STUDY OF THE SITE SUBMIT

TO EPA PRELIM ASSESS DONE RCRA 3012

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Assessment Report

Completed Date: /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Discovery
Completed Date: / /

NONE SPECIFIED Confirmed: Confirmed Description: Not reported Future Area Name: Not reported Not reported Future Sub Area Name: Future Document Type: Not reported Not reported Future Due Date: Media Affected: NONE SPECIFIED Media Affected Desc: Not reported

Management:

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

HELEN KELLER PARK (Continued)

1000206572

ENVIROSTOR \$101480808

N/A

Management Required: NONE SPECIFIED Management Required Desc: Not reported Potential: NONE SPECIFIED Potenital Description: Not reported Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported PastUse: NONE SPECIFIED

32 **ELECTRONIC PLATING COMPANY** SSE 13021 SOUTH BUDLONG AVENUE

1/2-1 GARDENA, CA 90247

0.988 mi. 5217 ft.

ENVIROSTOR: Relative:

Site Type: Historical Lower * Historical

Site Type Detailed: Actual: Acres: Not reported 117 ft.

NPL: Regulatory Agencies:

NONE SPECIFIED NONE SPECIFIED Lead Agency: Program Manager: Not reported

Referred - Not Assigned Supervisor:

Division Branch: Chatsworth Facility ID: 19340658 Not reported Site Code:

Assembly: 51 Senate: 25

Special Program: * RCRA 3012 - Past Haz Waste Disp Inven Site

Refer: Other Agency Status: Status Date: 1995-08-15 00:00:00

Restricted Use: NO

Funding: Not reported Latitude: 33.913888888889 -118.296388888889 Longitude: Alias Name: Not reported

EPA Identification Number Alias Type:

Alias Name: 19340658

Alias Type: **Envirostor ID Number**

APN: NONE SPECIFIED APN Description: Not reported

FACILITY DRIVE-BY ASAP STAFF SOURCE ACT: PLATING/POLISHING YR OF Comments:

OPER: 1974 TO PRESENT WASTE TYPE: BASES 76.7T OF HAZ WASTE/YR INCIDENT: 5/13/69 CHEM DERMITITIS, EXPOSR TO CHEM. SUBMIT TO EPA

PRELIM ASSESS DONE RCRA 3012FACILITY IDENTIFIED LA CHAM OF COMM BUS

DIR 1969FACILITY IDENTIFIED ID FROM ERRIS

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Assessment Report

Completed Date:

Completed Area Name: PROJECT WIDE

MAP FINDINGS Map ID Direction

Elevation

Distance

Site Database(s) **EPA ID Number**

ELECTRONIC PLATING COMPANY (Continued)

Completed Sub Area Name: Not reported Completed Document Type: Discovery

Completed Date:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported Completed Document Type: Discovery Completed Date:

Confirmed: NONE SPECIFIED Confirmed Description: Not reported Future Area Name: Not reported Future Sub Area Name: Not reported Future Document Type: Not reported Not reported Future Due Date: Media Affected: 10061, 10193 Media Affected Desc: Not reported Media Affected Desc: Not reported

Management:

NONE SPECIFIED Management Required: Management Required Desc: Not reported Potential: NONE SPECIFIED Potenital Description: Not reported Schedule Area Name: Not reported Not reported Schedule Sub Area Name: Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported NONE SPECIFIED PastUse:

S101480808

EDR ID Number

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ATHENS	S101297050	EXXON #7-3591 (FORMER)	1377 IMPERIAL HWY W	90044	LUST, Cortese
ATHENS	S102424259	ARCO #5016	12726 WESTERN AVE S	90047	LUST
EL SEGUNDO	1000840757	NORTHROP CORP AIRCRAFT DIV	800 N DOUGLAS	90250	FINDS, RCRA-LQG, RCRA-TSDF, CORRACTS, CERC-NFRAP
HAWTHORNE	S105628513	COCKATOO SCHOOL SITE	HAWTHORNE BOULEVARD/IMPERIAL HIGHWAY	90250	SCH, ENVIROSTOR
LOS ANGELES	S105960447	CALTRANS I-105 FREEWAY PROJECT 3, PARCELS 7 & 15	I-105 FREEWAY BETWEEN HAWTHORNE BLVD. AND LONG BEA	90047	CA BOND EXP. PLAN
LOS ANGELES	S105960448	CALTRANS I-105 FREEWAY PROJECT 4, PARCELS 16 & 17	I-105 FREEWAY BETWEEN HAWTHORN BLVD AND LONG BEACH	90047	CA BOND EXP. PLAN
LOS ANGELES	1000409976	NORTHROP CORP AIRCRAFT DIV	540 HAWAII AVE	90250	FINDS, CORRACTS, RCRA-NonGen
LOS ANGELES	S109117670	MATSON TERMINAL	950 NEW DOCK ST		LUST
LOS ANGELES	U001561761	EXXON SERVICE STATION	18526 NORMANDIE	90044	HIST UST
LOS ANGELES	S107030361	THOUSAND OAKS COUNTY 1962	11100 SANTA MONICA BL. STE. 300		SWF/LF
LOS ANGELES	1000409966	NORTHROP CORP AIRCRAFT DIV	1864 WOLFE AVE	90250	FINDS, CORRACTS, RCRA-NonGen
LOS ANGELES COUNTY	S105642458	1X MCKESSON DRUG CO	2		HAZNET, LUST, CHMIRS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/30/2008 Source: EPA
Date Data Arrived at EDR: 05/06/2008 Telephone: N/A

Date Made Active in Reports: 06/09/2008 Last EDR Contact: 07/28/2008

Number of Days to Update: 34 Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/30/2008 Source: EPA
Date Data Arrived at EDR: 05/06/2008 Telephone: N/A

Number of Days to Update: 34 Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/30/2008 Source: EPA
Date Data Arrived at EDR: 05/06/2008 Telephone: N/A

Number of Days to Update: 34 Next Scheduled EDR Contact: 10/27/2008
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA

Telephone: 202-564-4267 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/09/2008 Date Data Arrived at EDR: 07/22/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 34

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 07/22/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 12/03/2007 Date Data Arrived at EDR: 12/06/2007 Date Made Active in Reports: 02/20/2008

Number of Days to Update: 76

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 06/17/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 06/13/2008 Date Data Arrived at EDR: 06/27/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/25/2008 Date Data Arrived at EDR: 06/30/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 56

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Transporters, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/21/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/21/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/21/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/21/2008

Next Scheduled EDR Contact: 11/17/2008

Data Release Frequency: Varies

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 56

Source: Environmental Protection Agency Telephone: (415) 495-8895

Last EDR Contact: 08/21/2008

Next Scheduled EDR Contact: 11/17/2008

Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/23/2008 Date Data Arrived at EDR: 07/29/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 27

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/23/2008 Date Data Arrived at EDR: 07/29/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 27

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 01/23/2008 Date Made Active in Reports: 03/17/2008

Number of Days to Update: 54

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 07/25/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/30/2008 Date Data Arrived at EDR: 07/15/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 41

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 07/15/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 72

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 05/28/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 12/28/2007

Number of Days to Update: 25

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 06/27/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/01/2008 Date Data Arrived at EDR: 04/30/2008 Date Made Active in Reports: 05/30/2008

Number of Days to Update: 30

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 07/15/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS Telephone: 703-692-8801 Last EDR Contact: 08/08/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 08/31/2007 Date Made Active in Reports: 10/11/2007

Number of Days to Update: 41

Source: U.S. Army Corps of Engineers Telephone: 202-528-4285

Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 31

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 06/09/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 04/25/2008 Date Data Arrived at EDR: 06/12/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 06/18/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 45

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 07/13/2007 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 03/25/2008 Date Data Arrived at EDR: 04/17/2008 Date Made Active in Reports: 05/15/2008

Number of Days to Update: 28

Source: EPA, Region 9 Telephone: 415-972-3336 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/28/2008 Date Data Arrived at EDR: 06/25/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 61

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 06/25/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 49

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Date of Government Version: 12/31/2002 Date Data Arrived at EDR: 04/14/2006 Date Made Active in Reports: 05/30/2006

Number of Days to Update: 46

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 08/11/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/12/2008 Date Data Arrived at EDR: 07/18/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 38

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 07/12/2008 Date Data Arrived at EDR: 07/18/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 38

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 03/14/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2008 Date Data Arrived at EDR: 06/10/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 59

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/04/2007 Date Data Arrived at EDR: 02/07/2008 Date Made Active in Reports: 03/17/2008

Number of Days to Update: 39

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 08/07/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/08/2008 Date Data Arrived at EDR: 08/05/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 20

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/29/2008 Date Data Arrived at EDR: 07/31/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 25

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/31/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 07/09/2008 Date Made Active in Reports: 08/25/2008

Number of Days to Update: 47

Source: EPA Telephone: (415) 947-8000 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 03/06/2007 Date Made Active in Reports: 04/13/2007

Number of Days to Update: 38

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 06/11/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005 Date Data Arrived at EDR: 08/03/2006 Date Made Active in Reports: 08/24/2006

Number of Days to Update: 21

Source: Department of Toxic Substance Control

Telephone: 916-323-3400 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/24/2008 Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989 Date Data Arrived at EDR: 07/27/1994 Date Made Active in Reports: 08/02/1994

Number of Days to Update: 6

Source: Department of Health Services

Telephone: 916-255-2118 Last EDR Contact: 05/31/1994 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 23

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/28/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995 Date Data Arrived at EDR: 08/30/1995 Date Made Active in Reports: 09/26/1995

Number of Days to Update: 27

Source: State Water Resources Control Board

Telephone: 916-227-4364 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/09/2008 Date Data Arrived at EDR: 06/11/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 9

Source: Integrated Waste Management Board

Telephone: 916-341-6320 Last EDR Contact: 06/11/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007 Date Data Arrived at EDR: 06/20/2007 Date Made Active in Reports: 06/29/2007

Number of Days to Update: 9

Source: State Water Resources Control Board

Telephone: 916-341-5227 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000 Date Data Arrived at EDR: 04/10/2000 Date Made Active in Reports: 05/10/2000

Number of Days to Update: 30

Source: State Water Resources Control Board

Telephone: 916-227-4448 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001 Date Data Arrived at EDR: 05/29/2001 Date Made Active in Reports: 07/26/2001

Number of Days to Update: 58

Source: CAL EPA/Office of Emergency Information

Telephone: 916-323-3400 Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 07/09/2008 Date Data Arrived at EDR: 07/10/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 21

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 07/10/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/03/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 20

Source: State Water Resources Control Board

Telephone: see region list Last EDR Contact: 07/11/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001 Date Data Arrived at EDR: 02/28/2001 Date Made Active in Reports: 03/29/2001

Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)

Telephone: 707-570-3769 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-622-2433 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003 Date Data Arrived at EDR: 05/19/2003 Date Made Active in Reports: 06/02/2003

Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-542-4786 Last EDR Contact: 08/11/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6710 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 07/22/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-4834 Last EDR Contact: 07/22/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003 Date Data Arrived at EDR: 09/10/2003 Date Made Active in Reports: 10/07/2003

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)

Telephone: 530-542-5572 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005 Date Data Arrived at EDR: 06/07/2005 Date Made Active in Reports: 06/29/2005

Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)

Telephone: 760-241-7365 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008

Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004 Date Data Arrived at EDR: 02/26/2004 Date Made Active in Reports: 03/24/2004

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Telephone: 760-776-8943 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001 Date Data Arrived at EDR: 04/23/2001 Date Made Active in Reports: 05/21/2001

Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-637-5595 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005 Date Data Arrived at EDR: 02/15/2005 Date Made Active in Reports: 03/28/2005

Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Telephone: 909-782-4496 Last EDR Contact: 08/04/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994 Date Data Arrived at EDR: 09/05/1995 Date Made Active in Reports: 09/29/1995

Number of Days to Update: 24

Source: California Environmental Protection Agency

Telephone: 916-341-5851 Last EDR Contact: 12/28/1998 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 07/03/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 20

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 07/11/2008

Next Scheduled EDR Contact: 10/06/2008

Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003 Date Data Arrived at EDR: 04/07/2003 Date Made Active in Reports: 04/25/2003

Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)

Telephone: 707-576-2220 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008

Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-286-0457 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006 Date Data Arrived at EDR: 05/18/2006 Date Made Active in Reports: 06/15/2006

Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-549-3147 Last EDR Contact: 08/11/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004 Date Data Arrived at EDR: 11/18/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6600 Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008

Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005 Date Data Arrived at EDR: 04/05/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-3291 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005 Date Data Arrived at EDR: 05/25/2005 Date Made Active in Reports: 06/16/2005

Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch

Telephone: 619-241-6583 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region

Telephone: 530-542-5574 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008

Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004 Date Data Arrived at EDR: 11/29/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region

Telephone: 760-346-7491 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008

Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008 Date Data Arrived at EDR: 04/03/2008 Date Made Active in Reports: 04/14/2008

Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)

Telephone: 951-782-3298 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007 Date Data Arrived at EDR: 09/11/2007 Date Made Active in Reports: 09/28/2007

Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-467-2980 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/24/2008 Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/10/2008 Date Data Arrived at EDR: 07/10/2008 Date Made Active in Reports: 07/25/2008

Number of Days to Update: 15

Source: SWRCB Telephone: 916-480-1028 Last EDR Contact: 07/10/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 06/23/2008 Date Data Arrived at EDR: 06/23/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 9

Source: Department of Public Health

Telephone: 707-463-4466 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county

source for current data.

Date of Government Version: 10/15/1990 Date Data Arrived at EDR: 01/25/1991 Date Made Active in Reports: 02/12/1991

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-341-5851 Last EDR Contact: 07/26/2001 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 11/01/2007 Date Data Arrived at EDR: 11/27/2007 Date Made Active in Reports: 02/14/2008

Number of Days to Update: 79

Source: State Water Resources Control Board

Telephone: 916-341-5712 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: Quarterly

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/05/2008 Date Data Arrived at EDR: 05/06/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 45

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 08/04/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained.

The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994 Date Data Arrived at EDR: 07/07/2005 Date Made Active in Reports: 08/11/2005

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: N/A

Last EDR Contact: 06/03/2005 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 05/09/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 42

Source: Office of Emergency Services Telephone: 916-845-8400 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993 Date Data Arrived at EDR: 11/01/1993 Date Made Active in Reports: 11/19/1993

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-445-3846 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/30/2008 Date Data Arrived at EDR: 06/30/2008 Date Made Active in Reports: 07/31/2008 Number of Days to Update: 31 Source: Department of Toxic Substances Control Telephone: 916-323-3400
Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 23

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/28/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 07/31/2007 Date Data Arrived at EDR: 07/31/2007 Date Made Active in Reports: 08/09/2007

Number of Days to Update: 9

Source: Department of Toxic Substance Control

Telephone: 916-327-4498 Last EDR Contact: 07/03/2008

Next Scheduled EDR Contact: 08/11/2008 Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 02/26/2008 Date Data Arrived at EDR: 04/23/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board

Telephone: 213-576-6726 Last EDR Contact: 07/25/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 14

Source: Department of Toxic Substances Control

Telephone: 916-255-6504 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 23

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/28/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 10/04/2007 Date Made Active in Reports: 11/07/2007

Number of Days to Update: 34

Source: California Environmental Protection Agency

Telephone: 916-255-1136 Last EDR Contact: 08/08/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 04/17/2007 Date Made Active in Reports: 05/10/2007

Number of Days to Update: 23

Source: California Air Resources Board

Telephone: 916-322-2990 Last EDR Contact: 04/18/2008

Next Scheduled EDR Contact: 07/14/2008 Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing A listing of registered waste tire haulers.

Date of Government Version: 07/15/2008 Date Data Arrived at EDR: 07/18/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 13

Source: Integrated Waste Management Board

Telephone: 916-341-6422 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 09/08/2008

Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 05/28/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 23

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/28/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 08/08/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/24/2008 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/28/2008 Date Data Arrived at EDR: 06/10/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 59

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/17/2008 Date Data Arrived at EDR: 03/27/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 40

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/17/2008 Date Data Arrived at EDR: 03/27/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 40

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008 Date Data Arrived at EDR: 03/14/2008 Date Made Active in Reports: 03/20/2008

Number of Days to Update: 6

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 07/11/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 28

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/30/2008 Date Data Arrived at EDR: 05/30/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 70

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 06/16/2008 Date Data Arrived at EDR: 06/16/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 53

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
A listing of underground storage tank locations on Indian Land.

Date of Government Version: 03/12/2008 Date Data Arrived at EDR: 03/14/2008 Date Made Active in Reports: 03/20/2008

Number of Days to Update: 6

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 03/17/2008 Date Data Arrived at EDR: 03/27/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 40

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 12/21/2007 Date Data Arrived at EDR: 12/21/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 34

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 06/16/2008 Date Data Arrived at EDR: 06/16/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 53

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 06/01/2007 Date Data Arrived at EDR: 06/14/2007 Date Made Active in Reports: 07/05/2007

Number of Days to Update: 21

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 05/28/2008 Date Data Arrived at EDR: 06/10/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 59

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 07/11/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 28

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

No description is available for this data

Date of Government Version: 05/30/2008 Date Data Arrived at EDR: 06/27/2008 Date Made Active in Reports: 08/08/2008

Number of Days to Update: 42

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/28/2008 Date Data Arrived at EDR: 01/29/2008 Date Made Active in Reports: 02/14/2008

Number of Days to Update: 16

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 08/20/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/28/2008 Date Data Arrived at EDR: 01/29/2008 Date Made Active in Reports: 02/08/2008

Number of Days to Update: 10

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 08/20/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/03/2008 Date Data Arrived at EDR: 06/05/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 15

Source: Contra Costa Health Services Department

Telephone: 925-646-2286 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/24/2008 Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/31/2008 Date Data Arrived at EDR: 04/18/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 18

Source: Dept. of Community Health Telephone: 559-445-3271 Last EDR Contact: 08/04/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/03/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 29

Source: Kern County Environment Health Services Department

Telephone: 661-862-8700 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A

Number of Days to Update: 0

Source: EPA Region 9 Telephone: 415-972-3178 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/30/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Department of Public Works Telephone: 626-458-3517 Last EDR Contact: 08/11/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 05/12/2008 Date Data Arrived at EDR: 05/27/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 24

Source: La County Department of Public Works

Telephone: 818-458-5185 Last EDR Contact: 08/13/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2008 Date Data Arrived at EDR: 03/20/2008 Date Made Active in Reports: 04/14/2008

Number of Days to Update: 25

Source: Engineering & Construction Division

Telephone: 213-473-7869 Last EDR Contact: 06/09/2008

Next Scheduled EDR Contact: 09/08/2008

Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/14/2008 Date Data Arrived at EDR: 04/10/2008 Date Made Active in Reports: 05/06/2008

Number of Days to Update: 26

Source: Community Health Services

Telephone: 323-890-7806 Last EDR Contact: 08/11/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 06/10/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 22

Source: City of El Segundo Fire Department

Telephone: 310-524-2236 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003 Date Data Arrived at EDR: 10/23/2003 Date Made Active in Reports: 11/26/2003

Number of Days to Update: 34

Source: City of Long Beach Fire Department

Telephone: 562-570-2563 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/26/2008 Date Data Arrived at EDR: 02/27/2008 Date Made Active in Reports: 03/14/2008

Number of Days to Update: 16

Source: City of Torrance Fire Department

Telephone: 310-618-2973 Last EDR Contact: 08/25/2008

Next Scheduled EDR Contact: 11/10/2008 Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 05/07/2008 Date Data Arrived at EDR: 05/27/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 36

Source: Public Works Department Waste Management

Telephone: 415-499-6647 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008 Date Data Arrived at EDR: 07/09/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 22

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008 Date Data Arrived at EDR: 01/16/2008 Date Made Active in Reports: 02/08/2008

Number of Days to Update: 23

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 08/08/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Annually

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 7

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 06/04/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/16/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 4

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 06/04/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 07/14/2008

Number of Days to Update: 31

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 06/04/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/23/2007 Date Data Arrived at EDR: 07/23/2007 Date Made Active in Reports: 08/09/2007

Number of Days to Update: 17

Source: Placer County Health and Human Services

Telephone: 530-889-7312 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/15/2008 Date Data Arrived at EDR: 07/18/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 13

Source: Department of Public Health

Telephone: 951-358-5055 Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 05/13/2008 Date Data Arrived at EDR: 05/15/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 48

Source: Health Services Agency Telephone: 951-358-5055 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Contaminated Sites

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/06/2008 Date Data Arrived at EDR: 05/08/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 43

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/06/2008 Date Data Arrived at EDR: 05/08/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 43

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 10/27/2008 Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/23/2008 Date Data Arrived at EDR: 06/23/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 38

Source: San Bernardino County Fire Department Hazardous Materials Division

Telephone: 909-387-3041 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005 Date Data Arrived at EDR: 05/18/2005 Date Made Active in Reports: 06/16/2005

Number of Days to Update: 29

Source: Hazardous Materials Management Division

Telephone: 619-338-2268 Last EDR Contact: 07/29/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/2007 Date Data Arrived at EDR: 02/05/2008 Date Made Active in Reports: 02/14/2008

Number of Days to Update: 9

Source: Department of Health Services

Telephone: 619-338-2209 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 06/04/2008 Date Data Arrived at EDR: 07/25/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 6

Source: San Diego County Department of Environmental Health

Telephone: 619-338-2371 Last EDR Contact: 07/03/2008

Next Scheduled EDR Contact: 09/29/2008

Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/03/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 17

Source: Department Of Public Health San Francisco County

Telephone: 415-252-3920 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008 Date Data Arrived at EDR: 06/03/2008 Date Made Active in Reports: 07/14/2008

Number of Days to Update: 41

Source: Department of Public Health

Telephone: 415-252-3920 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/12/2008 Date Data Arrived at EDR: 06/13/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 19

Source: Environmental Health Department

Telephone: N/A

Last EDR Contact: 07/14/2008

Next Scheduled EDR Contact: 10/13/2008 Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/18/2008 Date Data Arrived at EDR: 06/18/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 2

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 07/10/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 20

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005 Date Data Arrived at EDR: 03/30/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 22

Source: Santa Clara Valley Water District

Telephone: 408-265-2600 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 07/17/2008 Date Data Arrived at EDR: 07/18/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 13

Source: Department of Environmental Health

Telephone: 408-918-3417 Last EDR Contact: 07/09/2008

Next Scheduled EDR Contact: 09/22/2008

Data Release Frequency: Varies

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/06/2008 Date Data Arrived at EDR: 06/10/2008 Date Made Active in Reports: 06/20/2008

Number of Days to Update: 10

Source: City of San Jose Fire Department

Telephone: 408-277-4659 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/23/2008 Date Data Arrived at EDR: 07/09/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 22

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2008 Date Data Arrived at EDR: 07/03/2008 Date Made Active in Reports: 07/25/2008

Number of Days to Update: 22

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 06/23/2008

Next Scheduled EDR Contact: 09/22/2008 Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 07/22/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 9

Source: Department of Health Services

Telephone: 707-565-6565 Last EDR Contact: 07/21/2008

Next Scheduled EDR Contact: 10/20/2008 Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007 Date Data Arrived at EDR: 05/04/2007 Date Made Active in Reports: 05/24/2007

Number of Days to Update: 20

Source: Sutter County Department of Agriculture

Telephone: 530-822-7500 Last EDR Contact: 06/30/2008

Next Scheduled EDR Contact: 09/29/2008 Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/29/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Ventura County Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 06/11/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2007 Date Data Arrived at EDR: 08/29/2007 Date Made Active in Reports: 09/26/2007

Number of Days to Update: 28

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 08/18/2008

Next Scheduled EDR Contact: 11/17/2008 Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 06/11/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 06/27/2008 Date Data Arrived at EDR: 07/11/2008 Date Made Active in Reports: 07/25/2008

Number of Days to Update: 14

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 07/11/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report Underground storage tank sites located in Yolo county.

Date of Government Version: 05/13/2008 Date Data Arrived at EDR: 05/30/2008 Date Made Active in Reports: 07/02/2008

Number of Days to Update: 33

Source: Yolo County Department of Health

Telephone: 530-666-8646 Last EDR Contact: 07/28/2008

Next Scheduled EDR Contact: 07/14/2008 Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 06/15/2007 Date Made Active in Reports: 08/20/2007

Number of Days to Update: 66

Source: Department of Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 06/13/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 09/30/2007 Date Data Arrived at EDR: 12/04/2007 Date Made Active in Reports: 12/31/2007

Number of Days to Update: 27

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 08/08/2008

Next Scheduled EDR Contact: 11/03/2008 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/27/2008 Date Data Arrived at EDR: 05/29/2008 Date Made Active in Reports: 07/10/2008

Number of Days to Update: 42

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 05/29/2008

Next Scheduled EDR Contact: 08/25/2008 Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 12/21/2007 Date Made Active in Reports: 01/10/2008

Number of Days to Update: 20

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 06/09/2008

Next Scheduled EDR Contact: 09/08/2008 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 06/03/2008 Date Made Active in Reports: 08/07/2008

Number of Days to Update: 65

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 06/16/2008

Next Scheduled EDR Contact: 09/15/2008 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 04/27/2007 Date Made Active in Reports: 06/08/2007

Number of Days to Update: 42

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 08/22/2008

Next Scheduled EDR Contact: 10/06/2008 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its

fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

comparable across all states.

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

TC2303451.2s Page GR-30

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

APN 6079-003-906 S NORMANDIE AVE & LAUREL ST LOS ANGELES, CA 90047

TARGET PROPERTY COORDINATES

Latitude (North): 33.92828 - 33° 55' 41.8" Longitude (West): 118.30172 - 118° 18' 6.2"

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 379681.4 UTM Y (Meters): 3754772.5

Elevation: 205 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 33118-H3 INGLEWOOD, CA

Most Recent Revision: 1981

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

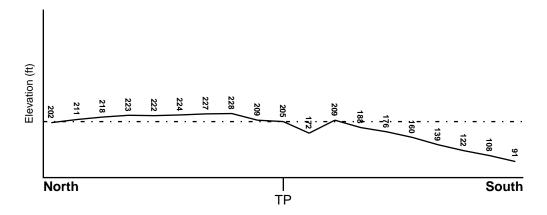
TOPOGRAPHIC INFORMATION

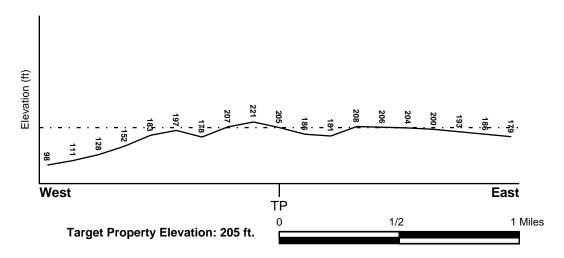
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

FEMA Flood

Target Property County
LOS ANGELES, CA

Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 0650430920B

Additional Panels in search area:

0650360000A 0601370091C 0601370092C 0650430910B 0601230001B 0601370097C 0601370096C 0601190000A

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
INGLEWOOD

NWI Electronic
Data Coverage
Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles

Location Relative to TP: 1/8 - 1/4 Mile WSW

Site Name: Normandy Mound Cal Trans Site #16

Site EPA ID Number: CAD982391708
Groundwater Flow Direction: Southwest
Inferred Depth to Water: 205 feet.

Hydraulic Connection: No substantial aquitards are believed to underlie the surficial

aquifer.

Sole Source Aquifer: No information about a sole source aquifer is available
Data Quality: Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

	LOCATION	GENERAL DIRECTION
MAP ID	FROM TP	GROUNDWATER FLOW
1	1/8 - 1/4 Mile NNW	Not Reported
2	1/4 - 1/2 Mile WNW	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era: Cenozoic Category: Stratifed Sequence

System: Quaternary Series: Quaternary

Code: Q (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

Soil Layer Information							
	Bou	ndary		Classif	ication		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam

gravelly - sandy loam

silt loam clay fine sand gravelly - sand

sand

fine sandy loam

Surficial Soil Types: sandy loam

gravelly - sandy loam

silt loam clay fine sand gravelly - sand

sand

fine sandy loam

Shallow Soil Types: fine sandy loam

gravelly - loam sandy clay sandy clay loam

clay silty clay sand

Deeper Soil Types: gravelly - sandy loam

sandy loam

very gravelly - sandy loam

stratified

very fine sandy loam weathered bedrock

sand

gravelly - fine sandy loam

silty clay loam clay loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS3156550	1/2 - 1 Mile WNW
6	USGS3156517	1/2 - 1 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
	4180	1/2 - 1 Mile South
A5	4183	1/2 - 1 Mile South
B7	4165	1/2 - 1 Mile WNW
B8	4178	1/2 - 1 Mile WNW
B9	4179	1/2 - 1 Mile WNW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1/2 - 1 Mile NNW	1/2 - 1 Mile NNW
1/2 - 1 Mile NNW	1/2 - 1 Mile NNW
1/2 - 1 Mile NNW	1/2 - 1 Mile NW
1/2 - 1 Mile NW 1/4 - 1/2 Mile NNW	1/4 - 1/2 Mile NNW 1/2 - 1 Mile NW
1/2 - 1 Mile NW	1/2 - 1 Mile WNW
1/4 - 1/2 Mile WNW	1/8 - 1/4 Mile NNE
1/8 - 1/4 Mile NNE	1/8 - 1/4 Mile NE
1/4 - 1/2 Mile ENE	1/8 - 1/4 Mile NE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)

1/4 - 1/2 Mile West 1/8 - 1/4 Mile WSW 0 - 1/8 Mile WSW 0 - 1/8 Mile SSE 1/4 - 1/2 Mile WSW 1/8 - 1/4 Mile SW 1/8 - 1/4 Mile South 1/4 - 1/2 Mile SW 1/4 - 1/2 Mile SW 1/4 - 1/2 Mile South 1/2 - 1 Mile ESE 1/4 - 1/2 Mile SSE 1/4 - 1/2 Mile SSE 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile SE 1/4 - 1/2 Mile South 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile SSE 1/2 - 1 Mile ESE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile SSE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile SSW

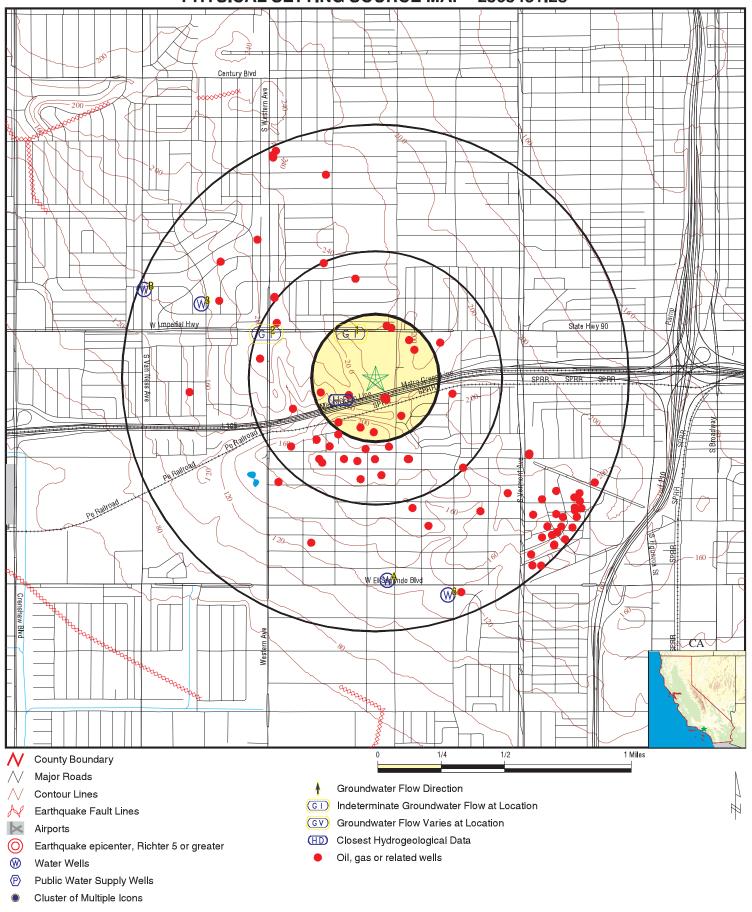
1/2 - 1 Mile SE

1/2 - 1 Mile SE

1/2 - 1 Mile SSE

DISTANCE FROM TP (Miles)

1/2 - 1 Mile West 1/4 - 1/2 Mile ESE 0 - 1/8 Mile SSE 0 - 1/8 Mile SSE 1/8 - 1/4 Mile SE 1/8 - 1/4 Mile SSW 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile South 1/2 - 1 Mile ESE 1/4 - 1/2 Mile SW 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile South 1/4 - 1/2 Mile SSW 1/4 - 1/2 Mile South 1/2 - 1 Mile SW 1/2 - 1 Mile ESE 1/2 - 1 Mile SE 1/2 - 1 Mile SE 1/2 - 1 Mile ESE 1/2 - 1 Mile ESE 1/2 - 1 Mile SE
PHYSICAL SETTING SOURCE MAP - 2303451.2s



SITE NAME: APN 6079-003-906

ADDRESS: S Normandie Ave & Laurel St

Los Angeles CA 90047 LAT/LONG: 33.9283/118.3017

Andersen Environmental

CLIENT: Andersen Envir CONTACT: Heather Nilson

INQUIRY#: 2303451.2s

August 25, 2008 7:31 pm DATE:

Map ID Direction Distance

Elevation Database EDR ID Number

NNW 1/8 - 1/4 Mile Higher Site ID: 900570061
Groundwater Flow: Not Reported

Shallow Water Depth: 8.37 Deep Water Depth: 12

Average Water Depth: Not Reported Date: 08/07/1996

WNW 1/4 - 1/2 Mile Higher Site ID: 900570061
Groundwater Flow: Not Reported
Shallow Water Depth: 8.37

Deep Water Depth: 12

Average Water Depth: Not Reported Date: 08/07/1996

3 WNW FED USGS USGS3156550 1/2 - 1 Mile Lower

Site no:

Agency cd: USGS

Site name: 003S014W11G002S

Latitude: 335557

 Longitude:
 1181846
 Dec lat:
 33.93251459

 Dec lon:
 -118.31368527
 Coor meth:
 M

 Coor accr:
 S
 Latlong datum:
 NAD27

Dec latlong datum: NAD83 District: 06
State: 06 County: 037
Country: US Land net: Not Reported

Location map: INGLEWOOD Map scale: 24000
Altitude: Not Reported

Altitude. Not Reported
Altitude method: Not Reported
Altitude accuracy: Not Reported
Altitude datum: Not Reported

Hydrologic: Santa Monica Bay. California. Area = 575 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: Not Reported

Date inventoried: Not Reported Mean greenwich time offset: PST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: Not Reported

Well depth: 425 Hole depth: 701

Source of depth data: Not Reported

Project number: 9479335800

Real time data flag: Not Reported Daily flow data begin date: Not Reported Daily flow data end date: Not Reported Daily flow data count: Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date: Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

AQUIFLOW

AQUIFLOW

335535118184601

55202

55196

Map ID Direction Distance

Elevation Database EDR ID Number

South CA WELLS 4180

Lower

Water System Information:

Prime Station Code: 03S/14W-13B02 S User ID: MET FRDS Number: 1910155003 User ID: County: Los Angeles

District Number: 15 Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY

Water Type: Well/Groundwater Well Status: Active Raw Source Lat/Long: 335500.0 1181800.0 Precision: Undefined

Source Name: BALLONA WELL 03

System Number: 1910155

System Name: SCWC - SOUTHWEST

Organization That Operates System:

17140 S. AVELON BLVD., STE 100

CARSON, CA 90746

Pop Served: 141449 Connections: 49234

Area Served: SOUTHWEST

A5 South CA WELLS 4183 1/2 - 1 Mile

Lower

Water System Information:

Prime Station Code: 03S/14W-14A01 S User ID: MET FRDS Number: 1910155012 County: Los Angeles

District Number: 15 Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY

Water Type: Well/Groundwater Well Status: Active Raw Source Lat/Long: 335500.0 1181800.0 Precision: Undefined

Source Name: EL SEGUNDO-WEST WELL 01

System Number: 1910155

System Name: SCWC - SOUTHWEST

Organization That Operates System:

17140 S. AVELON BLVD.,STE 100

CARSON, CA 90746

Pop Served: 141449 Connections: 49234

Area Served: SOUTHWEST

6 SSE FED USGS USGS3156517

1/2 - 1 Mile Lower

Agency cd: USGS Site no: 335457118174501

Site name: 003S014W13B002S

Latitude: 335457 Longitude: 1181745

Longitude: 1181745 Dec lat: 33.91584849

Dec Ion: -118.29674021 Coor meth: М S Latlong datum: NAD27 Coor accr: Dec latlong datum: NAD83 District: 06 State: 06 County: 037

Country: US Land net: Not Reported Location map: INGLEWOOD Map scale: 24000

Altitude: Not Reported
Altitude method: Not Reported
Altitude accuracy: Not Reported
Altitude datum: Not Reported

Hydrologic: Santa Monica Bay. California. Area = 575 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: Not Reported

Date inventoried: Not Reported Mean greenwich time offset: PST

Local standard time flag: Y

Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported Aquifer: Not Reported

Well depth: 565 Hole depth: 565

Source of depth data: Not Reported Project number: 9479335800

Real time data flag: Not Reported Daily flow data begin date: Not Reported Daily flow data end date: Not Reported Daily flow data count: Not Reported Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date: Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

B7
WNW
CA WELLS 4165

1/2 - 1 Mile Lower

Water System Information:

Prime Station Code: 03S/14W-03H01 S User ID: MET FRDS Number: 1910051012 County: Los Angeles

District Number: 15 Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY

Water Type: Well/Groundwater Well Status: Destroyed Source Lat/Long: 335600.0 1181900.0 Precision: Undefined

Source Name: WELL 38 - DESTROYED

System Number: 1910051

System Name: INGLEWOOD- CITY, WATER DEPT.

Organization That Operates System:

ONE MANCHESTER BLVD INGLEWOOD, CA 90301

Pop Served: 110000 Connections: 14721

Area Served: INGLEWOOD CITY

B8
WNW CA WELLS 4178
1/2 - 1 Mile

Lower

Water System Information:

Prime Station Code: 03S/14W-10H01 S User ID: MET FRDS Number: 1910051003 User ID: Los Angeles

District Number: 15 Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY

Water Type: Well/Groundwater Well Status: Destroyed Source Lat/Long: 335600.0 1181900.0 Precision: Undefined

Source Name: WELL 03 - DESTROYED

System Number: 1910051

System Name: INGLEWOOD- CITY, WATER DEPT.

Organization That Operates System:

ONE MANCHESTER BLVD

INGLEWOOD, CA 90301

Pop Served: 110000 Connections: 14721

Area Served: INGLEWOOD CITY

B9 WNW CA WELLS 4179

1/2 - 1 Mile Lower

Water System Information:

Prime Station Code: 03S/14W-11G02 S User ID: MET

FRDS Number: 1910155018 County: Los Angeles

District Number: 15 Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY

Water Type: Well/Groundwater Well Status: Destroyed Source Lat/Long: 335600.0 1181900.0 Precision: Undefined

Source Name: WILTON WELL 01 - DESTROYED

System Number: 1910155

System Name: SCWC - SOUTHWEST

Organization That Operates System:

17140 S. AVELON BLVD.,STE 100

CARSON, CA 90746

Pop Served: 141449 Connections: 49234

Area Served: SOUTHWEST

Direction

Distance Database **EDR ID Number**

NNW

1/2 - 1 Mile OIL_GAS CAOG40000031661

Apinumber: 03723481 Operator: Horizon Operating Co.

Lease: Kanada Well no:

HOWARD TOWNSITE Not Reported Field: Cagasoil m2 area:

Map: 124 Plugged and abandoned oil Status:

Source: hud

Latitude: 33.941269 -118.307653 Longitude:

Td: 0 Sec: 1

Twn: 3S Rge: 14W Bm: SB

0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000031661 District:

NNW 1/2 - 1 Mile

OIL_GAS CAOG40000031607

Apinumber: 03723558 Operator: Horizon Operating Co.

Lease: Kanada Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned oil Status:

Source: hud 33.94103 Latitude: -118.307851 Longitude:

0 Td: Sec: 1 Twn: 3S SB Bm: 0 X coord:

0 Y coord: Zone: Not Reported

Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000031607 District: Site id:

NNW 1/2 - 1 Mile CAOG40000031592 OIL_GAS

Rge:

Apinumber: 03723499 Operator: Horizon Operating Co.

Lease: Kanada Well no:

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.940978 Longitude: -118.307851

Td: 0 Sec: 1 Twn: 38

Twn: 3S Rge: 14W

Bm: SB
X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000031592

NNW 1/2 - 1 Mile OIL_GAS CAOG40000031575

Apinumber: 03723487 Operator: Horizon Operating Co.

Lease: Kanada Well no: 2

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

 Source:
 hud

 Latitude:
 33.940884

 Longitude:
 -118.307844

Td: 0
Sec: 1
Twn: 3S
Bm: SB

X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000031575

NNW 1/2 - 1 Mile OIL_GAS CAOG40000031386

Rge:

Apinumber: 03705644 Operator: McKeon Oil Co.

Lease: Western Well no: 1

Field: LOS ANGELES COUNTY Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.939898

 Longitude:
 -118.304217

Td: 0 Sec: 1

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000031386

NW

1/2 - 1 Mile OIL_GAS CAOG4000030923

Apinumber: 03707374 Operator: Chevron U.S.A. Inc.

Lease: Bilhorn Well no: 1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.936178

 Longitude:
 -118.308926

Td: 0 Sec: 2

Twn: 3S Rge: 14W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030923

NW

1/2 - 1 Mile OIL_GAS CAOG4000030785

Apinumber: 03707375 Operator: J. Paul Getty

 Lease:
 Westmore
 Well no:
 1

 Field:
 HOWARD TOWNSITE
 Cagasoil m2 area:
 Not Reported

Map: 124

Status: Plugged and abandoned oil

 Source:
 hud

 Latitude:
 33.934918

 Longitude:
 -118.31145

Td: 0 Sec: 2

Twn: 3S Rge: 14W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030785

Direction

Distance Database **EDR ID Number**

NNW

1/4 - 1/2 Mile OIL_GAS CAOG40000030774

Apinumber: 03705602 Operator: Robert S. Lytle, Operator

Lease: Anderson Well no:

HOWARD TOWNSITE Not Reported Field: Cagasoil m2 area:

Map:

Plugged and abandoned-dry hole Status:

Source: hud Latitude: 33.934833 -118.304371

Longitude: Td: 0 Sec: 1

Twn: 3S Rge: 14W

Bm: SB 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030774 District:

NNW 1/4 - 1/2 Mile

OIL_GAS CAOG40000030723

Apinumber: 03705600 Operator: Robert S. Lytle, Operator Lease: Anderson Well no:

LOS ANGELES COUNTY

Field: Cagasoil m2 area: Not Reported

Мар: 124

Status: Plugged and abandoned-dry hole

Source: hud 33.933943 Latitude: -118.30219 Longitude:

0 Td: Sec: 1

Twn: 3S Rge: 14W SB Bm:

0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000030723 District: Site id:

NW 1/2 - 1 Mile CAOG4000030680 OIL_GAS

Apinumber: 03721909 Operator: Oxy Petroleum, Inc.

Lease: Mono Racetrack Well no: 1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole-directional

 Source:
 hud

 Latitude:
 33.932899

 Longitude:
 -118.307742

Td: 0 Sec: 1

Twn: 3S Rge: 14W

Bm: SB
X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030680

NW 1/2 - 1 Mile OIL_GAS CAOG40000030678

Apinumber: 03720309 Operator: Oxy Petroleum, Inc.

Lease: West Athens Well no: 1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.932847

 Longitude:
 -118.307742

Td: 0 Sec: 1

Twn: 3S Rge: 14W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030678

WNW 1/2 - 1 Mile OIL_GAS CAOG40000030673

Apinumber: 03707641 Operator: J. E. Pettijohn

Lease: Westmore Land Co. Well no: 1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

 Source:
 hud

 Latitude:
 33.932678

 Longitude:
 -118.311545

Td: 0 Sec: 2

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030673

WNW 1/4 - 1/2 Mile

1/4 - 1/2 Mile OIL_GAS CAOG40000030611

Apinumber: 03705150 Operator: ARCO Western Energy

Lease: Anderson-Western Well no: 2

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.931414

 Longitude:
 -118.307594

Td: 0 Sec: 1

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030611

NNE 1/8 - 1/4 Mile

Apinumber: 03706166 Operator: Union Oil Co. of California

 Lease:
 Anderson
 Well no:
 1

 Field:
 LOS ANGELES COUNTY
 Cagasoil m2 area:
 Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.931251

 Longitude:
 -118.300045

Td: 0 Sec: 1

Twn: 3S Rge: 14W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030598

OIL_GAS

CAOG40000030598

Direction

Distance Database **EDR ID Number**

NNE 1/8 - 1/4 Mile CAOG40000030585 OIL_GAS

Apinumber: 03705149 Operator: ARCO Western Energy

Lease: Anderson-Western Well no:

Not Reported Field: LOS ANGELES COUNTY Cagasoil m2 area:

Map:

Plugged and abandoned-dry hole Status:

Source: hud Latitude: 33.931126 Longitude: -118.299721

Td: 0 Sec: 1

Twn: 3S Rge: 14W

SB Bm: 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

Site id: CAOG40000030585 District:

NE 1/8 - 1/4 Mile OIL_GAS CAOG40000030551

Apinumber: 03707650 Operator: CalResources LLC

Lease: Leonis Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned-dry hole Status:

Source: hud 33.93043 Latitude: -118.298504 Longitude:

0 Td: Sec: 12

Twn: 3S Rge: 14W

SB Bm: 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000030551 District: Site id:

ENE 1/4 - 1/2 Mile CAOG40000030546 OIL_GAS

Apinumber: 03720682 Operator: Chevron U.S.A. Inc.

Lease: Puente Corehole Well no:

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole-directional

Source: hud Latitude: 33.930285 Longitude: -118.296369

Td: 0 Sec: 12

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030546

NE 1/8 - 1/4 Mile OIL_GAS CAOG40000030512

Apinumber: 03707638 Operator: Pauley Petroleum Inc.

Lease: SCL & E Well no: 2-A

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: plugged and abandoned oil (has produced)

 Source:
 hud

 Latitude:
 33.929875

 Longitude:
 -118.298143

Td: 0 Sec: 12

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030512

West

Apinumber: 03706068 Operator: Chevron U.S.A. Inc.

Lease: Century Park Unit One Well no: 1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

1/4 - 1/2 Mile

Status: Plugged and abandoned-dry hole-directional

Source: hud Latitude: 33.929366 Longitude: -118.308742

Td: 0 Sec: 11

Twn: 3S Rge: 14W

OIL_GAS

CAOG40000030477

Bm: SB X coord: 0 Y coord: 0

Spuddate: 12/12/1968 00:00:00 Zone: Not Reported 12/30/1899 00:00:00 Abanddate: Comments: Not Reported CAOG40000030477 District: Site id:

West

1/2 - 1 Mile OIL_GAS CAOG40000030327

J. E. Pettijohn Apinumber: 03707640 Operator: Well no: Lease: Johnson **HOWARD TOWNSITE** Cagasoil m2 area: Field: Not Reported

Мар:

Plugged and abandoned oil Status:

Source: hud 33.927449 Latitude: Longitude: -118.313587

Td: 0 Sec: 11 3S

Twn: SB Bm:

X coord: 0 Y coord: 0

12/12/1968 00:00:00 Not Reported Spuddate: Zone: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030327 District:

WSW 1/8 - 1/4 Mile

OIL_GAS CAOG40000030325

Rge:

03702086 Apinumber: Operator: Santa Fe Energy Operating Partners, L.P. Lease: Union-Poindexter Well no:

Rge:

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map:

Plugged and abandoned oil Status:

Source: hud 33.927434 Latitude: Longitude: -118.304575

Td: Sec: 12 Twn: 3S

SB Bm: X coord: 0

0 Y coord:

Not Reported 12/12/1968 00:00:00 Zone: Spuddate: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000030325

14W

Direction

Distance Database **EDR ID Number**

ESE 1/4 - 1/2 Mile OIL_GAS CAOG40000030319

Rge:

14W

14W

Apinumber: 03721543 Operator: Chevron U.S.A. Inc.

Lease: West Athens Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Map:

Status: Plugged and abandoned-dry hole-directional

Source: hud Latitude: 33.92736 -118.295526 Longitude:

Td: 0

12 Sec: Twn: 3S

SB Bm: 0 X coord:

Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030319 District:

wsw 0 - 1/8 Mile

OIL_GAS CAOG40000030310

Apinumber: 03700190 Operator: Santa Fe Energy Operating Partners, L.P.

Lease: Union-Poindexter Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned oil Status:

Source: hud 33.927281 Latitude: -118.302642 Longitude:

0 Td: Sec: 12 Twn: 3S

SB Bm: 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000030310 District: Site id:

Rge:

SSE 0 - 1/8 Mile

CAOG4000030299 OIL_GAS

03707639 Apinumber: Operator: Pauley Petroleum Inc.

Lease: S.R.G. Community Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Map:

Status: Plugged and abandoned oil

Source: hud Latitude: 33.92713 Longitude: -118.300206

0 Td: 12 Sec:

14W Twn: 3S Rge:

Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported CAOG40000030299 District: Site id:

SSE 0 - 1/8 Mile

Apinumber: 03707637 Operator: Pauley Petroleum Inc. Lease: SCL & E Well no:

HOWARD TOWNSITE

Field: Cagasoil m2 area: Not Reported

Мар:

Status: plugged and abandoned oil (has produced)

Source: hud Latitude: 33.927127 Longitude: -118.3001 0 Td:

Sec: 12 Twn: **3S**

Rge: 14W

Bm: SB X coord: 0 Y coord: 0

12/12/1968 00:00:00 Zone: Not Reported Spuddate: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000030298

SSE 0 - 1/8 Mile

OIL_GAS CAOG4000030297

03707636 Apinumber: Operator: Pauley Petroleum Inc.

Lease: Geddes Well no:

HOWARD TOWNSITE Cagasoil m2 area: Not Reported Field:

Map:

plugged and abandoned oil (has produced) Status:

Source: hud Latitude: 33.927019 Longitude: -118.30007

0 Td: 12 Sec:

Twn: 3S Rge: 14W CAOG40000030298

OIL_GAS

Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Abanddate: Comments: Not Reported CAOG40000030297 District: Site id:

wsw

1/4 - 1/2 Mile OIL_GAS CAOG40000030267

03707652 Apinumber: Operator: Santa Fe Energy Operating Partners, L.P.

Union-Poindexter Well no: Lease:

HOWARD TOWNSITE Cagasoil m2 area: Field: Not Reported

Мар:

Plugged and abandoned oil Status:

Source: hud 33.926497 Latitude: Longitude: -118.306483

Td: 0 Sec: 12

3S 14W Twn: Rge:

SB Bm: X coord: 0 Y coord: 0

12/12/1968 00:00:00 Not Reported Spuddate: Zone: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030267 District:

Source:

1/8 - 1/4 Mile OIL_GAS CAOG40000030237

03707634 Apinumber: Operator: McMahon & McDonald

Lease: Not Reported Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Map: 124

Status: oil tunnel entrance

33.926094 Latitude: Longitude: -118.299046 Td:

hud

Sec: 12

Twn: 3S 14W Rge: SB Bm: X coord: 0

0 Y coord: Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000030237

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Direction

Distance Database **EDR ID Number**

SW 1/8 - 1/4 Mile OIL_GAS CAOG40000030202

Apinumber: 03707630 Operator: Petro-Lewis Corp.

Lease: Howard Park Fee Well no:

HOWARD TOWNSITE Not Reported Field: Cagasoil m2 area:

Map: Status: Plugged and abandoned oil

Source: hud

Latitude: 33.925722 -118.30336 Longitude:

Td: 0 12 Sec:

Twn: 3S Rge: 14W SB Bm:

0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

Site id: CAOG40000030202 District:

SSW 1/8 - 1/4 Mile

OIL_GAS CAOG40000030183

Apinumber: 03700189 Operator: Geo Petroleum, Inc.

Lease: Moser Community Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Status: Completed oil Source: gps 33.925422 Latitude: -118.301841 Longitude:

0 Td: Sec: 12 Twn: 3S SB Bm:

0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000030183 District: Site id:

Rge:

South 1/8 - 1/4 Mile

CAOG40000030155 OIL_GAS

03707651 Apinumber: Operator: Geo Petroleum, Inc.

Lease: Moser Community Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Status: Completed oil Source: gps

Latitude: 33.925155 Longitude: -118.300931 0 Td:

Map:

12 Sec: 3S Twn: Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Not Reported Abanddate: CAOG40000030155 District: Site id:

SSW 1/4 - 1/2 Mile CAOG40000030145 OIL_GAS

Rge:

14W

14W

Apinumber: 03707631 Operator: Petro-Lewis Corp.

Lease: Howard Park Fee Well no: Not Reported

HOWARD TOWNSITE Field: Cagasoil m2 area:

Мар: 124 Status: Plugged and abandoned oil

Source: hud Latitude: 33.925029 -118.303371

Longitude: 0 Td: 12 Sec: Twn: **3S**

Bm: SB X coord: 0 Y coord: 0

12/12/1968 00:00:00 Zone: Not Reported Spuddate: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported District: Site id: CAOG40000030145

SW 1/4 - 1/2 Mile

Rge:

03707632 Apinumber: Operator: Petro-Lewis Corp.

Lease: Howard Park Fee Well no:

HOWARD TOWNSITE Cagasoil m2 area: Not Reported Field:

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.92472 Longitude: -118.304859

0 Td: 12 Sec:

Twn: 3S Rge: 14W

OIL_GAS

CAOG40000030118

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030118

SSW

1/4 - 1/2 Mile OIL_GAS CAOG4000030073

Apinumber: 03707633 Operator: Petro-Lewis Corp. Lease: Howard Park Fee Well no: 4
Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.924346 Longitude: -118.303961

Td: 0 Sec: 12 Twn: 3S

Bm: SB

X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030073

SW 4/2 Mile

1/4 - 1/2 Mile OIL_GAS CAOG40000030072

Rge:

Apinumber: 03707643 Operator: Geo Petroleum, Inc.

Lease: Howard Community Well no: 1-1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: oil converted to waterflood

 Source:
 gps

 Latitude:
 33.924339

 Longitude:
 -118.306614

Td: 0 Sec: 12 Twn: 3S

 Twn:
 3S
 Rge:
 14W

 Bm:
 SB

X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000030072

Direction

Distance Database **EDR ID Number**

South

1/4 - 1/2 Mile OIL_GAS CAOG40000030071

Rge:

14W

14W

OIL_GAS

Union Oil Co. of California

CAOG40000030060

Apinumber: 03706486 Operator: Power Run Oil LLC

Lease: Moser Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Map: 124

Status: Completed oil Source: gps Latitude: 33.924324 -118.299888 Longitude: Td: 0

12 Sec: Twn: 3S

Bm: SB 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030071 District:

South 1/4 - 1/2 Mile

Apinumber:

Operator:

Lease: Mosier Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned-dry hole Status:

03707654

Source: hud 33.924193 Latitude: -118.301495

Longitude: 0 Td: Sec: 12

Twn: 3S SB Bm:

0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000030060 District: Site id:

ESE 1/2 - 1 Mile

CAOG4000030044 OIL_GAS

Rge:

03706076 Chevron U.S.A. Inc. Apinumber: Operator:

Lease: Ducommun Well no: 1-A

LOS ANGELES COUNTY Field: Cagasoil m2 area: Not Reported

Map:

Status: Plugged and abandoned-dry hole

Source: hud Latitude: 33.923934 Longitude: -118.290243

0 Td: 7 Sec:

3S 13W Twn: Rge:

Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Not Reported Abanddate: CAOG40000030044 District: Site id:

ESE 1/2 - 1 Mile

03706075 Apinumber: Operator: Chevron U.S.A. Inc.

Lease: Ducommun Well no:

LOS ANGELES COUNTY Field: Cagasoil m2 area: Not Reported

Мар:

Status: Plugged and abandoned-dry hole

Source: hud Latitude: 33.923844 Longitude: -118.290257

0 Td: Sec: 7

Twn: **3S** Rge: 13W

Bm: SB 0 X coord: Y coord: 0

12/12/1968 00:00:00 Zone: Not Reported Spuddate: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000030036

SW 1/4 - 1/2 Mile OIL_GAS

03707645 Apinumber: Operator: Geo Petroleum, Inc.

Lease: **Howard Community** Well no:

HOWARD TOWNSITE Cagasoil m2 area: Not Reported Field:

Map: 124 Status: Completed oil Source: gps

33.923624 Latitude: Longitude: -118.304676

0 Td: 12 Sec:

Twn: 3S Rge: 14W CAOG40000030036

CAOG40000030025

OIL_GAS

Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Abanddate: Comments: Not Reported CAOG40000030025 District: Site id:

SSE

1/4 - 1/2 Mile OIL_GAS CAOG40000030024

Apinumber: 03707629 Operator: Geo Petroleum, Inc.

Howard Park Community Well no: Lease:

HOWARD TOWNSITE Cagasoil m2 area: Field: Not Reported

Мар: 124

Completed oil Status: Source: gps

33.923621 Latitude: Longitude: -118.298588

Td: 0 Sec: 12 3S Twn:

SB Bm:

X coord: 0 Y coord: 0

12/12/1968 00:00:00 Not Reported Spuddate: Zone: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000030024 District:

Rge:

SSW 1/4 - 1/2 Mile

OIL_GAS CAOG40000030022

Rge:

03706485 Power Run Oil LLC Apinumber: Operator:

Well no: Lease: Hunter Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: Completed oil Status:

Source: gps 33.923619 Latitude: Longitude: -118.302976

Td: Sec: 12 Twn: 3S

SB Bm: X coord: 0

0 Y coord:

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000030022

14W

Direction

Distance Database **EDR ID Number**

SSE 1/4 - 1/2 Mile OIL_GAS CAOG40000030021

Cagasoil m2 area:

Apinumber: 03707628

Lease: Geddes

HOWARD TOWNSITE Field:

Map: 124

Status: Completed oil Source: gps Latitude: 33.923615 -118.298517 Longitude:

Td:

0 12 Sec: Twn: 3S Bm: SB

0 X coord: Y coord: 0

Zone: Not Reported Abanddate: 12/30/1899 00:00:00

District:

Operator: Geo Petroleum, Inc.

Well no:

Not Reported

Rge: 14W

Spuddate: 12/12/1968 00:00:00 Comments: Not Reported Site id: CAOG40000030021

South 1/4 - 1/2 Mile

OIL_GAS CAOG40000030020

Rge:

Apinumber: 03706482

Lease: Howard

HOWARD TOWNSITE Field:

Мар: 124

Status: Completed oil

Source: gps

33.923608 Latitude: -118.30085 Longitude:

0 Td: Sec: 12

Twn: 3S SB

Bm: 0 X coord:

0 Y coord:

Zone: Not Reported Abanddate: 12/30/1899 00:00:00

District:

Operator: Power Run Oil LLC Well no:

Cagasoil m2 area: Not Reported

14W

Spuddate: 12/12/1968 00:00:00 Comments: Not Reported

Site id: CAOG40000030020

SSW 1/4 - 1/2 Mile

CAOG4000030006 OIL_GAS

03706484 Power Run Oil LLC Apinumber: Operator:

Lease: Deist Well no: 86-1

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Map: 124 Status: Completed oil Source: gps Latitude: 33.923503

Longitude: -118.302059 0 Td: 12 Sec: 14W

3S Twn: Rge: Bm: SB X coord: 0 Y coord: 0

gps

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Not Reported Abanddate: CAOG40000030006 District: Site id:

SSW 1/4 - 1/2 Mile CAOG40000029998 OIL_GAS

03707646 Apinumber: Operator: Geo Petroleum, Inc.

Lease: **Howard Community** Well no:

HOWARD TOWNSITE Field: Cagasoil m2 area: Not Reported

Мар: 124

Status: Completed oil

33.923408 Latitude: Longitude: -118.304469 0 Td:

12 Sec: Twn: **3S** Rge: 14W Bm: SB

0 X coord: Y coord: 0 12/12/1968 00:00:00 Zone: Not Reported Spuddate: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

SE 1/4 - 1/2 Mile OIL_GAS CAOG40000029970

Site id:

03707642 Sentinel Oil Co. Apinumber: Operator:

Lease: Athens Well no:

HOWARD TOWNSITE Cagasoil m2 area: Not Reported Field:

Map:

Status: Plugged and abandoned-dry hole Source: hud

Latitude: 33.923124 -118.294801 Longitude: 0 Td:

Source:

District:

12 Sec: Twn: 3S Rge: 14W

CAOG40000029998

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029970

South 1/4 - 1/2 Mile

Apinumber: 03707647 Operator: Geo Petroleum, Inc.

Lease: Howard Community Well no: 2-1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Completed oil

 Source:
 gps

 Latitude:
 33.922692

 Longitude:
 -118.300406

Td: 0 Sec: 12

Twn: 3S Rge: 14W

Bm: SB X coord: 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029936

South
1/4 - 1/2 Mile OIL_GAS

Apinumber: 03707644 Operator: Geo Petroleum, Inc.

Lease: Howard Community Well no: 1-2

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124
Status: Completed oil
Source: gps

Latitude: 33.922463 Longitude: -118.301834

Td: 0
Sec: 12
Twn: 3S

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029909

Rge:

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14W

OIL_GAS

CAOG40000029936

CAOG40000029909

Direction

Distance Database **EDR ID Number**

SW 1/2 - 1 Mile OIL_GAS CAOG40000029897

Rge:

14W

Apinumber: 03707655 Operator: Woodward Oil Co., Ltd.

Lease: Scher Well no:

HOWARD TOWNSITE Not Reported Field: Cagasoil m2 area:

Map:

Plugged and abandoned-dry hole Status:

Source: hud Latitude: 33.922302 -118.307477 Longitude:

Td: 0

12 Sec: Twn: 3S

SB Bm: 0 X coord:

Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000029897 District:

ESE 1/2 - 1 Mile

OIL_GAS CAOG40000029896

Apinumber: 03714978 Operator: Chevron U.S.A. Inc.

Lease: Fox Comm. Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned-dry hole Status:

Source: hud 33.922277 Latitude:

-118.285753 Longitude: 0

Td: Sec: 7

Twn: 3S Rge: 13W

SB Bm: 0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000029896 District: Site id:

ESE 1/2 - 1 Mile

CAOG40000029852 OIL_GAS

Apinumber: 03714985 Operator: The Twin State Oil Co.

Lease: Green Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

Source: hud Latitude: 33.921792 Longitude: -118.288401

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029852

ESE 1/2 - 1 Mile OIL_GAS CAOG40000029841

Apinumber: 03713587 Operator: Dominion Oil Co.

Lease: Athens Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.921664

 Longitude:
 -118.286794

Td: 0 Sec: 7

Twn: 3S Rge: 13W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029841

SE 1/2 - 1 Mile OIL_GAS CAOG40000029840

Apinumber: 03714401 Operator: Scope Industries

Lease: Howard Townsite Owners Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.921664 Longitude: -118.291728

Td: 0 Sec: 12

Twn: 3S Rge: 14W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029840

ESE

1/2 - 1 Mile OIL_GAS CAOG40000029822

Apinumber: 03714469 Operator: Crown Central Petroleum Corp.

Lease: Marine Well no: 40

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.921418

 Longitude:
 -118.287154

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB X coord: 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029822

SE 1/2 - 1 Mile

Apinumber: 03714984 Operator: The Twin State Oil Co. Lease: Not Reported Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.921311

 Longitude:
 -118.289376

Td: 0 Sec: 7

Twn: 3S Rge: 13W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029820

OIL_GAS

CAOG40000029820

Direction

Distance Database **EDR ID Number**

ESE 1/2 - 1 Mile OIL_GAS CAOG40000029809

Rge:

Spuddate:

13W

13W

12/12/1968 00:00:00

Apinumber: 03714384 Operator: J. T. Robertson Co.

Lease: Not Reported Well no:

Field: **ROSECRANS** Cagasoil m2 area: Not Reported

Map: 124

Status: oil tunnel entrance

Source: hud Latitude: 33.921211 Longitude: -118.286776

Td: 0

Sec: 7 Twn: 3S

SB Bm: 0 X coord:

Y coord: 0 Zone: Not Reported

Abanddate: 12/30/1899 00:00:00 Comments: Not Reported Site id: CAOG40000029809 District:

ESE 1/2 - 1 Mile

OIL_GAS CAOG40000029784

Apinumber: 03714470 Operator: Crown Central Petroleum Corp.

Rge:

Lease: Marine Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned oil Status:

Source: hud 33.920836 Latitude:

-118.287123 Longitude:

Td: 0 Sec: 7 Twn: 3S

SB Bm: 0 X coord:

0 Y coord: Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments:

Not Reported CAOG40000029784 District: Site id:

SSE 1/2 - 1 Mile CAOG40000029779 OIL_GAS

Apinumber: 03707648 Operator: Geo Petroleum, Inc.

Lease: Howard Community Well no: 2-2

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124 Status: Completed oil

 Source:
 gps

 Latitude:
 33.920813

 Longitude:
 -118.298269

Td: 0 Sec: 12 Twn: 3S

Twn: 3S Rge: 14W

Bm: SB
X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029779

ESE 1/2 - 1 Mile OIL_GAS CAOG40000029777

Apinumber: 03713574 Operator: E. L. Blanton

Lease: Not Reported Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.920808

 Longitude:
 -118.286671

 Td:
 0

 Sec:
 7

 Twn:
 3S

Twn: 3S Rge: 13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029777

ESE 1/2 - 1 Mile OIL_GAS CAOG40000029765

Apinumber: 03714423 Operator: Marmac Resources Co.

Lease: St. Anthony Well no: 1-B

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.920683 Longitude: -118.287114

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029765

SE 1/2 - 1 Mile OIL_GAS CAOG40000029761

Apinumber:03707635Operator:Asioco Inc.Lease:MillsWell no:1Field:HOWARD TOWNSITECagasoil m2 area:Not Reported

Map: 124

Status: Completed oil
Source: gps
Latitude: 33.920631
Longitude: -118.293607

Longitude: -11
Td: 0
Sec: 12
Turn: 38

Twn: 3S Bm: SB X coord: 0

X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029761

SE 1/2 - 1 Mile OIL_GAS CAOG40000029752

Rge:

Rge:

Apinumber: 03714397 Operator: Geo Petroleum, Inc.

 Lease:
 Miley
 Well no:
 6

 Field:
 ROSECRANS
 Cagasoil m2 area:
 Not Reported

 Map:
 124

 Status:
 Completed oil

 Source:
 gps

 Latitude:
 33.920465

 Longitude:
 -118.288396

 Td:
 0

 Sec:
 7

 Twn:
 3S

 Bm:
 SB

X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029752

14W

Direction

Distance Database **EDR ID Number**

SE 1/2 - 1 Mile

OIL_GAS CAOG40000029748

Apinumber: 03714489 Operator: Chevron U.S.A. Inc.

Lease: Baskin Well no:

ROSECRANS Not Reported Field: Cagasoil m2 area:

124 Map:

Plugged and abandoned oil Status:

0

Source: hud Latitude: 33.920429 -118.289981 Longitude:

Td: Sec:

7 Twn: 3S Rge: 13W

Bm: SB 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

Site id: CAOG40000029748 District:

SE 1/2 - 1 Mile

OIL_GAS CAOG40000029742

Apinumber: 03714981 Operator: Chevron U.S.A. Inc.

Lease: Mccormick Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned-dry hole Status:

Source: hud 33.920305 Latitude:

-118.286984 Longitude: 0 Td:

Sec: 7 Twn: 3S SB Bm:

0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000029742 District:

Site id:

SE 1/2 - 1 Mile CAOG40000029740 OIL_GAS

Rge:

Apinumber: 03713592 Operator: Wm E. Garner

Lease: Garner Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

Source: hud Latitude: 33.920292 Longitude: -118.287937

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029740

SSE 1/2 - 1 Mile OIL_GAS CAOG40000029698

Apinumber: 03707649 Operator: Geo Petroleum, Inc.

Lease: Howard Community Well no: 4-1

Field: HOWARD TOWNSITE Cagasoil m2 area: Not Reported

Map: 124

Status: Completed oil

 Source:
 gps

 Latitude:
 33.919793

 Longitude:
 -118.297173

 Td:
 0

 Sec:
 12

 Twn:
 3S

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029698

SE 1/2 - 1 Mile OIL_GAS CAOG40000029694

Rge:

Apinumber: 03713596 Operator: Chevron U.S.A. Inc.

Lease: Athens Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Status: Plugged and abandoned oil

124

 Source:
 hud

 Latitude:
 33.919765

 Longitude:
 -118.289004

Td: 0 Sec: 7

Map:

Twn: 3S Rge: 13W

Bm: SB X coord: 0 0 Y coord:

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Abanddate: Comments: Not Reported Site id: CAOG40000029694 District:

SE 1/2 - 1 Mile OIL_GAS CAOG40000029692

Operator: Apinumber: 03715036 Woolner Oil Corp., Ltd.

Athens Well no: Lease:

ROSECRANS Cagasoil m2 area: Not Reported Field:

Мар: 124

Plugged and abandoned-dry hole Status:

Source: hud 33.919749 Latitude: Longitude: -118.288047

Td: 0 Sec: 7

3S 13W Twn: Rge:

Bm: SB X coord: 0 Y coord: 0

12/12/1968 00:00:00 Not Reported Spuddate: Zone: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported District: Site id: CAOG40000029692

SE 1/2 - 1 Mile

03714404 Sentinel Oil Co. Apinumber: Operator:

Lease: Athens Well no: 2

Field: **ROSECRANS** Cagasoil m2 area: Not Reported

Map:

Status: Plugged and abandoned-dry hole

hud Source: 33.9197 Latitude: Longitude: -118.28728

Td: Sec: 7

Twn: 3S 13W Rge:

SB Bm: X coord: 0 0 Y coord:

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Abanddate: Not Reported District: Site id: CAOG40000029689

OIL_GAS

CAOG40000029689

Direction

Distance Database **EDR ID Number**

SE 1/2 - 1 Mile

OIL_GAS CAOG40000029668

Apinumber: 03714471 Operator: Crown Central Petroleum Corp.

Rge:

Lease: Marine Well no:

Not Reported **ROSECRANS** Field: Cagasoil m2 area:

Map: 124

Plugged and abandoned oil Status:

Source: hud Latitude: 33.919432

-118.288343 Longitude: 0

Td: Sec: 7 Twn: 3S

SB Bm: 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

Site id: CAOG40000029668 District:

SE 1/2 - 1 Mile

Apinumber: 03714417 Operator: Guy N. Stafford

Rge:

Lease: Athens Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned oil Status:

Source: hud 33.919267 Latitude: -118.288688 Longitude:

0 Td: Sec: 7 Twn: 3S SB Bm:

0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

CAOG40000029659 District: Site id:

SE 1/2 - 1 Mile

CAOG40000029651 OIL_GAS

OIL_GAS

CAOG40000029659

13W

13W

03713568 Operator: Apinumber: ARCO Western Energy

Lease: Mitchell Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.919135 Longitude: -118.289366

0 Td: 7 Sec:

3S 13W Twn: Rge:

Bm: SB X coord: 0 Y coord: 0

Not Reported Spuddate: 12/12/1968 00:00:00 Zone: 12/30/1899 00:00:00 Comments: Not Reported Abanddate: CAOG40000029651 District: Site id:

SE 1/2 - 1 Mile CAOG40000029643 OIL_GAS

03714424 Apinumber: Operator: Chevron U.S.A. Inc.

Lease: Swigert Well no:

ROSECRANS Field: Cagasoil m2 area: Not Reported

Мар: 124

Status: Plugged and abandoned oil

Source: hud Latitude: 33.919019 Longitude: -118.287783

0 Td: Sec: 7 Twn: **3S** Bm: SB

X coord: 0 Y coord: 0

12/12/1968 00:00:00 Zone: Not Reported Spuddate: Abanddate: 12/30/1899 00:00:00 Comments: Not Reported District: Site id: CAOG40000029643

SSW 1/2 - 1 Mile

Rge:

03707653 Apinumber: Operator: Tri State Petroleum Corp., Ltd.

Lease: Not Reported Well no:

HOWARD TOWNSITE Cagasoil m2 area: Not Reported Field:

Map:

Status: Plugged and abandoned-dry hole

Source: hud Latitude: 33.918828 -118.305228 Longitude:

0 Td: 12 Sec:

Twn: 3S Rge: 14W

OIL_GAS

CAOG40000029635

13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029635

SE 1/2 - 1 Mile OIL_GAS CAOG40000029627

Apinumber: 03714392 Operator: Geo Petroleum, Inc.

Lease: Not Reported Well no: J-1

Field: ROSECRANS Cagasoil m2 area: Not Reported Map: 124

Status: Completed oil
Source: gps
Latitude: 33.918719

 Longitude:
 -118.288535

 Td:
 0

 Sec:
 7

 Twn:
 3S
 Rge:
 13W

 Twn:
 3S

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

District: 1 Site id: CAOG40000029627

SE 1/2 - 1 Mile OIL_GAS CAOG40000029625

Apinumber: 03713637 Operator: L. R. Knowlton Lease: Athens Well no: 1 Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124
Status: Plugged and abandoned oil

Source: hud
Latitude: 33.918675

Latitude: 33.918675 Longitude: -118.288544 Td: 0

Sec: 7
Twn: 3S Rge: 13W
Bm: SB

X coord: 0
Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029625

Direction

Distance Database **EDR ID Number**

SE 1/2 - 1 Mile

OIL_GAS CAOG40000029593

Apinumber: 03713638 Operator: L. R. Knowlton

Lease: Athens Well no:

ROSECRANS Not Reported Field: Cagasoil m2 area:

Map: 124

Plugged and abandoned oil Status: Source: hud

Latitude: 33.918154 -118.290117 Longitude:

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB 0 X coord: Y coord: 0

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported

Site id: CAOG40000029593 District:

SE 1/2 - 1 Mile

OIL_GAS CAOG40000029559

Apinumber: 03713622 Operator: Hitchcock & Ort

Lease: H. & O. Well no:

Field: **ROSECRANS** Cagasoil m2 area: Not Reported

Мар: 124

Plugged and abandoned-dry hole Status:

Source: hud 33.917528 Latitude: -118.290031 Longitude:

0 Td: Sec: 7

Twn: 3S Rge: 13W

SB Bm: 0 X coord: 0 Y coord:

Zone: Not Reported Spuddate: 12/12/1968 00:00:00 Abanddate: 12/30/1899 00:00:00 Comments: Not Reported CAOG40000029559 District: Site id:

SE 1/2 - 1 Mile

CAOG40000029557 OIL_GAS

Apinumber: 03713589 Operator: The Emerald Oil Co.

Lease: Emerald Well no: 1

Field: ROSECRANS Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.917515

 Longitude:
 -118.289432

Td: 0 Sec: 7

Twn: 3S Rge: 13W

Bm: SB X coord: 0 Y coord: 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029557

SSE 1/2 - 1 Mile OIL_GAS CAOG40000029463

Apinumber: 03700473 Operator: Jack Herley and Paul L. Kelley

Lease: T.I.T. Well no: 1

Field: LOS ANGELES COUNTY Cagasoil m2 area: Not Reported

Map: 124

Status: Plugged and abandoned-dry hole

 Source:
 hud

 Latitude:
 33.915999

 Longitude:
 -118.294921

Td: 0 Sec: 13 Twn: 3S

Twn: 3S Rge: 14W

 Bm:
 SB

 X coord:
 0

 Y coord:
 0

 Zone:
 Not Reported
 Spuddate:
 12/12/1968 00:00:00

 Abanddate:
 12/30/1899 00:00:00
 Comments:
 Not Reported

 District:
 1
 Site id:
 CAOG40000029463

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
			
90047	5	0	0.00

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	0.711 pCi/L Not Reported	98% Not Reported	2% Not Reported	0% Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations Source: Department of Conservation

Telephone: 916-323-1779

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208 Radon Database for California

Area Radon Information Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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CALTRANS I-105 FREEWAY PROJECT 4

I-105 FREEWAY BETWEEN HAWTHORN BLVD AND LONG BEACH LOS ANGELES, CA 90047

Inquiry Number: September 5, 2008

EDR Site Report™

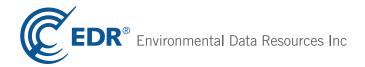


TABLE OF CONTENTS

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Section	on 1: Facility Summary
	Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.
Section	on 2: Facility Detail Reports
	All available detailed information from databases where sites are identified.
Section	on 3: Databases and Update InformationPage
	Name, source, update dates, contact phone number and description of each of the databases for this report.

Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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SECTION 1: FACILITY SUMMARY

FACILITY	FACILITY 1 CALTRANS I-105 FREEWAY PROJECT 4, PARCELS I-105 FREEWAY BETWEEN HAWTHORN BLVD AND LOS ANGELES, CA 90047 EDR ID #S105960448
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	YES - p4
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

MULTIMEDIA

Facility is listed in a county/local unique database

DATABASE: State/County (LOCAL)

CALTRANS I-105 FREEWAY PROJECT 4, PARCELS 16 & 17 I-105 FREEWAY BETWEEN HAWTHORN BLVD AND LONG BEACH LOS ANGELES, CA 90047 EDR ID #S105960448

CA BOND EXP. PLAN:

RESPONSIBLE PARTY-LEAD SITE CLEANUP WORKPLAN

Reponsible Party:
Project Revenue Source Company: Not reported

Project Revenue Source Company.
Project Revenue Source Addr:
Project Revenue Source City,St,Zip:
Project Revenue Source Desc:

Not reported
CALTRANS has entered into an interagency agreement with DHS which provides
\$250,000 per year for three years for oversight/monitoring of all of the I-105
Projects. Therefore, DHS has budgeted no monies for direct costs related to

investigation and cleanup activities.

Site Description: This site consists of Parcels 16 and 17 of a ten parcel area. These sites are suspected of containing hazardous wastes and are located in the area of the

I-105 Freeway realignment between Hawthorne Boulevard and the Long Beach

Freeway in Los AngelesCounty.
Preliminary investigations at Parcels 16 and 17 have indicated elevated levels Hazardous Waste Desc:

Threat To Public Health & Env: The primary threats to public health and the environment are due to the

potential for waste migration to ground and surface waters and direct contact. Preliminary and remedial investigations are currently in progress.

Site Activity Status:

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA CA BOND EXP. PLAN: Bond Expenditure Plan

Source: Department of Health Services

Telephone: 916-255-2118

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989 Database Release Frequency: No Update Planned Date of Last EDR Contact: 05/31/1994 Date of Next Scheduled Update: Not reported EXXON #7-3591 (FORMER) 1377 IMPERIAL HWY W ATHENS, CA 90044

Inquiry Number: September 5, 2008

EDR Site Report™

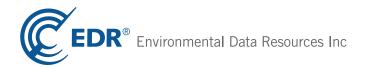


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Section	on 3: Databases and Update InformationPage 7
	Name, source, update dates, contact phone number and description of each of the databases for this report.

Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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SECTION 1: FACILITY SUMMARY

FACILITY	FACILITY 1 EXXON #7-3591 (FORMER) 1377 IMPERIAL HWY W ATHENS, CA 90044 EDR ID #S101297050
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	YES - p4
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	YES - p6
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	2

WASTE MANAGEMENT

Facility has reported leaking underground storage tank incidents

DATABASE: Leaking Petroleum Storage Tank Database (LUST)

EXXON #7-3591 (FORMER) 1377 IMPERIAL HWY W ATHENS, CA 90044 EDR ID #S101297050

LUST:

Region: STATE

Pollution Characterization

Status: Case Number: Local Case #: I-03027 Not reported Chemical: Gasoline Qty Leaked: Not reported Abate Method: Not reported 1991-10-21 00:00:00 Release Date: 1991-10-21 00:00:00 Discover Date: Not reported 1997-12-02 00:00:00 Report Date: Enforcement Dt: Review Date: Not reported 1991-12-22 00:00:00 1991-10-21 00:00:00 Enter Date:

Stop Date: Confirm Leak: Not reported

Case Type: Cross Street: Other ground water affected NORMANDIE AVE

Enf Type: Funding: SEL How Discovered: ŌΜ

How Stopped: Not reported Leak Cause: UNK Leak Source: **UNK**

Global Id: T0603702884 1989-05-19 00:00:00 Workplan: 1991-10-07 00:00:00 Prelim Assess: 2007-08-10 00:00:00 Pollution Char: Not reported 2000-01-01 00:00:00 Remed Plan: Remed Action: Not reported 1965-01-01 00:00:00 Monitoring: MTBE Date: GW Qualifier:

Not reported Soil Qualifier: Not reported
Max MTBE GW ppb: 400
Max MTBE Soil ppb: Not reported County: Org Name: Not reported Reg Board: Los Angeles Region

Not reported JAMES LEIST 3700 W. 190TH ST., TPT #2-4 Contact Person: Responsible Party:

RP Address: Interim: Not reported

Oversight Prgm: MTBE Class: MTBE Conc: LUST

MTBE Fuel: MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected

Staff:

Staff Initials:

Lead Agency: Regional Board

Local Agency: 19000

Hydr Basin #: SAN FERNANDO VALLEY

Beneficial: Not reported Not reported Priority: Cleanup Fund Id: Not reported Work Suspended: Not reported

Operator: HILGERS, MICHAEL D.

Water System Name: Not reported Well Name: Not reported

Distance To Lust:

Waste Discharge Global ID: Not reported

Waste Disch Assigned Name: Not reported

Summary: 7/15/00 2ND QTR GW MON RPT 2000; 11/15/00 3RD QTR GW MON RPT 2000; 1/12/01 4TH

QTR GW MON RPT2000; 4/12/01 1ST QTR GW MON RPT 2001

LUST REG 4:

Region: Regional Board: 04

...Continued...

Los Angeles I-03027 County: facid:

Status: Remedial action (cleanup) Underway

Substance: Gasoline Substance Quantity: Local Case No: Not reported Case Type: Groundwater
Abatement Method Used at the Site:
Global ID:

Not reported

Global ID: W Global ID: T0603702884 Not reported MB Staff:

Local Agency: Cross Street: 19000 NORMANDIE AVE

Enforcement Type: LET

Date Leak Discovered: Date Leak First Reported: 10/21/1991

10/21/1991

Date Leak Record Entered: 12/22/1991 Date Confirmation Began: Not reported Date Leak Stopped: 10/21/1991

7/11/2002 Date Case Last Changed on Database: Date the Case was Closed: Not reported

How Leak Discovered: How Leak Stopped: Not reported Cause of Leak: Leak Source: UNK UNK

Operator: Water System: HILGERS, MICHAEL D.

Not reported Well Name: Not reported

Approx. Dist To Production Well (ft): 5143.3675716723568754892185619

Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: 5/19/1989 Preliminary Site Assessment Began: Pollution Characterization Began: 10/7/1991 4/27/1993 Pollution Characterization Began:
Remediation Plan Submitted:
Remedial Action Underway:
Post Remedial Action Monitoring Began:
Enforcement Action Date:
Historical Max MTBE Date:
Hist Max MTBE Conc in Groundwater:
Hist Max MTBE Conc in Soil:
Significant Interim Remedial Action Taken:
GW Qualifier: Not reported 12/5/2003 Not reported 12/2/1997 2/10/2004 686

Not reported Not reported

GW Qualifier: Soil Qualifier: Not reported Organization: Owner Contact: Not reported

Not reported JENNIFER A. SEDLACHEK P.O. BOX 4032, CONCORD Responsible Party: RP Address:

Program:

33.9311078 / -1 Lat/Long: Local Agency Staff: Beneficial Use: Not reported Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Assigned Name: Not reported

Summary: 7/15/00 2ND QTR GW MON RPT 2000; 11/15/00 3RD QTR GW MON RPT 2000; 1/12/01 4TH

QTR GW MON RPT2000; 4/12/01 1ST QTR GW MON RPT 2001

...Continued...

MULTIMEDIA

Facility is listed in a county/local unique database

DATABASE: State/County (LOCAL)

EXXON #7-3591 (FORMER) 1377 IMPERIAL HWY W ATHENS, CA 90044 EDR ID #S101297050

Cortese:

Region: CORTESE Facility Addr2: Not reported

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA LUST: Geotracker's Leaking Underground Fuel Tank Report

Source: State Water Resources Control Board

Telephone: Not reported

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/03/2008 Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/11/2008 Date of Next Scheduled Update: 10/06/2008

CA LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)

Telephone: 530-542-5572

For more current information, please refer to the State Water Resources Control Board's LUST

database.

Date of Government Version: 09/09/2003 Date of Last EDR Contact: 09/02/2008 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 12/01/2008

CA LUST REG 6V: Leaking Underground Storage Tank Case Listing

Source: California Regional Water Quality Control Board Victorville Branch Office (6) Telephone: 760-241-7365

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino

counties.

Date of Government Version: 06/07/2005 Date of Last EDR Contact: 06/30/2008 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 09/29/2008

CA NAPA CO. LUST: Sites With Reported Contamination

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008 Date of Last EDR Contact: 07/09/2008 Database Release Frequency: Semi-Annually Date of Next Scheduled Update: 09/22/2008

CA ORANGE CO. LUST: List of Underground Storage Tank Cleanups

Source: Health Care Agency Telephone: 714-834-3446

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/02/2008 Date of Last EDR Contact: 09/04/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 12/01/2008

CA LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001 Date of Last EDR Contact: 08/18/2008 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 11/17/2008

...Continued...

CA LUST REG 2: Fuel Leak List

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-622-2433

Leaking Underground Storage Tank locations, Alameda, Contra Costa, Marin, Napa, San Francisco,

San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004 Date of Last EDR Contact: 07/09/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 10/06/2008

CA LUST REG 3: Leaking Underground Storage Tank Database

Source: California Regional Water Quality Control Board Central Coast Region (3) Telephone: 805-542-4786

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa

Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003 Date of Last EDR Contact: 08/11/2008 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 11/10/2008

CA LUST REG 4: Underground Storage Tank Leak List

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6710

Los Angeles, Ventura counties. For more current information, please refer to the State Water

Resources Control Board's LUST database.

Date of Last EDR Contact: 06/23/2008 Date of Government Version: 09/07/2004 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 09/22/2008

CA LUST REG 5: Leaking Underground Storage Tank Database

Source: California Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-4834

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Last EDR Contact: 07/22/2008 Date of Government Version: 07/01/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 09/29/2008

CA LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Telephone: 760-776-8943

Leaking Underground Storage Tank locations.

Date of Last EDR Contact: 08/18/2008 Date of Government Version: 02/26/2004 Database Release Frequency: No Update Planned Date of Next Scheduled Update: 11/17/2008

CA LUST REG 8: Leaking Underground Storage Tanks

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Telephone: 909-782-4496

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005 Date of Last EDR Contact: 08/04/2008 Database Release Frequency: Varies Date of Next Scheduled Update: 11/03/2008

CA LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-637-5595

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001 Date of Last EDR Contact: 07/14/2008 Date of Next Scheduled Update: 10/13/2008 Database Release Frequency: No Update Planned

...Continued...

CA RIVERSIDE CO. LUST: Listing of Underground Tank Cleanup Sites

Source: Department of Public Health Telephone: 951-358-5055

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Last EDR Contact: 07/14/2008 Date of Government Version: 07/15/2008 Date of Next Scheduled Update: 10/13/2008 Database Release Frequency: Quarterly

CA SAN MATEO CO. LUST: Fuel Leak List

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Last EDR Contact: 07/09/2008 Date of Government Version: 07/10/2008 Database Release Frequency: Semi-Annually Date of Next Scheduled Update: 10/06/2008

CA LUST SANTA CLARA: LOP Listing

Source: Department of Environmental Health

Telephone: 408-918-3417

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 07/17/2008 Date of Last EDR Contact: 07/09/2008 Database Release Frequency: Varies Date of Next Scheduled Update: 09/22/2008

CA SAN FRANCISCO CO. LUST: Local Oversite Facilities

Source: Department Of Public Health San Francisco County Telephone: 415-252-3920

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/02/2008 Date of Last EDR Contact: 09/02/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 12/01/2008

CA SOLANO CO. LUST: Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/23/2008 Date of Last EDR Contact: 06/23/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 09/22/2008

CA SONOMA CO. LUST: Leaking Underground Storage Tank Sites

Source: Department of Health Services Telephone: 707-565-6565

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2008 Date of Last EDR Contact: 07/21/2008 Database Release Frequency: Quarterly Date of Next Scheduled Update: 10/20/2008

CA VENTURA CO. LUST: Listing of Underground Tank Cleanup Sites

Source: Environmental Health Division

Telephone: 805-654-2813

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Last EDR Contact: 06/11/2008 Date of Government Version: 05/29/2008 Date of Next Scheduled Update: 09/08/2008 Database Release Frequency: Quarterly

CA CORTESE: "Cortese" Hazardous Waste & Substances Sites List

Source: CAL EPA/Office of Emergency Information

Telephone: 916-323-3400

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

This listing is no longer updated by the state agency.

Date of Last EDR Contact: 07/21/2008 Date of Next Scheduled Update: 10/20/2008 Date of Government Version: 04/01/2001 Database Release Frequency: No Update Planned

OTHER DOCUMENTATION

```
California Department of Transportation
 2
                                               RECORDED/FILED IN OFFICIAL RECORDS
    District 7 R/W EXCESS LAND
120 South Spring Street
                                                   RECORDER'S OFFICE
LOS ANGELES COUNTY
 3 ;
    Los Angeles, California
                                                       CALIFORNIA
 4
                                                   MIN.
                                                           P.M. NOV 21 1994
                                                        1
    When Recorded, Mail To:
                                                   PAST
 5
    California Environmental Protection Agency
    Department of Toxic Substances Control
 6
    Site Mitigation Branch, Region 3
    1011 North Grandview Avenue
 7
    Glendale, California 91201
    Attention: Chief, Site Mitigation Branch
 8
 9
                                                            FREE
                                  COVENANT
                      TO RESTRICT THE USE OF PROPERTY
10 }
                 CALTRANS SITE 16, IMPERIAL AND NORMANDIE
11
         This Covenant and Agreement (Covenant) is made on the
12
    10th day of Mumber, 1994, by the California Department of
13
    Transportation (Covenantor), who is the owner of record of certain
14
    property situated in the
                                  County of Los Angeles,
                                                              State of
15
    California,
                  described
                              in
                                  Exhibit
                                            "A"
                                                 attached hereto
16
    incorporated herein by this reference (the Property) and by the
17:
    California Environmental Protection Agency, Department of Toxic
18
    Substances Control (the Department), with reference to the
19
    following facts:
20
         Α.
              This Property, as described in Exhibit A, also referred
21
              to as Site 16, contains hazardous substances.
22
              Property is located near the intersection of Imperial
23
              Highway and Normandy Avenue; it is bordered by the St.
24
              Francis X. Cabrini Church to the north, Normandie Avenue
25
              to the east,
                             Southwest Community College on the west,
26
              and the Southern Pacific Transportation Company railroad '
27
```

07-LA-105-5.8 PARCEL: 47650

Recording requested by:

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7 8	
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line to the south. The Property was used as an
uncontrolled landfill since the early 1940s, until the
1980s. Solid wastes composed of construction rubble
(concrete, bricks, asphalt), as well as glass, metals,
ash and rubbish were disposed of at the site during this
period. The lowest most portion of the landfill is
comprised primarily of wood. In a soil gas survey done
prior to excavating for the Century freeway, methane gas,
which could have been generated by the decomposition of
wood, was detected in the area. Soil gas monitoring will
be continued at Site 16 to assure that the methane gas
does not accumulate under the geomembrane (plastic) cap
which covers the Property. Other contaminants identified
at Site 16 include lead, copper, and zinc. Approximately
120,000 cubic yards of the contaminated landfill
materials will remain at Site 16, and approximately
31,555 square yards of Site 16 is covered by the clay
cap. This property is a designated State Superfund site.

Potential health effects. Lead in the soil is a hazardous material. Primary exposure routes include direct contact with, ingestion, and inhalation of contaminated soil or dust. The installed cap will prevent contact with contaminated soil and control contaminated dust. It will also prevent rain or surface water from percolating down to the groundwater to degrade it.

Surrounding land use. The area surrounding the Property is highly urbanized, consisting primarily of residential neighborhoods and

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- commercial zones along the major thoroughfares. A nursery school and a plant nursery lie south of the Property.
 - B. Covenantor desires and intends that in order to protect the present or future public health and safety, the Property shall be used in a manner to avoid potential harm to persons or property which may result—from hazardous substances which have been deposited on portions of the Property.

ARTICLE I GENERAL PROVISIONS

Provisions to Run with the Land. This Covenant sets protective provisions, covenants, restrictions, conditions, (collectively referred to as "Restrictions"), upon and subject to which the Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. Each and all of the Restrictions shall run with the land, and pass with each and every portion of the Property, and shall apply to and bind the respective successors in interest thereof. Each and all of the restrictions are imposed upon the entire Property unless expressly stated as applicable to specific portion of the Property. Each and all the Restrictions are imposed pursuant to Section 25355.5 California Health and Safety Code and run with the land pursuant to Section 25355.5. Each and all to the Restrictions are enforceable by the Department pursuant to Health and Safety Code 25355.5.

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- 1.02 <u>Concurrence of Owners Presumed.</u> All purchasers, lessees, or possessors of any portion of the Property shall be deemed by their purchase, leasing, or possession of such Property, to be in accord with the foregoing and to agree for and among themselves, their heirs, successors, and assignees, and the agents, employees, and lessees of such owners, heirs, successors, and assignees, that the Restrictions as herein established must be adhered to for the benefit of future owners and occupants and that their interest in the Property shall be subject to the restrictions contained herein.
- 1.03 <u>Incorporation Into Deeds and Leases</u>. Covenantor desires and covenants that the Restrictions set out herein shall be incorporated by reference in each and all deeds and leases of any portion of the Property.
- 1.04 <u>Future Modifications</u>. This Covenant may be modified consistent with applicable law or as necessary to fully implement the requirements of the remedial action plan.

ARTICLE II DEFINITIONS

- 2.01 <u>Property.</u> "Property" shall mean that area as described in the Exhibit A attached herein.
- 2.02 <u>Department.</u> "Department" shall mean the California Environmental Protection Agency, Department of Toxic Substances Control, and shall include its successor agencies, if any.
- 2.03 <u>Improvements.</u> "Improvements" shall mean all buildings, roads, driveways, paved parking areas, excavations and regradings

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- 2.04 Occupants. "Occupants" shall mean those persons entitled by ownership, leasehold, or other legal relationship to the exclusive right to occupy any portion of the Property.
- 2.05 Owner. "Owner" shall mean the Covenantor or its successors in interest, including heirs, and assigns, who hold title to all or any portion of the Property.

ARTICLE III DEVELOPMENT, USE AND CONVEYANCE OF THE PROPERTY

3.01 <u>Restrictions on Use.</u> Covenantor promises to restrict the use of the Property as follows:

The Property shall not be used, absent written Departmental approval, for residential, agricultural, commercial or industrial purposes, schools, child care facilities, convalescent homes or any other facility for full time human habitation. If any person wishes to use the Property for purposes which may result in human exposure to site contaminants, the Department may require further investigation, including, but not limited to, evaluation of the risk to occupants of such facilities, feasibility of construction of such facilities, and the impact of construction of such facilities on public health and the environment.

3.02 Conveyance of Property. The Owner(s) shall provide notice to the Department of any sale, lease or other conveyance of the Property or an interest in the Property to a third person within thirty (30) days of such conveyance. The Department shall not, by reason of this covenant, have the authority to approve,

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disapprove, or otherwise affect any sale, lease or other conveyance of the Property except as otherwise provided by law.

3.03 Enforcement. Failure of the Owner(s) to comply with any of the requirements, as set forth in paragraph 3.01 and 4.01 herein, shall be grounds for the Department, by reason of the Covenant, to require that the Owner(s) halt, modify or remove any Improvements implemented in violation of that paragraph. Any violation of the Covenant shall be grounds for the Department to file a civil action and/or any other legal or equitable remedy, against the Owner as provided by law.

3.04 Notice of Agreements. All Owners and Occupants shall execute a written instrument which shall accompany all purchase, lease, sublease, or rental agreements relating to the property. The instrument shall contain the following statement:

"The land described herein contains hazardous substances. Such condition renders the land and the owner, lessee, or other possessor of the land subject to the requirements, restrictions, provisions and liabilities contained in Chapter 6.5 and Chapter 6.8 of Division 20 of the California Health and Safety Code. This statement is not a declaration that a hazard exists."

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ARTICLE IV SOIL GAS MONITORING AND CAP MAINTENANCE

- 4.01 Soil Gas Monitoring and Cap Maintenance.
- 25; The Property Owner(s) shall:
 - (a) Assume responsibility for the operation and maintenance

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and reporting requirements pursuant to this Agreement. Responsibility shall include implementation of a soil gas monitoring and cap maintenance plan, as described in Exhibit B, production of the annual reports pursuant to paragraph 4.03 and completion of the five year review pursuant to paragraph 4.04.

- (b) Allow no improvements which will prevent access to such monitoring wells by the Owner, the Department, or their authorized representative.
- (c) Allow the Department and its authorized representatives the right at all times to inspect any of the soil gas monitoring wells.
- 4.02 Right to Relocate. The Owner(s) shall have the right to relocate any of the soil gas monitoring wells located on the Property, subject to the Department's approval of a relocation request. Such relocation request shall identify the specific area of the proposed relocation and any technical information to confirm that the location is consistent with the purpose and objectives of the operation and maintenance requirements pursuant to the approved RAP.
- 4.03 Annual Summary Reports. Within thirty (30) days of the initial operation of the soil gas monitoring and on an annual basis thereafter, the Owner(s) shall be responsible for the preparation of a Annual Summary Report detailing the activities undertaken pursuant to the provisions of this Agreement. The report must be received by the Department by the fifteenth (15th) day of the first

- month after each year ends and shall describe:
- a) Specific actions taken by or on behalf of the Owner during the previous year;
 - b) Actions expected to be undertaken during the current year;
 - c) All planned activities for the next year;
 - d) Any requirements under this Agreement that were not completed;
 - e) Any problems or anticipated problems in complying with this Agreement; and
 - f) All results of sample analyses, tests, and other data generated under the Agreement, and any significant findings from these data.
- 4.04 Five Year Reviews. Pursuant to Section 121(c) of 14 CERCLA (42 U.S.C. §9601, et seq.), as amended by the Superfund 15 1 Amendments and Reauthorization Act (SARA) of 1986, the Owner(s) 16 shall be responsible for the preparation of a remedial action 17 review work plan within thirty [30] days before the end of the five 18 year period following approval of the final RAP (September 21, 19 1992). Within sixty [60] days of the Department's approval of the 20 work plan, Owner(s) shall be responsible for the implementation of 21 the work plan and submission of a comprehensive report of the 22 results of the remedial action review. The report shall provide 23 the results of all sample analyses, tests and other data generated 24 or received by the Owner and evaluate the adequacy of 25 implemented remedy in protecting public health, safety and the 26

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environment.

4.05 Financial Assurance. The Property Owner(s) will provide sufficient monies for the operation and maintenance and site review requirements pursuant to this Agreement.

ARTICLE V VARIANCE_AND TERMINATION

5.01 Variance. The Covenantor, or any Owner, or with the Owner's consent, any Occupant of the Property or any portion thereof may apply to the Department for a written variance from the provisions of this Covenant. Such application shall be made in accordance with Health and Safety Code, Section 25233.

Termination. The Covenantor, or any Owner, or with the Owner's consent, an Occupant of the Property or a portion thereof may apply to the Department for a termination of the Restrictions as they apply to all or any portion of the Property. application shall be made in accordance with California Health and Safety Code, Section 25234.

5.03 Term. Unless terminated in accordance with paragraph 5.02 above, by law or otherwise, this Covenant shall continue in effect in perpetuity.

ARTICLE VI MISCELLANEOUS

6.01 No Dedication Intended. Nothing set forth herein shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property or any portion thereof to the general public or for any purposes whatsoever.

E OF CALIFORNIA 113 (REV. 8-72)

1	6.02 <u>Notices.</u> Whenever any person gives or serves any
2 ;	notice, demand, or other communication with respect to this
3	Covenant, each such notice, demand, or other communication shall be
4	in writing and shall be deemed effective 1) when delivered, if
5	personally delivered to the person being served or to an officer of
6 ;	a corporate party being served or official of a government agency
7	being served, or 2) three business days after deposit in the mail
8	if mailed by United States mail, postage paid certified, return
9 ⁱ	receipt requested:
10 :	To: California Department of Transportation

District 7 120 S. Spring Street 11 Los Angeles, California 90012 Attn: Chief, Project Development Branch A 12 13 Copy to: California Environmental Protection Agency Department of Toxic Substances Control 14 Region 3 1011 North Grandview Avenue 15: Glendale, California 91201 Attn: Chief, Site Mitigation Branch 16

(Any party to this Covenant, or bound thereby, may effect a change of address by notifying other parties bound by this Covenant, in writing, of the address change).

6.03 Partial Invalidity. If any portion of the Restrictions set forth herein or terms is determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such portion had not been included herein.

6.04 Article Headings. Headings at the beginning of each numbered article of this Covenant are solely for the convenience of the parties and are not a part of the Covenant.

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Recordation. This instrument shall be executed by the Covenantor and by the Branch Chief, Department of Toxic Substances This instrument shall be recorded by the Covenantor in Control. the County of Los Angeles within ten (10) days of the date of execution.

6.06 References. All references_to the California Health and Safety Code sections include successor provisions.

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1.	IN WITNESS WHEREOF, CHE	parties execute this covenant as of the
2	date set forth above.	
3		OWNED /COVENANDOD
4		OWNER/COVENANTOR CALIFORNIA DEPARTMENT OF TRANSPORTATION
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6	, .	4571 11.
7		J.E. Hallin
8		Interim District Director, District 7
9		Salifornia Department of Transportation 120 South Spring Street Los Angeles, California 90012
10		100 Migeres, Carriornia 70012
11		
12		DATE: 11-7-94
13		
14		DEPARTMENT OF TOXIC SUBSTANCES CONTROL
15		
16		
17		Hamid Saebfar, Chief
18		Site Mitigation Branch
19		Regions 3 & 4 California Environmental Protection Agency
20		Department of Toxic Substances Control 1011 North Grandview Avenue
21,		Glendale, California 91201
22		1 /
23		DATE: 11/10/94
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COURT PAPER STATE OF CALIFORNIA STD. 113 (REV. 8-72)

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

On Notary Public in and for said state, personally appeared

T.E. HALLIN, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as DISTRICT DIRECTOR, CALTRANS, of the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same pursuant to its bylaws or a resolution of its board of directors.

WITNESS my hand and official seal.

Notary Public in and for said County and State



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STATE OF CALIFORNIA 1 2 COUNTY OF LOS ANGELES 3 4 On $No \gamma$. 10, 1994, 19_ before me, the 5 undersigned, a Notary Public in and for said state, personally 6 🖟 appeared HAMID SAEBFAR , personally known to me or proved to me on the basis of satisfactory evidence to be the person who 8 executed the within instrument as OHIEF SITE MITIGATING BRANCH, of 9 the California Environmental Protection Agency, Department of Toxic 10 Substances Control, the agency that executed the within instrument, 11 and acknowledged to me that such agency executed the same. 12 13 WITNESS my hand and official seal. 14 15 16 Notary Public in and for said 17 County and State 18 19 20 21 22 23 24 25 26 27

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Written by: A Gibson

Checked: sdc

V.TA

cked:

07-LA-105-5.8 Parcel: 47650

50527-01-01

CALTRANS SITE 16 COVENANT

PAGE 15

SITE 16 EXHIBIT A PROPERTY DESCRIPTION

That portion of Lot 3 of R. W. Poindexter's Subdivision in the County of Los Angeles, State of California, a portion of Section 12, in Township 3 South, Range 14 West, as per map recorded in Book 59, page 82 of Miscellaneous Records, in the office of the County Recorder of said county, for a restricted zone area for hazardous waste, described as follows:

Beginning at the intersection of the southerly line of the northerly 695.00 feet of Lot 3, and the westerly line of Lot 3, measured from the north line of Section 12; thence along said southerly line S 89° 59′ 50″ E, 263.00 feet; thence S 00° 09′ 00″ W, 40.00 feet; thence S 89° 59′ 50″ E, a distance of 360.09 feet to the westerly line of the easterly 40.00 feet of that portion of Lot 3 described in deed to the County of Los Angeles, recorded in Book 24067, page 385; thence along said westerly line S 00° 09′ 00″ W, 298.74 feet; thence S 75° 02′ 37″ E, 645.77 feet to the westerly line of Lot 3; thence northerly along said westerly line, N 0° 11′ 27″ E, 505.44 feet to the point of beginning.

This real property description has been prepared by me, or under my direction, in conformance with the Professional Land

Surveyors Act.

Signature

Wird J. Auhambault Licensed Land Surveyor

Date

4-27-94

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CALTRANS SITE 16 COVENANT PAGE 16

EXHIBIT B OPERATION AND MAINTENANCE REQUIREMENTS FOR SITE 16

SOIL GAS MONITORING PLAN

I. Introduction

Soil gas monitoring will be conducted at Site 16 in order to ensure that there will be no significant accumulation of soil gases beneath the engineered clay cap. Soil gas monitoring will be in accordance with all applicable federal and state laws and regulations. Soil gas extraction/venting may be necessary if there is a significant accumulation of soil gases beneath the cap.

II. Location

Monitoring well No. 1 (MW1) and monitoring well No. 2 (MW2), as depicted in Exhibit C, will be utilized for the soil gas monitoring. The soil gas wells must be maintained for the required annual sampling. Relocation of the monitoring wells is permissible, upon written approval by the Department of Toxic Substances Control (Department).

III. Methods and Equipment

All field methods and equipment utilized to perform the annual soil gas monitoring must conform with all applicable federal and state laws and regulations. This includes, but is not limited to, proper sample collection, quality assurance and quality control, labeling, packaging, preservation, holding times and chain of custody. There must be proper record keeping of all field activities surrounding each sampling event.

At least one soil gas sample must be taken from each well and analyzed. There must be at least one sample duplicate taken per sampling event.

IV. Laboratory Analysis

Soil gas samples must be analyzed pursuant applicable federal and state laws and regulations. Analyses will be performed for the major components of landfill gas which include methane, carbon dioxide, nitrogen and oxygen. Hydrogen sulfide must also be analyzed for.

CALTRANS SITE 16 COVENANT PAGE 17

V. Schedule and Reports

Sampling and analysis must be performed and reported annually, or until discontinued by agreement with the Department.

CAP AND DRAINAGE SYSTEM MAINTENANCE PLAN

I. Introduction

An impermeable clay cap and geocomposite/geomembrane drainage system has been constructed on Site 16 in order to prevent direct human contact with the contaminated soils, capture surface water run off and limit rainfall infiltration. Annual inspection is necessary to ensure the cap and drainage system function as intended.

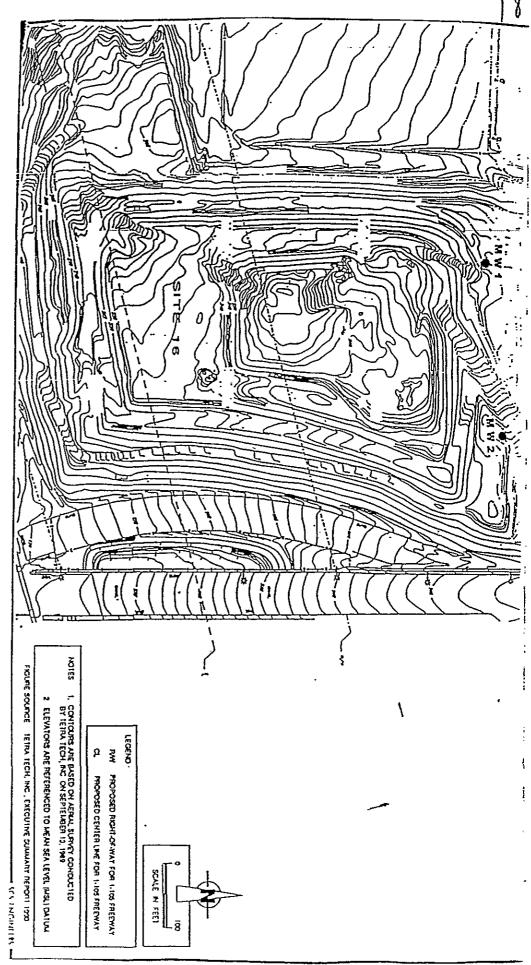
II. Surface Inspections

The cap and drainage system will be visually inspected at least annually. Inspection shall include checking for any obstruction or damage to the clay cap or drainage system, subsidence, uplifting, top soil erosion and/or movement, poor vegetation growth or any other surface feature that could appear to enhance surface water infiltration. Additional inspections may be necessary before, during and after any future development of the site. Problems with either the cap or drainage system should be corrected immediately.

III. Schedule and Reports

The investigations and repairs must be performed and reported annually, or until discontinued by agreement with the Department.

EXHIBIT C
CALTRANS SITE 16 AND MONITORING WELLS



APN 6079-003-906

S Normandie Ave & Laurel St Los Angeles, CA 90047

Latitude = 33.9283 Longitude = 118.302

Inquiry Number: 2303451.6 August 26, 2008

The EDR-City Directory Abstract



EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

*Thank you for your business.*Please contact EDR at 1-800-352-0050

with any questions or comments.

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SUMMARY

City Directories:

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2006. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

This report compiles information by geocoding the subject properties (that is, plotting the latitude and longitude for such subject properties and obtaining data concerning properties within 1/8th of a mile of the subject properties). There is no warranty or guarantee that geocoding will report or list all properties within the specified radius of the subject properties and any such warranty or guarantee is expressly disclaimed. Accordingly, some properties within the aforementioned radius and the information concerning those properties may not be referenced in this report.

Date EDR Searched Historical Sources: August 26, 2008

Target Property:

S Normandie Ave & Laurel St Los Angeles, CA 90047

<u>Year</u>	<u>Uses</u>	Source
1920	Address Not Listed in Research Source	Los Angeles Directory Co.
1921	Address Not Listed in Research Source	Los Angeles Directory Co.
1923	Address Not Listed in Research Source	Los Angeles Directory Co.
1924	Address Not Listed in Research Source	Los Angeles Directory Co.
1925	Address Not Listed in Research Source	Los Angeles Directory Co.
1926	Address Not Listed in Research Source	Los Angeles Directory Co.
1927	Address Not Listed in Research Source	Kaasen Directory Company Publishers
1928	Address Not Listed in Research Source	Los Angeles Directory Co.
1929	Address Not Listed in Research Source	Los Angeles Directory Co.
1930	Address Not Listed in Research Source	Los Angeles Directory Co.
1931	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1932	Address Not Listed in Research Source	Los Angeles Directory Co.
1933	Address Not Listed in Research Source	Los Angeles Directory Co.
1934	Address Not Listed in Research Source	Los Angeles Directory Co.
1935	Address Not Listed in Research Source	Los Angeles Directory Co.
1936	Address Not Listed in Research Source	Los Angeles Directory Co.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1937	Address Not Listed in Research Source	Los Angeles Directory Co.
1938	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1939	Address Not Listed in Research Source	Los Angeles Directory Co.
1940	Address Not Listed in Research Source	Los Angeles Directory Co.
1942	Address Not Listed in Research Source	Los Angeles Directory Co.
1944	Address Not Listed in Research Source	R. L. Polk & Co.
1945	Address Not Listed in Research Source	R. L. Polk & Co.
1946	Address Not Listed in Research Source	Los Angeles Directory Co.
1947	Address Not Listed in Research Source	Pacific Directory Co.
1948	Address Not Listed in Research Source	Los Angeles Directory Co.
1949	Address Not Listed in Research Source	Los Angeles Directory Co.
1950	Address Not Listed in Research Source	Pacific Telephone
1951	Address Not Listed in Research Source	Los Angeles Directory Co Publishers
1952	Address Not Listed in Research Source	Los Angeles Directory Co.
1954	Address Not Listed in Research Source	R. L. Polk & Co.
1955	Address Not Listed in Research Source	R. L. Polk & Co.
1956	Address Not Listed in Research Source	Pacific Telephone
1957	Address Not Listed in Research Source	Pacific Telephone
1958	Address Not Listed in Research Source	Pacific Telephone
1960	Address Not Listed in Research Source	Pacific Telephone

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1961	Address Not Listed in Research Source	Luskey Brothers & Co
1962	Address Not Listed in Research Source	Pacific Telephone
1963	Address Not Listed in Research Source	Pacific Telephone
1964	Address Not Listed in Research Source	Pacific Telephone
1965	Address Not Listed in Research Source	GTE
1966	Address Not Listed in Research Source	Pacific Telephone
1967	Address Not Listed in Research Source	R. L. Polk & Co.
1969	Address Not Listed in Research Source	Pacific Telephone
1970	Address Not Listed in Research Source	R. L. Polk & Co.
1971	Address Not Listed in Research Source	B&G Publications
1972	Address Not Listed in Research Source	R. L. Polk & Co.
1975	Address Not Listed in Research Source	Pacific Telephone
1976	Address Not Listed in Research Source	R.L. Polk & co Publishers
1980	Address Not Listed in Research Source	Pacific Telephone
1981	Address Not Listed in Research Source	Pacific Telephone
1985	Address Not Listed in Research Source	Pacific Bell
1986	Address Not Listed in Research Source	Pacific Bell
1990	Address Not Listed in Research Source	Pacific Bell
1991	Address Not Listed in Research Source	Pacific Bell
1995	Address Not Listed in Research Source	Pacific Bell Telephone

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1996	Address Not Listed in Research Source	GTE
1999	Address Not Listed in Research Source	Haines Company
2000	Address Not Listed in Research Source	Pacific Bell Telephone
2001	Address Not Listed in Research Source	Haines & Company, Inc.
2003	Address Not Listed in Research Source	Haines & Company
2004	Address Not Listed in Research Source	Haines Company
2006	Address Not Listed in Research Source	Haines Company, Inc.

Adjoining Properties SURROUNDING

Multiple Addresses Los Angeles, CA 90047

<u>Year</u>	<u>Uses</u>	Source
1920	Address Not Listed in Research Source	Los Angeles Directory Co.
1921	Address Not Listed in Research Source	Los Angeles Directory Co.
1923	Address Not Listed in Research Source	Los Angeles Directory Co.
1924	Address Not Listed in Research Source	Los Angeles Directory Co.
1925	Address Not Listed in Research Source	Los Angeles Directory Co.
1926	Address Not Listed in Research Source	Los Angeles Directory Co.
1927	Address Not Listed in Research Source	Kaasen Directory Company Publishers
1928	Address Not Listed in Research Source	Los Angeles Directory Co.
1929	Address Not Listed in Research Source	Los Angeles Directory Co.
1930	Address Not Listed in Research Source	Los Angeles Directory Co.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1931	Address Not Listed in Research Source	Los Angeles Directory Company Publishers
1932	Address Not Listed in Research Source	Los Angeles Directory Co.
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1947	Address Not Listed in Research Source	Pacific Directory Co.
1948	Address Not Listed in Research Source	Los Angeles Directory Co.
1949	Address Not Listed in Research Source	Los Angeles Directory Co.
1950	Address Not Listed in Research Source	Pacific Telephone
1951	Address Not Listed in Research Source	Los Angeles Directory Co Publishers
1952	Address Not Listed in Research Source	Los Angeles Directory Co.

<u>Year</u>	<u>Uses</u>	Source
1954	**S NORMANDIE AVE** BONES LAWRENCE A (11503) MAHLISTEDE JOHN P JR (11507) PETERSEN VERNON A (11519) BATES H E (11523) GOOSSENS BETTE (11529) MUNDIA RALPH (11535)	R. L. Polk & Co.
1955	Address Not Listed in Research Source	R. L. Polk & Co.
1956	Address Not Listed in Research Source	Pacific Telephone
1957	**S NORMANDIE AVE** BONES LAWRENCE A (11503) PETERSEN VERNON A (11519) BATES H E (11523) GOOSSENS BETTE (11529) MUNDIA RALPH (11535)	Pacific Telephone
1958	Address Not Listed in Research Source	Pacific Telephone
1960	**S NORMANDIE AVE** BONES LAWRENCE A (11503) PETERSEN VERNON A (11519) BATES H E (11523) GOOSSENS BETTE (11529) MUNDIA RALPH (11535)	Pacific Telephone
1961	Address Not Listed in Research Source	Luskey Brothers & Co
1962	Address Not Listed in Research Source	Pacific Telephone
1963	Address Not Listed in Research Source	Pacific Telephone
1964	**S NORMANDIE AVE** BONES LAWRENCE A (11503) SINGH B P MD (11506) IMPERIAL TOWN HOUSE CO-OP (11510) PETERSEN VERNON A (11519) MUNDIA RALPH (11535)	Pacific Telephone
1965	Address Not Listed in Research Source	GTE
1966	Address Not Listed in Research Source	Pacific Telephone

<u>Year</u>	<u>Uses</u>	Source
1967	**S NORMANDIE AVE**	R. L. Polk & Co.
	RUSSELL D J (11530)	
	S NORMANDIE	R. L. Polk & Co.
	DI LEO LA VERNE (11510)	
	MILLS GENE T (11510)	
	WELTON ARTHUR H (11510)	
	LYNCH OTTO E (11510)	
	LIEBERMAN LOUIS (11510)	
	ESCOBAR GEO JR (11510)	
	MEIER J O (11510)	
	COVINGTON LEONA M (11510)	
	ALANIS JOE (11510)	
	RUGG M E (11510)	
	BENNETT EUGENE (11510)	
	ROSEN BEVERLY MRS (11510)	
	MURPHY ALVA JR (11510)	
	MASON ROBT (11510)	
	BRIDGE D (11530)	
	DONALDSON ALICE B (11530)	
	WULFF WM K (11530)	
	DAINTY JOS H (11530)	
	BEST ROGER J (11530)	
	LASTER WM A JR (11530)	
	IMPERIAL TOWNHOUSE COOPERATIVE (11530)	
	FELSMAN GRACE E (11530)	
	BRADLEY JERRY E MRS (11530)	
	GONFIOTTI L A (11530)	
	ALS BLDG MAINTENANCE (11530)	
	FLYNN PAUL E (11530)	
	BALD WM L (11530)	
	APODACA MARY (11530)	
	APODACA ALBERT (11530)	
	STOY WALTER J (11530)	
	ROHE GERALD M (11530)	
	CRAVEN E A (11530)	
1969	Address Not Listed in Research Source	Pacific Telephone
1970	Address Not Listed in Research Source	R. L. Polk & Co.
1971	**S NORMANDIE**	B&G Publications
	ROSEN BEVERLY MRS (11510)	
	ICHIKAWA KIYOSHI (11510)	

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1971 (continued)	
	DI LEO LA VERNE (11510)	
	ESCOBAR GEO JR (11510)	
	MURPHY ALVA JR (11510)	
	FLYNN PAUL E (11530)	
	FORD ROBT R (11530)	
	RAMSEY G L (11530)	
	REYES BENJAMIN (11530)	
	MASON ROBT (11530)	
	WOLLENS WALTER L (11530)	
	DAINTY JOS H (11530)	
	DEHNHAROT HERMAN MRS (11530)	
	PARRISH JESSIE N (11530)	
	ROBERTSON LOMETA MRS (11530)	
	COVINGTON LEONA M (11530)	
	DAWKINS JANICE T (11530)	
	DI LEO JOS (11530)	
	LASTER WM A JR (11530)	
	SYLVESTER ELEANOR (11530)	
	TRILLO ROSALIA (11530)	
	BEST ROGER J (11530)	
	DONALDSON ALICE B (11530)	
	LYNCH ZDZISLAWA AGATA (11530)	
	PEREZ LUPE (11530)	
	STOY WALTER J (11530)	
	WELTON ARTHUR H (11530)	
	KAY JOHN JR (11530)	
	MEIER J O (11530)	
	WAUGH BARRY T (11530)	
	HANLEY THOS P MRS (11530)	
	DUFORT JEAN (11530)	
	RICHARDSON DORIS (11530)	
	ALS BUILDING MAINTENANCE (11530)	
	COCHRELL B A (11530)	
1972	Address Not Listed in Research Source	R. L. Polk & Co.
1975	Address Not Listed in Research Source	Pacific Telephone
1976	**S NORMANDIE AVE**	R.L. Polk & co Publishers
	WINFIELD JEROME (11530)	
	INGRAM RICHARD (11530)	

2303451-6

MACON ANN (11530) WILLIAMS VALDRIE (11530)

<u>Year</u>	<u>Uses</u>	<u>Source</u>	
1976 (continued) AUGUSTUS HELEN (11530)		
BURGS JAS (11530) DOBBINS DONNIE R (11530)			
	ROBINSON G (11530)		
	SNODDY BETTY (11530)		
	DUCKETT CLIFFORD (11530)		
	HARPER GERALD C DR PH D (11530)		
	MOZER HORTENSEIA (11530)		
	WOODS JUANITA (11530)		
	FLYNN PAUL E (11530)		
	WONG GILBERT T (11530)		
1980	Address Not Listed in Research Source	Pacific Telephone	
1981	**S NORMANDIE AVE**	Pacific Telephone	
	WOODS JUANITA (11530)	. 466 . 6.666	
	WELLS ROBT C (11530)		
	BYRD VANESSA (11530)		
	LOCKHART JOEL (11530)		
	DENNIS LYNETTE (11530)		
	DOUGLAS BRENDA E (11530)		
	JACKSON PATRICIA A (11530)		
	NETTERS BERNICE ANNETTE (11530)		
	PARKER KIM (11530)		
	DICKEY JESSIE P (11530)		
	BEALS MARY (11530)		
	JENKINS BRUCE K (11530)		
	WALKER ANNETTE (11530)		
	WILLIAMS WILLIE MAE (11530)		
	HARBOUR DOROTHY (11530)		
	WATTS BERNIECE (11530)		
	NORMANDIE AVE	Pacific Telephone	
	HOOD ALBERT (11530)		
1985	**LAUREL ST**	Pacific Bell	
	WHEELER WM C (1340)		
1986	**S NORMANDIE AVE**	Pacific Bell	
	SHAW BOBBY (11530)		
	JACKSON L (11530)		
	SMITH D J (11530)		
1990	**S NORMANDIE AVE**	Pacific Bell	
	SEALS BRIAN (11530)		

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Address Not Listed in Research Source	Pacific Bell
1995	**S NORMANDIE AVE** LEWIS A LOS ANGELES (11530) ALVAREZ AUTO REPAIR LOS ANGELES (11628) LEWIS A (11530) CAM MANAGEMENT (11530) LEWIS A (11530)	Pacific Bell Telephone
1996	Address Not Listed in Research Source	GTE
1999	Address Not Listed in Research Source	Haines Company
2000	**NORMANDIE AVE S** XXXX (11510) BURTON LETISHA (11530) LEWIS A (11530) XXXX (11535) XXXX (11538) XXXX (11618)	Pacific Bell Telephone
2001	Address Not Listed in Research Source	Haines & Company, Inc.
2003	Address Not Listed in Research Source	Haines & Company
2004	Address Not Listed in Research Source	Haines Company
2006	**S NORMANDIE AVE** SPATES BETF (11530) CARTERCAROLYN (11530) FILMS (11530) MATRIXMAVEPICK (11530) CHACEYCHERYL (11530)	Haines Company, Inc.

July 28, 1987

County of Los Angeles
Department of Public Works
Waste Management Division
P. O. Box 4089, Terminal Annex
Los Angeles, CA 90051

Dear Sirs:

As per my telephone conversation with Mr. Steven Berger on 7/28/87, I am writing this letter to inform you that Tank #2, under storage permit #1860, is not a storage tank at all. It is a three (3) compartment clarifier which drains into a sanitary sewer.

Therefore I am requesting that the clarifier status be changed from an UNDERGROUND STORAGE TANK to that of a FINAL STAGE CLARIFIER.

I am including the permit number for industrial waste water discharge of this clarifier. I am also enclosing a copy of the sheet which identifies the clarifier as a storage tank.

If there are any questions or additional information needed, please call:

Los Angeles Southwest College Plant Facilities Office (213) 777-2225, Ext. 238

Thank you for your help in making the status change.

Cordially

Mr. John Rodarte

Building & Grounds Administrator

JR:de

cc: Dr. B. Ancheta Mr. W. Green



OUNTY OF LOS ANG_LES

DEPARTMENT OF PUBLIC WORKS

1540 ALCAZAR STREET LOS ANGELES, CALIFORNIA 90033 Telephone: (218) 226-8111

ADDRESS ALL CORRESPONDENCE TO: P.O. BOX 4089 LOS ANGELES, CALIFORNIA 90051

August 12, 1987

Dear Mr. Rodarte:

Waste Management Division

PP802 5/87

Mr. John Rodarte
LACC Dist-Accounts Pay
617 West 7th Street
Los Angeles, CA 90017

IN REPLY PLEASE REFER TO FILE: I-4259-29

8702044

HAZARDOUS MATERIALS UNDERGROUND STORAGE PERMIT NO. FACILITY AT: 1600 West Imperial Highway The Hazardous Materials Underground Storage Provisional Permit sent to you in connection with the above facility is modified as follows: [] The permit is void as of the date of this letter and replaced by the enclosed permit. [] The enclosed Part D, Special Conditions and Limitations, is now part of your permit. $[\![\!]\!]$ The enclosed Part B, Authorized Hazardous Material Storage Tanks, is now part of your permit, replacing the previous Part B. [x] Other: Number of permitted tanks is now one If you have any questions concerning this matter, please contact Mr. John Huff ____ at (213) 226-<u>4018</u>. Very truly yours, T. A. TIDEMANSON Director of Public Works

PART B -- TANK DATA HAZARDOUS MATERIALS UNDERGROUND STORAGE PERMIT NO. 1860

AUTHORIZED HAZARDOUS MATERIAL STORAGE TANKS

TANK NUMBER CAP	ACITY (GALLONS)	CONTENTS
1 Gasoline Tank	8,000 (to be r	emoved) Regular
2 Clarifier	1,500 File # I	4259-29 Hydraulic Acid, Sulfuric Acid, Acetic

WILLIAM H. PARK

REGISTERED GEOLOGIST NO. 2271

3040 19TH STREET, SUITE 10
BAKERSFIELD, CALIFORNIA 93301
TELEPHONE (805) 327-9681
June 1, 1988

Mr. Ken Pasley c/o Barney's Incorporated 7351 Walnut Street, Suite 3 Buena Park, California 90620

Dear Mr. Pasley:

A preliminary site assessment was performed in May, 1988 for an underground storage tank location at Los Angeles Southwest College located at 1600 West Imperial Highway in Los Angeles, California. The site is situated in the northwest quarter of Section 12, T.3S., R.14W., S.B.B.& M. (see Attachment A).

One 8,000 gallon underground storage tank was removed from the site on May 12, 1988. The tank had been used for the storage of diesel fuel and was reportedly in place for 23 years. The storage tank appeared to be in good condition and showed no signs of leakage. No evidence of product leakage or soil contamination was observed in the excavation pit.

A total of three soil samples were collected from the site. The samples were taken at a depth of about 2 feet beneath the bottom of the tank's location. The sample locations were near either end of the tank (see Attachment B). A sample was also collected from beneath the dispenser pump (see Attachment B). The samples were collected using a backhoe bucket and placed in glass jars. The samples were then placed on ice and transported to a state certified laboratory for analyses (see Attachment C).

The samples were analyzed for Total Petroleum Hydrocarbons per EPA Method 418.1 and for Total Organic Lead. All three samples reportedly

Mr. Ken Pasley c/o Barney's Incorporated June 1, 1988 Page 2 of 2

No. 3584

contained less than 50 ppm Total Petroleum Hydrocarbons and less than 0.8 ppm Total Organic Lead (see Attachment D).

Based on the results of this investigation, no significant soil contamination from product leakage exists beneath the tank location and no mitigation measures are deemed necessary.

If you have any questions regarding this report, please feel free to call.

Yours truly,

Duane R. Smith

Registered Geologist

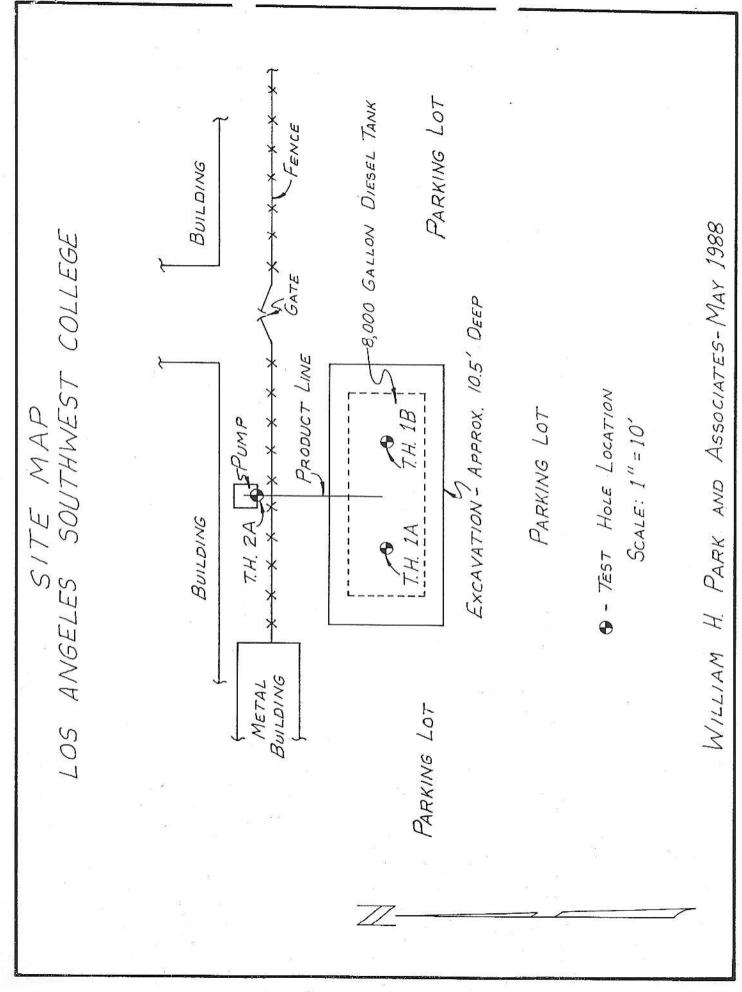
State of California No. 3584

homas F. Sutel

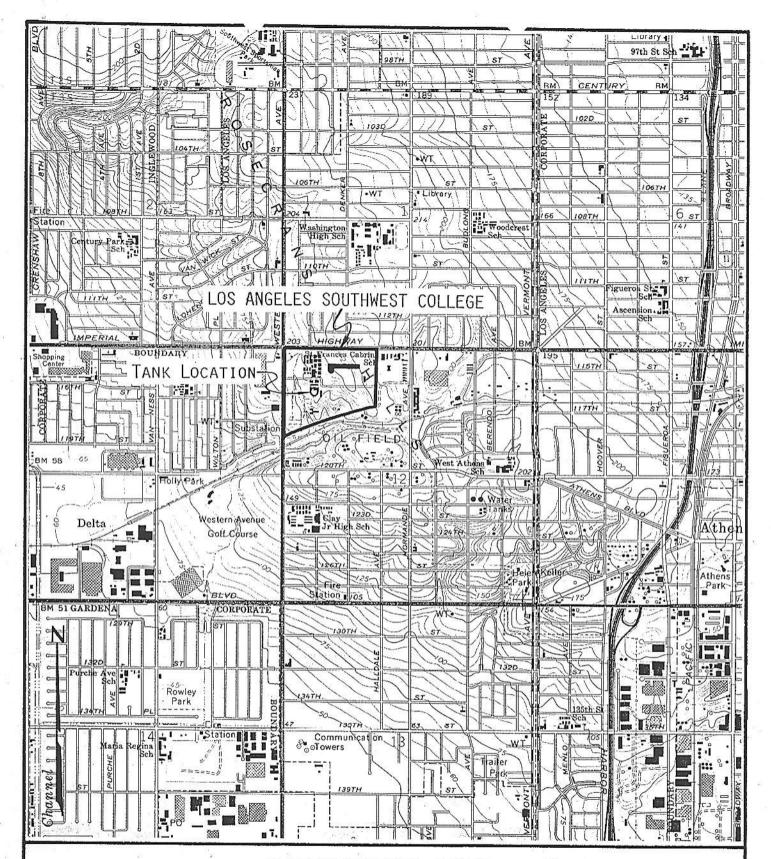
Thomas F. Gutcher

Assistant Geologist

DRS/TFG/jk



ATTACHMENT B



LOCATION MAP

LOS ANGELES SOUTHWEST COLLEGE

1600 WEST IMPERIAL HIGHWAY LOS ANGELES, CALIFORNIA

SCALE: 1" = 2000'

Source of Base Map: U.S.G.S. Inglewood 7½ Minute Quadrangle.



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331 Telephone: (818) 458-5100

ADDRESS ALL CORRESPONDENCE TO: P.O. ROX 1460 ALHAMBRA, CALIFORNIA 91802-1460

March 6, 1989

IN PEPLY PLEASE. REFER TO FILE

I-4259-29

Los Angeles South West College 1600 W. Imperial Hwy Los Angeles, CA 90047

cc: William H. Park, Barney's Inc.

Mr. John Rodarte:

HAZARDOUS MATERIALS UNDERGROUND STORAGE CLOSURE PERMIT NO. 4240B FACILITY LOCATION: 1600 W. Imperial Hwy
This office has reviewed the soil/groundwater assessment report submitted on $03/06/89$ required as a part of the subject closure procedure. Based on the information submitted, we find that:
[xx] The closure is final and no further action is required.
[] The soils removed during the tank excavation are unrestricted and may be used as backfill material. The closure is final and no further action is required.
[] Excavated soils may be a hazardous waste and are not suitable for fill material or disposal on-site. Contaminated soils must be manifested, transported and disposed of pursuant to Chapter 6.5, California Health and Safety Code, unless evidence is presented indicating that disposal is proper at a less restricted facility. Copies of completed manifests or other appropriate evidence indicating legal disposal shall be submitted to this office before this project can be considered closed.
[] The permanent closure of the tank(s) in place shall comply with requirements set by the local Fire Department. Verification must be submitted to this office indicating proper closure and completion of all work.
If you have any questions concerning this matter, please contact Mr. Paul Halter at (818) 458- 3517
Very truly yours,
T. A. TIDEMANSON Director of Public Works
Waste Management Division

HOWARD CONTRACTING, INC.

Goneral Engineering Contractors

September 23, 1996

Shirley Bros., Inc. 2060 East Villa Street Pasadena, CA 91107

Attention: Bill Sharp

Project Manager

Reference: Southwest Community College Demolition

Clarifier Disposal

Gentlemen:

Per letters dated September 16, 1996 from Shirley Bros., Inc. and ABACUS Project Management regarding disposal of an L.A. County clarifier on the above referenced project, we offer the following written memorandum.

During demolition of Building "D", Howard Contracting, Inc. demolished a concrete pit which was dry and clean. This concrete pit appeared to have been used as a holding tank and may have been an abandoned clarifier. It should be noted that no active clarifiers were seen during our demolition operations.

Sincerely,

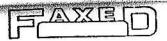
· HOWARD CONTRACTING, INC.

F. S. Howard

President

48495-12-dr





A · B · A · C · U · S PROJECT MANAGEMENT

September 16, 1996

Mr. Bill Sharp SHIRLEY BROS., INC. 2060 E. Villa St. Pasadena, Ca. 91107

RE: LASC - DEMO I

Clarifier

Dear Mr. Sharp:

Per a verbal conversation with Stan Howard this morning, 9/16/96, please request from him a written memorandum relating to Howard Contracting's disposal of an L.A. County clarifier removed during Demo I operations. The clarifier was located just south of the now demolished Building "D". Thank you.

Sincerely,

ABACUS PROJECT MANAGEMENT, INC.

Enrique Robles Project Engineer

cc:

Al Guevara



HARRY W. STONE Director of Public Works

BY

900 S. FREMONT AVENUE ALHAMBRA, CALIFORNIA 91803-1331

APPLICATION FOR CLOSURE

The second	APP. No.	-oc-one)	
	FILE 4113-425	9 AREA	29
	FEE \$ //4	1.00	
	CHECK'	CASH 🗌	

* CITY MUNICIPAL SECTIONS APPLY.

FACILITY/SITE INFORMATION & ADDRESS	
FACILITY/SITE NAME Los Angeles Southwest Coll	eg@10 Los Angeles Community College District
ADDRESS 1600 Imperial Highway	CROSS STREET Western Avenue
CITY LOS Angeles STATE CA ZIP CODE 90047	PHONE () - 213-241-5225
EMERGENCY CONTACT Alex Santana, Facil. Mgr.	PHONE () - 213-241-5238
PROPERTY OWNER INFORMATION & ADDRESS	
NAME Los Angeles Community College Distric	t C/O Robert C. Grabski, Director
MAILING ADDRESS 770 Wilshire Blud. 3rd Fl.	Facilities Planning & Development
CITY LOS Angeles STATE CA ZIP CODE 90017	PHONE () - 213-891-2480
CONTRACTOR INFORMATION & ADDRESS	OWNER/OPERATOR AS CONTRACTOR
NAME Shirley Brothers Construction	C/O Bill Sharp
MAILING ADDRESS 2060 E. Villa Street	CONTRACTOR LICENSE NO. 203355
CITY Pasadena STATE CA ZIP CODE 91107	PHONE()- 818-799-6151
CLOSURE REQUESTED PERMANENT, FACILITY REMOVAL (SEE CONDITIONS A PERMANENT, CLOSURE IN PLACE (SEE CONDITIONS A DESCRIPTION OF WASTE GENERATING OPERATIONS.)	A, B, C, D and F on back)
TYPE OF BUSINESS Community College	TIW PERMIT NUMBER 4/8/6
FEDERAL SIC CODE 822 / WASTEWATER PRODUC	
FACILITY(S) TO BE CLOSED Classroom Building	
ATTACH PLOT PLAN SHOWING LOCATION OF FACILITIES 1	TO BE CLOSED
HAS AN UNAUTHORIZED RELEASE EVER OCCURRING HAVE STRUCTURAL REPAIRS EVER BEEN MADE TO WILL NEW FACILITIES BE INSTALLED AFTER CLOSE WILL INDUSTRIAL WASTE GENERATING OPERATION >>IF THE ANSWER TO ANY QUESTION ABO	D THIS FACILITY? URE? N REMAIN AFTER CLOSURE?
NOTICE: WASTEWATER, RESIDUES THAT MAY BE LEFT I A HAZARDOUS WASTE WHICH MUST BE TRANSPORTED HEALTH & SAFETY CODE. FAILURE TO COMPLY MAY BE	IN FACILITIES TO BE CLOSED AND CONTAMINATED SOILS MAY BE AND DISPOSED OF PURSUANT TO CHAPTER 6.5, CALIFORNIA PROSECUTED AS A FELONY VIOLATION.
AND DISCLOSURES ABOVE ARE TRUE AND CORRI THIS CLOSURE AUTHORIZATION AND ALL CONDITION	Contracting, The the temoval of consequential, 172
APPLICANTS SIGNATURE	DATE 10/23/96
(PRINT NAME) Robert C. Grabski	PHONE()- 213-891-2480
AS: OWNER X OPERATOR CONTRA	CTOR [
	the Department of Public Works
To be completed by	the Department of Public Works
PURSUANT TO SECTION 20.36.220, LOS ANGELES	COUNTY CODE*, PERMISSION IS HEREBY GRANTED TO E SUBJECT TO THE ATTACHED CONDITIONS AND LIMITATIONS.
THIS AUTHORIZATION EXPIRES 180 DAYS FROM THE	HE DATE BELOW.
III THIS AUTHORIZATION EXTINES 150 ST.	

DATE



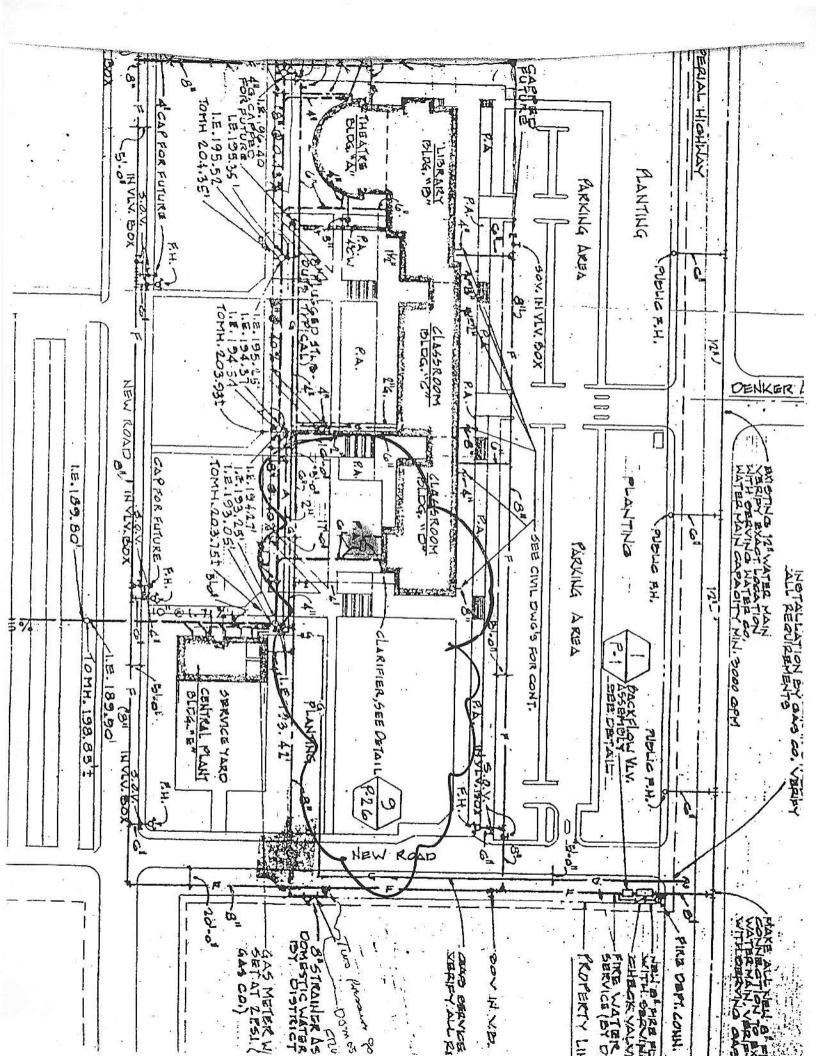
CONDITIONS AND LIMITATIONS LEAR HENESTREM JAKHEDONI

DEPARTMENT OF PUBLIC WORKS WASTE MANAGEMENT DIVISION

PLAN CHECK REVIEW SHEET

May 13 1996

Date _1000.10, 1172	´ .
FIRM NAME LA SOUTHWEST COMMUNITY COLLEGE	
Unine. Co. Territory Ves	
FIRM NAME LA SOUTH WEST COMMUNITY COLLEGE FIRM ADDRESS 1600 W. Imperial Hwy Uninc. Co. Territory Yes Firm Address 1600 W. Imperial Hwy City of Co. Engr. is City Engr. Plan Check By Edward Calleros Yes X No	
Co. Engr. is City Engr.	
Plan Check By Edward Carlotte	
QK	1
N/A	
1. Required No. of Plans 2. I.W. Plans and Details Output Ou	a milas
The American (County City San Dists.)	MUNITUK.
4. Permit Application Fee Received A/A	
5. City Authorization Received $\frac{N/A}{N/A}$	
6 I.W. Statement	
7. Critical Parameter Report/Addl. Infor. Questionnaire	
8. Type of I.W. Facilities (I-2-510, Nottingham 750, etc.)	
9. I.W. Facilities Adequate [ocal]	
10. Method of Disposal (local, trunk, ground, haul, etc.) 7.5 9 pm	
11. Allocable Sewer Capacity (Peak Flow in gpm) 12. I-File Request Form (Indicate I-No. & Region, if assigned)	
2000 1000 1000 1000 1000 1000 1000 1000	
14 Rainwater Diversion System Required Yes No X	
15. Plans/Application Approved for Transmittal to San. Districts	
15. Timber pp. 11	
FOLLOW-UP INSTRUCTION:	
A. Thomas Guida Page No. & C/D 57-E5	
A. Thomas Guide Page No. & Cib	
B. SMD Page No.	
C. Facility Code ———————————————————————————————————	
D. Type of Rain Diversion System & Square Footage of Unroofed Area	
F. Standard Industrial Classification No. 8221	•10
F. Industry Code	
	-/
Clarifier had been removed during demolithon o	T
Clarifier had been removed during demolithon o	5 3:
I I A CELLY TO THE LITTLE TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL	





History of Oil or Gas Well

037-07636

Date: September 30, 1992

Field: Howard Townsite Oil Field

Township: T3S Range: R14W Section: 12

Well: Pauley Petroleum Inc "Geddes" 1

Permit No.: 192-848

During construction of the Century Freeway (105), Caltrans' grading contractor exposed the well. On September 24, 1992, approximately 45 feet of casing was cut off the top of the well. A metal disk was then welded on top of the casing to seal the top of the well. The top of the well is now approximately at 142 feet Mean Sea Level.

RESOURCES AGENCY OF CALIFORNIA 'ARTMENT OF CONSERVATION DIVISION OF OIL AND GAS

PERMIT TO CONDUCT WELL OPERATIONS

3606 WELL

SEC.

No.	P	192-848

316 (field code)

(area code)

				(nev pool code)
				(old pool code)
Craig R. Hanson, Contractor			5 W B B B	
			Long Beach	. California
PASADENA CA 91107				
Your supplementary proposal to	abandon	well	"Geddes"	1 .
A.P.I. No. <u>037-07636</u> , Section <u>1</u>	<u>12</u> , T. <u>3S</u> ,	R. 14W		
Howard Townsite [ield.		216	a,	pool,
filed in this office. County, dated 8-7-92	_, received <u>8-7-92</u>	_, has been exam	ined in conjunction	with records
THE PROPOSAL IS APPROVED.	26			
NOTE:				8
Craig R. Hanson, Contractor TETRA TECH INC. 670 N. Rosemead Blvd. PASADENA CA 91107 Your supplementary proposal to abandon well "Geddes" 1 A.P.I. No. 037-07636 , Section 12 , T. 3S , R. 14W , S.B. B.& M., Howard Townsite field, — area, — p Los Angeles County, dated 8-7-92 , received 8-7-92 , has been examined in conjunction with records		merely		
2.				
v e				
K				
DEC:ss				
	27 TH MICHAEL		****	
	AN 20(8) (42)	34	500	
				<u>*</u>
Devin Thor, Tetra Tech Inc.				
NO BOND REQUIRED		g #		

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

K.P. HENDERSON, Acting Chief

R.K. Baker, Deputy Supervisor

Engineer David E. Curtis

Phone ____(310) 590-5311

RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

BOND	FOR	EDP WELL	
ž.	OGD114	OGD121	FILE

A notice to the Division of Oil and Gas dated	5-2	0 107	t stating the	
Na Pauley PAKES	Leumin	. , , , , , , , , , , , , , , , , , , ,		
	on congramony			10 (2-3)
Sec. 12 , T. 3 s , R. 14 w , S.B.	B.& M., _	HOWARD TOWNS	<u> </u>	Field
L.A.	County	, should be amended beca	ause of changed	conditions
1. The complete casing record of the well (preser	nt hole), inclu	ding plugs and perforatio	ns, is as follows	
NA				
	n nen u R			
2. The total depth is: 5750 feet.		The effective depth is	s:\o_'	feet
3. Present completion zone (s):(Name)	Anticip	ated completion zone (s):		N
4. Present zone pressure: psi.		ated/existing new zone pr		″ psi
We now propose: (A complete program is prefe	erred and ma	v be attached.)	99	
FOR CALTRANS INS FWY			16 ~ 5ta 4	72+50
FIRST ABONDOMENT - WELL				ii.
APPROX EL 145 + STEEL CASI	a well	BE CAMED WIS	W A	
WELDED STEEL PLATE.				
APPROX - 30' of casi	is to !	se remord.		
	5			
Note: If the well is to be redrilled, show proposed The Division must be notified if changes to the	d bottom-hole his plan bec	coordinates and estimate ome necessary.	ed true vertical o	lepth.
Name of Operator Contracton	Telepho	one Number		
Totra Tech Inc	ଅଟ	449-6400	(Davin	Thor)
670 N. Rosemed Blud	City	sadona, CA		Zip Code
Name of Person Filing Notice CPALL R / JANSON	Signatu	ON Jama		Date 8-7-92

Pauley Retrolein Inc. / TEN THOUSAND SANTA MONICA BOULEVARD - LOS ANGELES, CALIFORNIA 90067

Telephone: (213) 879-5000 - Cable: PAULEYLA

SEP 17 11 14 M '74

DIV. OF OIL AND GAS LONG BEACH, CA.

September 9, 1974

Division of Oil and Gas 5199 East Pacific Coast Highway Long Beach, California 90815

> Re: Sale and Transfer of Wells SRG Well Nol 1, SCL&E Well No. 1, Geddes Well No. 1, Howard Townsite Los Angeles County, California (Sec. 12 T3S, R14W, SBB&M)

Gentlemen:

Recently we have received "Report of Well Abandonment" for the above captioned wells from your office.

Please be advised that on September 21, 1973, Pauley Petroleum Inc. and all Working Interest Owners relinquished all of their right, title and interest in and to the above mentioned wells and associated equipment to the State of California. The State acquired said wells and equipment in connection with the acquisition of the right of way for the Century Freeway. The State also assumed the obligation to plug and abandon said wells.

At that time the State Property Division of the State of California assumed custody and control of the wells and the equipment.

This letter is given in compliance with Section 3201 which requires the owner or operator to notify your office of the sale and transfer of said wells to the State of California.

Very truly yours,

Robert X. Hardesty

Chief Landman

RKH: mwm

STATE OF CALIFOR

DEPARTMENT OF NATURAL RESOURCES

C # V E B B B B

SEP 25 1953

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well
This notice and surety bond must be filed before drilling begins

105 Anniniis, Cold Siddle O 37-07636

			Los Angel		Calıt	September	24, 195
DIVISION OF				MAP BOOK	CARDS	BOND	FORMS
In com	pliance with	Section 3203, Div		IN Son	Ch. 6	54353	Ch
			7.9	11.7	1		
	commence t	he work of drilling	well No	Geddes #1		, Sec12	T. 3 S.
R. 14 W.,	S.B. & M	1., Howard To	ownsite	Field	Los	Angeles	Coun
Legal description	of lease	See attache					(A) (B)
* appro	X IIX	N & 400'E	ettach map or plat to scal	Ja 120 H	- LIALI	dale	
11	•	C) Street	- Land A. C. L	
				C/L Norman	lie fr	C/L Imperi	al Highway,
Location of Well	: 1365.	59 feet sout	<u>h</u> rection)	g XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	d202	feet_	westerly
at right angles to	said line 🗱	enexative				XSOCKONSK JOKSON POCKONSK K	y
Proposed su	b-surface	location 650	0° south &	575' east fi	rom sur	face locat	ion.

Elevation of grou	and above se	a level 190	feet			datum	
5							
5		from top of Ke		#			
5		from top of Ke	lly Bushing	ole or Kelly Bushing)	which is		
16		from top of Ke	Lly Bushing Perrick Floor, Rotary Tal	ole or Kelly Bushing)	which is		feet above groun
All depth measure	weight	PROPO	Perrick Floor, Rotary Tal	NG PROGR	AM	CEMENTING I	feet above groun
All depth measure	WEIGHT	from top of Ke	Lly Bushing Perrick Floor, Rotary Tal	ole or Kelly Bushing) NG PROGR	which is	CEMENTING I	feet above groun
All depth measure	weight	PROPO	Perrick Floor, Rotary Tal	NG PROGR	AM	CEMENTING I	feet above groun
All depth measure	wегонт 40.5# &	PROPO GRADE AND TYPE H-40	Lly Bushing Perick Floor, Rotary Tal SED CASII TOP Surface	NG PROGR BOTTOM	AM	CEMENTING I	feet above groun
All depth measure	wегонт 40.5# &	PROPO GRADE AND TYPE H-40	Lly Bushing Perick Floor, Rotary Tal SED CASII TOP Surface	NG PROGR BOTTOM	AM	CEMENTING I	feet above groun
All depth measure SIZE OF CASING INCHES A.P.I. 10-3/4" 5-1/2"	wегөнт 40.5# 15.5# &	PROPO GRADE AND TYPE H-40 J-55	Lly Bushing Petrick Floor, Rotary Tal SED CASII TOP Surface Surface	NG PROGR BOTTOM 1000* 7200*±	1000	CEMENTING I	feet above groun
All depth measure Size of Casing Inches A.P.I. 10-3/4" 5-1/2" Intended zone or	WEIGHT 40.5# & 17# zones of co	PROPO GRADE AND TYPE H-40 J-55 Dompletion: Howas	Lly Bushing Perick Floor, Rotary Tal SED CASII TOP Surface Surface surface	NG PROGR BOTTOM 1000' 7200'+	AM 1000 7200 ones.	CEMENTING I	feet above groun
All depth measure SIZE OF CASING INCHES A.P.I. 10-3/4" 5-1/2" Intended zone or exploratory depths.	WEIGHT 40.5# & 17# zones of co	PROPO GRADE AND TYPE H-40 J-55 completion: Howard programmed to	SED CASII TOP Surface Surface rd Park and,	NG PROGR BOTTOM 1000' 7200'+ for Zinns zorious sands	1000 7200	CEMENTING I	feet above ground
SIZE OF CASING INCHES A.P.I. 10-3/4" 5-1/2" Intended zone or exploratory depths.	WEIGHT 40.5# & 17# zones of co	PROPO GRADE AND TYPE H-40 J-55 completion: Howard to do under	SED CASING SED CASING TOP Surface Surface rd Park and, look at var	NG PROGR BOTTOM 1000' 7200'+ for Zinns zerious sends	1000 7200 7200 7200	CEMENTING I	feet above ground
SIZE OF CASING INCHES A.P.I. 10-3/4" 5-1/2" Intended zone or exploratory depths.	WEIGHT 40.5# & 17# zones of co	PROPO GRADE AND TYPE H-40 J-55 completion: Howard to do under	SED CASING SED CASING TOP Surface Surface rd Park and, look at var	NG PROGR BOTTOM 1000' 7200'+ for Zinns zerious sends	1000 7200 7200 7200	CEMENTING I	feet above ground
SIZE OF CASING INCHES A.P.I. 10-3/4" 5-1/2" Intended zone or exploratory depths. To be a sur	weight 40.5# & 17# zones of co	PROPO GRADE AND TYPE H-40 J-55 completion: Howard programmed to	SED CASING SED CASING TOP Surface Surface rd Park and, look at var	NG PROGR BOTTOM 1000' 7200'+ Vor Zinns zerious sands 606 Publ	1000 7200 7200 7200 7200	Well is set to 7200' d	mi- rilled



History of Oil or Gas Well

037-07637

Date: September 30, 1992

Field: Howard Townsite Oil Field

Township: T3S Range: R14W Section: 12

Well: Pauley Petroleum Inc "SCL&E" 1

Permit No.: 192-846

During construction of the Century Freeway (105), Caltrans' grading contractor exposed the well. On September 24, 1992, approximately 45 feet of casing was cut off the top of the well. A metal disk was then welded on top of the casing to seal the top of the well. The top of the well is now approximately at 143 feet Mean Sea Level.

RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

BOND	FOR	RMS	EDP WELL
MY.	OGD114	OGD121	FILE
N 6 0	8/10/02	4	FILE

A notice to the Division of Oil and Gas dated 5-20, 1974, stating the intention to RALEY PETROLEUM INC. (Drill, rework, abandon) well "SCL 4E" ,API No. 037 - 07637,
PAULEY PETROLEUM INC.
APINO 037 07627
(Drill, rework, abandon) (Well designation)
Sec. 12 , T. 35, R. IYW, SB B.&M., HOWARD TOWNS ITE Field,
County, should be amended because of changed conditions.
1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
NA
2. The total depth is:feet. The effective depth is:feet.
3. Present completion zone (s): Anticipated completion zone (s):
4. Present zone pressure: psi. Anticipated/existing new zone pressure: psi.
We now propose: (A complete program is preferred and may be attached.)
FOR CALTRANS I 105 FWY PROJECT Nº 33 Site 16 ~ Sta 472+50
FINAL ABANDOLMENT - WELL CASING WILL BE REMOVED TO
APPROX EL 145 & STEEL CASING WILL BE CAPPED WITH A
WELDED SPEEL PLATE.
APPROX - 30' of Casing to be removed

Note: If the well is to be redrilled, show proposed bottom-hole coordinates and estimated true vertical depth. The Division must be notified if changes to this plan become necessary.

Namo of Operator contractor	Telephone Number 818 4449 -6460 (Dec	in Than)
676 N Rosement Bluel	Pasadana, CA	Zip Code 9/107
Name of Person Filing Notice CMA(L /2 //ALSOL)	Signature Mydrina	Date 8-7-92

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED

Notice of Intention to Drill New Well

	Los	Angeles	Calif. Ma	rch 24 19	52
DIVISION OF OIL AND	GAS	MA MAN MAN	SEC CARDS	19. 3606 WE BOND 114	ORM:
Los Angeles	**************************************	Calif. 30	m	603422	18
In compliance with Sec	ction 3203, Chapter 93,	Statutes of 1939, notice is			
commence the work of drill					
R. 14 W , S.B. B. &					
ease consists of 45 acr	res. more or less	(letter 4/2/52)5	C111 0	Cot	inty.
lease consists of	12 8	and Transmit all Transmit	CMCac		
the well is / 1365.59' S'	disk x x x x x dent share. (Give location, in distance from 1 y alg. c/l Norman constitution above sea level is	section corners or other corners of legandie fr	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	27.43' W'ly at 1	rt.
The elevation of the gro We estimate that the fir zones to 68001	(Give location in distance from ly alg. c/l Normal citations above sea level is set productive oil or gas san plus or minus.	a section corners or other corners of legandie fr. c/l Imperiated and should be encountered at the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing or landing the cither cementing the cither	al Hway; 2:	ut 5200	
The elevation of the gro We estimate that the fir zones to 68001	(Give location in distance from ly alg. c/l Normal citations above sea level is set productive oil or gas san plus or minus.	A section corners or other corners of legal and in the cor	al Hway; 2:	ut 5200	
The elevation of the gro We estimate that the fir zones to 6800' We propose to use the fire	(Give location in distance from 1y alg. c/l Norman above sea level is sund above sea level is plus or minus.	section corners of other corners of legandie fr. c/l Imperiate 190° feet. I should be encountered at the cither cementing or landing the content of the con	al Hway; 2	ut 5200 in indicated:	
The well is /1365.59' S' The elevation of the gro We estimate that the fir zones to 6800' We propose to use the f	(Give location, in distance from ly alg. c/l Normal rickshours above sea level is set productive oil or gas san plus or minus. Collowing strings of casing Weight, I.b. Per Foot	A section corners or other corners of legandie fr. c/l Imperion 190 feet. I section corners or other corners of legandie fr. c/l Imperion 190 feet. I section corners or other corners of legand should be encountered at the corner of the co	al Hway; 2: a depth of about them as here	ut 5200 in indicated: Landed or Comenced	
The well is 1365.59' S' The elevation of the gro We estimate that the fir zones to 6800' We propose to use the f	(Give location, in distance from ly alg. c/l Normal with Month above sea level in the productive oil or gas san plus or minus. Collowing strings of casing weight, Lb. Per Foot	seamless, new	a depth of about them as here	ut 5200 in indicated: Landed or Cemented cemented.	

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 717 North Highland Avenue

Telephone number WEBSTER 3-8555

EDWIN W. PAULEY

Doll Hold

JOSEPH G. HATHEWAY

Address Notice to Division of Oil and des in Destrict Where Well is Located

History of Oil or Gas Well

037-07639

Date: September 30, 1992

Field: Howard Townsite Oil Field

Township: <u>T3S</u> Range: <u>R14W</u> Section: <u>12</u> Well: <u>Pauley Petroleum Inc "S.R.G. Community" 1</u>

Permit No.: 192-847

During construction of the Century Freeway (105), Caltrans' grading contractor exposed the well. On September 24, 1992, approximately 45 feet of casing was cut off the top of the well. A metal disk was then welded on top of the casing to seal the top of the well. The top of the well is now approximately at 142 feet Mean Sea Level.

RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

BOND	FOR	RMS	EDP WELL
	OGD114	OGD121	FILE
n Am	8/10/02	8-10	

A notice to the Division of Oil and Gas dated 5-20, 1974, stating the intention to
Mariey renesteum inc.
(Drill, rework, abandon) Well "S.R.G. Connunty" APINO. 037-07639
Sec. 12, T. 35, R. 14W, SB B.&M., HOWARD TOWNSITE Field,
County, should be amended because of changed conditions.
1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
The state of the s
$N \aleph$
)s
2. The total depth is: 89 85 feet. The effective depth is: 10 feet.
it of the checkive depith is leet.
3. Present completion zone (s): Anticipated completion zone (s):
(Name) (Name)
4. Present zone pressure: psi. Anticipated/existing new zone pressure: psi.
pai.
We now propose: (A complete program is preferred and may be attached.)
FOR CANTRANS DIOS FLY PROJECT Nº 33 Site 16 - Sta 472+50
FINAL ABANDUMENT - WELL CASING WILL BE REMOVED TO
APPROX EL 145 & STEEL CASING WILL BE CAPPED WITH A
WELDED SPEEL PLATE.
WELDED STEEL PLATE.
APPROX - 30' of casing to be removed.
APPROX - 30' of casing to be

Note: If the well is to be redrilled, show proposed bottom-hole coordinates and estimated true vertical depth. The Division must be notified if changes to this plan become necessary.

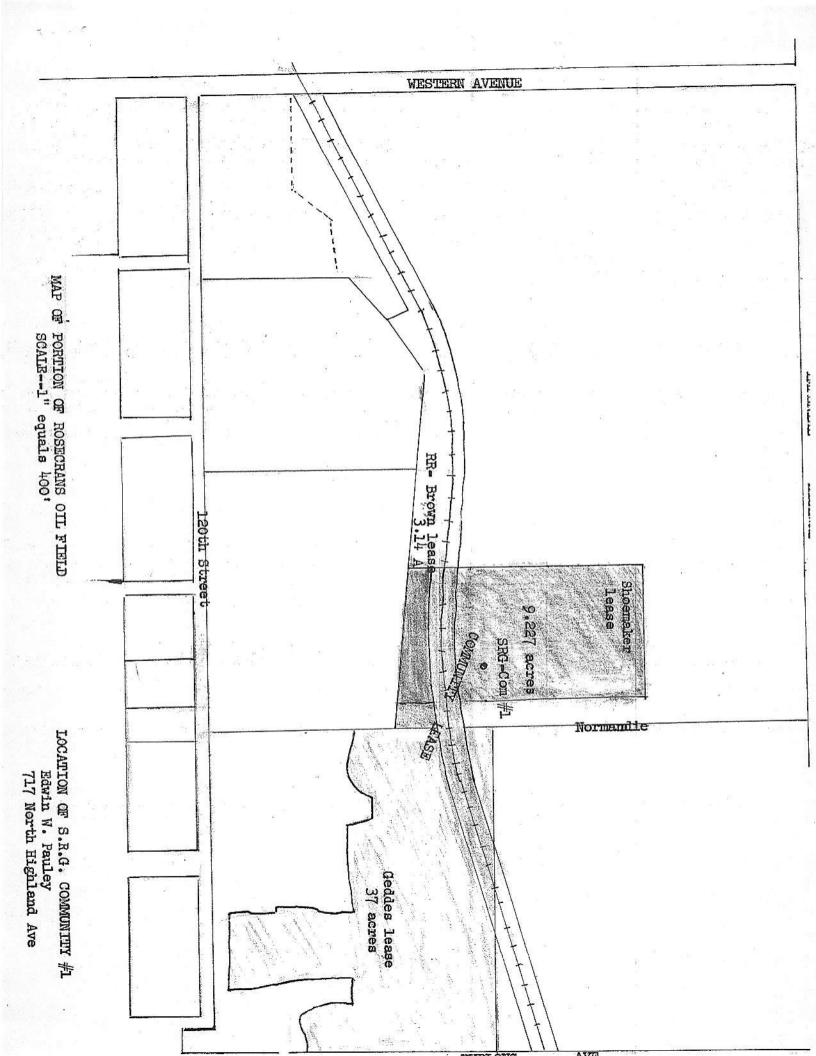
Petre Tech Inc	Telephone Number 81 8 449-6400	(Durin Than)
670 N Rosemend Blud	Pasadone, CA	Zip Code
Name of Person Filling Notice CASSIC PLANSON	Signature 24 June	Date 8-7-92

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS RECEIVED

ey Petroleum		Los Angeles	Calif. Jun	e 23,	CALIFORNIA
DIVISION OF OIL AND	GAS		Ö	37-0	07639
Los Angeles		Calif.			
In compliance with Sec	tion 3203, Chapter 93,	Statutes of 1939, notice is	hereby given	that it is	our intention
commence the work of drilling					
Commun. case consists of approx	M., (ATHENS) Rolling lease of Brown Imately 3.54 acre	secrans Field n Cap Co and Pacifi s.	d, LOS ANG c Electric	ELES R. R.	Co. contai
The well is 1376 xxxx x fixed /1365.59' S'1y	Managanak (250ck x)	her soft dispersion of the characteristics of the contract of	MENNEXXXX	AVO POR	
/1365.59' s'ly	alg. c/l Normand	lie fr. c/I Imperia	l Highway;	252.43	'W'ly at r
The elevation of the	COLOXIDADEC 1 1 1 1	190.08 feet.			
grou	and above sea level is	icet.			
			a depth of abo	ut81	000fee
We estimate that the firs	t productive oil or gas sau	nd should be encountered at			
We estimate that the firs	t productive oil or gas sau				
We estimate that the firs	t productive oil or gas sau	nd should be encountered at		in indicat	
We estimate that the firs	t productive oil or gas san	nd should be encountered at	g them as here	in indicat	ed:
We estimate that the firs We propose to use the fo	t productive oil or gas san	nd should be encountered at , either cementing or landin	g them as here	Lar cemen	ed:
We estimate that the firs We propose to use the fo	t productive oil or gas sandllowing strings of casing Weight, Lb. Per Foot	nd should be encountered at, either cementing or landin Grade and Type smls, new	g them as here Depth 1000*	Lar cemen	ed: oded or Cemented nted ated.
We estimate that the firs We propose to use the fo	t productive oil or gas sand sallowing strings of casing Weight, Lb. Per Foot 54# 23#	smls, new Liner to bottom	g them as here Depth 1000* 8000*	cemei	ed: oded or Cemented nted ated.
We estimate that the firs We propose to use the form Size of Casing, Inches 11 3/4" 7" 5 9/16"	t productive oil or gas sandlessed of casing Weight, Lb. Per Foot 54# 23# 19•6#	smls, new Liner to bottom	Depth 1000* 8000*	cemen	ed: nded or Cemented nted ated.
We estimate that the firs We propose to use the fo	t productive oil or gas sandlessed of casing Weight, Lb. Per Foot 54# 23# 19•6#	smls, new Liner to bottom	g them as here Depth 1000* 8000*	cemei	ed: nded or Cemented nted ated.
We estimate that the firs We propose to use the form Size of Casing, Inches 11 3/4" 7" 5 9/16" Well is to be drilled with	t productive oil or gas sandlellowing strings of casing Weight, Lb. Per Foot 54# 23# 19.6# rotary tools.	smls, new Liner to bottom	Depth 1000° 8000° CARDS B	ceme:	ed: Inded or Cemented Inted Inter Inted Inted Inted Inter
We estimate that the firs We propose to use the form Size of Casing, Inches 11 3/4" 7" 5 9/16" Well is to be drilled with	t productive oil or gas sandlellowing strings of casing Weight, Lb. Per Foot 54# 23# 19.6# rotary tools.	smls, new Liner to bottom MAP BOOK 30 NULL MAP BOOK	Depth 1000° 8000° CARDS B	ceme:	ed: nted ated. FORMS 114 121

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED



DEPARTMENT OF CONSERVATI DIVISION OF OIL AND GAS REPORT OF WELL ABANDONMENT

Long Beach, California December 13, 1989

Mitchell C. Reece, Agent SANTA FE ENERGY OPERATING PARTNERS 12070 Shoemaker Ave. #350 SANTA FE SPRINGS CA 90670

Your report of abandonment of well "Union-Pointexter" 1, API No. 037-02086, Section 12 T. 3S R. 13W, S.B. B. & M., Howard Townsite, Los Angeles County, dated 12-29-88, received 1-4-89, has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

MK:df

cc: Update; Conservation Committee;
LA County Planning Comm.; County Assessor;
LA County Fire Prevention Bureau

BLANKET BOND

-		М.	G. I	deff	∍rd
al .	State				Supervisor
В	Min	ulli	(Kal	(m)	ervisor
		VDe)	DUTY	Supe	ervisor
For	•		R. J	KB	aker

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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	Δ	1	91	194	77	

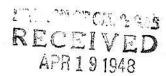
	Į (vieto ir ir ir ir ir ir ir ir ir ir ir ir ir	ong Beach,	Calif Ap	ril 18, 19 47
IVISION OF OIL AND				**************************************
Los	Angeles,	Calif.	. · · · · · · · · · · · · · · · · · · ·	4
ommence the work of drill	ction 3203, Chapter 93, Sta	lexter`1	120	12 _T 3 S.
<u>U, W., S. B.</u> B. 8	$_{ m k~M.,}$ (Northwest Athen	ıs Area) 🙀	Ke Los An	gelesCounty.
The elevation of the				corner of Sec. 12, T. R.14 W., S.B.B.& M.
We estimate that the fir	est productive oil or gas sand	should be encountered :	at a depth of abo	
We estimate that the fir		should be encountered :	at a depth of abo	
We estimate that the fire	est productive oil or gas sand	should be encountered :	ing them as herei	in indicated:
We estimate that the fire. We propose to use the state of Casing, Inches	following strings of casing, e	should be encountered a ither cementing or land Grade and Type	ing them as herei	in indicated: Landed or Comented
We estimate that the firm We propose to use the state of Casing, Inches 10-3/4#	following strings of casing, e Weight, Lb. Per Foot	should be encountered a ither cementing or land Grade and Type H-40	Depth 1000 1+	Landed or Comented Cemented
We estimate that the firm We propose to use the state of Casing, Inches 10-3/4# 7#	weight, Lb. Per Foot 40.5 26.0	should be encountered a ither cementing or land Grade and Type H-40 N-80	Depth 1000*+ 8075*+	Landed or Comented Cemented Cemented
We estimate that the firm We propose to use the state of Casing, Inches 10-3/4" 7" 5-1/2" Well is to be drilled with	weight, Lb. Per Foot 40.5 26.0 17.0	should be encountered a ither cementing or land Grade and Type H-40 N-80 J-55	Depth 1000*+ 8075*+	Landed or Comented Cemented Cemented Hung

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

	1 .	1		FOR	EM:
AM	BOOK	CARDS	DOND	114	121
3090 46	NW.	Ny	Blanket	4	M

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS



Notice of Intention to Drill New Well ON ANGELES CALIFORNA

nen Corpora	(A. 42)			037-0	20170
	Lor	ng Beach	Calif. Ap	ril 16	19 <u>48</u>
IVISION OF OIL AN	ID GAS	\$			
T =	A 7				
LQS	a Angeles	Calif.	無		
In compliance with	Section 3203, Chapter 93,	Statutes of 1939, notice is	hereby given	that it is our i	ntention to
mmence the work of d	rilling well No 'Union-	Poindexter'3	,	. 12	. 3 S. /
14 W. S.B. 1	Athens Rose	ecrans) Field	Toe An	20 200-20 - 200-200 (1)	
	acres individual lea	, 4			County.
	2000-2000-2004-2004-000-000-000-000-000-				
ie well is 1326.05	feet 350 S., and 1683.29	feet E. of W. from the	NW corner	of Sec. 12	T. 3 S.
71.1			*40017131011)		R. 14 W
Ine elevation of the	derrick floor gxourid above sea level i	s <u>170'+</u> feet.			
We estimate that the	first productive oil or gas sa	nd should be encountered at	a depth of abo	out 8350+	feet.
We propose to use th	ne following strings of casing	g, either cementing or landing			
- Propose to dot to		s, ettner cementing or randing	them as her	ein indicated:	77-77-77-78
Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or C	Cemented
11-3/4"	42.0	H-40 (Т. & C.)	1000;+	Cemente	3
**	06.0	N-80 and			
7"	26.0 and 29.0	J-55 (T. & C.)	8350 <u>'+</u>	Cement Landed	ed
5-1/2"	15.5	J-55 (Flush Jt.)	91251+	Liner top	8300 +
*			-	**************************************	
	with rotary tools				
Well is to be drilled v	The same same same same same same same sam		11		
Well is to be drilled v	Kaune.			cementing or lan	ding casing.
	if changes in this plan beco	me necessary, we are to notify	you before	conficients of fair	
	if changes in this plan beco	me necessary, we are to notify	you before	commencing of fair	
It is understood that					
			COMPANY,	INCORPORATE	D
It is understood that	oo Avenue			INCORPORATE	<u>D</u>

MAP MAP CARDS BOND FORMS

TOPO 46 NLGO M Blanket y 1

FORM 105.

STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS

AUG 3 0 1948

BEREN CORPORATION

Notice of Intention to Drill New Well LOS ANGELES, CALIFORNIA

	I	ong Beach		Calif	August 26		19 48
DIVISION OF OIL AND	GAS					4 -	. 1 /
							1965
Los	Angeles	Calif.		<i>e</i> =			9 501
In compliance with S	ection 3203, Chapter 9	3. Statutes of 1939.	notice is	hereby ø	iven that it is	our inter	ution to
commence the work of dril	ling well No " Unic	n.Poinderter"2					
R. 1h W., S.B. B.	& M. / Athens-Ro	secrans Area	الم Fiel		s Angeles		County.
Legal description of lease				u,			county.
The well is 1597.16 fee Elevation of ground above s All depth measurements take	(Give location in distance ea level 170 +	feet E. of W. fr	om Te 3	See R I subdivision)		B.B. &	M.
We estimate that the fir	teet above ground.						
We propose to use the						-	
Size of Casing, Inches	Weight, Lb. Per Foot	Grade and T	урс	Depth	Land	led or Comente	:d
10-3/¼ "	40.5	н-40		1000+	Ceme	ented	
7n	26.0	N-80		8400+	Ceme	ented	
5 <u>n</u>	15.0	J - 55		9050+	Hung	ŗ	
				-			RMS
		MAP	Маг Воок	CARDS	COND	114	121
Well is to be drilled with	h rotary tools.	PWB-JLW	JLW	1	Ex 15	Try	M
It is understood that if	changes in this plan be	come necessary we ar	e to notif	y you\bef	ore cementing	or landing	casing.
2080 Obispo Address Long Beach h		S	HELL OT		ANY, INCORP	PORATED	
Telephone number Long	Beach 811-51	Ву	111	Johnso	»—		

Appendix D

Noise Data

CNEL Noise Estimates for the Proposed Project/Action - Based on AM Peak Hour

50 ft 75 ft 100 ft

50 ft 75 ft 100 ft

Existing 2009

			TOT.	EQ	UIVALE	NT LANE DISTANCE		VEH	CLE T	YPE %	6			VEHIC	CLE S	PEED)		NOISE	E LEVEL	(dBA)	ROW	ROW	ROW	
ROAD SEGMEN	IT		# VEH.				Auto		MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_								(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2152	6	86	23	91	1958	6	129	3	64.6	45	72	45	72	45	72	70.4	66.8	68.3	71.9	70.6	69.6	1
Imperial	Van Ness	Western	2426	6	86	23	91	2208	6	146	3	72.8	45	72	45	72	45	72	70.9	67.4	68.9	72.4	71.1	70.1	
Imperial	Western	Denker	2457	6	86	23	91	2236	6	147	3	73.7	45	72	45	72	45	72	70.9	67.4	68.9	72.5	71.2	70.2	
Imperial	Denker	Normandie	2545	6	86	23	91	2315	6	153	3	76.3	45	72	45	72	45	72	71.1	67.6	69.1	72.6	71.3	70.4	
Imperial	Normandie	Vermont	2620	6	86	23	91	2384	6	157	3	78.6	45	72	45	72	45	72	71.2	67.7	69.2	72.8	71.5	70.5	
Imperial	Vermont	I-110 SB Ramp	2778	6	86	23	91	2528	6	167	3	83.3	45	72	45	72	45	72	71.5	68.0	69.5	73.0	71.7	70.7	
Western	Imperial	College	2372	14	52	27	91	2159	6	142	3	71.2	45	72	45	72	45	72	70.8	67.3	68.8	72.1	70.9	69.9	
Western	College	120th Pl.	2381	14	52	27	91	2167	6	143	3	71.4	45	72	45	72	45	72	70.8	67.3	68.8	72.1	70.9	69.9	
Normandie	Imperial	College	1291	12	46	23	91	1175	6	77.5	3	38.7	45	72	45	72	45	72	68.2	64.6	66.1	69.6	68.4	67.4	
Normandie	College	120th Pl.	1218	12	46	23	91	1108	6	73.1	3	36.5	45	72	45	72	45	72	67.9	64.4	65.9	69.4	68.1	67.1	
Vermont	Imperial	I-105 WB Ramp	3120	20	144	54	91	2839	6	187	3	93.6	45	72	45	72	45	72	72.0	68.5	70.0	72.0	71.0	70.3	

Future Without Project 2016

			TOT.	EQ	UIVAL	ENT LANE DISTANCE		VEHI	CLE T	YPE %	6			VEHIC	CLE S	PEEI)		NOISE	E LEVEL	(dBA)	ROW	ROW	ROW	
ROAD SEGMEN	Γ		# VEH.				Auto		MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_								(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2408	6	86	23	91	2191	6	144	3	72.2	45	72	45	72	45	72	70.9	67.3	68.8	72.4	71.1	70.1	1
Imperial	Van Ness	Western	2678	6	86	23	91	2437	6	161	3	80.3	45	72	45	72	45	72	71.3	67.8	69.3	72.8	71.6	70.6	
Imperial	Western	Denker	2726	6	86	23	91	2480	6	164	3	81.8	45	72	45	72	45	72	71.4	67.9	69.4	72.9	71.6	70.7	
Imperial	Denker	Normandie	2791	6	86	23	91	2540	6	167	3	83.7	45	72	45	72	45	72	71.5	68.0	69.5	73.0	71.7	70.8	
Imperial	Normandie	Vermont	2948	6	86	23	91	2682	6	177	3	88.4	45	72	45	72	45	72	71.7	68.2	69.7	73.3	72.0	71.0	
Imperial	Vermont	I-110 SB Ramp	3078	6	86	23	91	2801	6	185	3	92.3	45	72	45	72	45	72	71.9	68.4	69.9	73.5	72.2	71.2	
Western	Imperial	College	2466	14	52	27	91	2244	6	148	3	74	45	72	45	72	45	72	71.0	67.4	68.9	72.2	71.0	70.1	
Western	College	120th Pl.	2453	14	52	27	91	2232	6	147	3	73.6	45	72	45	72	45	72	70.9	67.4	68.9	72.2	71.0	70.0	
Normandie	Imperial	College	1330	12	46	23	91	1210	6	79.8	3	39.9	45	72	45	72	45	72	68.3	64.8	66.3	69.8	68.5	67.5	
Normandie	College	120th Pl.	1254	12	46	23	91	1141	6	75.2	3	37.6	45	72	45	72	45	72	68.0	64.5	66.0	69.5	68.2	67.3	
Vermont	Imperial	I-105 WB Ramp	3235	20	144	54	91	2943	6	194	3	97	45	72	45	72	45	72	72.1	68.6	70.1	72.1	71.2	70.4	

Future With Project 2016

ruture ****	m i roject 2010																						50 ft	75 ft	100 ft	1
			TOT.	EÇ	UIVAI	ENT LANE DISTANCE		VEHI	CLE T	YPE %	6		V	EHIC	CLE S	SPEE	D		NO	SE LE	VEL (dBA)	ROW	ROW	ROW	
ROAD SEGME	NT		# VEH.				Auto)	MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	M	T	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_									(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2445	6	86	23	91	2224	6	147	3	73.3	45	72	45	72	45	72	70.9	67	.4	68.9	72.5	71.2	70.2	
Imperial	Van Ness	Western	2745	6	86	23	91	2497	6	165	3	82.3	45	72	45	72	45	72	71.4	67	1.9	69.4	73.0	71.7	70.7	
Imperial	Western	Denker	2816	6	86	23	91	2562	6	169	3	84.5	45	72	45	72	45	72	71.5	68	3.0	69.5	73.1	71.8	70.8	
Imperial	Denker	Normandie	2910	6	86	23	91	2648	6	175	3	87.3	45	72	45	72	45	72	71.7	68	3.2	69.7	73.2	71.9	70.9	
Imperial	Normandie	Vermont	3026	6	86	23	91	2753	6	182	3	90.8	45	72	45	72	45	72	71.9	68	3.3	69.8	73.4	72.1	71.1	
Imperial	Vermont	I-110 SB Ramp	3115	6	86	23	91	2835	6	187	3	93.5	45	72	45	72	45	72	72.0	68	3.5	70.0	73.5	72.2	71.2	
Western	Imperial	College	2429	14	52	27	91	2210	6	146	3	72.9	45	72	45	72	45	72	70.9	67	.4	68.9	72.2	71.0	70.0	
Western	College	120th Pl.	2482	14	52	27	91	2259	6	149	3	74.5	45	72	45	72	45	72	71.0	67	.5	69.0	72.3	71.0	70.1	
Normandie	Imperial	College	1424	12	46	23	91	1295	6	85.4	3	42.7	45	72	45	72	45	72	68.6	65	5.1	66.6	70.1	68.8	67.8	
Normandie	College	120th Pl.	1275	12	46	23	91	1160	6	76.5	3	38.3	45	72	45	72	45	72	68.1	64	1.6	66.1	69.6	68.3	67.3	
Vermont	Imperial	I-105 WB Ramp	3254	20	144	54	91	2961	6	195	3	97.6	45	72	45	72	45	72	72.2	68	3.6	70.1	72.2	71.2	70.4	

CNEL Noise Estimates for the Proposed Project/Action - Based on PM Peak Hour

Existing 2009

			TOT.	EQ	UIVAL	ENT LANE DISTANCE		VEHI	CLE T	YPE %	ó		1	'EHIC	LE SP	EED	1		NOISE	LEVEL	(dBA)	ROW	ROW	ROW	
ROAD SEGMEN	T		# VEH.				Auto	<u> </u>	MT		HT		Auto	k/h	MT k	c/h	<u>HT</u>	k/h	Auto	MT	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_								(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2152	6	86	23	91	1958	6	129	3	64.6	45	72	45	72	45	72	70.4	66.8	68.3	71.9	70.6	69.6	1
Imperial	Van Ness	Western	2426	6	86	23	91	2208	6	146	3	72.8	45	72	45	72	45	72	70.9	67.4	68.9	72.4	71.1	70.1	
Imperial	Western	Denker	2457	6	86	23	91	2236	6	147	3	73.7	45	72	45	72	45	72	70.9	67.4	68.9	72.5	71.2	70.2	
Imperial	Denker	Normandie	2481	6	86	23	91	2258	6	149	3	74.4	45	72	45	72	45	72	71.0	67.5	69.0	72.5	71.2	70.2	
Imperial	Normandie	Vermont	2646	6	86	23	91	2408	6	159	3	79.4	45	72	45	72	45	72	71.3	67.7	69.2	72.8	71.5	70.5	
Imperial	Vermont	I-110 SB Ramp	2713	6	86	23	91	2469	6	163	3	81.4	45	72	45	72	45	72	71.4	67.9	69.4	72.9	71.6	70.6	
Western	Imperial	College	2003	14	52	27	91	1822	6	120	3	60.1	45	72	45	72	45	72	70.1	66.5	68.0	71.3	70.1	69.2	
Western	College	120th Pl.	1951	14	52	27	91	1775	6	117	3	58.5	45	72	45	72	45	72	69.9	66.4	67.9	71.2	70.0	69.1	
Normandie	Imperial	College	1131	12	46	23	91	1029	6	67.8	3	33.9	45	72	45	72	45	72	67.6	64.0	65.6	69.1	67.8	66.8	
Normandie	College	120th Pl.	996	12	46	23	91	906	6	59.8	3	29.9	45	72	45	72	45	72	67.0	63.5	65.0	68.5	67.2	66.3	
Vermont	Imperial	I-105 WB Ramp	2736	20	144	54	91	2490	6	164	3	82.1	45	72	45	72	45	72	71.4	67.9	69.4	71.4	70.5	69.7	

Future Without Project 2016

			TOT.	EC	UIVAL	ENT LANE DISTANCE		VEHI	CLE T	YPE %	6		,	VEHIC	CLE SI	PEEL)		NOISE	E LEVEL	(dBA)	ROW	ROW	ROW	
ROAD SEGMEN	Γ		# VEH.				Auto		MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_		-						(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2802	6	86	23	91	2550	6	168	3	84.1	45	72	45	72	45	72	71.5	68.0	69.5	73.0	71.8	70.8	1
Imperial	Van Ness	Western	2542	6	86	23	91	2313	6	153	3	76.3	45	72	45	72	45	72	71.1	67.6	69.1	72.6	71.3	70.3	
Imperial	Western	Denker	2782	6	86	23	91	2531	6	167	3	83.4	45	72	45	72	45	72	71.5	68.0	69.5	73.0	71.7	70.7	
Imperial	Denker	Normandie	2774	6	86	23	91	2524	6	166	3	83.2	45	72	45	72	45	72	71.5	67.9	69.5	73.0	71.7	70.7	
Imperial	Normandie	Vermont	3034	6	86	23	91	2760	6	182	3	91	45	72	45	72	45	72	71.9	68.3	69.8	73.4	72.1	71.1	
Imperial	Vermont	I-110 SB Ramp	3058	6	86	23	91	2783	6	183	3	91.7	45	72	45	72	45	72	71.9	68.4	69.9	73.4	72.1	71.2	
Western	Imperial	College	2085	14	52	27	91	1897	6	125	3	62.6	45	72	45	72	45	72	70.2	66.7	68.2	71.5	70.3	69.3	
Western	College	120th Pl.	2021	14	52	27	91	1839	6	121	3	60.6	45	72	45	72	45	72	70.1	66.6	68.1	71.4	70.2	69.2	
Normandie	Imperial	College	1150	12	46	23	91	1047	6	69	3	34.5	45	72	45	72	45	72	67.6	64.1	65.6	69.1	67.9	66.9	
Normandie	College	120th Pl.	1026	12	46	23	91	934	6	61.6	3	30.8	45	72	45	72	45	72	67.2	63.6	65.1	68.6	67.4	66.4	
Vermont	Imperial	I-105 WB Ramp	2843	20	144	54	91	2587	6	171	3	85.3	45	72	45	72	45	72	71.6	68.1	69.6	71.6	70.6	69.9	

50 ft 75 ft 100 ft

Future With Project 2016

																						50 It	/ J It	100 11	
			TOT.	EC	QUIVAL	LENT LANE DISTANCE		VEH	CLE T	YPE 9	6			VEHI	CLE S	SPEEI	D		NOIS	E LEVEL	(dBA)	ROW	ROW	ROW	
ROAD SEGMEN	ΙΤ		# VEH.				Auto		MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT	CNEL	CNEL	CNEL	
	from:	to:		D1	D2	Eq. Dis.	%	Auto	%	MT	%	HT		_								(dBA)	(dBA)	(dBA)	
Imperial	Crenshaw	Van Ness	2847	6	86	23	91	2590	6	171	3	85.4	45	72	45	72	45	72	71.6	68.1	69.6	73.1	71.8	70.8	1
Imperial	Van Ness	Western	3003	6	86	23	91	2732	6	180	3	90.1	45	72	45	72	45	72	71.8	68.3	69.8	73.3	72.1	71.1	
Imperial	Western	Denker	2914	6	86	23	91	2651	6	175	3	87.4	45	72	45	72	45	72	71.7	68.2	69.7	73.2	71.9	70.9	
Imperial	Denker	Normandie	2903	6	86	23	91	2642	6	174	3	87.1	45	72	45	72	45	72	71.7	68.1	69.6	73.2	71.9	70.9	
Imperial	Normandie	Vermont	3123	6	86	23	91	2842	6	187	3	93.7	45	72	45	72	45	72	72.0	68.5	70.0	73.5	72.2	71.2	
Imperial	Vermont	I-110 SB Ramp	3104	6	86	23	91	2824	6	186	3	93.1	45	72	45	72	45	72	72.0	68.4	69.9	73.5	72.2	71.2	
Western	Imperial	College	2091	14	52	27	91	1902	6	125	3	62.7	45	72	45	72	45	72	70.2	66.7	68.2	71.5	70.3	69.4	
Western	College	120th Pl.	2044	14	52	27	91	1860	6	123	3	61.3	45	72	45	72	45	72	70.1	66.6	68.1	71.4	70.2	69.3	
Normandie	Imperial	College	1169	12	46	23	91	1064	6	70.1	3	35.1	45	72	45	72	45	72	67.7	64.2	65.7	69.2	67.9	66.9	
Normandie	College	120th Pl.	1164	12	46	23	91	1059	6	69.8	3	34.9	45	72	45	72	45	72	67.7	64.2	65.7	69.2	67.9	66.9	
Vermont	Imperial	I-105 WB Ramp	2867	20	144	54	91	2609	6	172	3	86	45	72	45	72	45	72	71.6	68.1	69.6	71.6	70.7	69.9	

CNEL Noise Estimates for the Proposed Project/Action - Campus Entrance (off Normandie Avenue)

Future with Project (2016)

ruture with i	10ject (2010)														
												50 ft	75 ft	100 ft	
			TOT.	<u>EQUIVAL</u>	ENT LANE DISTANCE	VEH	HICLE TYPE	%	VEHICLE SPEED	NOISE LEV	EL (dBA)	ROW	ROW	ROW	
ROAD SEGMENT			# VEH.			Auto	MT	HT	Auto k/h MT k/h HT k/	h <u>Auto</u> M	<u>TH</u> <u>1</u>	CNEL	CNEL	CNEL	
	from:	to:		D1 D2	Eq. Dis.	% Aut	o % MT	% HT				(dBA)	(dBA)	(dBA)	
Campus (AM)	Normandie	Inner Campus	115	6 18	10	91 105	6 6.9	3 3.45	25 40 25 40 25 4	50.3 50.	1 54.8	56.3	54.7	53.6	1
Campus (PM)	Normandie	Inner Campus	144	6 86	23	91 131	6 8.64	3 4.32	45 72 45 72 45 73	2 58.6 55.	1 56.6	60.2	58.9	57.9	

Proposed Project/Action Alternative

AM PEAK HOUR

							Cumulative
ROAD SEGMENT			Existing	No Project	With Project	Project Impact	Impact
	from:	to:	(dBa)	(dBa)	(dBa)		
Imperial	Crenshaw	Van Ness	71.9	72.4	72.5	0.1	0.6
Imperial	Van Ness	Western	72.4	72.8	73.0	0.2	0.6
Imperial	Western	Denker	72.5	72.9	73.1	0.2	0.6
Imperial	Denker	Normandie	72.6	73.0	73.2	0.2	0.6
Imperial	Normandie	Vermont	72.8	73.3	73.4	0.1	0.6
Imperial	Vermont	I-110 SB Ramp	73.0	73.5	73.5	0.0	0.5
Western	Imperial	College	72.1	72.2	72.2	0.0	0.1
Western	College	120th Pl.	72.1	72.2	72.3	0.1	0.2
Normandie	Imperial	College	69.6	69.8	70.1	0.3	0.5
Normandie	College	120th Pl.	69.4	69.5	69.6	0.1	0.2
Vermont	Imperial	I-105 WB Ramp	72.0	72.1	72.2	0.1	0.2

PM PEAK HOUR

							Cumulative
ROAD SEGMENT			Existing	No Project	With Project	Project Impact	Impact
	from:	to:	(dBa)	(dBa)	(dBa)		
Imperial	Crenshaw	Van Ness	71.9	73.0	73.1	0.1	1.2
Imperial	Van Ness	Western	72.4	72.6	73.3	0.7	0.9
Imperial	Western	Denker	72.5	73.0	73.2	0.2	0.7
Imperial	Denker	Normandie	72.5	73.0	73.2	0.2	0.7
Imperial	Normandie	Vermont	72.8	73.4	73.5	0.1	0.7
Imperial	Vermont	I-110 SB Ramp	72.9	73.4	73.5	0.1	0.6
Western	Imperial	College	71.3	71.5	71.5	0.0	0.2
Western	College	120th Pl.	71.2	71.4	71.4	0.0	0.2
Normandie	Imperial	College	69.1	69.1	69.2	0.1	0.1
Normandie	College	120th Pl.	68.5	68.6	69.2	0.6	0.7
Vermont	Imperial	I-105 WB Ramp	71.4	71.6	71.6	0.0	0.2

Appendix E

Traffic Study

Traffic Impact and Parking Analysis

of the

LOS ANGELES SOUTHWEST COMMUNITY COLLEGE

Master Plan Update

Prepared for: Terry Hayes and Associates

Prepared by Cordoba Corporation 2677 North Main Street, Suite 240 Santa Ana, CA 92705

December 9, 2009

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I. Introduction

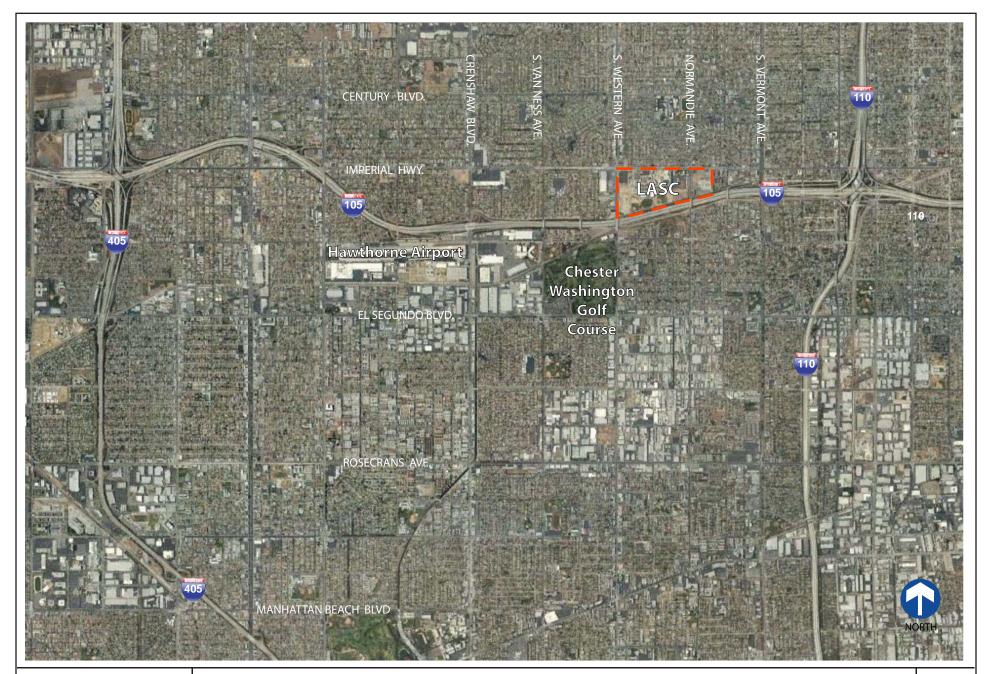
This report presents the Traffic Impact and Parking Analysis and results for the Master Plan Update to the Los Angeles Southwest Community College (Project). The original Traffic and Parking Study was completed by Meyer Mohaddes Associates, Inc. in June 2003.

Project Location

The 63.7-acre LASCC campus is located at 1600 West Imperial Highway in unincorporated Los Angeles County, 8.5 miles southwest of Downtown Los Angeles. The campus is bounded by Imperial Highway to the north, the Glen Anderson Freeway (I-105) to the south, Western Avenue to the west, and Normandie Avenue to the east. Regional access to the LASCC campus is provided by the adjacent I-105, the San Diego Freeway (I-405) located 3.5 miles to the west, and the Harbor Freeway (I-110) located one mile to the east. From the I-105, the campus may be accessed via the Crenshaw Boulevard and Vermont Avenue ramps. I-105 connects to the north/south oriented I-405 and I-110. The major streets serving the campus are Western and Normandie Avenues in the north-south direction and Imperial Highway in the east-west direction. In addition, two Metro Green Line Stations, Vermont and Crenshaw, serve the area. These stations are located along the I-105 at Vermont Avenue and Crenshaw Boulevard, approximately 0.5 miles to the east and one mile to the west of the project site, respectively. The Los Angeles International Airport (LAX) is located 3.5 miles to the west of the campus. Figure 1 show the project and the surrounding area.

Project Background

The Los Angeles Southwest College Master Plan is intended to act as a guide for future development of the college and present projects that carry forward the concepts of improving the campus image, maintaining the campus community, increasing college partnerships with the community, and enhancing the educational program. These goals will be achieved by providing state-of-the-art learning environments, enhanced infrastructure, aesthetic improvements, and improved safety through building improvements, lighting and improved parking. The components of the proposed project are broken into three categories: new facilities, proposed modernizations, and





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infrastructure upgrades. At buildout of the Master Plan, the capacity of LASC will be approximately 12, 000 students. The site plan identifying the locations of the various project components within the LASCC campus is presented in Figure 2.

New Facilities

Visual, Communications and Performing Arts Training Complex – A Leadership in Energy and Environmental Design (LEED) certified, two-story, approximately 30,000-gross-square-foot (gsf) building is proposed at the site of the current parking lot north of the Cox Administration building. The Visual, Communications and Performing Arts Training Complex would contain the following programs: music, music technology, dance and theater, media and graphic arts, backstage operations, and theater management. The existing surface parking lot would be demolished to accommodate this new facility.

Career Technical Education Center – A LEED certified, approximately 40,000-gsf building is proposed at the vacant site east of the new Student Services/Activities Center and west of the Cox Administration Building. The Career Technical Education Center will contain all of the current career/technical programs, as well as sustainability, heating ventilation and air conditioning, allied health, logistics, transportation, and hospitality programs. The existing surface parking lot would be demolished to accommodate this new facility.

Annex to Cox Building - A LEED certified, approximately 5,000-square-foot Annex Building would be constructed at the north side of the Cox Administration Building that would house presidential administration staff.

Bookstore – A LEED certified, approximately 5,000-square-foot Bookstore will be constructed at the southeast corner on the ground floor of the Student Services/Activity Center building. The Bookstore would relocate from its current location in the ground level of the Cox Administration Building.

Parking Structure – A three-level parking structure for approximately 650 to 700 cars will be constructed in the northeast quadrant of the campus, east of the Student Services/Education Building. The facility will feature electric charging stations and a smart electronic identification system. The proposed building site is currently vacant.



Source: GKK



Proposed Modernizations

Lecture Laboratory – The proposed project would modernize the existing Lecture Laboratory building up to current code and life safety standards. Modernization will include a four-story renovation to the existing building, outfitting all classrooms electronically and adding four laboratory classrooms. The renovation will include architectural, structural, mechanical, electrical, plumbing, technology, and security systems upgrades and would connect to the Central Plant.

Fitness and Wellness Center –The proposed project will modernize the existing Fitness and Wellness Center building up to current code and life safety standards. Modernization will include a student success center, replacement of gym flooring and new protective covering, assessment of the bleachers, lighting and controls, fire alarm system upgrade, exterior stairs, improve the locker and wet room areas to accommodate separate women's facilities, mechanical, electrical, and security upgrades along with site improvements at the athletic practice fields. Additional site conditions include 8,000 cubic feet of soil export and removal of buried debris, and the modernization and conditioning of all the mechanical equipment for connection to the college's central plant for chilled and hot water.

Cox Administration Building – The proposed project will modernize the existing Cox Administration Building up to current code and standards. Modernization will include building upgrades including architectural finishes, electrical, plumbing, and security and fire alarm upgrades.

Cox Building Little Theater – The proposed project will modernize the existing building up to current code and life safety standards. Modernization will include building upgrades including architectural finishes, electrical, plumbing, and security and fire alarm upgrades.

Infrastructure Upgrades

Normandie Campus Entrance – A fourth campus entrance along Normandie Avenue will be added. Access will be via a new surface street on the north side of the Caltrans property from Normandie Avenue to the eastside perimeter road, north of the Maintenance and Operations building.

Renewable Energy Program – Southwest College, in conjunction with Chevron Energy Solutions, has initiated plans for a 4 megawatt solar farm. The program involves implementation of a solar tracking system, photovoltaic panels located on parking lots, rooftops of all buildings, and on the Normandie Mound Caltrans Site #16. The electricity generated by the program will satisfy all of the energy demands of the college and additional energy would be stored in centralized battery storage systems, or hydrogen generation and storage for fuel cell operation. The program would work in conjunction with the Central Plant which would connect to all campus facilities. The renewable energy program would also serve as a living model for students, allowing for the study of design, construction, chemistry, and physics of renewable technologies.

Utility Systems – The proposed project will undergo infrastructure upgrades which will take into account changes resulting from the 2004 Security Master Plan and 2004 Technology Master Plan, which identify the infrastructure improvements to support the future security and technological development of the campus. The proposed project will include the installation of new utility systems, including potable water, fire-water, storm water, sewer, electrical and communications distribution and roadways. All of these campus improvements will also connect the buildings to the Central Plant, will include landscaping upgrades, and comply with ADA requirements. All buildings will also have rooftop photovoltaic electrical power-producing systems installed. A permanent storm water pollution prevention program and water reclamation project will also be completed as part of the Master Plan Update.

Campus East Pump House & Fire Water – A one-story concrete block building, approximately 18 feet by 78 feet in size will include an electrical utility room, a domestic water pump room, a fire water pump room, and an emergency diesel generator room, including a site transformer and electrical switchgear located on the south side of the building. The electrical utility room will house all electrical lighting, fire alarm, information technology, and security systems panels.

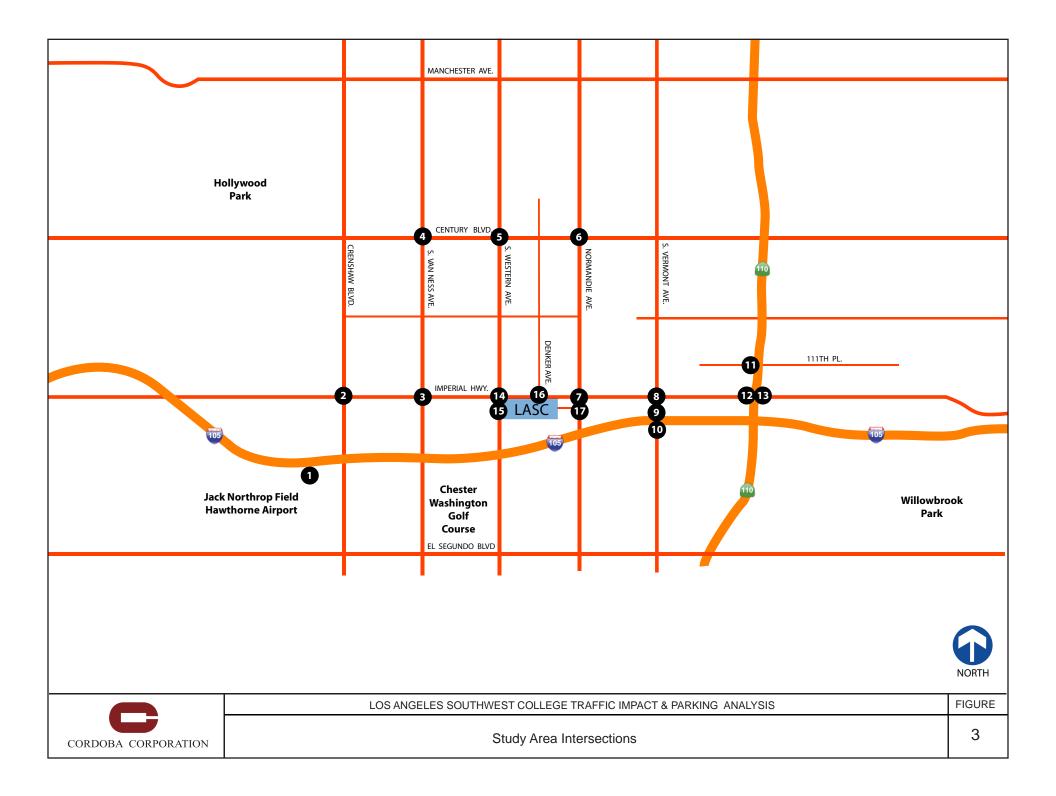
Study Scope

A traffic impact and parking analysis was prepared for the proposed LASCC Master Plan, to assess potential impacts associated with additional campus facilities, and changes in access and circulation, and to evaluate existing and anticipated future parking supply and demand. Potential traffic impacts of the proposed project were analyzed for the following scenarios:

- Existing (2009) Conditions The analysis of existing conditions is intended to provide the base condition from which to assess all future level of service improvement or degradation.
- Cumulative Base Year 2016 ("Future No-Build") This scenario includes growth in the non-project background traffic through the study area intersections and streets.
- Cumulative Plus Project ("Future With-Project") This scenario adds the future college traffic volumes to the Cumulative Base Year 2016 volumes to identify the impacts that the college will generate compared to the general growth in traffic from regional development.
- Cumulative Plus Project Plus Related Projects ("Future With-Project-With-Related-Projects") This scenario will analyze the impacts of added traffic from identified related development projects in the study area.

Based on previous traffic analyses performed for LASCC, the following 17 intersections were identified for analysis, and are shown in Figure 3:

- 1. 120th Street and I-105 Eastbound Ramps
- 2. Imperial Highway and Crenshaw Boulevard
- 3. Imperial Highway and Van Ness Avenue
- 4. Century Boulevard and Van Ness Avenue
- 5. Century Boulevard and Western Avenue
- 6. Century Boulevard and Normandie Avenue
- 7. Imperial Highway and Normandie Avenue
- 8. Imperial Highway and Vermont Avenue
- 9. Vermont Avenue and I-105 Westbound Ramps



- 10. Vermont Avenue and I-105 Eastbound Ramps
- 11. 111th Place and I-110 SB Ramp
- 12. Imperial Highway and I-110 Southbound Ramps
- 13. Imperial Highway and I-110 Northbound Ramps
- 14. Imperial Highway and Western Avenue
- 15. Western Avenue and Campus Entrance
- 16. Imperial Highway and Denker Avenue (Campus Entrance)
- 17. Normandie Avenue and Proposed Campus Entrance.

A parking survey was performed to verify existing parking supply, and to determine current parking demand and usage patterns. Parking demand expected with the completion of the Master Plan was also estimated and compared to planned parking supply. Deficiencies were identified and recommendations to address deficiencies are provided.

The methodologies, analyses and results of the traffic impact analyses and parking analysis have been documented in this technical report.

Mitigation

Based on the results of the analyses, appropriate mitigation for identified project impacts was developed. Los Angeles Southwest College was involved in defining appropriate mitigation measures that were consistent with the overall Master Plan.

Parking Analysis

An inventory of existing campus parking was conducted. The number of spaces, including regular, handicap, carpool and motorcycle spaces, in each on-campus parking lot was identified.

Parking utilization counts were conducted on November 5, 2009 at each of the oncampus parking lots. Utilization of student and faculty/employee parking was identified.

Based on the inventory and utilization of existing spaces, existing parking demand during morning, afternoon and nighttime periods were evaluated. Using existing campus enrollment counts, existing parking demand rates for AM, and PM conditions were calculated. Estimated parking rates were applied to future enrollment projections to estimate future parking demand. Future parking demand was compared to the proposed parking supply contained in the Master Plan.

II. Existing Conditions

A comprehensive data collection effort to identify the existing conditions within the study area was undertaken, including a general description of land uses in the study area; the configuration of study roadways and intersections, collection and analysis of traffic volume data, and the resultant operating conditions at study intersections; and a review of public transit services.

Existing Street system

Regional access to the college is provided by the Century Freeway (I-105) with full interchanges at Vermont Avenue and Crenshaw Boulevard (via 120th Street), the Harbor Freeway (I-110) with an interchange at Imperial Highway, and by several major arterial streets, including direct site access via Western Avenue and Imperial Highway. The Century Freeway is located directly south of the project site. The Harbor Freeway is approximately 1.25 miles east of the project site. In the vicinity of LASCC, major arterials are located one mile apart on a rectilinear grid with minor arterials located every half-mile. All of the study intersections reviewed in this report are signalized.

The following provides a brief description of the major roadways within the study area.

I-105 (*Glenn Anderson Freeway*) – I-105 is an east-west Interstate Highway along the southern boundary of the LASCC campus and is one of the primary regional freeways in the area. I-105 generally has three through lanes plus a high-occupancy-vehicle (HOV) lane in each direction. At its interchanges with I-110 (Harbor Freeway), Vermont Avenue, and Crenshaw Boulevard, it has additional auxiliary lanes for movement to and from the ramps.

I-110 (*Harbor Freeway*) – I-110 is a north-south Interstate Highway that extends north from its terminus near the Port of Los Angeles, through Downtown Los Angeles, and is one of the primary regional freeways in the area. I-110 generally has four through lanes plus two HOV lanes in each direction. At its interchanges with Century Avenue, Imperial Highway, I-105, and El Segundo Boulevard, it has additional auxiliary lanes for movement to and from the ramps.

Imperial Highway – Imperial Highway is a Primary Arterial along the northern boundary of the LASCC campus and provides direct access to on-campus parking lots. It extends in

an east-west direction with two and three lanes provided in each direction. Left-turn lanes and a median divide the travel lanes. The curb-to-curb width is about 80 to 95 feet depending on the area and the posted speed limit is 35 to 40 mph. Parking is not permitted from 6:30 to 8:30 AM and 3:00 to 6:00 PM along the campus frontage. Adjacent land uses include a mix of commercial-retail and residential development.

Western Avenue – Western Avenue is a north-south Primary Arterial along the western boundary of the LASCC campus and provides direct access to on-campus parking lots. In the vicinity of the campus, no on-street parking is allowed. Western Avenue has a center left-turn lane and is fronted by commercial/retail land use. It has a roadway width of about 80 to 85 feet and a posted speed limit is 35 mph.

Normandie Avenue – Normandie Avenue is a Secondary Arterial located east of LASCC. This roadway extends in a north-south direction providing two lanes in each direction. Curbside stopping restrictions for both directions are in effect to help maintain higher travel speeds. Normandie Avenue is fronted by commercial and residential land uses. It has a posted speed limit of 40 to 45 mph.

Crenshaw Boulevard – Crenshaw Boulevard is a north-south Primary Arterial located west of the LASCC campus. It has three lanes in each direction and a speed limit of 35 to 40 miles per hour. Curbside parking is allowed during the daytime, but is restricted to two hours. No parking is allowed during the morning and evening peak hours.

Vermont Avenue – Vermont Avenue is a north-south Primary Arterial east of the LASCC campus. It provides three through lanes and curbside parking. Vermont Avenue is fronted primarily by commercial and retail land use. It has a posted speed limit of 35 mph.

Van Ness Avenue – Van Ness Avenue is a north-south Secondary Arterial located west of LASCC. It provides two through lanes in each direction with curbside parking and a posted speed limit of 35 mph. Land use along Van Ness Avenue is mixed with commercial/retail and residential.

Denker Avenue – Denker Avenue is a north-south local street located opposite the LASCC driveway on Imperial Highway. Denker Avenue provides local access to the residential uses along its frontage and has one through lane in each direction. Parking is allowed on both sides of the street and the posted speed limit is 25 miles per hour. Many LASCC students use Denker Avenue as a connecting route to access Century Avenue to the north.

Southwest Drive – Southwest Drive is an east-west local street internal to the campus. It has one lane in each direction and provides access to and between the campus parking lots. In the future plan, Southwest Drive will be reconfigured and will not provide access through the campus.

Public Transit

Existing Transit Operations

The Los Angeles County Metropolitan Transit Authority (MTA) operates several bus lines within the study area. The MTA Metro Green Line light rail also services the study area. Description of transit service follows:

Metropolitan Transit Authority

MTA Line 117 – LAX Bus Center, Century Boulevard, 103rd Street, Tweedy Boulevard, Imperial Highway, Imperial/Lakewood/Gardendale/Downey, Lakewood Green Line Station – Line 117 operates between LAX)and Lakewood with connections to the Metro Green Line station. Within the study area it travels along Century Boulevard and provides service at approximately 15 to 20-minute intervals.

MTA Line 120 – LAX Bus Center, Imperial Highway, Imperial/Wilmington/Rosa Parks and Norwalk, Santa Fe Springs Transportation Center – Line 120 operates between LAX and Wilmington with connections to the Metro Green Line station. Within the study area it travels along Imperial Highway and provides service at approximately 30-minute intervals.

MTA Line 207 and 757 – Western Avenue and 120th Street – Lines 207 and 757 operate between Hollywood, Athens, and Willowbrook via Western Avenue and 120th Street. It offers direct transit service to LASCC with stops on Western Avenue at the campus. Line 207 provides frequent service with bus intervals of about 10 minutes. Line 757 is an express service with limited stops.

MTA Line 204 and 754 – Vermont Avenue – Lines 204 and 754 operate between Athens/South Central Los Angeles and Hollywood via Vermont Avenue. Line 754 is an express service with limited stops.

MTA Line 206 – Normandie Avenue – Line 206 operates between Athens/South Central Los Angeles and Hollywood via Normandie Avenue. Near the campus it operates on Normandie Avenue and Imperial Highway and provides service at approximately 15-minute intervals.

MTA Line 209 – Van Ness Avenue and Arlington Avenue – Line 209 operates between Koreatown and Hawthorne via Arlington Avenue and Van Ness Avenue. Near the campus, it connects to Line 120 at Imperial Highway and operates on Normandie Avenue and Imperial Highway connecting to the Metro Green Line station at I-105. Line 209 operates on approximately half hour intervals.

Metro Green Line – The Metro Green Line provides rail service between Manhattan Beach, LAX, Hawthorne and Norwalk. The entire Metro rail system can be accessed from any Metro station. The Vermont Avenue and Crenshaw Boulevard stations provide rail transit access to the LASCC campus via connecting MTA bus routes.

LADOT DASH Transit

LADOT DASH Transit Route Vermont/Main – Route Vermont/Main runs along Slauson Avenue, Vermont Avenue, Century Boulevard, Main Street, Gage Avenue, and Hoover Street. In the vicinity of the college, this line stops at Vermont Avenue and Century Boulevard adjacent to the campus. The line provides service on approximately 20-minute intervals.

Gardena Transit

Gardena Transit Route 2 – Western Local – Route 2 runs between Imperial Highway and Pacific Coast Highway along Western Avenue, Normandie Avenue, and Vermont Avenue. In the vicinity of the College, this line stops at Western and Imperial adjacent to the campus. The line provides service on approximately 30-minute intervals.

According Meyer, Mohaddes Associates, Inc. recent data showed the following mode of arrival patterns of full-time employees of LASCC:

•	Single-occupant vehicles	78 percent
•	Carpool	18 percent
•	Public Transit	2 percent
•	Walk/bicycle	2 percent.

The college currently maintains a Rideshare program that is limited to assisting employees in finding rideshare partners, and providing preferential parking for carpools/vanpools. It is possible that the pursuit of a more aggressive Rideshare program could result in a greater percentage of employees using the program.

Existing Traffic Volumes and Level of Service

Existing traffic counts were conducted at the 17 study intersections in October 2009 while college classes were in full session. The traffic counts were conducted during both the morning (7 am – 9 am) and evening (4 pm-6 pm) peak periods. Figure 4 shows the existing AM and PM peak hour traffic volumes at each of the intersections. Figure 5 shows average daily traffic (ADT) volumes of study area roadways.

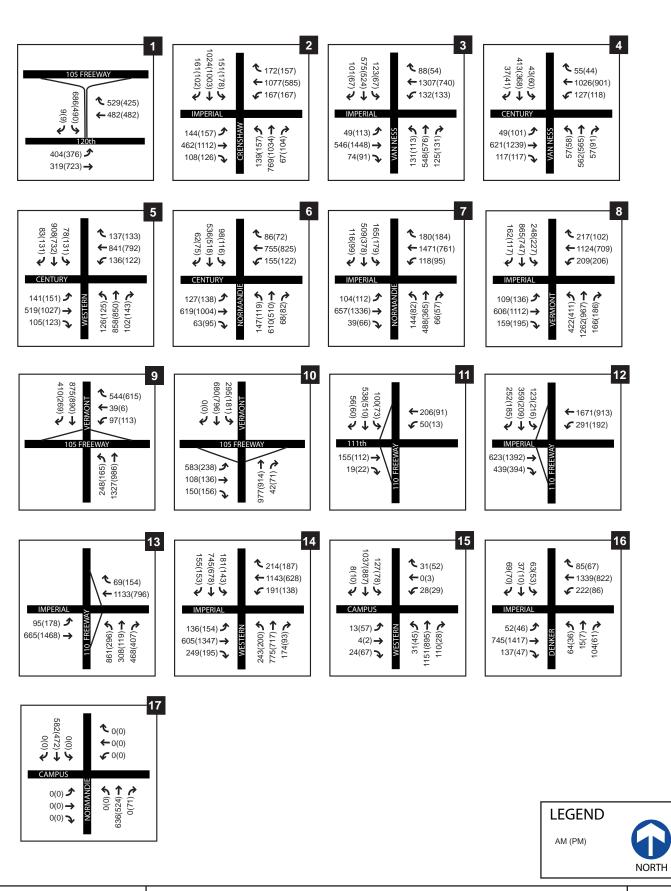
Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent condition at LOS A to congested conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas.

The "Intersection Capacity Utilization" (ICU) method of analysis was used to determine the volume to capacity (V/C) ratio and corresponding levels of service at the seventeen signalized study area intersections. Levels of service definitions for signalized intersections are summarized in Table 1.

Existing Intersection Capacity Analysis

The morning (AM) and evening (PM) peak hour LOS analyses were conducted for the seventeen study intersections based on the measured traffic volumes and the methodologies described previously. All intersection analyses are performed using the TRAFFIX (Traffic Impact Analysis) software program. The existing conditions LOS analysis results are summarized in Table 2 for the AM and PM peak hours. The results shown in Table 2 indicate that all of the seventeen analyzed intersections are currently operating at LOS C or better during both of the peak hours



	LOS ANGELES SOUTHWEST COLLEGE TRAFFIC IMPACT & PARKING ANALYSIS	FIGURE
CORDOBA CORPORATION	Existing AM and PM Peak Hour Traffic Volumes (VPH)	4

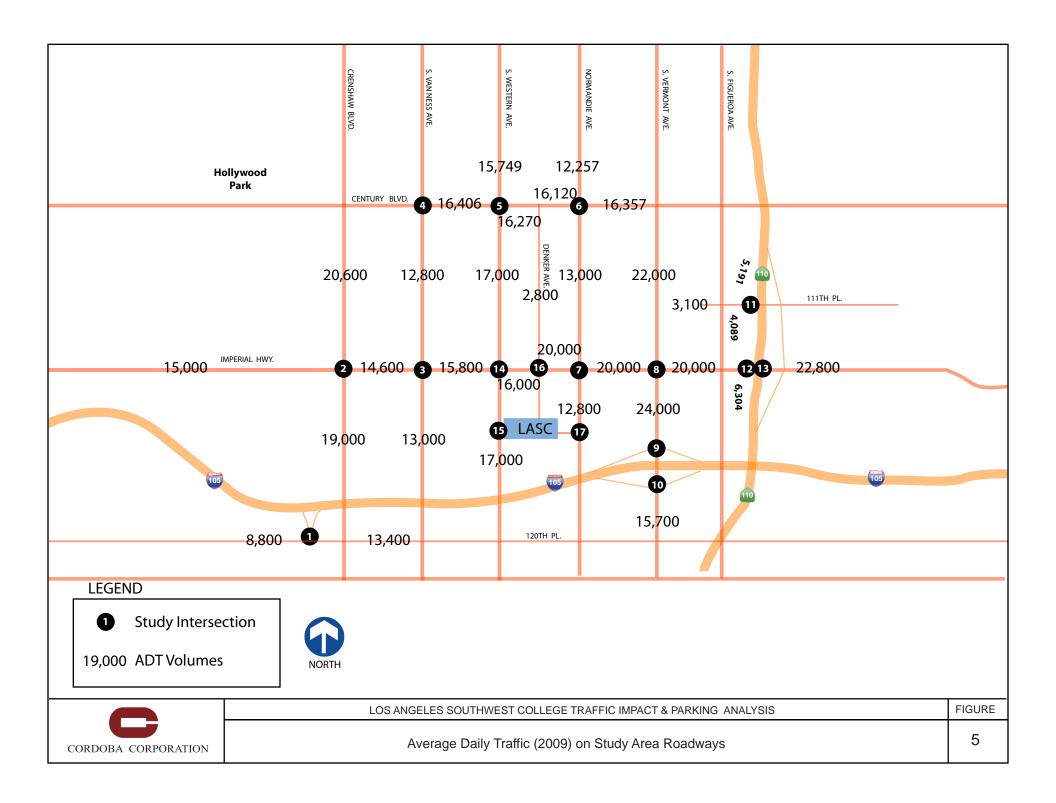


Table 1: Level of Service Definitions for Signalized Intersections

LEVEL OF SERVICE	INTERSECTION CAPACITY UTILIZATION	DEFINITION
A	0.000 - 0.600	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
В	0.601 - 0.700	LOS B represents stable operations. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
С	0.701 - 0.800	At LOS C stable operations continue. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.801 - 0.900	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.901 - 1.000	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles.

		LOS F represents jammed conditions. Backups from locations
F > 1.000		downstream or on cross streets may restrict or prevent movement of
	. 1.000	vehicles out of the intersection approaches; volumes carried are
	> 1.000	unpredictable. V/C values are highly variable because full
		utilization of the approach may be prevented by outside
		conditions.

Table 2: Intersection Analysis Summary - Existing Conditions

			EXISTIN	G (2009)	
	INTERSECTION	AM PEA	K HOUR	PM PEAR	(HOUR
		ICU ¹	LOS ²	ICU	LOS
1	120th Street and I-105 EB Ramp	0.727	С	0.627	В
2	Imperial Hwy. and Crenshaw Blvd.	0.734	С	0.761	С
3	Imperial Hwy. and Van Ness Ave.	0.664	В	0.717	С
4	Century Blvd. and Van Ness Ave.	0.623	В	0.698	В
5	Century Blvd. and Western Ave.	0.730	С	0.714	С
6	Century Blvd. and Normandie Ave.	0.671	В	0.729	С
7	Imperial Hwy. and Normandie Ave.	0.744	С	0.645	В
8	Imperial Hwy. and Vermont Ave.	0.772	С	0.759	С
9	Vermont Ave. and I-105 WB Ramps	0.685	В	0.624	В
10	Vermont Ave. and I-105 EB Ramps	0.663	В	0.485	Α
11	111th Place and I-110 SB Ramp	0.343	Α	0.263	Α
12	Imperial Hwy. and I-110 SB Ramps	0.644	В	0.637	В
13	Imperial Hwy. and I-110 NB Ramps	0.816	D	0.530	Α
14	Imperial Hwy .and Western Ave.	0.728	С	0.771	С
15	Western Ave. and Campus Entrance	0.515	А	0.447	Α
16	Imperial Hwy .and Denker Ave.	0.525	А	0.514	Α

¹ICU – Intersection Capacity Utilization ²LOS – Level of Service

III. Future Conditions

Estimates of future traffic were developed in order to evaluate the impacts of the proposed project on the surrounding street system. Traffic volume forecasts were developed with and without the project. The Cumulative Base traffic scenario estimates future traffic conditions without the development of the proposed project. The Cumulative plus Project scenario estimates future traffic conditions with the proposed project. Each of these future traffic scenarios is described further in this section.

Cumulative Base Traffic

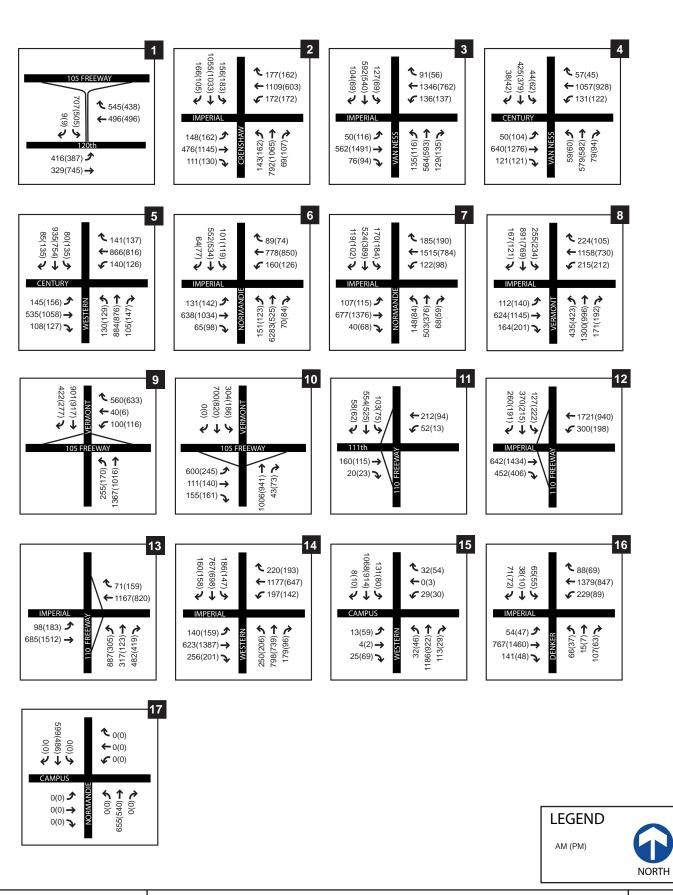
Cumulative Base (2016 No-Project) Condition reflects the growth in existing traffic volumes that will occur as a result of ambient growth and development in the surrounding region. Traffic estimated to be generated by specific projects in the surrounding area which have been approved but not yet constructed (Related Projects) were not included in this scenario.

Areawide Traffic Growth

Ambient traffic growth is the traffic growth that will occur in the study area due to general employment growth, housing growth and growth in through traffic in the region. Even if there was no change in housing or employment in the City of Los Angeles, there will be some background (ambient) traffic growth in the region. Per the County, a 0.43 percent per year growth rate was assumed as a conservative estimate of background traffic growth in the study area. Assuming a project completion date in the year 2016, the existing 2009 traffic volumes were increased by approximately 3.0 percent to reflect the ambient regional growth between 2009 and 2016. Figure 6 shows the Cumulative Base A and PM peak hour traffic volumes at study intersections.

Project Traffic

Determination of the traffic characteristics for the proposed Los Angeles Southwest Community College Master Plan project involved a three-step process that included estimation of project traffic generation, trip distribution, and traffic assignment, as discussed below.



	LOS ANGELES SOUTHWEST COLLEGE TRAFFIC IMPACT & PARKING ANALYSIS	FIGURE
CORDOBA CORPORATION	Cumulative Base AM and PM Peak Hour Traffic Volumes (VPH)	6

Project Trip Generation

Trip generation rates/equations included in the Institute of Transportation Engineers' Trip Generation Manual, 6th Edition were used to estimate the number of trips generated by the proposed project.

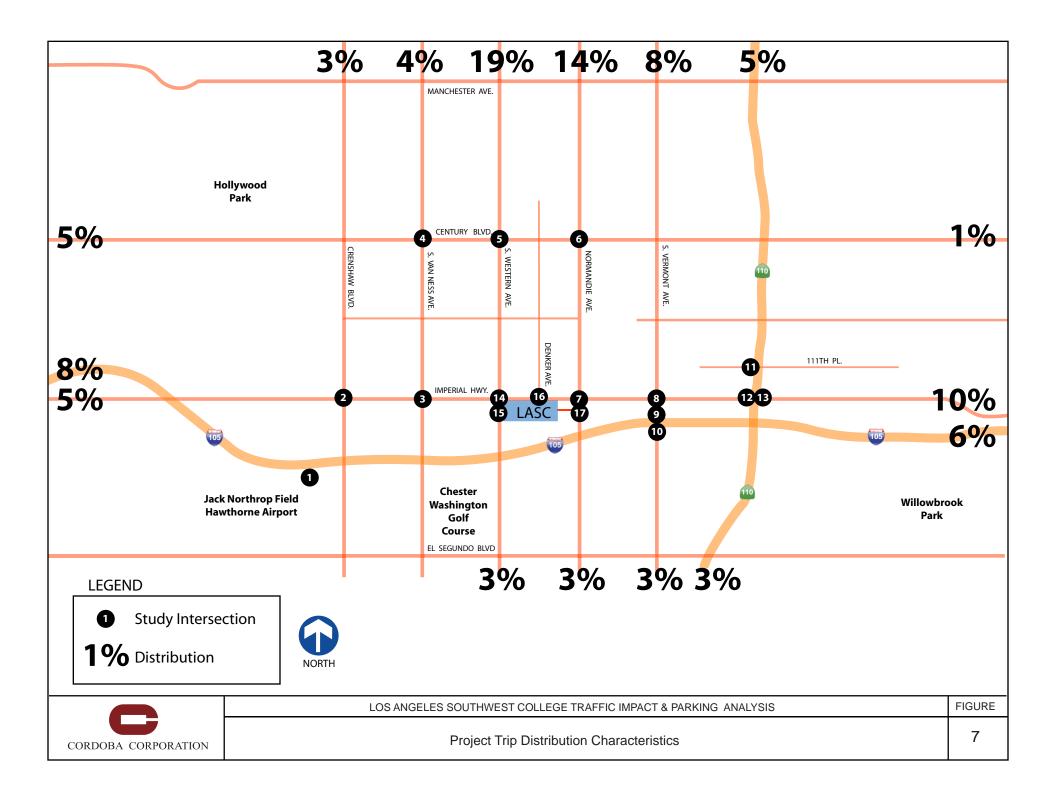
The total enrollment for LASCC at buildout of the Master Plan is 12,000 students. In 2009, enrollment at LASCC was approximately 9,100 students. According to ITE trip generation equations, new students (2,900) are expected to generate a total of 4,466 trips per day. Approximately 406 net new trips will occur in the morning peak hour, while 493 net new trips will occur in the evening peak hour. Table 3 summarizes project trip generation.

Project Trip Distribution

The geographic distribution of project traffic is dependent on several factors including the layout of the street system, vehicle turning restrictions, and other travel characteristics, but is based primarily on the geographic distribution of population from which the students, staff and faculty are drawn. The anticipated distribution patterns provided by Meyer, Mohaddes Associates, Inc. were verified with historical student residence zip code information and used to distribute estimated project trips. Figure 7 shows the distribution pattern.

Project Trip Assignment

Utilizing the estimated trip generation and the distribution pattern developed and discussed earlier in this report, the traffic generated by the proposed project was assigned to the street network. Figure 8 shows the proposed project's peak hour traffic volumes at each of the study intersection for the year 2016.



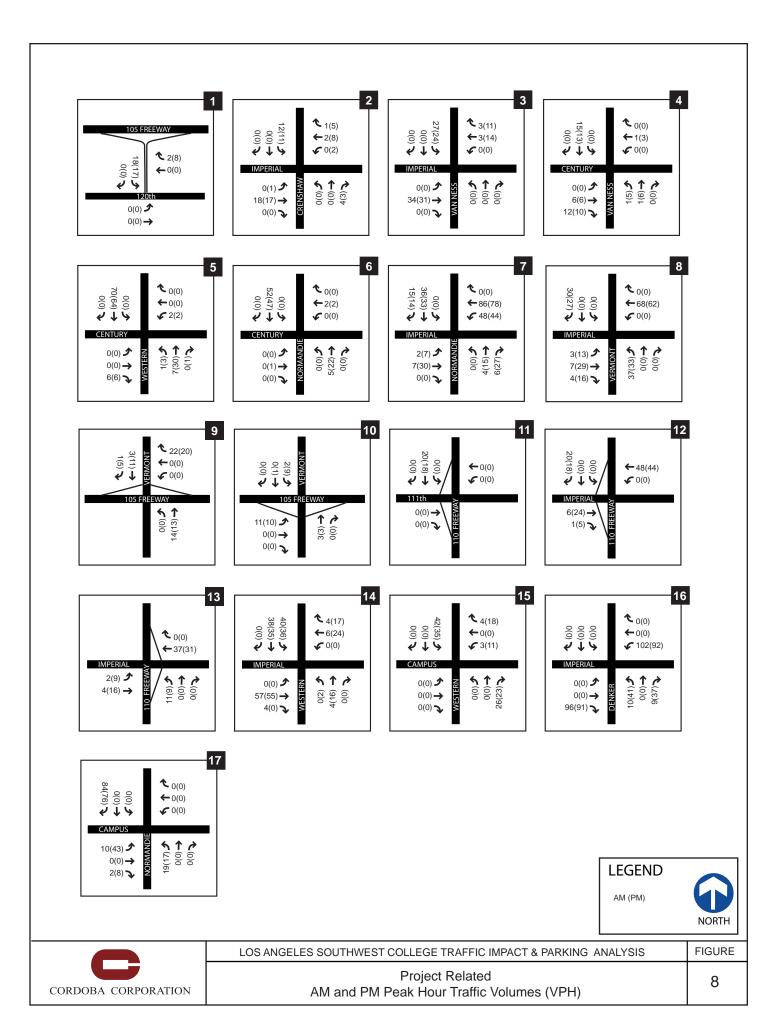


Table 3: Project Trip Generation Estimates

I AND LISE CATEGORY	LINITE DAILY		Α	M PEAK I	HOUR	PM PEAK HOUR			
LAND USE CATEGORY	UNITS RATE	IN	OUT	TOTAL	IN	OUT	TOTAL		
Junior/Community College (540)	Students	1.54	0.127	0.013	0.140	0.116	0.054	0.170	
LAND USE	CHANILLA	DAILY	Α	M PEAK I	HOUR	PM PEAK HOUR			
LAND USE		TRIPS	IN	OUT	TOTAL	IN	OUT	TOTAL	
LASCC Enrollment Growth (Additional Students)	2,900 Students	4,466	369	37	406	335	158	493	

Cumulative Plus Project Traffic

Project traffic at each of the study intersections was added to the Cumulative Base traffic to provide cumulative plus project peak hour traffic volumes.

Figure 9 shows AM and PM peak hour traffic volumes for Cumulative plus Project conditions.

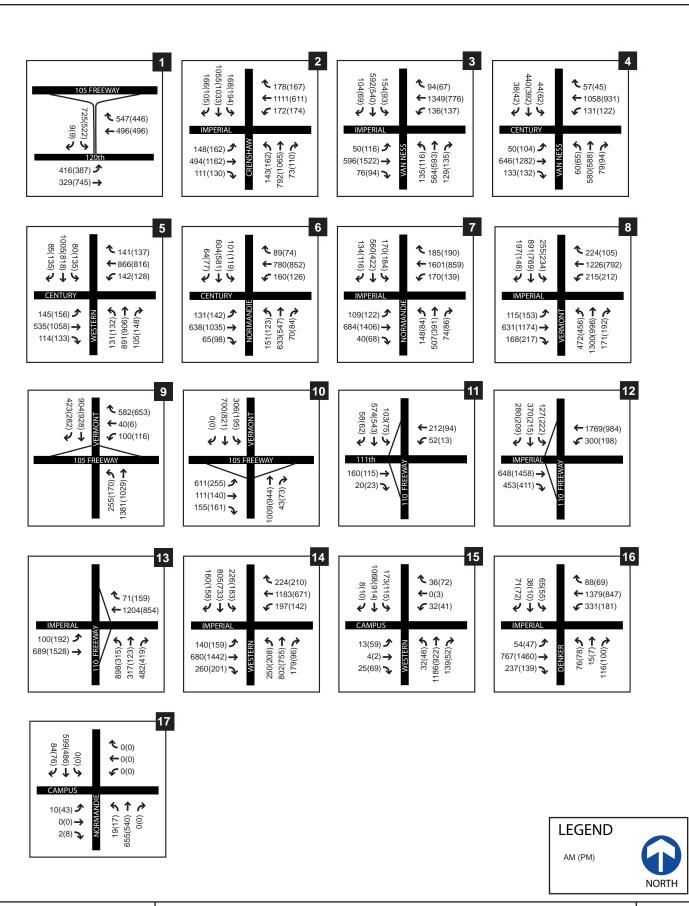
Cumulative Plus Project Traffic Projections with Related Projects

The cumulative plus project with the related projects condition includes traffic estimated to be generated by projects which have been approved for development but not yet completed. Figure 10 presents the volumes for the related projects while Figure 11 shows the traffic volumes for the cumulative plus project with related projects scenario.

Related Projects

A list of planned or recently approved but not yet completed developments in the study area were obtained from the cities of Inglewood, Los Angeles, Hawthorne and the County of Los Angeles. A complete list of related projects in the study area was obtained from the *Traffic Impact Study for Hollywood Park Redevelopment* completed by Linscott, Law & Greenspan Engineers in August 2008. These projects are listed and described in Table 4.

The combination of related projects traffic volumes, forecast ambient traffic growth volumes and the proposed project traffic volumes forms the Cumulative plus Project plus Related Projects traffic volumes (see Figure 11).



	LOS ANGELES SOUTHWEST COLLEGE TRAFFIC IMPACT & PARKING ANALYSIS	FIGURE
CORDOBA CORPORATION	Cumulative Plus Project AM and PM Peak Hour Traffic Volumes (VPH)	9

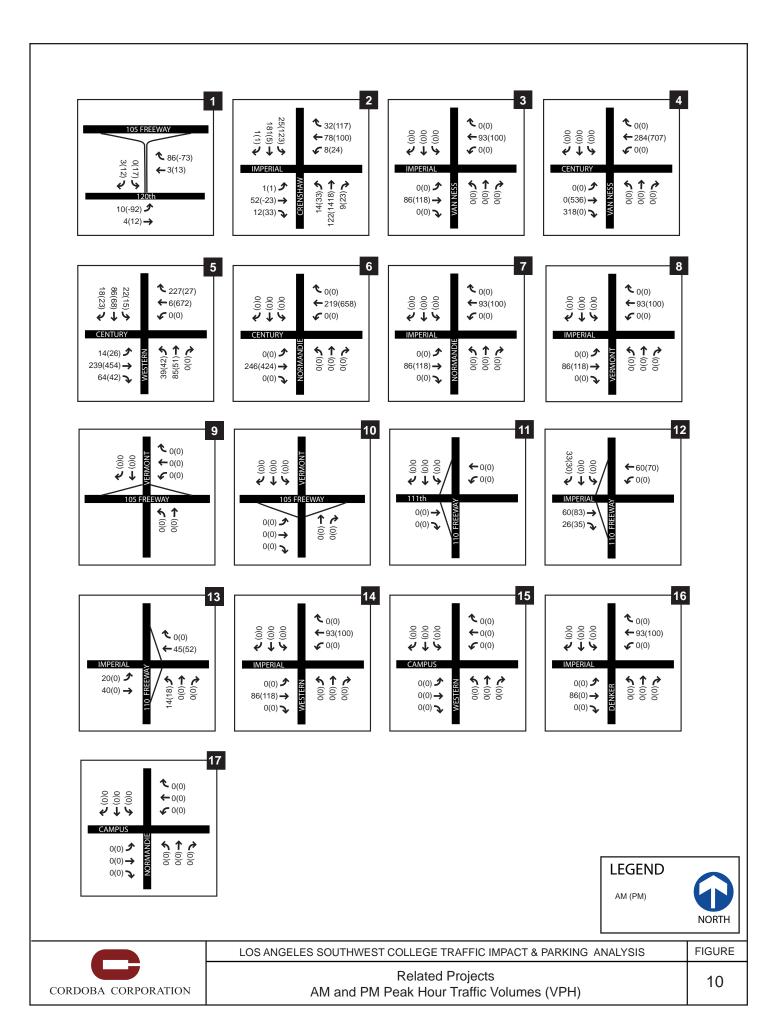


Table 4: Related Projects' Trip Generation

Γ			DAILY	AM	PEAK HO	OUR	PM	UR	
	LAND USE	SIZE	TRIP ENDS [2] VOLUMES	IN	OUT	[2] TOTAL	IN V	OUT OUT	TOTAL
	LAND USE	CITY OF IN			001	TOTAL	ш,	(103	JUJAL
1-1	Retail [3] Less 17% Pass-by [4]	1,792,472 GLSF	44,328 (7,536)	539 (92)	345 (59)	884 (151)	2,019 (343)	2,187 (372)	4,206 (715)
1-2	The Renaissance Project [5]	188 DU	1,799	35	106	141	120	70	190
1-3	Retail [6] Restawant [7] Less 35% Pass-by [4]	39,800 GLSF 10,000 GSF	1,709 900 (914)	25 4 (10)	16 4 (7)	41 8 (17)	72 50 (43)	77 25 (36)	149 75 (79)
1-4	Commercial [6] Less 35% Pass-by [4]	12,029 GLSF	517 (180)	7 (2)	5 (2)	12 {4}	22 (8)	23 (8)	45 (16)
1-5	Retail [6] Less 35% Pass-by [4]	97,490 GLSF	4,186 (1,466)	61 (21)	39 (14)	100 (35)	176 (62)	190 (67)	366 (129)
1-6	Condominiums [8]	6 DU	59	1	4	5	4	2	6
1-7	Office [9]	3,000 GSF	33	4	1	5	1	3	4
1-8	New Car Sales [10]	49,000 GSF	1,634	74	26	100	50	79	129
1-9	Church[1]	5,983 GSF	55	2	2	4	2	2	4
1-10	Transitional Housing [12]	20 Bcd	47	2	1	3	1	3	4
1-11	Condominiums [8]	8 DU	75	1	6	7	5	3	8
1-12	Office [9]	12,950 GSF	143	18	2	20	3	16	19
1-13	Office/Warehouse [9]	9,000 GSF	99	12	2	14	2	11	13
1-14	Warchouse [13]	15,774 GSF	78	6	1	7	2	5	7
1-15	Motorcycle Sales [6]	480,000 GLSF	2,834	41	27	68	119	129	248
1-16	Retail [6] Less 35% Pass-by [4]	101,000 GLSF	4,337 (1,518)	63 (22)	41 (14)	104 (36)	182 (64)	197 (69)	379 (133)
1-17	Forum Site Project Condominiums [8] Retail [6] Less 30% Pass-by [4]	1,000 DU 250,000 GLSF	4,544 10,735 (3,220)	55 157 (47)	271 101 (30)	326 258 (77)	266 450 (135)	131 488 (146)	397 938 (281)
1-18	Condominiums [8]	s DU	50	3	4	5	3	2	. 5
1-19	Home Stretch at Hollywood Park [3] Less 21% Pass-by [4]	796,970 GLSF	26,174 (5,496)	332 (70)	212 (45)	544 (115)	1,183 (248)	1,281 (269)	2,464 (517)
1-20	Gasoline Station with Convenience Market [14] Less 50% Pass-by [4] Convenience Market [6] Retnil [6]	12 VFP 3,750 GLSF 4,200 GLSF	1,953 (976) 161 180	61 (31) 2 2	60 (30) 2 2	321 (63) 4 4	81 (41) 7 8	80 (40) 7 8	161 (81) 14 16
1-21	Locust Servier Housing Project [15]		602	Nom.	Nom.	Nom.	18	25	43
1-22	Retail [6]	19,920 GLSF	855	13	8	21	36	39	75
1-23	Condominiums [8]	25 DU	198	3	14	17	13	6	19
1-24	Mausoleum [16]	0.40 Acres	2	Nom.	Nom.	Nom.	Nem.	Nom.	Nom.
1-25	Transitional Housing [12]	239,996 GSF	1,464	48	43	91	47	54	101
1-26	Adult School/Day Care Center [17]	27,477 GSF	2,178	186	165	351	170	192	362
1-27	Retail [6]	10,000 GLSF	429	6	4	10	18	20	38

Table 4: Related Projects' Trip Generation (continued)

			DATLY TRIP ENDS [2]		PEAK HO			PEAK HO	-
	LAND USE	SIZE	VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
1-28	Supermarket Expansion [18] Less 35% Pass-by [4]	14,000 GSF	1,431 (500)	28 (10)	18 (6)	46 (16)	74 (26)	72 (25)	146 (51)
1-29	Hotel [19]	20 Rooms	178	8	5	13	7	7	14
1-30	Office [9]	19,000 GSF	209	26	3	29	5	23	28
1-31	Single-Family Residential [20]	9 DU	86	2	5	7	6	3	9
1-32	Retail [6]	7,981 GLSF	343	5	3	8	14	16	30
1-33	Supermarket [18] Less 35% Pass-by [4]	11,506 GSF	1,176 (412)	23 (B)	14 (5)	37 (13)	61 (21)	59 (21)	120 (42)
1-34	Condominiums [8]	10 DA	91	1	7	8	6	3	9
1-35	Condominiums [8]	12 DU	106	2	7	9	7	4	11
1-36	Condominiums [8]	12 DU	106	2	7	9	7	4	11
		CITY OF CU	LVER CITY						
CC1	Office [9]	986,000 GSF	10,856	1,345	183	1,528	250	1,219	1,469
CC2	Shopping Center [6] Less 29% Pass-by [4]	293,786 GLSF	12,615 (3,658)	185 (54)	118 (34)	303 (88)	529 (153)	573 (166)	1,102 (319)
CC3	Gasoline Station with Convenience Market [14] Less 50% Pass-by [4]	3,314 GSF	3,190 (1,596)	131 (66)	126 (63)	257 (129)	160 (80)	159 (80)	319 (160)
CC4	Fire Station [21]	12,156 GSF	100	5	5	10	5	5	10
CC2	Office [9] Retail [6]	240,612 GSF 4,242 GLSF	2,649 182	328 2	45 2	373 4	61 8	298 8	359 16
CC6	Research & Development [22]	550,000 GSF	4,461	566	116	682	89	50.5	594
		CITY OF HA	WTHORNE						
ні	Single-Family Residential [20]	21 DU	201	4	12	16	13	8	21
Н2	Single-Family Residential [20]	טמ זנ	105	2	6	8	7	4	11
Н3	Single-Family Residential [20]	14 DU	134	3	8	13	9	5	14
H4	Single-Family Residential [20]	15 DU	144	3	8	11	9	6	15
Н5	Condominiums [8]	99 DU	636	9	42	5]	40	20	60
Н6	Single-Family Residential [20] Retail [6] Less 35% Pass-by [4]	28 DU 18,600 GLSF	268 799 (280)	5 12 (4)	16 7 (2)	21 19 (6)	18 34 (12)	10 36 (13)	28 70 (25)
Н7	Hotel [19]	300 Rooms	2,451	102	66	168	94	83	177
Н8	Single-Family Residential [20]	139 DU	1,330	26	78	104	88	52	140
Н9	Single-Family Residential [20] Office [23] Retail [3] Less 21% Pass-by [4]	610 DU 782,432 GSF 782,432 GLSF	5,838 6,503 25,863 (5,432)	115 856 328 (69)	343 117 210 (44)	458 973 538 (113)	388 162 1,168 (245)	228 793 1,266 (266)	616 955 2,434 (511)

Table 4: Related Projects' Trip Generation (continued)

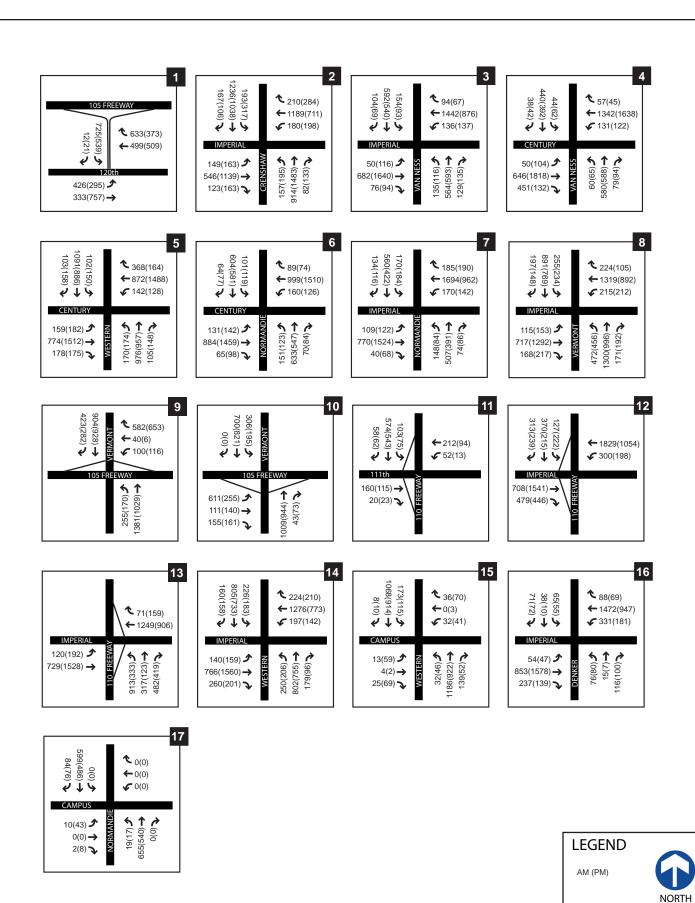
	****		DAILY TRUP ENDS [2]		PEAK BO			PM PEAK HOU VOLUMES [2	
	LAND USE	SIZE	VOLUMES	IN .	OUT	TOTAL			TOTAL
		CITY OF LO	SANGELES						
LAI	Fast-Food Restaurant without Drive-Through [24]	3,700 GSF	2,649	97	6.5	162	49	48	97
LA2	Office Park [25]	447,500 GSF	3,931	504	62	566	73	451	524
LA3	Fast-Food Restaurant With Drive-Through [26]	3,152 GSF	1,564	85	82	167	57	52	109
LA4	Gasoline Station with Market and Car Wash [27]	12 VFP	1,076	47	46	93	43	42	8.5
LA5	Retail [6]	12,289 GLSF	52B	8	5	13	22	24	46
LA6	Office [28]	220,000 GSF	3,930	332	45	377	71	345	416
LA7	High School [29]	1,250 Students	2,138	75	33	108	Nom.	Nom.	Nom.
LA8	Elementary School [30]	1,050 Students	1,355	240	196	436	Nom.	Nom.	Nom.
LA9	Elementary School [30]	675 Students	87)	149	121	270	Norn.	Nom.	Nom.
LAIO	Private School Expansion [31]	13,700 GSF	62	11	9	20	Nom.	Nom.	Nom.
LAII	Mixed-Use Project [32]		1,850	22	86	308	109	59	168
LA12	Apartments [33]	187 DU	908	14	55	69	62	34	96
LA13	Hotel [34]	180 Rooms	3,188	143	103	246	125	130	255
LA14	Private School [31]	600 Students	250	35	29	64	14	18	32
LA15	New Car Sales [35]	42,391 GSF	407	19	6	25	22	34	56
LA16	Waik-la Bank [36]	3,621 GSF	567	8	7	15	60	60	120
LA17	LAX Master Plan [37]								
LAIS	Playa Vista Single-Farnily Residential [20] Office [23] Sound Stages/Production Support [38] Single-Farnily Housing [39] Office [39] Retail [39] Community Serving Uses [39]	1,646 DU 1,827,050 GSF 1,129,900 GSF 2,600 DU 175,000 GSF 150,000 GSF 40,000 GSF	13.679 12,495 7,864 15,236 2,271 6,193 520	291 1,687 778 194 287 87	871 230 171 950 39 56 4	1,162 1,917 949 1,144 326 143 13	840 361 204 941 52 276 6	493 1,764 768 463 253 299	1,333 2,125 972 1,404 305 575 18
		COUNTY OF L	OS ANGELES						
LACI	Fitness Center [40]	37,000 GSF	3,218	19	26	45	77	73	150
LAC2	Condominiums [41]	14 DU	112	1	7	8	7	4	11
LAC3	Single-Family Residential [20]	32 DU	306	6	18	24	20	12	32
LAC4	Apartments [33]	450 DU	3,024	46	184	230	181	98	279
1.AC5	Condominiums [41]	25 DU	200	2	12	14	12	7	19
LAC6	High-Turnover Restaurant [42] Less 40% Pass-by [4]	1,300 GSF	165 (66)	8 (3)	7 (3)	15 (6)	9 (4)	5 (2)	14 (6)
LAC7	Apartments [33]	39 DU	262	4	16	20	16	8	24
LAC8	Condominiums [41]	72 DU	576	4	35	39	34	19	53
LAC9	Day Care Center [17]	3,500 GSF	277	24	21	45	22	24	46

Table 4: Related Projects' Trip Generation (continued)

		DAILY TRIP ENDS [2]		PEAK H		- 000	PEAK HO	751000					
LAND USE	SIZE	VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL					
COUNTY OF LOS ANGELES (Continued)													
LAC10 Condominiums [41]	69 DU	552	4	33	37	32	38	50					
LAC11 Adult Day Cure Center [17]	25,265 GSF	2,003	171	152	323	157	176	333					
LAC12 Apartments [33]	34 DU	228	3	34	17	14	7	21					
LAC13 Condominiums [41]	וו טע	88	1	5	6	5	3	8					
LAC14 Condominiums [41]	35 DU	280	2	17	19	16	9	25					
LAC15 High School [43]	1,800 Students	3,078	509	229	738	118	134	252					
LAC16 Condominiums [41]	38 DU	304	2	18	20	18	10	28					
TOTAL		257,364	11,304	6,798	18,102	11,089	15,200	26,289					

- [1] Source: ITE "Trip Generation", 7th Edition, 2003.
- [2] Trips are one-way traffic movements, entering or leaving.
- [3] ITE Land Use Code 820 (Shopping Center) trip generation equation rates.
- [4] Pass-by trips include traffic passing the site on an adjacent street with direct access to the land use. Pass-by reductions were based on recommended practice in Chapter 5 of the ITE Trip Generation Handbook, June 2004.
- [5] Draft Traffic Study for the Watt Hollywood Park Residential Project, prepared by LLG Engineers, January 24, 2003.
- [6] ITE Land Use Code 820 (Shapping Center) trip generation average rates.
- [7] ITE Land Use Code 931 (Restaurant) trip generation average rates.
- [8] ITE Land Use Code 230 (Residential Townhome/Condominium) trip generation equation rates.
- [9] ITE Land Use Code 710 (General Office Building) trip generation average rates.
- [10] ITE Land Use Code 841 (New Car Sales) trip generation overage rates.
- [11] ITE Land Use Code 560 (Church) trip generation overage rates.
 [12] ITE Land Use Code 620 (Nursing Home) trip generation average rates.
 [13] ITE Land Use Code 150 (Warchouse) trip generation average rates.
- [14] ITE Land Use Code 945 (Gasuline Station with Convenience Market) trip generation average rates.
- [15] Draft Traffic Study for 111 North Locust Street Project, prepared by LLG Engineers, December 16, 2004.
- [16] ITE Land Use Code 566 (Cemetary) trip generation average rates.
- [17] ITE Land Use Code 565 (Day Care Center) trip generation average rates.
- [18] ITE Land Use Code 850 (Supermarket) trip generation average rates. [19] ITE Land Use Code 310 (Hotel) trip generation average rates.
- [20] ITE Land Use Code 210 (Single-Family Housing) trip generation average rates.
- [21] Daily, AM and PM peak hour traffic volumes for Fire Station estimated.
- [22] ITE Land Use Code 760 (Research and Development Center) trip generation average rates.
- [23] ITE Land Use Code 710 (General Office Building) trip generation equation rates.
- [24] ITE Land Use Code 933 (Fast-Food Restaurant without Drive-Through) trip generation average rates.
 [25] LADOT trip generation forecast. Directional distribution for Office Park obtained from ITE "Trip Generation," 7th Edition, 2003.
- [26] ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) trip generation average rates.
- [27] LADOT trip generation forecast, Directional distribution for Gasoline Station with Convenience Market and Car Wash obtained from 1TE "Trip Generation," 7th Edition, 2003.
- [28] LADOT trip generation forecast. Directional distribution for General Office obtained from 1TE "Trip Generation," 7th Edition, 2003.
- [29] LADOT trip generation forecast. Directional distribution for High School obtained from ITE "Trip Generation," 7th Edition, 2003.
- [30] LADOT trip generation forecast, Directional distribution for Elementary School obtained from 1TE "Trip Generation," 7th Edition, 2003.
- [31] LADOT trip generation forecast. Directional distribution for Private School obtained from 1TE "Trip Generation," 7th Edition, 2003. [32] LADOT trip generation forecast. Directional distribution for Apartment obtained from ITE "Trip Generation," 7th Edition, 2003.
- [33] ITE Land Use Code 220 (Apartments) trip generation average rates.
- [34] LADOT trip generation forecast. Directional distribution for Hotel obtained from ITE "Trip Generation," 7th Edition, 2003.
- [35] LADOT trip generation forecast, Directional distribution for New Car Sales obtained from ITE "Trip Generation," 7th Edition, 2003.
- [36] ITE Land Use Code 911 (Walk-In Bank) trip generation average rates.
- [37] LAX Master Plan Project is not anticipated to be completed until after year 2015 (after the proposed Hollywood Park Master Plan Project completion).
- [38] ITE Land Use Code 130 (Industrial Park) trip generation average rates.
- [39] Sources: Playa Vista Final EIR, May 1993; Tract No. 49104 Mittigated Negative Declaration Study, 1993; Tract No. 52092 Project Supplemental EIR, 1995; Village at Playa Vista Draft EIR, August 2003.
- [40] ITE Land Use Code 492 (Health/Fitness Center) trip generation average rates.
- [41] Trip generation rates for condominiums obtained from the Los Angeles County Public Works "Traffic Impact Analysis Guidelines," January 1, 1997.
- [42] ITE Land Use Code 932 (High-Turnover Restaurant) trip generation average rates.
- [43] ITE Land Use Code 530 (High School) trip generation average rates.

Nom = Neminal



	LOS ANGELES SOUTHWEST COLLEGE TRAFFIC IMPACT & PARKING ANALYSIS	FIGURE
CORDOBA CORPORATION	Cumulative Plus Project with Related Projects AM and PM Peak Hour Traffic Volumes (VPH)	11

IV. Traffic Impact Analysis

This section identifies the potential impacts of the proposed project on study area traffic conditions by comparing the results of the Cumulative Base and Cumulative plus Project traffic volumes.

Significant traffic Impact Criteria

Threshold of Significance

Per the California Environmental Quality Act (CEQA), any significant project related impacts are required to be identified in the Environmental Impact Report (EIR) for the project. Significant traffic impacts are determined based on threshold of significance (TOS) criteria set by the responsible agencies. The County of Los Angeles has established threshold criteria, which are used to determine if a project has a significant traffic impact. Using the County standard, a project impact would be considered significant if the following conditions occur:

		Increase in V/C Ratio with Project Trips
<u>LOS</u>	V/C Ratio	(No-Build vs. With-Project)
C	0.71-0.80	increase equal to or greater than 0.04
D	0.81-0.90	increase equal to or greater than 0.02
E, F	>0.91	increase equal to or greater than 0.01

The above criteria were applied to determine potential significant traffic impacts associated with the project at the seventeen study intersections.

Cumulative Base Traffic Conditions

The Cumulative Base traffic conditions reflect peak hour traffic conditions in the year 2016 without the proposed project or related projects volumes. ICU analysis was used to determine the volume-to-capacity (V/C) ratio and corresponding level of service for the seventeen signalized study intersections. The results are summarized in Table 5. As shown, based on the standards established, all of the study intersections are projected to operate at and acceptable level of service D or better under future conditions under Cumulative Base conditions.

Table 5: Intersection Capacity Analysis – 2016 Cumulative Base Plus Project

	201	ATIVE BA	SE	2016 CUMULATIVE BASE PLUS PROJECT						
INTERSECTION	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		DIFFERENCE	PM PEAK HOUR		DIFFERENCE
	ICU or		ICU or		ICU or		COMPARED TO BASELINE	ICU or		TO BASELINE
-	Delay	LOS	Delay	LOS	Delay	LOS	TO BASELINE	Delay	LOS	DASELINE
1 120th Street and I-105 EB Ramps	0.748	С	0.644	В	0.754	C	0.006	0.651	В	0.007
2 Imperial Hwy. and Crenshaw Blvd.	0.754	С	0.782	С	0.755	С	0.001	0.794	С	0.012
3 Imperial Hwy. and Van Ness Ave.	0.683	В	0.736	С	0.695	В	0.012	0.758	С	0.022
4 Century Blvd. and Van Ness Ave.	0.640	В	0.718	С	0.65	В	0.010	0.733	С	0.015
5 Century Blvd. and Western Ave.	0.750	С	0.734	С	0.773	С	0.023	0.758	С	0.024
6 Century Blvd. and Normandie Ave.	0.690	В	0.750	С	0.707	С	0.017	0.765	С	0.015
7 Imperial Hwy. and Normandie Ave.	0.764	С	0.663	В	0.8	С	0.036	0.710	В	0.047
8 Imperial Hwy. and Vermont Ave.	0.794	С	0.781	С	0.81	D	0.016	0.806	С	0.025
9 Vermont Ave. and I-105 WB Ramps	0.704	С	0.641	В	0.711	С	0.007	0.651	В	0.010
10 Vermont Ave. and I-105 EB Ramps	0.681	В	0.498	Α	0.686	В	0.005	0.507	Α	0.09
11 111th Place and I-110 SB Ramp	0.352	Α	0.261	Α	0.356	Α	0.004	0.265	Α	0.004
12 Imperial Hwy. and I-110 SB Ramps	0.662	В	0.655	В	0.669	В	0.007	0.664	В	0.009
13 Imperial Hwy. and I-110 NB Ramps	0.839	D	0.541	Α	0.858	D	0.019	0.560	Α	0.019
14 Imperial Hwy. and Western Ave.	0.748	С	0.792	С	0.776	С	0.028	0.831	D	0.039
15 Western Ave. and Campus Entrance	0.539	A	0.459	Α	0.567	A	0.028	0.492	Α	0.033
16 Imperial Hwy. and Denker Ave.	0.539	Α	0.529	Α	0.622	A	0.083	0.631	В	0.102
Normandie Ave. and Proposed 17 Entrance	7.5	A	7.2	Α	15.0	A	7.5	17.2	С	10.0

Cumulative Base Plus Project Traffic Conditions

The Cumulative Base Plus Project peak hour traffic conditions were analyzed and compared to the Cumulative Base conditions to determine the potential traffic related impacts of the proposed project. The results of the Cumulative Plus Project analysis are also shown in Table 5. As shown in the Table 5, all of the study area intersections continue to operate at acceptable levels of service D or better with the addition of traffic from the proposed project. Based on the County of Los Angeles threshold of significant criteria, the proposed project is estimated to significantly impact one intersection during the PM peak hour: Imperial Highway at Western Avenue.

Mitigation of Project Impacts

Mitigation was developed for the impacted intersection and its effectiveness analyzed. Potential mitigation measures included operational improvements and potential physical improvements. Physical improvements involving right-of-way acquisition were not considered since the study area is a relatively built-up area with little or no easily available right-of-way for roadway improvements.

Mitigation for the intersection of Imperial Highway at Western Avenue was achieved eliminating protected left turn phasing on the southbound and westbound approaches. With the implementation of this mitigation measure, the operating conditions at the intersection would be mitigated to a level less-than-significant during both peak hours (V/C ratio 0.707).

Cumulative Base Plus Project with Related-Projects Traffic Condition

ICU analyses were conducted for Cumulative plus Project with Related Projects conditions, and the results are summarized in Table 6 and compared to the Cumulative Base with Project conditions. Based on the County of Los Angeles' TOS standards, eight of the seventeen study intersections are estimated to be impacted during one or both peak hours in the Cumulative plus Project with Related Projects condition. The impacted intersections include:

- Imperial Highway and Crenshaw Boulevard (AM and PM peak hour)
- Century Boulevard and Van Ness (AM and PM peak hour)

Table 6: Intersection Capacity Analysis -2016 Cumulative Base Plus Project with Related Projects

		CUM	BASE PL	LUS	CUMULATIVE BASE PLUS PROJECT WITH RELATED PROJECTS							TH ATION	
	INTERSECTION		AM PEAK HOUR		PM PEAK HOUR		EAK UR	DIFFERENCE COMPARED	PM PEAK HOUR		DIFFERENCE COMPARED	AM PEAK	PM PEAK
		V/C	LOS	V/C	LOS	V/C	LOS	TO BASELINE	V/C	LOS	TO BASELINE	V/C	V/C
1	120th Street and I-105 EB	0.754	С	0.651	В	0.779	С	0.025	0.587	А	-0.064		
2	Imperial Hwy. and Crenshaw Blvd.	0.755	С	0.794	С	0.825	D	0.070	0.980	Ē	0.186	0.748	0.652
3	Imperial Hwy. and Van Ness	0.694	В	0.758	С	0.714	С	0.020	0.783	С	0.023		
4	Century Blvd. and Van Ness	0.649	В	0.733	С	0.750	С	0.101	0.844	D	0.111	0.671	0.737
5	Century Blvd. and Western	0.772	С	0.758	С	0.887	D	0.115	0.943	E	0.185	0.787	0.775
6	Century Blvd. and Normandie Ave.	0.706	С	0.765	С	0.775	С	0.069	0.916	E	0.151	0.631	0.732
7	Imperial Hwy. and Normandie Ave.	0.799	С	0.710	В	0.819	D	0.020	0.734	С	0.024	0.729	
8	Imperial Hwy. and Vermont Ave.	0.809	D	0.806	С	0.829	D	0.020	0.830	D	0.025	0.818	0.687
9	Vermont Ave. and I-105 WB Ramp	0.711	C	0.651	В	0.711	С	0.000	0.651	В	0.000		
10	Vermont Ave. and I-105 EB Ramp	0.686	В	0.507	A	0.686	В	0.000	0.507	A	0.000		
11	111th Place and I-110 SB Ramp	0.356	A	0.265	A	0.356	А	0.000	0.265	A	0.000		
12	Imperial Hwy. and I-110 SB Ramp	0.669	В	0.664	В	0.696	В	0.027	0.693	В	0.030		
13	Imperial Hwy. and I-110 NB Ramp	0.858	D	0.560	A	0.895	D	0.037	0.574	A	0.015	0.820	
14	Imperial Hwy. and Western Ave.	0.775	С	0.831	D	0.795	С	0.020	0.856	D	0.027		0.731

Table 6: Intersection Capacity Analysis –2016 Cumulative Base plus Project with Related Projects (continued)

		CUMUL	LUS PRO	JECT	CUMULATIVE PLUS PROJECT WITH RELATED PROJECTS						WI MITIG	TH ATION	
INTERSECTION		AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		DIFFERENCE COMPARED	_		DIFFERENCE	AM PEAK	PM PEAK
		V/C or Delay	Los	V/C or delay	LOS	V/C or Delay	LOS	TO BASELINE	V/C or Delay	LOS	TO BASELINE	V/C	V/C
15	Western Ave. and Campus Entrance	0.566	А	0.492	А	0.567	А	0.001	0.491	А	0.000		
16	Imperial Hwy. and Denker Ave.	0.620	В	0.631	В	0.640	В	0.020	0.656	В	0.029		
17	Normandie Ave. and Proposed Entrance	15.0	С	17.2	С	15.0	С	0.00	17.2	С	0.00		

- Century Boulevard and Western Avenue (AM and PM peak hour)
- Century Boulevard and Normandie Avenue (AM and PM peak hour)
- Imperial Highway and Normandie Avenue (AM peak hour)
- Imperial Highway and Vermont Avenue (AM and PM peak hour)
- Imperial Highway and I-110 NB Ramps (AM peak hour)
- Imperial Highway and Western Avenue (PM peak hour).

Traffic Signal Warrant Analysis for Normandie Avenue and the New Campus Entrance (Intersection #17)

According to the Los Angeles Southwest Facilities Master Plan Update a new entrance to the campus is proposed along Normandie Avenue. The new entrance would provide access to a new on-campus roadway on the north side of the Caltrans property, extending from Normandie Avenue to the eastside Perimeter Road, north of the Maintenance and Operations building.

A Traffic Signal Warrant analysis was conducted for the intersection of the entrance at Normandie Avenue. The analysis was based on estimated Average Daily Traffic (ADT) using the methodology provided in the MUTCD (Manual of Uniform Traffic Control Devices), 2003. Neither the Minimum Vehicular Volume nor Interruption of Continuous Flow criteria were satisfied, indicating that a traffic signal would not be warranted at this location in 2016. Appendix G contains the traffic signal warrant criteria along with the calculations.

Intersection Traffic Impact Mitigation Measures

Mitigation measures were developed for intersections estimated to be impacted under Cumulative plus Project with Related Projects conditions. The mitigation measures were intended to increase intersections capacity and both operational and physical improvements were considered. Physical improvements involving right-of-way acquisition were not considered since the study area is relatively built-up area with little or no easily available right-of-way for roadway improvements. The results of the capacity analyses including the proposed mitigation measures are presented in Table 6.

Imperial Highway and Crenshaw Boulevard (AM and PM peak hour) – This intersection is impacted with the addition of related projects in particular the Hollywood

Park Redevelopment As describe in the Hollywood Park Redevelopment Traffic Impact Study, Hollywood Park project applicant has proposed to provide full funding of the recommended ITS improvement at this intersection and no additional fair share contribution from LASC master plan would be required. This mitigation measure would reduce the forecast cumulative impact to less than significant levels during the both AM (V/C=0.748, LOS=C) and PM (V/C=0.652, LOS=B) peak hours.

Century Boulevard and Van Ness (AM and PM peak hour) (AM and PM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the northbound and westbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, impacts at this intersection would be mitigated to a less-than-significant level during the both AM and PM peak hours (V/C ratio becomes 0.671 in AM and 0.737 in PM peak hour).

Century Boulevard and Western Avenue (AM and PM peak hour) - This intersection is impacted with the addition of related projects in particular the Hollywood Park Redevelopment Project. Hollywood Park Redevelopment Traffic Impact Study recommended the installation of the ATSAC at this intersection which is not currently operated under the City of Los Angeles, ATSAC system. Coupled with the mitigation recommended for the proposed project, impacts at this intersection would be mitigated to less than significant levels (AM V/C=0.787, LOS=C; PM V/C=0.775, LOS=C).

Century Boulevard and Normandie Avenue (AM and PM peak hour) — Fund a proportionate share of the cost of the design and construction of an eastbound and a westbound thru lane. With the implementation of this mitigation measure, the operating conditions at the intersection would be mitigated to a level less-than-significant during both peak hours (V/C ratio 0.631 in the AM and 0.732 in the PM).

Imperial Highway and Normandie Avenue (AM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the northbound and Eastbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the AM peak hour (V/C ratio 0.729).

Imperial Highway and Vermont Avenue (AM and PM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the southbound and westbound

approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during both AM and PM peak hour (V/C ratio becomes 0.746 in AM and 0.818 in PM peak hour).

Imperial Highway and I-110 NB Ramps (*AM peak hour*) - Mitigation was achieved by eliminating the protected left turn phasing on the eastbound approach in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the AM peak hour (V/C ratio 0.820).

Imperial Highway and Western Avenue (*PM peak hour*) - Mitigation was achieved by eliminating the protected left turn phasing on the southbound and westbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the PM peak hour (V/C ratio 0.730).

CONGESTION MANAGEMENT PROGRAM SYSTEM ANALYSIS

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by MTA. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. A total of 164 intersections are identified for monitoring on the system in Los Angeles County. This section describes the analysis of project-related impacts on the CMP system.

The CMP "Traffic Impact Analysis Guidelines" requires analysis of all surface-street monitoring locations where the proposed project adds 50 or more peak hour trips. The CMP also requires all freeway segments to be analyzed where the proposed project adds 150 or more trips during the peak hour. Within the study area, there are no CMP monitoring locations that would potentially be impacted by the proposed project. In addition, the proposed campus expansion will not add 150 or more additional peak-hour trips to any freeway segment.

V. Parking Analysis

This section documents the analysis of the existing and planned parking system at Los Angeles Southwest Community College. The discussion includes a description of the existing parking supply, assesses the current parking demand by students, staff and faculty, and develops forecasts of future parking demand based on projected changes on campus due to the implementation of the LASCC Updated Master Plan.

Existing Parking System

The description of the LASCC parking system was developed based on discussions with the Campus Police Department and on-site observations of the campus. As summarized in Table 7, there are a total of 1,731 parking spaces available on the campus, located in eight parking lots, one parking structure (4b), and available parking spaces along Southwest driveway.

Table 7: Existing Parking Lot Inventory

	NUMBER OF SPACES								
LOCATION	STUDENT	FACULTY	HANDICAP	CAR POOL	MOTORCYCLE	LOT TOTAL			
Lot 1	80	57	6	6		149			
Lot 2	159		14			173			
Lot 3	479					479			
Lot 4a	87		7			94			
Lot 4b	372		5	27	4	408			
Lot 5	71	10				81			
Lot 6		30	2			32			
Lot 7		28	2			30			
Lot 8	210		11			221			
Southwest Dr	34	14	16			64			
TOTAL						1,731			

Note: Parking Lot 3 was under construction at the time of the parking survey, therefore the capacity was collected from the information provided by the college on its website.

Parking Demand

Cordoba Corporation conducted a parking utilization survey on November 5, 2009 to assess the use of the various parking facilities during the school session. Parking utilization counts were conducted from 7:00 a.m. to 9:00 p.m.

Most of the parking facilities on campus have two peak periods. The first peak occurs in the morning between 10:30 to 11:30 a.m. The second peak occurs at night between 7:00 and 8:00 p.m. As summarized in Table 8, approximately 41.1 percent (712 spaces) of the total available parking spaces were utilized during the morning peak hour. Approximately 594 spaces were used by students and 118 were used by staff, faculty and visitor vehicles. During the evening peak period approximately 26.8 percent (464 spaces) of the total available parking spaces were utilized. Approximately 392 spaces were used by students and 72 spaces were used by staff, faculty and visitor vehicles.

As illustrated in Table 8, the rate of parking utilization by faculty decreases from morning (118 spaces) to evening (72 spaces). Student parking demand is also highest in the mornings (594 spaces) and lower (392 spaces) in the evening.

Existing Parking Rates

According to LASCC records, the current student enrollment in fall 2009 (at the time the inventory and parking surveys were conducted) was approximately 9,056 students including part- and full-time students.

Of the 1,588 spaces available to the students, 594 spaces were occupied during the morning peak period, while 118 of the faculty's 139 spaces were occupied. Based on the student population, the surveys indicated that there was a raw demand of 1 space per 15.2 head count (HC) students (9,056 / 594 = 15.2) and 2.1 spaces per HC faculty member (252 / 118 = 2.1). These raw rates need to be adjusted to account for the inefficiencies of parking and a reserve surplus. This factor is typically 10 to 15 percent (15 percent has been assumed in this study). The adjusted parking rate is 1 space for every 12.8 HC students (not full-time-equivalent [FTE] students) and one space for every 1.8 HC staff members.

Table 8: Existing Parking Lot Utilization

		MORNING	PEAK HOUR	EVENING PEAK HOUR			
TYPE OF LOT	TOTAL CAPACITY	NUMBER OF OCCUPIED SPACES	PERCENTAGE UTILIZED	NUMBER OF OCCUPIED SPACES	PERCENTAGE UTILIZED		
Student Lots							
Lot 1	92	77	83.70%	59	64.13%		
Lot 2	173	130	75.14%	68	39.31%		
Lot 3	479		0.00%		0.00%		
Lot 4a	94	56	59.57%	39	41.49%		
Lot 4b	408	79	19.36%	28	6.86%		
Lot 5	71	54	76.06%	51	71.83%		
Lot 8	221	164	74.21%	131	59.28%		
Southwest Dr	50	34	68.00%	16	32.00%		
Subtotal	1,588	594	37.41%	392	24.69%		
Faculty/Staff/ Guest Lots							
Lot 1	57	53	92.98%	30	52.63%		
Lot 5	10	16	160.00%	3	30.00%		
Lot 6	30	22	73.33%	15	50.00%		
Lot 7	28	13	46.43%	14	50.00%		
Southwest Dr	14	14	100.00%	10	71.43%		
Subtotal	143	118	82.50%	72	50.03%		
TOTAL	1,731	712	41.13%	464	26.80%		

Note: Parking Lot 3 was under construction and not being utilized at the time of parking survey.

Future Parking Demand

As mentioned earlier in the report, with the completion of the proposed project in 2016, the student population is expected to increase by approximately 2,900 students over the 2009 enrollment. It is reasonable to assume that these additional students will exhibit parking-use profiles similar to the existing students. Peak student parking demand will still occur during the morning peak hour.

The number of faculty/staff positions is also expected to increase as a result of the enrollment growth. According to the data obtained from LASCC, the number of fulltime teaching and adjunct faculty will increase from 207 (52 full-time teaching faculty and 155 adjunct faculty) to 252 (53 full-time teaching faculty and 199 adjunct faculty). This data suggests a 3.6 percent per year growth rate in the number of faculty/staff.

Overall, as shown in Table 9, the additional 2,900 HC students and 55 staff would generate a total peak daytime parking demand for approximately 1,109 parking spaces.

Additionally, LASCC is proposing a Middle College High School (MCHS) facility which is expected to need about 30 parking spaces.

The proposed enrollment increase is expected to result in an on-site student and faculty parking demand of about 1,139 spaces, an increase of 427 spaces. The existing parking supply at LASCC is adequate to accommodate the parking demand in the 2016. In addition to the existing parking, LASCC Facilities Master Plan Update is providing a 3-level parking structure with 650 to 700 spaces, ensuring future parking demand accommodation.

Table 9: Future Campus Parking Demand

Campus Population	Existing	Future
Students*	9,100	12,000
Faculty and Staff*	252	307
Future Parking Demand Estimates		
All Students	1 space per 12.8 students	938
All Staff	1 space per 1.8 staff person	171
MCHS		30
TOTAL		1,139

Note: Existing parking supply totals 1,731 spaces, including 1,588 spaces available to students and visitors, and 143 spaces available to faculty and staff.

Cumulative Parking Impact

As noted above, the projected parking demand generated by the additional 2,900 students would be met by the existing parking supply, further augmented by additional parking supply being provided under the Master Plan. There is however, the potential for a cumulative parking impact to occur when the new track and field/football stadium is fully attended. The stadium is proposed to ultimately contain 4,000 seats. Assuming average auto occupancy of 2.5 people per vehicle (a typical value for arenas and stadiums) and an approximate transit use of 5 percent, the stadium would generate a demand for about 1,520 parking spaces. Currently, parking demand for LASCC classes on a typical evening is about 464 spaces. With buildout of the Master Plan and the accompanying increase in the number of students, parking demand on a typical evening is estimated to increase to 595 spaces. If peak stadium events were held on evenings when typical classes are in session, the combined parking demand would be for approximately 2,115 spaces.

The proposed Master Plan provides over 2,381 parking spaces (including the 3-level parking structure with 650-space capacity). In addition, the athletic practice fields on the south side of the campus would also be available providing additional parking for about 385 vehicles. Combined,

these provide a total on-site parking supply of about 2,766 spaces which will provide adequate onsite parking to meet the combined demand of evening classes and a stadium event.

VI. Summary and Conclusions

This study was undertaken to analyze the potential traffic and parking impacts of the proposed Los Angeles Southwest Community College Master Plan Update. The following summarizes the results of this analysis:

- A total of seventeen intersections were analyzed for this project. All the seventeen intersections currently operate at LOS C or better during both the morning and afternoon peak hour.
- Under Cumulative Base Condition, i.e., 2016 condition without the addition of the Proposed Project and Related Projects, all of the analyzed intersections are estimated to operate at LOS D or better.
- Under Cumulative Plus Project, i.e., 2016 Condition with the addition of the Proposed Project, one of the seventeen analyzed intersections would be significantly impacted during the evening peak hour: Imperial Highway at Western Avenue. Based on the standards established by The County of Los Angeles this intersection would require mitigation.
- Under Cumulative Plus Project with Related Projects, i.e., 2016 Condition with the addition of the Proposed Project and Related Projects, six of the analyzed intersection would be significantly impacted. Two would be impacted during both AM and PM peak hours, three of them during the PM peak hour, and one during the AM peak hour. The six impacted intersections include:
 - o Imperial Highway and Crenshaw boulevard (AM and PM peak hour)
 - o Century Boulevard and Van Ness (AM and PM peak hour
 - o Century Boulevard and Western Avenue (AM and PM peak hour)
 - o Century Boulevard and Normandie Avenue (AM and PM peak hour)

- o Imperial Highway and Normandie Avenue (AM peak hour)
- o Imperial Highway and Vermont Avenue (AM and PM peak hour)
- o Imperial Highway and I-110 NB Ramps (AM peak hour)
- o Imperial Highway and Western Avenue (PM peak hour)
- These significant impacts would be mitigated to less than significant levels by implementation the following measures:

Imperial Highway and Crenshaw Boulevard (AM and PM peak hour) – This intersection is impacted with the addition of related projects in particular the Hollywood Park Redevelopment As describe in the Hollywood Park Redevelopment Traffic Impact Study, Hollywood Park project applicant has proposed to provide full funding of the recommended ITS improvement at this intersection and no additional fair share contribution from LASC master plan would be required. This mitigation measure would reduce the forecast cumulative impact to less than significant levels during the both AM (V/C=0.748, LOS=C) and PM (V/C=0.652, LOS=B) peak hours.

Century Boulevard and Van Ness (AM and PM peak hour) (AM and PM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the northbound and westbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, impacts at this intersection would be mitigated to a less-than-significant level during the both AM and PM peak hours (V/C ratio becomes 0.671 in AM and 0.737 in PM peak hour).

Century Boulevard and Western Avenue (AM and PM peak hour) - This intersection is impacted with the addition of related projects in particular the Hollywood Park Redevelopment Project. Hollywood Park Redevelopment Traffic Impact Study recommended the installation of the ATSAC at this intersection which is not currently operated under the City of Los Angeles, ATSAC system. Coupled with the mitigation recommended for the proposed project, impacts at this intersection would be mitigated to less than significant levels. (AM V/C=0.787, LOS=C; PM V/C=0.775, LOS=C).

Century Boulevard and Normandie Avenue (AM and PM peak hour) — Fund a proportionate share of the cost of the design and construction of an eastbound and a westbound

thru lane. With the implementation of this mitigation measure, the operating conditions at the intersection would be mitigated to a level less-than-significant during both peak hours (V/C ratio 0.631 in the AM and 0.732 in the PM).

Imperial Highway and Normandie Avenue (AM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the northbound and Eastbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the AM peak hour (V/C ratio 0.729).

Imperial Highway and Vermont Avenue (AM and PM peak hour) - Mitigation was achieved by eliminating the protected left turn phasing on the southbound and westbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during both AM and PM peak hour (V/C ratio becomes 0.746 in AM and 0.818 in PM peak hour).

Imperial Highway and I-110 NB Ramps (*AM peak hour*) - Mitigation was achieved by eliminating the protected left turn phasing on the eastbound approach in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the AM peak hour (V/C ratio 0.820).

Imperial Highway and Western Avenue (*PM peak hour*) - Mitigation was achieved by eliminating the protected left turn phasing on the southbound and westbound approaches in favor of permitted left turns. With the implementation of this mitigation measure, the impacts at this intersection would be mitigated to less-than-significant levels during the PM peak hour (V/C ratio 0.730).

Appendix

Appendix A - Existing Traffic Volumes

Appendix B – Intersection Capacity Analysis Existing Condition

Appendix C – Intersection Capacity Analysis Cumulative Base and Cumulative Base Plus Project Conditions

Appendix D – Intersection Capacity Analysis Cumulative Base Plus Project Mitigated Conditions

Appendix E – Intersection Capacity Analysis Cumulative Base Plus Project with Related Projects Condition

Appendix F – Intersection Capacity Analysis Cumulative Base Plus Project with Related Projects Mitigated

Appendix G - Traffic Signal Warrant Analysis (Normandie Ave and New Entrance)

Appendix A

Existing Traffic Volumes

Accutek Traffic Data, Inc. 21114 Trigger Lane Diamond Bar, CA 91765

Page 1 373101NS

Site Code: 003731011203

Tel: (909) 595-6199 Fax: (909) 595-6022

Normandie Ave. s/o Imperial Hwy

Start 1' Time 12:00 12:15 12:30 12:45	7-Nov-0 NI Tue Morning 9	Afternoon	Hour ⁻		S		Hour ⁻			
12:00 12:15 12:30			Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	ed Totals Afternoon
12:15 12:30		79	woming	7 ((10) (100))	11	58	or	7.11.01110011	wichning	7 111011110011
12:30	10	74			10	86				
12:45	12	86			11	74				
12.40	6	77	37	316	3	83	35	301	72	617
01:00	6	98	-		6	87				-
01:15	5	104			2	98				
01:30	5	137			5	138				
01:45	1	105	17	444	2	105	15	428	32	872
02:00	4	84			2	84				
02:15	2	111			2	93				
02:30	7	108			4	85				
02:45	5	117	18	420	5	107	13	369	31	789
03:00	9	150			6	134				
03:15	4	105			4	111				
03:30	3	125			7	106				
03:45	4	114	20	494	7	104	24	455	44	949
04:00	7	119			7	103				
04:15	5	115			6	108				
04:30	7	126			14	117				
04:45	6	149	25	509	4	116	31	444	56	953
05:00	6	138			15	121				
05:15	12	145			17	117				
05:30	18	118			40	119				
05:45	22	123	58	524	53	115	125	472	183	996
06:00	47	110			36	87				
06:15	55	114			51	100				
06:30	68	92			54	81				
06:45	88	88	258	404	103	85	244	353	502	757
07:00	93	83			90	55				
07:15	149	69			129	61				
07:30	175	53			186	48				
07:45	219	48	636	253	177	50	582	214	1218	467
08:00	173	41			137	44				
08:15	111	45			79	46				
08:30	93	42			83	38				
08:45	98	32	475	160	86	53	385	181	860	341
09:00	95	42			68	29				
09:15	74	39			70	33				
09:30	70	37			77	25				
09:45	63	34	302	152	62	28	277	115	579	267
10:00	69	22			68	20				
10:15	91	25			60	18				
10:30	60	12		•	66	24				
10:45	60	23	280	82	79	13	273	75	553	157
11:00	85	17			70	21				
11:15	72	25			73	9				
11:30	69	26		_	68	10				
11:45	70	13	296	81	65	8	276	48	572	129
Total	2422	3839			2280	3455			4702	7294
Percent	38.7%	61.3%			39.8%	60.2%			39.2%	60.8%
Grand	2422	3839			2280	3455			4702	7294
Total										
Percent	38.7%	61.3%			39.8%	60.2%			39.2%	60.8%

ADT ADT 11,996

AADT 11,996

File Name : 373116 Site Code : 00373116 Start Date : 11/12/2009 Page No : 1

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		South	bound			Westl	oound			North	bound			Eastl	bound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	6	70	7	83	10	175	22	207	15	95	11	121	12	106	11	129	540
07:15 AM	12	75	15	102	23	226	18	267	15	109	19	143	19	108	7	134	646
07:30 AM	7	132	10	149	15	273	35	323	18	145	13	176	23	157	8	188	836
07:45 AM	8	116	15	139	17	289	35	341	22	136	15	173	40	140	16	196	849
Total	33	393	47	473	65	963	110	1138	70	485	58	613	94	511	42	647	2871
																	ı
08:00 AM	9	93	10	112	13	246	37	296	19	157	12	188	32	171	14	217	813
08:15 AM	13	72	8	93	10	218	20	248	18	124	17	159	22	153	11	186	686
08:30 AM	9	81	6	96	12	215	19	246	23	81	23	127	24	114	17	155	624
08:45 AM	11	67	12	90	15	212	20	247	14	73	20	107	16	123	12	151	595
Total	42	313	36	391	50	891	96	1037	74	435	72	581	94	561	54	709	2718
*** DDE \ \ \ ***																	
*** BREAK ***																	
04:00 PM	14	90	18	122	16	195	27	238	25	120	11	156	36	279	33	348	864
04:00 PM	15	100	12	127	12	200	31	243	26	115	12	153	32	289	24	345	868
04:13 PM	13	88	13	114	14	231	30	275	23	133	18	174	37	306	30	373	936
04:45 PM	13	75	10	98	13	206	25	244	25	118	12	155	38	278	27	343	840
Total	55	353	53	461	55	832	113	1000	99	486	53	638	143	1152	114	1409	3508
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05:00 PM	15	80	10	105	11	235	32	278	22	140	12	174	30	294	20	344	901
05:15 PM	11	92	15	118	14	234	33	281	22	164	16	202	32	309	28	369	970
05:30 PM	8	95	20	123	11	215	32	258	23	133	14	170	29	316	35	380	931
05:45 PM	7	101	15	123	8	217	21	246	24	128	16	168	26	320	18	364	901
Total	41	368	60	469	44	901	118	1063	91	565	58	714	117	1239	101	1457	3703
·				,				,									
Grand Total	171	1427	196	1794	214	3587	437	4238	334	1971	241	2546	448	3463	311	4222	12800
Apprch %	9.5	79.5	10.9		5	84.6	10.3		13.1	77.4	9.5		10.6	82	7.4		
Total %	1.3	11.1	1.5	14	1.7	28	3.4	33.1	2.6	15.4	1.9	19.9	3.5	27.1	2.4	33	

	V	AN NE	SS AV	Έ.	С	ENTU	RY BL	/D.	1	AN NE	SS AV	E.	C	ENTU	RY BL	/D.	
		South	bound			West	bound			North	bound			East	bound		
Start Time	Righ t	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana	lysis Fr	om 07:0	00 AM to	o 08:45 A	M - Pea	k 1 of 1		•									
Peak Hour for I	Entire In	tersecti	on Beg	ins at 07:	30 AM												
07:30 AM	7	132	10	149	15	273	35	323	18	145	13	176	23	157	8	188	836
07:45 AM	8	116	15	139	17	289	35	341	22	136	15	173	40	140	16	196	849
08:00 AM	9	93	10	112	13	246	37	296	19	157	12	188	32	171	14	217	813
08:15 AM	13	72	8	93	10	218	20	248	18	124	17	159	22	153	11	186	686
Total Volume	37	413	43	493	55	1026	127	1208	77	562	57	696	117	621	49	787	3184
% App. Total	7.5	83.8	8.7		4.6	84.9	10.5		11.1	80.7	8.2		14.9	78.9	6.2		
PHF	.712	.782	.717	.827	.809	.888	.858	.886	.875	.895	.838	.926	.731	.908	.766	.907	.938
Peak Hour Ana Peak Hour for I	Éntire In	tersecti	on Beg	ins at 05:	00 PM				1								
05:00 PM	15	80	10	105	11	235	32	278	22	140	12	174	30	294	20	344	901
05:15 PM	11	92	15	118	14	234	33	281	22	164	16	202	32	309	28	369	970
05:30 PM	8	95	20	123	11	215	32	258	23	133	14	170	29	316	35	380	931
05:45 PM	7	101	15	123	8	217	21	246	24	128	16	168	26	320	18	364	901
Total Volume	41	368	60	469	44	901	118	1063	91	565	58	714	117	1239	101	1457	3703
% App. Total	8.7	78.5	12.8		4.1	84.8	11.1		12.7	79.1	8.1		8	85	6.9		
PHF	.683	.911	.750	.953	.786	.959	.894	.946	.948	.861	.906	.884	.914	.968	.721	.959	.954

File Name: 373115 Site Code: 00373115 Start Date: 10/22/2009

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		DENKE	ER AVE	Ē.		IMPER	IAL HV	VΥ		DRIV	EWAY]	IMPER	IAL HV	VY	
		South	ound			West	oound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	5	4	5	14	12	194	8	214	6	2	5	13	13	119	6	138	379
07:15 AM	17	1	6	24	14	298	22	334	8	1	8	17	16	126	6	148	523
07:30 AM	18	6	16	40	22	324	62	408	24	4	11	39	34	178	15	227	714
07:45 AM	20	16	24	60	27	373	65	465	38	2	18	58	40	211	17	268	851
Total	60	27	51	138	75	1189	157	1421	76	9	42	127	103	634	44	781	2467
08:00 AM	15	8	19	42	22	349	68	439	28	5	20	53	40	198	11	249	783
08:15 AM	16	7	4	27	14	293	27	334	14	4	15	33	23	158	9	190	584
08:30 AM	14	3	2	19	8	288	25	321	13	3	15	31	34	122	5	161	532
08:45 AM	15	5	5	25	10	277	45	332	15	3	17	35	16	133	4	153	545
Total	60	23	30	113	54	1207	165	1426	70	15	67	152	113	611	29	753	2444
*** BREAK ***	k																
					i								ı				
04:00 PM	12	2	9	23	15	156	17	188	22	0	9	31	9	292	8	309	551
04:15 PM	18	0	10	28	12	189	18	219	17	2	8	27	8	276	7	291	565
04:30 PM	16	1	8	25	12	201	15	228	23	2	6	31	7	327	9	343	627
04:45 PM	18	1	13	32	22	205	24	251	16	0	10	26	7	297	11	315	624
Total	64	4	40	108	61	751	74	886	78	4	33	115	31	1192	35	1258	2367
05:00 PM	23	2	12	37	18	201	18	237	15	1	7	23	9	355	8	372	669
05:15 PM	12	1	18	31	15	210	17	242	17	2	6	25	12	334	9	355	653
05:30 PM	16	3	11	30	18	201	23	242	14	0	14	28	15	335	15	365	665
05:45 PM	19	4	12	35	16	210	28	254	15	4	9	28	11	393	14	418	735
Total	70	10	53	133	67	822	86	975	61	7	36	104	47	1417	46	1510	2722
					1												
Grand Total	254	64	174	492	257	3969	482	4708	285	35	178	498	294	3854	154	4302	10000
Apprch %	51.6	13	35.4		5.5	84.3	10.2		57.2	7	35.7		6.8	89.6	3.6		
Total %	2.5	0.6	1.7	4.9	2.6	39.7	4.8	47.1	2.8	0.3	1.8	5	2.9	38.5	1.5	43	

		DENKI	D AND	7	,	MDED	IAL HV	X/X/		DDIX	EWAY	,		IMPER	TAT TIX	X/X/	1
		South		۷.			IAL II V bound	V I			bound			iwirek Easth		V I	
~										- 10- 1-			5				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	sis Fron	n 07:00 <i>A</i>	AM to 08	3:45 AM -	Peak 1 c	of 1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 07:30 A	M												
07:30 AM	18	6	16	40	22	324	62	408	24	4	11	39	34	178	15	227	714
07:45 AM	20	16	24	60	27	373	65	465	38	2	18	58	40	211	17	268	851
08:00 AM	15	8	19	42	22	349	68	439	28	5	20	53	40	198	11	249	783
08:15 AM	16	7	4	27	14	293	27	334	14	4	15	33	23	158	9	190	584
Total Volume	69	37	63	169	85	1339	222	1646	104	15	64	183	137	745	52	934	2932
% App. Total	40.8	21.9	37.3		5.2	81.3	13.5		56.8	8.2	35		14.7	79.8	5.6		
PHF	.863	.578	.656	.704	.787	.897	.816	.885	.684	.750	.800	.789	.856	.883	.765	.871	.861
Peak Hour Analy	sis Fron	n 04:00 F	PM to 05	:45 PM - I	Peak 1 of	1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 05:00 Pl	M												
05:00 PM	23	2	12	37	18	201	18	237	15	1	7	23	9	355	8	372	669
05:15 PM	12	1	18	31	15	210	17	242	17	2	6	25	12	334	9	355	653
05:30 PM	16	3	11	30	18	201	23	242	14	0	14	28	15	335	15	365	665
05:45 PM	19	4	12	35	16	210	28	254	15	4	9	28	11	393	14	418	735
Total Volume	70	10	53	133	67	822	86	975	61	7	36	104	47	1417	46	1510	2722
% App. Total	52.6	7.5	39.8		6.9	84.3	8.8		58.7	6.7	34.6		3.1	93.8	3		
PHF	.761	.625	.736	.899	.931	.979	.768	.960	.897	.438	.643	.929	.783	.901	.767	.903	.926

File Name: 373114 Site Code: 00373114 Start Date: 10/22/2009 Page No: 1

Cuarra	Printed-	TMC
Groups	Printea-	TIME

	,	WESTE	RN AV	E.	CO	LLEGE	DRIVE	WAY	,	WESTE	RN AVI	Ε.		DRIV	EWAY		
		South	bound			Westh	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	109	3	112	4	0	2	6	2	185	2	189	1	0	2	3	310
07:15 AM	1	183	6	190	2	1	1	4	10	214	3	227	4	0	0	4	425
07:30 AM	2	306	11	319	2	0	4	6	11	309	2	322	3	1	2	6	653
07:45 AM	1	298	37	336	10	0	13	23	38	379	10	427	8	2	1	11	797
Total	4	896	57	957	18	1	20	39	61	1087	17	1165	16	3	5	24	2185
08:00 AM	0	258	36	294	13	0	6	19	43	288	9	340	6	0	5	11	664
08:15 AM	5	175	43	223	6	0	5	11	18	175	10	203	7	1	5	13	450
08:30 AM	2	168	26	196	9	0	3	12	13	166	5	184	6	0	5	11	403
08:45 AM	3	139	29	171	7	0	5	12	14	141	8	163	6	0	5	11	357
Total	10	740	134	884	35	0	19	54	88	770	32	890	25	1	20	46	1874
*** BREAK ***	¢																
	ı				ı				ı								
04:00 PM	0	166	11	177	16	2	9	27	3	204	18	225	10	0	10	20	449
04:15 PM	1	190	11	202	10	0	4	14	7	182	21	210	8	0	12	20	446
04:30 PM	4	178	7	189	16	0	8	24	3	225	10	238	13	1	16	30	481
04:45 PM	0	198	18	216	12	0	10	22	7	236	18	261	10	1_	11	22	521
Total	5	732	47	784	54	2	31	87	20	847	67	934	41	2	49	92	1897
					ı				ı								
05:00 PM	3	221	15	239	17	1	5	23	5	252	8	265	10	1	16	27	554
05:15 PM	1	211	15	227	11	0	9	20	8	224	13	245	13	1	11	25	517
05:30 PM	2	219	18	239	14	1	4	19	3	229	10	242	19	0	13	32	532
05:45 PM	4	236	30	270	10	1_	11	22	12	190	14	216	25	0	17	42	550
Total	10	887	78	975	52	3	29	84	28	895	45	968	67	2	57	126	2153
					ı				ı								
Grand Total	29	3255	316	3600	159	6	99	264	197	3599	161	3957	149	8	131	288	8109
Apprch %	0.8	90.4	8.8		60.2	2.3	37.5		5	91	4.1		51.7	2.8	45.5		
Total %	0.4	40.1	3.9	44.4	2	0.1	1.2	3.3	2.4	44.4	2	48.8	1.8	0.1	1.6	3.6	

	1	WESTE	RN AVI	Ξ.	COI	LLEGE	DRIVE	CWAY	1	WESTE	RN AV	Е.		DRIV	EWAY		
		South	oound			Westl	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	sis Fron	n 07:00 A	M to 08	:45 AM -	Peak 1 o	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	t 07:30 A	M												
07:30 AM	2	306	11	319	2	0	4	6	11	309	2	322	3	1	2	6	653
07:45 AM	1	298	37	336	10	0	13	23	38	379	10	427	8	2	1	11	797
08:00 AM	0	258	36	294	13	0	6	19	43	288	9	340	6	0	5	11	664
08:15 AM	5	175	43	223	6	0	5	11	18	175	10	203	7	1	5	13	450
Total Volume	8	1037	127	1172	31	0	28	59	110	1151	31	1292	24	4	13	41	2564
% App. Total	0.7	88.5	10.8		52.5	0	47.5		8.5	89.1	2.4		58.5	9.8	31.7		
PHF	.400	.847	.738	.872	.596	.000	.538	.641	.640	.759	.775	.756	.750	.500	.650	.788	.804
D 1 II . 1		04.00 F	3.5. 0.5	45 D) 5													
Peak Hour Analy						1											
Peak Hour for E			_													. 1	
05:00 PM	3	221	15	239	17	1	5	23	5	252	8	265	10	1	16	27	554
05:15 PM	1	211	15	227	11	0	9	20	8	224	13	245	13	1	11	25	517
05:30 PM	2	219	18	239	14	1	4	19	3	229	10	242	19	0	13	32	532
05:45 PM	4	236	30	270	10	1	11	22	12	190	14	216	25	0	17	42	550
Total Volume	10	887	78	975	52	3	29	84	28	895	45	968	67	2	57	126	2153
% App. Total	1	91	8		61.9	3.6	34.5		2.9	92.5	4.6		53.2	1.6	45.2		
PHF	.625	.940	.650	.903	.765	.750	.659	.913	.583	.888	.804	.913	.670	.500	.838	.750	.972

File Name: 373113 Site Code: 00373113 Start Date: 10/22/2009 Page No: 1

Groups rrimicu- rivic	Groups	Printed-	TMC
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07:15 AM 35 136 36 207 48 265 41 354 16 157 38 211 28 100 19 147 9 07:30 AM 42 208 36 286 64 281 40 385 53 194 71 318 54 139 45 238 12	658 919 227 409
07:00 AM 22 71 27 120 35 156 30 221 24 132 41 197 20 86 14 120 6 07:15 AM 35 136 36 207 48 265 41 354 16 157 38 211 28 100 19 147 9 07:30 AM 42 208 36 286 64 281 40 385 53 194 71 318 54 139 45 238 12	658 919 227 409
07:00 AM 22 71 27 120 35 156 30 221 24 132 41 197 20 86 14 120 6 07:15 AM 35 136 36 207 48 265 41 354 16 157 38 211 28 100 19 147 9 07:30 AM 42 208 36 286 64 281 40 385 53 194 71 318 54 139 45 238 12	919 227 409
07:30 AM 42 208 36 286 64 281 40 385 53 194 71 318 54 139 45 238 12	227 409
	409
07:45 AM 60 224 61 345 71 289 57 417 59 255 68 382 74 160 31 265 14	
Total 159 639 160 958 218 991 168 1377 152 738 218 1108 176 485 109 770 42	213
08:00 AM 29 189 47 265 38 329 45 412 42 188 71 301 63 171 32 266 12	244
08:15 AM 24 124 37 185 41 244 49 334 20 138 33 191 58 135 28 221 9	931
08:30 AM 27 115 27 169 41 228 44 313 21 121 46 188 35 116 18 169 8	839
<u>08:45 AM 25 105 20 150 43 234 47 324 16 108 27 151 31 125 25 181 8</u>	806_
Total 105 533 131 769 163 1035 185 1383 99 555 177 831 187 547 103 837 38	820
*** BREAK ***	
	984
	954
	106
	047_
Total 125 545 123 793 152 628 119 899 98 658 216 972 160 1114 153 1427 40	091
	196
	103
	166
	168_
Total 153 678 143 974 187 628 138 953 93 717 200 1010 195 1347 154 1696 46	633
Grand Total 542 2395 557 3494 720 3282 610 4612 442 2668 811 3921 718 3493 519 4730 1673	157
Apprch % 15.5 68.5 15.9 15.6 71.2 13.2 11.3 68 20.7 15.2 73.8 11	
Total % 3.2 14.3 3.3 20.9 4.3 19.6 3.6 27.5 2.6 15.9 4.8 23.4 4.3 20.8 3.1 28.2	

	1	WESTE	RN AVI	Ε.]	IMPER	IAL HV	VY	1	WESTE	RN AV	Е.		IMPER	IAL HV	VY	
		South	oound			Westl	oound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	sis Fron	n 07:00 A	M to 08	:45 AM -	Peak 1 o	of 1											
Peak Hour for En	ntire Inte	rsection	Begins a	t 07:30 A	M												
07:30 AM	42	208	36	286	64	281	40	385	53	194	71	318	54	139	45	238	1227
07:45 AM	60	224	61	345	71	289	57	417	59	255	68	382	74	160	31	265	1409
08:00 AM	29	189	47	265	38	329	45	412	42	188	71	301	63	171	32	266	1244
08:15 AM	24	124	37	185	41	244	49	334	20	138	33	191	58	135	28	221	931
Total Volume	155	745	181	1081	214	1143	191	1548	174	775	243	1192	249	605	136	990	4811
% App. Total	14.3	68.9	16.7		13.8	73.8	12.3		14.6	65	20.4		25.2	61.1	13.7		
PHF	.646	.831	.742	.783	.754	.869	.838	.928	.737	.760	.856	.780	.841	.885	.756	.930	.854
Peak Hour Analy						1											
Peak Hour for Er			_						1 .								
05:00 PM	43	157	37	237	49	153	34	236	17	222	55	294	59	335	35	429	1196
05:15 PM	28	156	39	223	47	162	29	238	23	167	47	237	49	312	44	405	1103
05:30 PM	40	173	28	241	45	143	35	223	28	179	59	266	45	355	36	436	1166
05:45 PM	42	192	39	273	46	170	40	256	25	149	39	213	42	345	39	426	1168
Total Volume	153	678	143	974	187	628	138	953	93	717	200	1010	195	1347	154	1696	4633
% App. Total	15.7	69.6	14.7		19.6	65.9	14.5		9.2	71	19.8		11.5	79.4	9.1		
PHF	.890	.883	.917	.892	.954	.924	.863	.931	.830	.807	.847	.859	.826	.949	.875	.972	.968

File Name : 373112 Site Code : 00373112 Start Date : 10/28/2009 Page No : 1

Grouns	Printed-	TMC

						IMPERI		VY			OFF RA	MP	1	IMPER	IAL HV	VY	
		Southb	ound			Westh					bound			Easth			
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	0	0	0	27	248	0	275	105	62	140	307	0	105	12	117	699
07:15 AM	0	0	0	0	22	306	0	328	99	66	205	370	0	124	21	145	843
07:30 AM	0	0	0	0	17	301	0	318	105	80	229	414	0	188	25	213	945
07:45 AM	0	0	0	0	18	277	0	295	136	88	239	463	0	203	26	229	987
Total	0	0	0	0	84	1132	0	1216	445	296	813	1554	0	620	84	704	3474
08:00 AM	0	0	0	0	12	249	0	261	128	74	188	390	0	150	23	173	824
08:15 AM	0	0	0	0	15	245	0	260	114	80	123	317	0	148	24	172	749
08:30 AM	0	0	0	0	22	210	0	232	124	54	134	312	0	128	27	155	699
08:45 AM	0	0	0	0	24	168	0	192	77	30	153	260	0	130	29	159	611
Total	0	0	0	0	73	872	0	945	443	238	598	1279	0	556	103	659	2883
*** DDE 117 ***	.																
*** BREAK ***	r																
04:00 PM	0	0	0	0	39	167	0	206	94	31	54	179	0	258	43	301	686
04:15 PM	0	0	0	0	31	181	0	212	117	35	55	207	0	261	36	297	716
04:30 PM	0	0	0	0	42	193	0	235	101	28	61	190	0	331	48	379	804
04:45 PM	0	0	0	0	36	182	0	218	112	32	68	212	0	350	30	380	810
Total	0	0	0	0	148	723	0	871	424	126	238	788	0	1200	157	1357	3016
05:00 PM	0	0	0	0	45	204	0	249	97	22	73	192	0	307	49	356	797
05:15 PM	0	0	0	0	43	203	0	246	128	34	67	229	0	390	44	434	909
05:30 PM	0	0	0	0	29	197	0	226	91	31	87	209	0	402	40	442	877
05:45 PM	0	0	0	0	37	192	0	229	91	32	69	192	0	369	45	414	835
Total	0	0	0	0	154	796	0	950	407	119	296	822	0	1468	178	1646	3418
					1				1								
Grand Total	0	0	0	0	459	3523	0	3982	1719	779	1945	4443	0	3844	522	4366	12791
Apprch %	0	0	0		11.5	88.5	0		38.7	17.5	43.8		0	88	12		
Total %	0	0	0	0	3.6	27.5	0	31.1	13.4	6.1	15.2	34.7	0	30.1	4.1	34.1	

						IMPER	IAL HV	VY	I-1	10 NB (OFF RA	MP]	IMPER	IAL HV	VY	
		South	oound			Westl	oound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	ysis Fron	n 07:00 A	M to 08	3:45 AM -	Peak 1 c	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 07:15 A	M												
07:15 AM	0	0	0	0	22	306	0	328	99	66	205	370	0	124	21	145	843
07:30 AM	0	0	0	0	17	301	0	318	105	80	229	414	0	188	25	213	945
07:45 AM	0	0	0	0	18	277	0	295	136	88	239	463	0	203	26	229	987
08:00 AM	0	0	0	0	12	249	0	261	128	74	188	390	0	150	23	173	824
Total Volume	0	0	0	0	69	1133	0	1202	468	308	861	1637	0	665	95	760	3599
% App. Total	0	0	0		5.7	94.3	0		28.6	18.8	52.6		0	87.5	12.5		
PHF	.000	.000	.000	.000	.784	.926	.000	.916	.860	.875	.901	.884	.000	.819	.913	.830	.912
Peak Hour Analy						1											
Peak Hour for E	1		Begins a										ı				İ
05:00 PM	0	0	0	0	45	204	0	249	97	22	73	192	0	307	49	356	797
05:15 PM	0	0	0	0	43	203	0	246	128	34	67	229	0	390	44	434	909
05:30 PM	0	0	0	0	29	197	0	226	91	31	87	209	0	402	40	442	877
05:45 PM	0	0	0	0	37	192	0	229	91	32	69	192	0	369	45	414	835
Total Volume	0	0	0	0	154	796	0	950	407	119	296	822	0	1468	178	1646	3418
% App. Total	0	0	0		16.2	83.8	0		49.5	14.5	36		0	89.2	10.8		
PHF	.000	.000	.000	.000	.856	.975	.000	.954	.795	.875	.851	.897	.000	.913	.908	.931	.940

File Name: 373111 Site Code: 00373111 Start Date: 10/28/2009

Page No : 1

Croune	Printed-	TMC
troups	Printea-	IMC

	GRAND AVE.					IMPER	IAL HV	VY						IMPER	IAL HV	VY	
		South	oound			Westl	bound			North	bound			Easth	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	42	46	18	106	0	311	69	380	0	0	0	0	100	96	0	196	682
07:15 AM	40	80	23	143	0	419	82	501	0	0	0	0	109	124	0	233	877
07:30 AM	73	109	40	222	0	445	81	526	0	0	0	0	119	163	0	282	1030
07:45 AM	79	110	38	227	0	436	73	509	0	0	0	0	105	185	0	290	1026
Total	234	345	119	698	0	1611	305	1916	0	0	0	0	433	568	0	1001	3615
																	i
08:00 AM	60	60	22	142	0	371	55	426	0	0	0	0	106	151	0	257	825
08:15 AM	49	45	25	119	0	304	72	376	0	0	0	0	85	146	0	231	726
08:30 AM	44	43	19	106	0	293	60	353	0	0	0	0	78	141	0	219	678
08:45 AM	55	33	29	117	0	286	39	325	0	0	0	0	79	126	0	205	647
Total	208	181	95	484	0	1254	226	1480	0	0	0	0	348	564	0	912	2876
*** BREAK ***	¢																
BREAK																	
04:00 PM	41	44	37	122	0	189	41	230	0	0	0	0	94	267	0	361	713
04:15 PM	41	43	34	118	0	204	40	244	0	0	0	0	83	266	0	349	711
04:30 PM	34	58	43	135	0	201	50	251	0	0	0	0	99	327	0	426	812
04:45 PM	50	40	49	139	0	210	40	250	0	0	0	0	89	336	0	425	814
Total	166	185	163	514	0	804	171	975	0	0	0	0	365	1196	0	1561	3050
05:00 PM	51	61	41	153	0	229	40	269	0	0	0	0	91	307	0	398	820
05:15 PM	41	47	58	146	0	227	52	279	0	0	0	0	111	367	0	478	903
05:30 PM	44	56	61	161	0	232	51	283	0	0	0	0	88	369	0	457	901
05:45 PM	49	45	56	150	0	225	49	274	0	0	0	0	104	349	0	453	877
Total	185	209	216	610	0	913	192	1105	0	0	0	0	394	1392	0	1786	3501
Grand Total	793	920	593	2306	0	4582	894	5476	0	0	0	0	1540	3720	0	5260	13042
Apprch %	34.4	39.9	25.7		0	83.7	16.3		0	0	0		29.3	70.7	0		
Total %	6.1	7.1	4.5	17.7	0	35.1	6.9	42	0	0	0	0	11.8	28.5	0	40.3	

		GRAN	D AVE	•]	MPER	IAL HV	VY						IMPER	IAL HV	VY	
		South	bound			Westl	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	sis Fron	n 07:00 A	AM to 08	3:45 AM -	Peak 1 o	f 1											
Peak Hour for Er	ntire Inte	rsection	Begins a	at 07:15 A	M												
07:15 AM	40	80	23	143	0	419	82	501	0	0	0	0	109	124	0	233	877
07:30 AM	73	109	40	222	0	445	81	526	0	0	0	0	119	163	0	282	1030
07:45 AM	79	110	38	227	0	436	73	509	0	0	0	0	105	185	0	290	1026
08:00 AM	60	60	22	142	0	371	55	426	0	0	0	0	106	151	0	257	825
Total Volume	252	359	123	734	0	1671	291	1962	0	0	0	0	439	623	0	1062	3758
% App. Total	34.3	48.9	16.8		0	85.2	14.8		0	0	0		41.3	58.7	0		
PHF	.797	.816	.769	.808	.000	.939	.887	.933	.000	.000	.000	.000	.922	.842	.000	.916	.912
Peak Hour Analy						1											
Peak Hour for En		rsection	_		1				ı				ı				II.
05:00 PM	51	61	41	153	0	229	40	269	0	0	0	0	91	307	0	398	820
05:15 PM	41	47	58	146	0	227	52	279	0	0	0	0	111	367	0	478	903
05:30 PM	44	56	61	161	0	232	51	283	0	0	0	0	88	369	0	457	901
05:45 PM	49	45	56	150	0	225	49	274	0	0	0	0	104	349	0	453	877
Total Volume	185	209	216	610	0	913	192	1105	0	0	0	0	394	1392	0	1786	3501
% App. Total	30.3	34.3	35.4		0	82.6	17.4		0	0	0		22.1	77.9	0		
PHF	.907	.857	.885	.947	.000	.984	.923	.976	.000	.000	.000	.000	.887	.943	.000	.934	.969

File Name: 373110 Site Code: 00373110 Start Date: 10/28/2009 Page No: 1

Grouns	Printed-	TMC
GIUUDS	I I IIIItcu-	TIVIC

	RA					111TH Westl	PLACE bound	E .		Northb	ound			111TH Easth	PLACE oound	E	
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	14	78	17	109	0	14	7	21	0	0	0	0	2	21	0	23	153
07:15 AM	11	116	23	150	0	31	7	38	0	0	0	0	2	24	0	26	214
07:30 AM	18	150	28	196	0	64	17	81	0	0	0	0	9	52	0	61	338
07:45 AM	15	153	33	201	0	78	18	96	0	0	0	0	3	58	0	61	358
Total	58	497	101	656	0	187	49	236	0	0	0	0	16	155	0	171	1063
					1												
08:00 AM	12	119	16	147	0	33	8	41	0	0	0	0	5	21	0	26	214
08:15 AM	6	105	20	131	0	18	6	24	0	0	0	0	2	10	0	12	167
08:30 AM	4	88	13	105	0	21	7	28	0	0	0	0	3	24	0	27	160
08:45 AM	6	70	10	86	0	17	7	24	00	0	0	0	5	12	0	17	127
Total	28	382	59	469	0	89	28	117	0	0	0	0	15	67	0	82	668
*** BREAK ***	*																
04:00 PM	13	101	16	130	0	12	3	15	0	0	0	0	1	15	0	16	161
04:15 PM	12	106	30	148	0	21	3	24	0	0	0	0	1	18	0	19	191
04:30 PM	16	121	24	161	0	14	5	19	0	0	0	0	2	17	0	19	199
04:45 PM	10	114	22	146	0	25	4	29	0	0	0	0	5	18	0	23	198
Total	51	442	92	585	0	72	15	87	0	0	0	0	9	68	0	77	749
05:00 PM	13	124 117	20	157	0	16	3	19 28	0	0	0	0	8	23	0	31	207
05:15 PM 05:30 PM	19 12	141	16 14	152 167	0	23 30	5 3	33	0	0	0	0	4 7	28 36	0	32 43	212 243
05:45 PM	16	128	23	167	-	22	2	24	0	0	0	0	3	25	0	28	243
Total	60	510	73	643	0	91	13	104	0	0	0	0	22	112	0	134	881
Totai	60	310	13	043	0	91	13	104	U	U	U	0	22	112	U	134	881
Grand Total Apprch %	197 8.4	1831 77.8	325 13.8	2353	0	439 80.7	105 19.3	544	0	0	0	0	62 13.4	402 86.6	0	464	3361
Total %	5.9	54.5	9.7	70	0	13.1	3.1	16.2	0	0	0	0	1.8	12	0	13.8	

	RA	I-110 S MP/GF Southl		VE.			PLACE bound	E		North	bound				PLACI ound	E	
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	ysis From	n 07:00 A	M to 08	3:45 AM -	Peak 1 o	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	t 07:15 A	M												
07:15 AM	11	116	23	150	0	31	7	38	0	0	0	0	2	24	0	26	214
07:30 AM	18	150	28	196	0	64	17	81	0	0	0	0	9	52	0	61	338
07:45 AM	15	153	33	201	0	78	18	96	0	0	0	0	3	58	0	61	358
08:00 AM	12	119	16	147	0	33	8	41	0	0	0	0	5	21	0	26	214
Total Volume	56	538	100	694	0	206	50	256	0	0	0	0	19	155	0	174	1124
% App. Total	8.1	77.5	14.4		0	80.5	19.5		0	0	0		10.9	89.1	0		
PHF	.778	.879	.758	.863	.000	.660	.694	.667	.000	.000	.000	.000	.528	.668	.000	.713	.785
PHF .7/8																	
05:00 PM	13	124	20	157	0	16	3	19	0	0	0	0	8	23	0	31	207
05:15 PM	19	117	16	152	0	23	5	28	0	0	0	0	4	28	0	32	212
05:30 PM	12	141	14	167	0	30	3	33	0	0	0	0	7	36	0	43	243
05:45 PM	16	128	23	167	0	22	2	24	0	0	0	0	3	25	0	28	219
Total Volume	60	510	73	643	0	91	13	104	0	0	0	0	22	112	0	134	881
% App. Total	9.3	79.3	11.4		0	87.5	12.5		0	0	0		16.4	83.6	0		
PHF	.789	.904	.793	.963	.000	.758	.650	.788	.000	.000	.000	.000	.688	.778	.000	.779	.906

File Name: 373109 Site Code: 00373109 Start Date: 10/27/2009 Page No: 1

Crouns	Printed-	TMC
GLUUDS	r i iiiieu-	TIVIC

	VERMONT AVE.						•	,	VERMO	NT AV	Е.	I-1	05 EB (OFF RA	MP		
		South	bound			Westb	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	107	54	161	0	0	0	0	18	164	0	182	28	17	135	180	523
07:15 AM	0	164	82	246	0	0	0	0	14	231	0	245	29	25	153	207	698
07:30 AM	0	165	72	237	0	0	0	0	5	267	0	272	33	31	154	218	727
07:45 AM	0	181	74	255	0	0	0	0	16	263	0	279	46	26	140	212	746
Total	0	617	282	899	0	0	0	0	53	925	0	978	136	99	582	817	2694
					1												1
08:00 AM	0	170	67	237	0	0	0	0	7	216	0	223	42	26	136	204	664
08:15 AM	0	154	60	214	0	0	0	0	9	201	0	210	34	25	150	209	633
08:30 AM	0	121	42	163	0	0	0	0	8	172	0	180	35	24	133	192	535
08:45 AM	0	103	44	147	0	0	0	0	5	181	0	186	30	31	139	200	533
Total	0	548	213	761	0	0	0	0	29	770	0	799	141	106	558	805	2365
*** BREAK ***	k																
					۔ ا												l
04:00 PM	0	190	42	232	0	0	0	0	20	179	0	199	37	38	72	147	578
04:15 PM	0	208	42	250	0	0	0	0	18	206	0	224	32	26	51	109	583
04:30 PM	0	184	42	226	0	0	0	0	28	203	0	231	32	33	70	135	592
04:45 PM	0	157	40	197	0	0	0	0	26	204	0	230	29	34	59	122	549
Total	0	739	166	905	0	0	0	0	92	792	0	884	130	131	252	513	2302
																	1
05:00 PM	0	198	44	242	0	0	0	0	21	223	0	244	31	34	62	127	613
05:15 PM	0	179	48	227	0	0	0	0	18	239	0	257	46	32	63	141	625
05:30 PM	0	229	47	276	0	0	0	0	18	236	0	254	42	34	56	132	662
05:45 PM	0	190	42	232	0	0	0	0	14	216	0	230	37	36	57	130	592
Total	0	796	181	977	0	0	0	0	71	914	0	985	156	136	238	530	2492
	ı				ı								ı				I.
Grand Total	0	2700	842	3542	0	0	0	0	245	3401	0	3646	563	472	1630	2665	9853
Apprch %	0	76.2	23.8		0	0	0		6.7	93.3	0		21.1	17.7	61.2		
Total %	0	27.4	8.5	35.9	0	0	0	0	2.5	34.5	0	37	5.7	4.8	16.5	27	

	7	ERMO	NT AV	E.					,	VERMO	NT AV	E.	I-1	05 EB (OFF RA	MP	
		South	oound			Westh	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	ysis From	n 07:00 A	M to 08	3:45 AM -	Peak 1 o	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 07:15 A	M												
07:15 AM	0	164	82	246	0	0	0	0	14	231	0	245	29	25	153	207	698
07:30 AM	0	165	72	237	0	0	0	0	5	267	0	272	33	31	154	218	727
07:45 AM	0	181	74	255	0	0	0	0	16	263	0	279	46	26	140	212	746
08:00 AM	0	170	67	237	0	0	0	0	7	216	0	223	42	26	136	204	664
Total Volume	0	680	295	975	0	0	0	0	42	977	0	1019	150	108	583	841	2835
% App. Total	0	69.7	30.3		0	0	0		4.1	95.9	0		17.8	12.8	69.3		
PHF	.000	.939	.899	.956	.000	.000	.000	.000	.656	.915	.000	.913	.815	.871	.946	.964	.950
Peak Hour Analy						1											
Peak Hour for E	ntire Inte		_		ì				ı								ı
05:00 PM	0	198	44	242	0	0	0	0	21	223	0	244	31	34	62	127	613
05:15 PM	0	179	48	227	0	0	0	0	18	239	0	257	46	32	63	141	625
05:30 PM	0	229	47	276	0	0	0	0	18	236	0	254	42	34	56	132	662
05:45 PM	0	190	42	232	0	0	0	0	14	216	0	230	37	36	57	130	592
Total Volume	0	796	181	977	0	0	0	0	71	914	0	985	156	136	238	530	2492
% App. Total	0	81.5	18.5		0	0	0		7.2	92.8	0		29.4	25.7	44.9		
PHF	.000	.869	.943	.885	.000	.000	.000	.000	.845	.956	.000	.958	.848	.944	.944	.940	.941

File Name: 373108 Site Code: 00373108 Start Date: 10/27/2009 Page No: 1

	-							aps Fillio				_					ı
	\ \ \	/ERMO		Ξ.	I-10	05 WB (AMP	,	/ERMO		Ε.					
		South				Westk					bound				ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	78	138	0	216	127	8	16	151	0	248	55	303	0	0	0	0	670
07:15 AM	114	221	0	335	127	5	23	155	0	308	67	375	0	0	0	0	865
07:30 AM	117	216	0	333	154	11	21	186	0	352	76	428	0	0	0	0	947
07:45 AM	90	236	0	326	151	12	21	184	0	352	62	414	0	0	0	0	924
Total	399	811	0	1210	559	36	81	676	0	1260	260	1520	0	0	0	0	3406
08:00 AM	89	202	0	291	112	11	32	155	0	315	43	358	0	0	0	0	804
08:15 AM	91	190	0	281	102	3	28	133	0	320	42	362	0	0	0	0	776
08:30 AM	87	144	0	231	134	4	18	156	0	269	25	294	0	0	0	0	681
08:45 AM	86	134	0	220	151	3	19	173	0	282	44	326	0	0	0	0	719
Total	353	670	0	1023	499	21	97	617	0	1186	154	1340	0	0	0	0	2980
*** BREAK ***																	
					i								i			ı	
04:00 PM	69	194	0	263	167	1	35	203	0	212	38	250	0	0	0	0	716
04:15 PM	83	204	0	287	163	0	40	203	0	223	43	266	0	0	0	0	756
04:30 PM	115	188	0	303	156	2	33	191	0	236	41	277	0	0	0	0	771
04:45 PM	88	169	0	257	169	1_	28	198	0	235	37	272	0	0	0	0	727
Total	355	755	0	1110	655	4	136	795	0	906	159	1065	0	0	0	0	2970
05:00 PM	58	217	0	275	136	1	30	167	0	248	32	280	0	0	0	0	722
05:15 PM	54	213	0	267	166	2	25	193	0	263	40	303	0	0	0	0	763
05:30 PM	82	255	0	337	152	2	30	184	0	243	55	298	0	0	0	0	819
05:45 PM	75	205	0	280	161	1_	28	190	0	232	38	270	0	0	0	0	740_
Total	269	890	0	1159	615	6	113	734	0	986	165	1151	0	0	0	0	3044
					1												
Grand Total	1376	3126	0	4502	2328	67	427	2822	0	4338	738	5076	0	0	0	0	12400
Apprch %	30.6	69.4	0		82.5	2.4	15.1		0	85.5	14.5		0	0	0		
Total %	11.1	25.2	0	36.3	18.8	0.5	3.4	22.8	0	35	6	40.9	0	0	0	0	

	\ \	/ERMO	NT AV	Ε.	I-10)5 WB	OFF R	AMP	\	/ERMO	NT AV	Ε.					
			bound				bound			_	bound			Eastl	oound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 07:00	O AM to	08:45 AI	M - Peak	1 of 1											
Peak Hour for E	Entire In	tersection	n Begi	ns at 07:1	15 AM												
07:15 AM	114	221	0	335	127	5	23	155	0	308	67	375	0	0	0	0	865
07:30 AM	117	216	0	333	154	11	21	186	0	352	76	428	0	0	0	0	947
07:45 AM	90	236	0	326	151	12	21	184	0	352	62	414	0	0	0	0	924
MA 00:80	89	202	0	291	112	11	32	155	0	315	43	358	0	0	0	0	804
Total Volume	410	875	0	1285	544	39	97	680	0	1327	248	1575	0	0	0	0	3540
% App. Total	31.9	68.1	0		80	5.7	14.3		0	84.3	15.7		0	0	0		
PHF	.876	.927	.000	.959	.883	.813	.758	.914	.000	.942	.816	.920	.000	.000	.000	.000	.935
Peak Hour Ana						1 of 1											
Peak Hour for E	Entire Int	tersection	n Begi	ns at 05:0	00 PM												
05:00 PM	58	217	0	275	136	1	30	167	0	248	32	280	0	0	0	0	722
05:15 PM	54	213	0	267	166	2	25	193	0	263	40	303	0	0	0	0	763
05:30 PM	82	255	0	337	152	2	30	184	0	243	55	298	0	0	0	0	819
05:45 PM	75	205	0	280	161	1	28	190	0	232	38	270	0	0	0	0	740
Total Volume	269	890	0	1159	615	6	113	734	0	986	165	1151	0	0	0	0	3044
% App. Total	23.2	76.8	0		83.8	8.0	15.4		0	85.7	14.3		0	0	0		
PHF	.820	.873	.000	.860	.926	.750	.942	.951	.000	.937	.750	.950	.000	.000	.000	.000	.929

File Name: 373107 Site Code: 00373107 Start Date: 10/27/2009

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SW RT: Right-turn from Southwest Blvd. to Vermont Ave. IMP RT: Right-turn from Imperial Hwy to Southwest Blvd.

_									Grou	ups Pri	nted- TI	ИС								
			VER	MONT	AVE.			IMPE	ERIAL	HWY		V	/ERMC	NT AV	/Ε.	l II	MPERI	AL HV	VY	
			So	uthbo	und			W	estbo	und			North	bound	ı		Eastl	oound		
	Start Time	Right	Thru	Left	SW RT	App. Total	Right	Thru	Left	IMP RT	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
	07:00 AM	17	146	34	2	199	38	137	41	0	216	39	252	88	379	26	127	15	168	962
	07:15 AM	13	238	62	6	319	51	225	52	0	328	39	289	101	429	34	124	27	185	1261
	07:30 AM	59	221	75	3	358	62	280	53	0	395	45	349	107	501	42	149	26	217	1471
	07:45 AM	49	218	58	4	329	60	309	56	2	427	41	339	120	500	36	178	27	241	1497
	Total	138	823	229	15	1205	211	951	202	2	1366	164	1229	416	1809	138	578	95	811	5191
	08:00 AM	41	188	53	1	283	44	310	48	1	403	41	285	94	420	47	155	29	231	1337
	08:15 AM	38	181	39	4	262	38	241	52	0	331	32	286	87	405	39	131	25	195	1193
	08:30 AM	25	131	39	5	200	44	219	62	1	326	24	263	93	380	40	121	22	183	1089
	08:45 AM	30	136	47	4	217	45	194	50	0	289	27	290	102	419	29	99	19	147	1072
	Total	134	636	178	14	962	171	964	212	2	1349	124	1124	376	1624	155	506	95	756	4691
*:	** BREAK ***	•																		
	04:00 PM	23	176	50	2	251	24	141	34	1	200	34	242	90	366	43	219	28	290	1107
	04:15 PM	30	198	45	0	273	30	132	40	2	204	41	229	112	382	50	223	32	305	1164
	04:30 PM	23	202	60	1	286	25	162	44	0	231	45	243	111	399	47	277	27	351	1267
_	04:45 PM	28	171	47	1	247	25	150	50	1	226	34	262	118	414	45	285	29	359	1246
	Total	104	747	202	4	1057	104	585	168	4	861	154	976	431	1561	185	1004	116	1305	4784
	05:00 PM	36	174	72	3	285	27	168	42	3	240	43	227	95	365	48	284	33	365	1255
	05:15 PM	32	174	42	3	251	23	173	51	2	249	51	238	116	405	49	275	35	359	1264
	05:30 PM	16	221	63	3	303	29	176	59	1	265	53	245	93	391	47	276	38	361	1320
	05:45 PM	33	178	50	1	262	23	192	54	1	270	39	257	107	403	51	277	30	358	1293
	Total	117	747	227	10	1101	102	709	206	7	1024	186	967	411	1564	195	1112	136	1443	5132
	Grand Total	493	2953	836	43	4325	588	3209	788	15	4600	628	4296	1634	6558	673	3200	442	4315	19798
	Apprch %	11.4	68.3	19.3	1		12.8	69.8	17.1	0.3		9.6	65.5	24.9		15.6	74.2	10.2		
	Total %	2.5	14.9	4.2	0.2	21.8	3	16.2	4	0.1	23.2	3.2	21.7	8.3	33.1	3.4	16.2	2.2	21.8	

		VER	MONT	AVE.			IMP	ERIAL	HWY		٧	ERMO	NT AV	E.	I	MPERI	AL HV	VY	
		So	uthbo	und			W	estbou	ınd			North	bound			Eastl	oound		
Start Time	Right	Thru	Left	SW RT	App. Total	Right	Thru	Left	IMP RT	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour An							1 of 1												
Peak Hour for	Entire	Interse	ction B	egins a	t 07:15	AM													
07:15 AM	13	238	62	6	319	51	225	52	0	328	39	289	101	429	34	124	27	185	1261
07:30 AM	59	221	75	3	358	62	280	53	0	395	45	349	107	501	42	149	26	217	1471
07:45 AM	49	218	58	4	329	60	309	56	2	427	41	339	120	500	36	178	27	241	1497
MA 00:80	41	188	53	1_	283	44	310	48	1	403	41	285	94	420	47	155	29	231	1337
Total Volume	162	865	248	14	1289	217	1124	209	3	1553	166	1262	422	1850	159	606	109	874	5566
% App. Total	12.6	67.1	19.2	1.1		14	72.4	13.5	0.2		9	68.2	22.8		18.2	69.3	12.5		
PHF	.686	.909	.827	.583	.900	.875	.906	.933	.375	.909	.922	.904	.879	.923	.846	.851	.940	.907	.930
5		- ^	4 00 DI		45 514	Б.													
Peak Hour An	-						1 01 1												
Peak Hour for				•														_	
05:00 PM	36	174	72	3	285	27	168	42	3	240	43	227	95	365	48	284	33	365	1255
05:15 PM	32	174	42	3	251	23	173	51	2	249	51	238	116	405	49	275	35	359	1264
05:30 PM	16	221	63	3	303	29	176	59	1	265	53	245	93	391	47	276	38	361	1320
05:45 PM	33	178	50	1	262	23	192	54	1	270	39	257	107	403	51	277	30	358	1293
Total Volume	117	747	227	10	1101	102	709	206	7	1024	186	967	411	1564	195	1112	136	1443	5132
% App. Total	10.6	67.8	20.6	0.9		10	69.2	20.1	0.7		11.9	61.8	26.3		13.5	77.1	9.4		
PHF	.813	.845	.788	.833	.908	.879	.923	.873	.583	.948	.877	.941	.886	.965	.956	.979	.895	.988	.972

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Croune	Printed-	TMC
Groups	r rimteu-	INIC

	N	ORMAN	DIE A	VE.		IMPERI		VY		ORMAN	NDIE A'	VE.		IMPER	IAL HV	VY	
		South	ound			Westb	ound			Northl	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	18	69	38	125	27	178	19	224	14	68	17	99	4	102	9	115	563
07:15 AM	20	111	35	166	41	292	36	369	16	87	25	128	9	121	17	147	810
07:30 AM	28	119	40	187	56	362	35	453	15	106	43	164	8	162	22	192	996
07:45 AM	40	166	41	247	44	415	20	479	16	179	39	234	10	199	33	242	1202
Total	106	465	154	725	168	1247	110	1525	61	440	124	625	31	584	81	696	3571
08:00 AM	28	113	49	190	39	402	27	468	19	116	37	172	12	175	32	219	1049
08:15 AM	20	76	33	129	31	297	24	352	10	110	22	142	9	156	17	182	805
08:30 AM	25	58	27	110	26	266	19	311	12	76	22	110	7	111	14	132	663
08:45 AM	26	57	21	104	35	304	28	367	10	58	20	88	10	104	22	136	695
Total	99	304	130	533	131	1269	98	1498	51	360	101	512	38	546	85	669	3212
*** BREAK ***	•																
																1	
04:00 PM	21	73	37	131	42	143	25	210	11	86	23	120	19	280	37	336	797
04:15 PM	25	78	46	149	56	162	19	237	14	76	21	111	15	267	24	306	803
04:30 PM	24	109	46	179	40	184	29	253	12	105	20	137	12	295	39	346	915
04:45 PM	23	92	35	150	54	204	16	274	12	115	16	143	15	295	34	344	911
Total	93	352	164	609	192	693	89	974	49	382	80	511	61	1137	134	1332	3426
05:00 PM	25	92	56	173	51	206	15	272	10	81	18	109	15	322	26	363	917
05:15 PM	16	85	35	136	44	178	20	242	13	106	22	141	17	342	25	384	903
05:30 PM	26	103	45	174	39	181	42	262	15	91	16	122	14	324	28	366	924
05:45 PM	32	98	43	173	50	196	18	264	19	87	26	132	20	348	33	401	970
Total	99	378	179	656	184	761	95	1040	57	365	82	504	66	1336	112	1514	3714
					1 .											1	
Grand Total	397	1499	627	2523	675	3970	392	5037	218	1547	387	2152	196	3603	412	4211	13923
Apprch %	15.7	59.4	24.9		13.4	78.8	7.8		10.1	71.9	18		4.7	85.6	9.8		
Total %	2.9	10.8	4.5	18.1	4.8	28.5	2.8	36.2	1.6	11.1	2.8	15.5	1.4	25.9	3	30.2	

	N	ORMA	NDIE A	VE.]	IMPER	IAL HV	VY	N	ORMA	NDIE A	VE.		IMPER	IAL HV	VY	
		South	bound			Westl	ound			North	bound			Eastb	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	ysis Fron	n 07:00 A	AM to 08	8:45 AM -	Peak 1 o	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 07:15 A	M												
07:15 AM	20	111	35	166	41	292	36	369	16	87	25	128	9	121	17	147	810
07:30 AM	28	119	40	187	56	362	35	453	15	106	43	164	8	162	22	192	996
07:45 AM	40	166	41	247	44	415	20	479	16	179	39	234	10	199	33	242	1202
08:00 AM	28	113	49	190	39	402	27	468	19	116	37	172	12	175	32	219	1049
Total Volume	116	509	165	790	180	1471	118	1769	66	488	144	698	39	657	104	800	4057
% App. Total	14.7	64.4	20.9		10.2	83.2	6.7		9.5	69.9	20.6		4.9	82.1	13		
PHF	.725	.767	.842	.800	.804	.886	.819	.923	.868	.682	.837	.746	.813	.825	.788	.826	.844
Peak Hour Analy						1											
Peak Hour for E	ntire Inte	rsection	Begins a		l .												ı
05:00 PM	25	92	56	173	51	206	15	272	10	81	18	109	15	322	26	363	917
05:15 PM	16	85	35	136	44	178	20	242	13	106	22	141	17	342	25	384	903
05:30 PM	26	103	45	174	39	181	42	262	15	91	16	122	14	324	28	366	924
05:45 PM	32	98	43	173	50	196	18	264	19	87	26	132	20	348	33	401	970
Total Volume	99	378	179	656	184	761	95	1040	57	365	82	504	66	1336	112	1514	3714
% App. Total	15.1	57.6	27.3		17.7	73.2	9.1		11.3	72.4	16.3		4.4	88.2	7.4		
PHF	.773	.917	.799	.943	.902	.924	.565	.956	.750	.861	.788	.894	.825	.960	.848	.944	.957

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	N14	ORMAN	DIE A	/E	_	ENTUR		nps Fillio		ORMAN	IDIE AV	/E		ENTUR	V DI V	D	
	N.			/E.	٠	_		υ.	N	_		/ ⊑.	·	_		υ.	
01 1 7	D: 1.1	South			District	Westl			District	North			District		ound		= 1
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	16	65	13	94	17	183	18	218	17	97	24	138	6	111	22	139	589
07:15 AM	20	108	29	157	19	190	30	239	15	113	36	164	8	138	23	169	729
07:30 AM	16	141	29	186	20	193	54	267	18	121	39	178	14	155	34	203	834
07:45 AM	12	168	19	199	21	219	51	291	18	165	40	223	11	153	35	199	912
Total	64	482	90	636	77	785	153	1015	68	496	139	703	39	557	114	710	3064
08:00 AM	18	127	24	169	20	185	34	239	17	169	33	219	21	170	29	220	847
08:15 AM	16	100	26	142	25	158	16	199	15	155	35	205	17	141	29	187	733
08:30 AM	20	78	13	111	16	169	17	202	16	123	35	174	13	103	16	132	619
08:45 AM	12	60	14	86	15	210	23	248	12	101	25	138	10	122	26	158	630
Total	66	365	77	508	76	722	90	888	60	548	128	736	61	536	100	697	2829
*** BREAK ***																	
04:00 PM	17	135	26	178	14	207	19	240	17	116	27	160	32	215	30	277	855
04:15 PM	20	122	30	172	21	218	27	266	14	108	31	153	21	225	25	271	862
04:30 PM	15	113	22	150	26	178	30	234	23	121	34	178	26	236	39	301	863
04:45 PM	18	115	25	158	19	189	19	227	14	113	22	149	27	252	35	314	848
Total	70	485	103	658	80	792	95	967	68	458	114	640	106	928	129	1163	3428
				,													
05:00 PM	20	115	22	157	16	192	32	240	22	128	30	180	27	242	32	301	878
05:15 PM	16	142	27	185	17	222	22	261	18	137	34	189	18	288	37	343	978
05:30 PM	17	133	40	190	19	204	38	261	22	135	24	181	21	244	36	301	933
05:45 PM	22	128	27	177	20	207	30	257	20	110	31	161	29	230	33	292	887
Total	75	518	116	709	72	825	122	1019	82	510	119	711	95	1004	138	1237	3676
					–												
Grand Total	275	1850	386	2511	305	3124	460	3889	278	2012	500	2790	301	3025	481	3807	12997
Apprch %	11	73.7	15.4		7.8	80.3	11.8	5550	10	72.1	17.9		7.9	79.5	12.6		
Total %	2.1	14.2	3	19.3	2.3	24	3.5	29.9	2.1	15.5	3.8	21.5	2.3	23.3	3.7	29.3	
TOTAL 70	'	17.2	0	10.0	2.0	27	0.0	20.0	٠.١	10.0	0.0	21.0	2.0	20.0	5.7	20.0	

	NO	ORMAN	IDIE A	VE.	С	ENTUF	RY BLV	D.	NO	ORMAN	NDIE A	VE.	С	ENTUR	RY BLV	D.	
			bound		_	_	bound			North	bound			_	bound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana	lysis Fro	m 07:00	O AM to	08:45 Al	И - Peak	1 of 1											
Peak Hour for E	Entire Inf	tersection	n Begi	ns at 07:3	80 AM												
07:30 AM	16	141	29	186	20	193	54	267	18	121	39	178	14	155	34	203	834
07:45 AM	12	168	19	199	21	219	51	291	18	165	40	223	11	153	35	199	912
08:00 AM	18	127	24	169	20	185	34	239	17	169	33	219	21	170	29	220	847
08:15 AM	16	100	26	142	25	158	16	199	15	155	35	205	17	141	29	187	733
Total Volume	62	536	98	696	86	755	155	996	68	610	147	825	63	619	127	809	3326
% App. Total	8.9	77	14.1		8.6	75.8	15.6		8.2	73.9	17.8		7.8	76.5	15.7		
PHF	.861	.798	.845	.874	.860	.862	.718	.856	.944	.902	.919	.925	.750	.910	.907	.919	.912
Peak Hour Ana						1 of 1											
Peak Hour for E	Entire Inf	tersection	on Begi	ns at 05:0	00 PM												
05:00 PM	20	115	22	157	16	192	32	240	22	128	30	180	27	242	32	301	878
05:15 PM	16	142	27	185	17	222	22	261	18	137	34	189	18	288	37	343	978
05:30 PM	17	133	40	190	19	204	38	261	22	135	24	181	21	244	36	301	933
05:45 PM	22	128	27	177	20	207	30	257	20	110	31	161	29	230	33	292	887
Total Volume	75	518	116	709	72	825	122	1019	82	510	119	711	95	1004	138	1237	3676
% App. Total	10.6	73.1	16.4		7.1	81	12		11.5	71.7	16.7		7.7	81.2	11.2		
PHF	.852	.912	.725	.933	.900	.929	.803	.976	.932	.931	.875	.940	.819	.872	.932	.902	.940

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	١	NESTER	RN AV	E.	С	ENTUR		D.			RN AVE	Ξ.	С	ENTUR	Y BLV	D.	
		South	bound			Westl	oound				bound			Easth	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	17	184	16	217	22	193	30	245	23	200	22	245	16	118	24	158	865
07:15 AM	18	201	18	237	28	208	32	268	27	220	25	272	18	126	31	175	952
07:30 AM	28	256	18	302	33	215	32	280	26	211	36	273	23	133	42	198	1053
07:45 AM	19	260	20	299	33	230	38	301	25	226	29	280	35	130	30	195	1075
Total	82	901	72	1055	116	846	132	1094	101	857	112	1070	92	507	127	726	3945
08:00 AM	18	191	22	231	43	188	34	265	24	201	36	261	29	130	38	197	954
08:15 AM	17	144	18	179	17	198	26	241	23	177	24	224	26	133	35	194	838
08:30 AM	23	122	17	162	17	191	24	232	18	168	31	217	17	111	25	153	764
08:45 AM	16	132	16	164	38	199	20	257	19	157	31	207	17	134	22	173	801
Total	74	589	73	736	115	776	104	995	84	703	122	909	89	508	120	717	3357
*** BREAK ***																	
04:00 PM	45	179	35	259	23	192	34	249	27	178	22	227	41	233	36	310	1045
04:15 PM	25	174	37	236	35	221	35	291	35	180	28	243	28	211	37	276	1046
04:30 PM	21	180	25	226	30	172	26	228	36	166	30	232	31	264	31	326	1012
04:45 PM	32	185	31	248	31	176	26	233	31	188	27	246	34	276	26	336	1063
Total	123	718	128	969	119	761	121	1001	129	712	107	948	134	984	130	1248	4166
05:00 PM	39	161	33	233	37	175	39	251	36	231	30	297	35	248	34	317	1098
05:15 PM	34	182	29	245	36	208	32	276	40	201	29	270	32	292	41	365	1156
05:30 PM	29	183	37	249	26	214	27	267	37	223	30	290	29	257	28	314	1120
05:45 PM	29	206	32	267	34	195	24	253	30	195	36	261	29	230	48	305	1086
Total	131	732	131	994	133	792	122	1047	143	850	125	1118	123	1027	151	1301	4460
Total	131	132	131	994	133	192	122	1047	143	000	123	1110	123	1027	131	1301	4400
Grand Total	410	2940	404	3754	483	3175	479	4137	457	3122	466	4045	438	3026	528	3992	15928
Apprch %	10.9	78.3	10.8	3704	11.7	76.7	11.6	.107	11.3	77.2	11.5	1540	11	75.8	13.2	3002	.0020
Total %	2.6	18.5	2.5	23.6	3	19.9	3	26	2.9	19.6	2.9	25.4	2.7	19	3.3	25.1	
. 5 (21 70				_0.0	,		•	_0							0.0		

	V	VESTE	RN AV	E.	С	ENTUF	RY BLV	D.	V	VESTE	RN AV	E.	C	ENTUF	RY BLV		
		South	bound			West	bound			North	bound			Eastl	oound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana						1 of 1											
Peak Hour for E	Entire Inf	tersection	on Begi	ns at 07:1	5 AM												
07:15 AM	18	201	18	237	28	208	32	268	27	220	25	272	18	126	31	175	952
07:30 AM	28	256	18	302	33	215	32	280	26	211	36	273	23	133	42	198	1053
07:45 AM	19	260	20	299	33	230	38	301	25	226	29	280	35	130	30	195	1075
08:00 AM	18	191	22	231	43	188	34	265	24	201	36	261	29	130	38	197	954
Total Volume	83	908	78	1069	137	841	136	1114	102	858	126	1086	105	519	141	765	4034
% App. Total	7.8	84.9	7.3		12.3	75.5	12.2		9.4	79	11.6		13.7	67.8	18.4		
PHF	.741	.873	.886	.885	.797	.914	.895	.925	.944	.949	.875	.970	.750	.976	.839	.966	.938
Peak Hour Ana	ılysis Fro	om 04:0	0 PM to	05:45 PI	M - Peak	(1 of 1											
Peak Hour for E	Entire Inf	tersection	on Begi		00 PM												
05:00 PM	39	161	33	233	37	175	39	251	36	231	30	297	35	248	34	317	1098
05:15 PM	34	182	29	245	36	208	32	276	40	201	29	270	32	292	41	365	1156
05:30 PM	29	183	37	249	26	214	27	267	37	223	30	290	29	257	28	314	1120
05:45 PM	29	206	32	267	34	195	24	253	30	195	36	261	27	230	48	305	1086
Total Volume	131	732	131	994	133	792	122	1047	143	850	125	1118	123	1027	151	1301	4460
% App. Total	13.2	73.6	13.2		12.7	75.6	11.7		12.8	76	11.2		9.5	78.9	11.6		
PHF	.840	.888	.885	.931	.899	.925	.782	.948	.894	.920	.868	.941	.879	.879	.786	.891	.965

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	١	AN NE	SS AV	E.	ı	MPERI		Y		AN NE	SS AVI	Ε.		IMPERI	AL HW	Υ	
		South	bound			Westk	ound			North	bound			Eastl	oound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	16	97	14	127	15	189	17	221	16	78	13	107	11	62	8	81	536
07:15 AM	22	123	16	161	19	303	30	352	20	85	21	126	13	92	6	111	750
07:30 AM	29	173	25	227	22	318	33	373	36	150	30	216	24	114	10	148	964
07:45 AM	24	144	32	200	28	365	36	429	29	122	38	189	22	145	13	180	998
Total	91	537	87	715	84	1175	116	1375	101	435	102	638	70	413	37	520	3248
08:00 AM	30	157	42	229	22	337	38	397	32	157	35	224	16	133	16	165	1015
08:15 AM	18	101	24	143	16	287	25	328	28	119	28	175	12	154	10	176	822
08:30 AM	13	83	12	108	12	254	24	290	16	96	18	130	10	116	12	138	666
08:45 AM	10	95	23	128	13	223	28	264	18	80	17	115	10	94	8	112	619
Total	71	436	101	608	63	1101	115	1279	94	452	98	644	48	497	46	591	3122
*** DDE 417 ***																	
*** BREAK ***																	
04:00 PM	14	102	12	128	15	180	18	213	24	105	21	150	16	295	15	326	817
04:15 PM	16	103	13	132	15	182	21	218	32	110	22	164	25	294	17	336	850
04:30 PM	32	116	13	161	18	199	25	242	28	151	20	199	21	295	27	343	945
04:45 PM	19	95	11	125	15	192	22	229	40	129	18	187	16	331	19	366	907
Total	81	416	49	546	63	753	86	902	124	495	81	700	78	1215	78	1371	3519
05:00 PM	19	129	16	164	12	183	36	231	26	157	30	213	27	333	35	395	1003
05:15 PM	19	125	12	156	13	187	29	229	33	153	27	213	21	373	23	417	1015
05:30 PM	19	143	25	187	16	197	30	243	28	127	22	177	27	391	30	448	1055
05:45 PM	10	127	14	151	13	173	38	224	44	139	34	217	16	351	25	392	984
Total	67	524	67	658	54	740	133	927	131	576	113	820	91	1448	113	1652	4057
Grand Total	310	1913	304	2527	264	3769	450	4483	450	1958	394	2802	287	3573	274	4134	13946
Apprch %	12.3	75.7	12		5.9	84.1	10		16.1	69.9	14.1		6.9	86.4	6.6		
Total %	2.2	13.7	2.2	18.1	1.9	27	3.2	32.1	3.2	14	2.8	20.1	2.1	25.6	2	29.6	

	V	AN NE	SS AV	E.	I	MPERI	AL HW	Υ	V	AN NE	SS AV	E.		IMPERI	AL HW	ΙΥ	
		South	bound			West	bound			North	bound			Eastl	bound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 07:0	O AM to	08:45 AI	M - Peak	(1 of 1											
Peak Hour for E	Entire In	tersection	n Begi	ns at 07:3	30 AM												
07:30 AM	29	173	25	227	22	318	33	373	36	150	30	216	24	114	10	148	964
07:45 AM	24	144	32	200	28	365	36	429	29	122	38	189	22	145	13	180	998
08:00 AM	30	157	42	229	22	337	38	397	32	157	35	224	16	133	16	165	1015
08:15 AM	18	101	24	143	16	287	25	328	28	119	28	175	12	154	10	176	822
Total Volume	101	575	123	799	88	1307	132	1527	125	548	131	804	74	546	49	669	3799
% App. Total	12.6	72	15.4		5.8	85.6	8.6		15.5	68.2	16.3		11.1	81.6	7.3		
PHF	.842	.831	.732	.872	.786	.895	.868	.890	.868	.873	.862	.897	.771	.886	.766	.929	.936
Peak Hour Ana						(1 of 1											
Peak Hour for E			U		l .				1								
05:00 PM	19	129	16	164	12	183	36	231	26	157	30	213	27	333	35	395	1003
05:15 PM	19	125	12	156	13	187	29	229	33	153	27	213	21	373	23	417	1015
05:30 PM	19	143	25	187	16	197	30	243	28	127	22	177	27	391	30	448	1055
05:45 PM	10	127	14	151	13	173	38	224	44	139	34	217	16	351	25	392	984
Total Volume	67	524	67	658	54	740	133	927	131	576	113	820	91	1448	113	1652	4057
% App. Total	10.2	79.6	10.2		5.8	79.8	14.3		16	70.2	13.8		5.5	87.7	6.8		
PHF	.882	.916	.670	.880	.844	.939	.875	.954	.744	.917	.831	.945	.843	.926	.807	.922	.961

File Name: 373102 Site Code: 00373102 Start Date: 10/27/2009 Page No: 1

								aps Fillio									ı
	CF	RENSHA		VD.		MPERI		Υ	CF	RENSHA		VD.		IMPERI		Υ	
		South					ound			North					ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	14	167	22	203	26	158	33	217	16	172	29	217	18	53	12	83	720
07:15 AM	24	246	27	297	36	202	32	270	17	183	37	237	19	74	29	122	926
07:30 AM	27	278	17	322	35	238	42	315	18	206	40	264	26	95	25	146	1047
07:45 AM	52	279	49	380	53	313	43	409	20	187	43	250	33	139	33	205	1244
Total	117	970	115	1202	150	911	150	1211	71	748	149	968	96	361	99	556	3937
08:00 AM	46	239	47	332	50	283	47	380	9	168	31	208	23	118	47	188	1108
08:15 AM	36	228	38	302	34	243	35	312	20	208	25	253	26	110	39	175	1042
08:30 AM	16	215	27	258	24	178	30	232	11	198	25	234	15	102	30	147	871
08:45 AM	18	204	18	240	22	164	36	222	22	206	24	252	13	92	26	131	845
Total	116	886	130	1132	130	868	148	1146	62	780	105	947	77	422	142	641	3866
*** BREAK ***																	
					ı												
04:00 PM	25	231	45	301	32	135	40	207	21	268	24	313	34	204	37	275	1096
04:15 PM	21	252	49	322	43	118	44	205	25	267	30	322	33	202	34	269	1118
04:30 PM	24	229	41	294	48	147	41	236	26	250	36	312	25	215	34	274	1116
04:45 PM	25	252	46	323	32	128	50	210	20	247	39	306	33	258	42	333	1172
Total	95	964	181	1240	155	528	175	858	92	1032	129	1253	125	879	147	1151	4502
					1 .			. 1					1				
05:00 PM	28	247	46	321	50	154	40	244	27	282	36	345	31	272	39	342	1252
05:15 PM	27	250	49	326	28	128	40	196	25	253	41	319	37	288	40	365	1206
05:30 PM	30	258	39	327	33	158	47	238	24	235	45	304	29	290	36	355	1224
05:45 PM	17	248	44	309	46	145	40	231	28_	264	35	327	29	262	42	333	1200
Total	102	1003	178	1283	157	585	167	909	104	1034	157	1295	126	1112	157	1395	4882
					ı												
Grand Total	430	3823	604	4857	592	2892	640	4124	329	3594	540	4463	424	2774	545	3743	17187
Apprch %	8.9	78.7	12.4		14.4	70.1	15.5		7.4	80.5	12.1		11.3	74.1	14.6		
Total %	2.5	22.2	3.5	28.3	3.4	16.8	3.7	24	1.9	20.9	3.1	26	2.5	16.1	3.2	21.8	

	CF	RENSHA	AW BL	VD.	I	MPERI	AL HW	ΙΥ	CF	RENSH	AW BL	VD.		IMPERI	AL HW	Υ	
			bound		_		bound	-	-	-	bound				oound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Ana	lysis Fro	om 07:00	O AM to	08:45 Al	M - Peak	(1 of 1											
Peak Hour for E	intire In	tersection	n Begi	ns at 07:3	30 AM												
07:30 AM	27	278	17	322	35	238	42	315	18	206	40	264	26	95	25	146	1047
07:45 AM	52	279	49	380	53	313	43	409	20	187	43	250	33	139	33	205	1244
08:00 AM	46	239	47	332	50	283	47	380	9	168	31	208	23	118	47	188	1108
08:15 AM	36	228	38	302	34	243	35	312	20	208	25	253	26	110	39	175	1042
Total Volume	161	1024	151	1336	172	1077	167	1416	67	769	139	975	108	462	144	714	4441
% App. Total	12.1	76.6	11.3		12.1	76.1	11.8		6.9	78.9	14.3		15.1	64.7	20.2		
PHF	.774	.918	.770	.879	.811	.860	.888	.866	.838	.924	.808	.923	.818	.831	.766	.871	.892
Peak Hour Ana						(1 of 1											
Peak Hour for E	Entire In	tersection	on Begi	ns at 05:0	00 PM												
05:00 PM	28	247	46	321	50	154	40	244	27	282	36	345	31	272	39	342	1252
05:15 PM	27	250	49	326	28	128	40	196	25	253	41	319	37	288	40	365	1206
05:30 PM	30	258	39	327	33	158	47	238	24	235	45	304	29	290	36	355	1224
05:45 PM	17	248	44	309	46	145	40	231	28	264	35	327	29	262	42	333	1200
Total Volume	102	1003	178	1283	157	585	167	909	104	1034	157	1295	126	1112	157	1395	4882
% App. Total	8	78.2	13.9		17.3	64.4	18.4		8	79.8	12.1		9	79.7	11.3		
PHF	.850	.972	.908	.981	.785	.926	.888	.931	.929	.917	.872	.938	.851	.959	.935	.955	.975

File Name: 373101 Site Code: 00373101 Start Date: 10/28/2009

Page No : 1

Croune	Printed-	TMC
troups	Printea-	IMC

	I-1	05 EB (OFF RA	MP		120TI		.р. т т т т					I-1	05 EB (OFF RA	MP	
		South	bound			Westb	ound			North	bound			Easth	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	1	0	135	136	145	96	0	241	0	0	0	0	0	62	108	170	547
07:15 AM	2	0	142	144	129	105	0	234	0	0	0	0	0	76	111	187	565
07:30 AM	2	0	151	153	136	134	0	270	0	0	0	0	0	78	92	170	593
07:45 AM	2	0	212	214	145	120	0	265	0	0	0	0	0	87	118	205	684
Total	7	0	640	647	555	455	0	1010	0	0	0	0	0	303	429	732	2389
08:00 AM	3	0	181	184	119	123	0	242	0	0	0	0	0	78	83	161	587
08:15 AM	5	0	172	177	113	123	0	236	0	0	0	0	0	69	78	147	560
08:30 AM	1	0	172	173	83	107	0	190	0	0	0	0	0	72	73	145	508
08:45 AM	4	0	152	156	78	89	0	167	0	0	0	0	0	63	89	152	475
Total	13	0	677	690	393	442	0	835	0	0	0	0	0	282	323	605	2130
*** BREAK ***	k																
04:00 PM	5	0	126	131	89	91	0	180	0	0	0	0	0	148	92	240	551
04:15 PM	2	0	114	116	96	103	0	199	0	0	0	0	0	139	88	227	542
04:30 PM	1	0	109	110	110	100	0	210	0	0	0	0	0	192	92	284	604
04:45 PM	2	0	98	100	103	130	0	233	0	0	0	0	0	174	82	256	589
Total	10	0	447	457	398	424	0	822	0	0	0	0	0	653	354	1007	2286
05:00 PM	5	0	116	121	100	110	0	210	0	0	0	0	0	174	94	268	599
05:15 PM	2	0	123	125	96	120	0	216	0	0	0	0	0	169	76	245	586
05:30 PM	1	0	106	107	100	119	0	219	0	0	0	0	0	189	106	295	621
05:45 PM	1	0	145	146	129	133	0	262	0	0	0	0	0	191	100	291	699
Total	9	0	490	499	425	482	0	907	0	0	0	0	0	723	376	1099	2505
Grand Total	39	0	2254	2293	1771	1803	0	3574	0	0	0	0	0	1961	1482	3443	9310
Apprch %	1.7	0	98.3		49.6	50.4	0	55.1	0	0	0	Ü	0	57	43	55	/5.5
Total %	0.4	0	24.2	24.6	19	19.4	0	38.4	0	0	0	0	0	21.1	15.9	37	

^{**}Note: The westbound 120th Street right lane west of the I-105 EB ramps was closed for road work in the PM peak period.

	I-1	05 EB C	FF RA	MP		120T	H ST.						I-1	05 EB (OFF RA	MP	
		South	bound			Westl	ound			North	bound			Easth	ound		
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analy	ysis From	n 07:00 A	AM to 08	3:45 AM -	Peak 1 o	f 1											
Peak Hour for E	ntire Inte	rsection	Begins a	at 07:15 A	M												
07:15 AM	2	0	142	144	129	105	0	234	0	0	0	0	0	76	111	187	565
07:30 AM	2	0	151	153	136	134	0	270	0	0	0	0	0	78	92	170	593
07:45 AM	2	0	212	214	145	120	0	265	0	0	0	0	0	87	118	205	684
08:00 AM	3	0	181	184	119	123	0	242	0	0	0	0	0	78	83	161	587
Total Volume	9	0	686	695	529	482	0	1011	0	0	0	0	0	319	404	723	2429
% App. Total	1.3	0	98.7		52.3	47.7	0		0	0	0		0	44.1	55.9		
PHF	.750	.000	.809	.812	.912	.899	.000	.936	.000	.000	.000	.000	.000	.917	.856	.882	.888
Peak Hour Analy						1											
Peak Hour for E	ntire Inte	rsection	_		1				ı				ı				i
05:00 PM	5	0	116	121	100	110	0	210	0	0	0	0	0	174	94	268	599
05:15 PM	2	0	123	125	96	120	0	216	0	0	0	0	0	169	76	245	586
05:30 PM	1	0	106	107	100	119	0	219	0	0	0	0	0	189	106	295	621
05:45 PM	1	0	145	146	129	133	0	262	0	0	0	0	0	191	100	291	699
Total Volume	9	0	490	499	425	482	0	907	0	0	0	0	0	723	376	1099	2505
% App. Total	1.8	0	98.2		46.9	53.1	0		0	0	0		0	65.8	34.2		
PHF	.450	.000	.845	.854	.824	.906	.000	.865	.000	.000	.000	.000	.000	.946	.887	.931	.896

Appendix B

Existing Condition Level of Service Analysis

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 71		Critical Average I Level Of	Delay (sec		:			0.678 21.6 B	
Approach:	No	rth Boun	d	So	uth Bound	i		Eas	t Bound		We	st Bound	
Movement:	L I	Т	R ∎∎	L	Т	R ∎∎	L	ı	Т	R ∎I	L	Т	R
Control:	P:	rotected	ı	P	rotected	1		Pro	otected		Pi	rotected	
Rights		Include			Include			Ιı	nclude		:	Include	
Min. Green:	0	0	0	0	0	0		0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1	0	2 0	0	0 0	1 1	1

			——II-			——II-			——II-			
Final Vol.:	0	0	0	686	0	9	404	319	0	0	482	529
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduced Vol:	0	0	0	686	0	9	404	319	0	0	482	529
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PHF Volume:	0	0	0	686	0	9	404	319	0	0	482	529
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	686	0	9	404	319	0	0	482	529
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Base Vol:	0	0	0	686	0	9	404	319	0	0	482	529

Saturation Flow Modu	le:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.43	1.57
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2288	2512

Capacity Analysis	Module:											
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.01	0.25	0.10	0.00	0.00	0.21	0.21
Crit Moves:				***			****				****	
Volume/Cap:	0.00	0.00	0.00	0.68	0.00	0.02	0.68	0.15	0.00	0.00	0.68	0.68
	_										1	
Level Of Service M	Iodule:											
Delaw/Weh:	0 0	0 0	0 0	24 2	0 0	18 1	22 4	4 3	0 0	0 0	25 0	24 8

Level Of Service Modu	ıle:											
Delay/Veh:	0.0	0.0	0.0	24.2	0.0	18.1	22.4	4.3	0.0	0.0	25.0	24.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.2	0.0	18.1	22.4	4.3	0.0	0.0	25.0	24.8
DesignQueue:	0.0	0.0	0.0	13.7	0.0	0.3	14.9	2.9	0.0	0.0	13.5	13.5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 72	A	ritical verage I evel Of	elay (sec/veh)	:			0.684 23.7 B	
Approach:	Nor	th Bound	L	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	T	R	L	T	R •
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	—
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
			<u>—</u> ІІ			 ⊪			<u></u> н			<u> </u>
Volume Module:												
Base Vol:	139	769	67	151	1024	161	144	462	108	167	1077	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	139	769	67	151	1024	161	144	462	108	167	1077	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	139	769	67	151	1024	161	144	462	108	167	1077	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	769	67	151	1024	161	144	462	108	167	1077	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	139	769	67	151	1024	161	144	462	108	167	1077	172 •
Saturation Flow Module	e:		——II									
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.76	0.24	1.00	2.59	0.41	1.00	2.43	0.57	1.00	2.59	0.41
Final Sat.:	1600	4415	385	1600	4148	652	1600	3891	909	1600	4139	661
		_				<u> </u>			<u>—</u> ІІ			<u>—</u> І
Capacity Analysis Mod												
Vol/Sat:	0.09	0.17	0.17	0.09	0.25	0.25	0.09	0.12	0.12	0.10	0.26	0.26
Crit Moves:	****				****		****				****	
Volume/Cap:	0.68 I	0.55	0.55	0.55	0.68	0.68	0.68	0.44	0.44	0.44	0.68	0.68
Level Of Service Modu	le:											

Note: Queue reported is the number of cars per lane.

38.3

1.00

38.3

6.9

22.1

1.00

22.1

11.0

25.7

1.00

25.7

11.0

31.0

1.00

31.0

7.1

21.8

1.00

21.8

14.8

26.3

1.00

26.3

14.8

37.9

1.00

37.9

7.1

23.3

1.00

23.3

7.9

23.9

1.00

23.9

7.9

25.4

1.00

25.4

7.2

20.9

1.00

20.9

15.2

25.1

1.00

25.1

15.2

Delay/Veh:

Delay Adj:

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 59	A	ritical verage I evel Of	Delay (sec/veh)	:			0.614 20.9 B	
Approach:	Nor	th Bound	i	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L	T	R	L	T	R
Control:	Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
77-3 W- 33			—			!			—			
Volume Module: Base Vol:	131	548	125	100	575	101	49	546	74	132	1207	88
Growth Adj:	1.00	1.00	1.00	123 1.00	575 1.00	1.00	1.00	1.00	1.00	1.00	1307	1.00
Initial Base:	131	548	125	123	575	1.00	49	546	74	132	1307	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	131	548	125	123	575	101	49	546	74	132	1307	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	131	548	125	123	575	101	49	546	74	132	1307	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	131	548	125	123	575	101	49	546	74	132	1307	88
	_		——			——			——П			
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Lanes:	1.00	1.63	0.37	1.00	1.70	0.30	1.00	2.64	0.36	1.00	2.81	0.19
Final Sat.:	1600	2606	594 ••	1600	2722	478	1600	4227	573	1600	4497	303
Capacity Analysis Mo	odule:		—									
Vol/Sat:	0.08	0.21	0.21	0.08	0.21	0.21	0.03	0.13	0.13	0.08	0.29	0.2
Crit Moves:	***				****		****				***	
Volume/Cap:	0.61	0.60	0.60	0.60	0.61	0.61	0.61	0.40	0.40	0.40	0.61	0.6
Level Of Service Moo	dule:		—									
Delay/Veh:	35.1	21.5	24.1	35.2	21.9	25.7	44.7	20.6	21.3	27.1	15.5	20.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
2020/ 110)	35.1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0

Note: Queue reported is the number of cars per lane.

6.4

12.8

12.8

6.1

12.9

12.9

DesignQueue:

2.6

8.0

8.0

5.9

14.6

14.6

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:	100 0 53				ritical verage I evel Of	elay (sec/veh)	:			0.573 19.7 A	
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	Т	R
Control:	-⊩ Pr	otected	 II	•	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	-											
Base Vol:	57	562	57	43	413	37	49	621	117	127	1026	5.5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	57	562	57	43	413	37	49	621	117	127	1026	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	57	562	57	43	413	37	49	621	117	127	1026	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	562	57	43	413	37	49	621	117	127	1026	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	57	562	57	43	413	37	49	621	117	127	1026	55
Saturation Flow Modu	- 								—			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.82	0.18	1.00	0.92	0.08	1.00	2.52	0.48	1.00	2.85	0.15
Final Sat.:	1600	2905	295	1600	1468	132	1600	4039	761	1600	4556	244
Capacity Analysis Mo	odule:		—									
Vol/Sat:	0.04	0.19	0.19	0.03	0.28	0.28	0.03	0.15	0.15	0.08	0.23	0.23

Level Of Service Mod	ule:											
Delay/Veh:	40.6	12.7	13.6	35.7	14.7	22.0	41.9	23.0	24.4	31.7	18.6	24.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	12.7	13.6	35.7	14.7	22.0	41.9	23.0	24.4	31.7	18.6	24.0
DesignQueue:	3.0	9.2	9.2	2.2	13.6	13.6	2.6	10.0	10.0	6.1	12.8	12.8

0.57

0.57

0.40 0.40

0.57

0.52

0.52

Note: Queue reported is the number of cars per lane.

0.57 0.40

Crit Moves:

Volume/Cap:

0.57

0.57

0.52

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec):			100	C	ritical	Vol /C	an (V):				0.680	
Loss Time (sec):			0				ap.(x). sec/veh)				22.1	
Optimal Cycle:			71		verage L evel Of	- '		•			22.1	
openmar cycle:			71	ш	evel OI	DET ATC	c •				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	− Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
						<u>—</u> ІІ			<u>—</u> ІІ			—
Volume Module:												
Base Vol:	126	858	102	78	908	83	141	519	105	136	841	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	126	858	102	78	908	83	141	519	105	136	841	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	126	858	102	78	908	83	141	519	105	136	841	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	858	102	78	908	83	141	519	105	136	841	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	126	858	102	78	908	83	141	519	105	136	841	137
Saturation Flow Mode	10.		—									
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.83	0.17	1.00	2.50	0.50	1.00	2.58	0.42
Final Sat.:	1600	3200	1600	1600	2932	268	1600	3992	808	1600	4128	672
Tillar bac.	_	3200	I	1000	2752	II	1000	3372	I	1000	1120	U / Z
Capacity Analysis M	odule:											
Vol/Sat:	0.08	0.27	0.06	0.05	0.31	0.31	0.09	0.13	0.13	0.09	0.20	0.20
Crit Moves:	****				****		****				****	
Volume/Cap:	0.68	0.55	0.13	0.55	0.68	0.68	0.68	0.50	0.50	0.50	0.68	0.68
			<u>—</u> II			II			——			
Level Of Service Mod												
Delay/Veh:	39.2	14.4	11.0	37.2	17.6	26.0	37.9	24.6	25.9	30.3	24.8	29.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	14.4	11.0	37.2	17.6	26.0	37.9	24.6	25.9	30.3	24.8	29.8
DesignQueue:	6.3	13.1	3.0	4.0	16.1	16.1	7.0	8.8	8.8	6.4	13.3	13.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 60	A:	ritical verage D evel Of	elay (sec/veh)	:			0.621 23.2 B	
Approach:		th Bound			th Bound			st Bound		Wes	st Bound	
Movement:	L ∎	Т	R	L	T	R ∎∎	L	Т	R	L	Т	R.
Control:	Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
			—			— ІІ			—			—
Volume Module:												
Base Vol:	147	610	68	98	536	62	127	619	63	155	755	86
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	147	610	68	98	536	62	127	619	63	155	755	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	610	68	98	536	62	127	619	63	155	755	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	610	68	98	536	62	127	619	63	155	755	86
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	147	610	68 ••	98	536	62 ••	127	619	63 ••	155	755	86
Saturation Flow Mod	11] 6.											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	1.79	0.21	1.00	1.82	0.18	1.00	1.80	0.20
Final Sat.:	1600	2879	321	1600	2868	332	1600	2904	296	1600	2873	327
	_	20.7	I	1000		ĪI	1000		 		2075	
Capacity Analysis M	odule:											
Vol/Sat:	0.09	0.21	0.21	0.06	0.19	0.19	0.08	0.21	0.21	0.10	0.26	0.26
Crit Moves:	****				***		* * * *				***	
Volume/Cap:	0.62	0.61	0.61	0.61	0.62	0.62	0.62	0.56	0.56	0.56	0.62	0.62
	-1		<u> </u>			—Н			<u>—</u> ІІ			-
Level Of Service Mo												
Delay/Veh:	34.2	21.5	27.1	37.7	24.1	30.8	35.8	19.4	23.5	31.2	18.1	23.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.2	21.5	27.1	37.7	24.1	30.8	35.8	19.4	23.5	31.2	18.1	23.1
DesignQueue:	7.1	12.9	12.9	5.0	12.1	12.1	6.3	12.4	12.4	7.3	14.3	14.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 75	A	ritical verage l evel Of	Delay (sec/veh)	:			0.694 22.3 B	
Approach:	Nor	th Bound	l	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R ∎∎	L	Т	R	L	T	R ∎I	L	T	R ∎
Control:	Pr	otected			otected	 1	Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:			—"			!			_			_
Base Vol:	144	488	66	165	509	116	104	657	39	118	1471	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	144	488	66	165	509	116	104	657	39	118	1471	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	144	488	66	165	509	116	104	657	39	118	1471	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	488	66	165	509	116	104	657	39	118	1471	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	144	488	66	165	509	116	104	657	39	118	1471	180
			——									
Saturation Flow Mode	ule:								•	•		•
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	1.63	0.37	1.00	2.83	0.17	1.00	2.67	0.33
Final Sat.:	1600	2819	381	1600	2606	594	1600	4531	269	1600	4277	523
Capacity Analysis Mo	odule:											
Vol/Sat:	0.09	0.17	0.17	0.10	0.20	0.20	0.07	0.14	0.14	0.07	0.34	0.34
Crit Moves:	****				****		****				***	
Volume/Cap:	0.69	0.67	0.67	0.67	0.69	0.69	0.69	0.37	0.37	0.37	0.69	0.69
I areal Of Committee W	-											
Level Of Service Mod		27.4	26 5	25.6	26.7	20.6	40 5	16.0	10.0	27.0	15.6	20.0
Delay/Veh:	38.5	27.4	36.5	35.6	26.7	32.6	42.5	16.8	17.8	27.0	15.6	20.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Note: Queue reported is the number of cars per lane.

38.5

7.1

27.4

11.9

36.5

11.9

35.6

7.9

26.7

13.0

32.6

13.0

42.5

5.3

16.8

8.1

17.8

8.1

27.0

5.3

15.6

16.7

20.2

16.7

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

America alla t	Marrie David	Courth Dound Book Dound	Mask David
Optimal Cycle:	82	Level Of Service:	С
Loss Time (sec):	0	Average Delay (sec/veh):	24.7
Cycle (sec):	100	Critical Vol./Cap.(X):	0.723

Approach:	Nor	th Bound	ì	Sou	th Bound	l	Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R -	L	Т	R
Control:	Pr	otected	11		otected		Pr	otected		Pr	otected	
Rights	I	nclude			nclude			nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	422	1262	166	248	865	162	109	606	159	209	1124	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	422	1262	166	248	865	162	109	606	159	209	1124	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	422	1262	166	248	865	162	109	606	159	209	1124	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	422	1262	166	248	865	162	109	606	159	209	1124	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	422	1262	166	248	865	162	109	606	159	209	1124	21
Saturation Flow Mo	dule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.65	0.35	2.00	2.53	0.47	1.00	2.38	0.62	1.00	2.51	0.49
Final Sat.:	3200	4242	558	3200	4043	757	1600	3802	998	1600	4023	77
Capacity Analysis	Module:											
Vol/Sat:	0.13	0.30	0.30	0.08	0.21	0.21	0.07	0.16	0.16	0.13	0.28	0.28
Crit Moves:		****		****			****				****	
Volume/Cap:	0.67	0.72	0.72	0.72	0.67	0.67	0.72	0.60	0.60	0.60	0.72	0.72
Level Of Service M	odule:		——						<u></u> Н			
Delay/Veh:	30.4	20.0	26.1	38.3	23.5	27.2	44.2	25.5	27.5	29.3	21.3	25.
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdiDel/Veh:	30.4	20.0	26.1	38.3	23.5	27.2	44.2	25.5	27.5	29.3	21.3	25.
DesignQueue:	9.7	16.7	16.7	6.3	13.6	13.6	5.6	10.8	10.8	9.4	16.2	16.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

	venue ana .											
Cycle (sec):			100		ritical -		_				0.635	
Loss Time (sec):			0		verage I	_		•			15.6	
Optimal Cycle:			63	Ц	evel Of	Service	e:				В	
Approach:	Nor	th Bound	i	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L 	T	R	L	T	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected	11	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0	0 0	1! 0	1
	-		II						II			——
Volume Module:												
Base Vol:	248	1327	0	0	875	410	0	0	0	97	39	544
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	248	1327	0	0	875	410	0	0	0	97	39	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	248	1327	0	0	875	410	0	0	0	97	39	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	248	1327	0	0	875	410	0	0	0	97	39	544
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	248	1327	0	0	875	410	0	0	0	97	39	544
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.04	0.96	0.00	0.00	0.00	0.29	0.11	1.60
Final Sat.:	1600	4800	0	0	3268	1532	0	0	0	456	184	2560
	-					——			——II			—
Capacity Analysis M	odule:											
Vol/Sat:	0.16	0.28	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.21	0.21	0.21
Crit Moves:	***				***					***		
Volume/Cap:	0.64	0.42	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.64	0.64	0.64

┨┝

0.0

0.0

0.0

1.00

0.0

1.00

0.0

0.0

0.0

1.00

0.0

0.0

27.4

1.00

27.4

13.2

34.3

1.00

34.3

13.2

19.1

1.00

19.1

14.6

10.8 Note: Queue reported is the number of cars per lane.

28.4

1.00

28.4

6.0

6.0

8.8

1.00

0.0

0.0

0.0

1.00

0.0

1.00

0.0

0.0

18.3

1.00

18.3

14.6

Level Of Service Module:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

DesignQueue:

22.8

1.00

22.8

13.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:	100 0 59	A	ritical verage I evel Of	elay (sec/veh)	:			0.613 18.0 B			
Approach:	Nor	th Bound	i	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	Т	R	L	Т	R	L	T	R	L	T	R
Control:	− Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
	_					——			——			——
Volume Module:												
Base Vol:	0	977	42	295	680	0	583	108	150	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	977	42	295	680	0	583	108	150	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	977	42	295	680	0	583	108	150	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	977	42	295	680	0	583	108	150	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	977	42	295	680	0	583	108	150	0	0	0
			<u>—</u> п			<u>—</u> п			<u>—</u> п			—
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.88	0.12	1.00	3.00	0.00	1.69	0.31	1.00	0.00	0.00	0.00
Final Sat.:	0	4602	198	1600	4800	0	2700	500	1600	0	0	0
Capacity Analysis M	iodule:											
Vol/Sat:	0.00	0.21	0.21	0.18	0.14	0.00	0.22	0.22	0.09	0.00	0.00	0.00
Crit Moves:	0.00	****		****			****			2.00		00
Volume/Cap:	0.00	0.61	0.61	0.61	0.22	0.00	0.61	0.61	0.27	0.00	0.00	0.00
-			——II			——II			——II			
Level Of Service Mo	dule:											
Delay/Veh:	0.0	21.4	30.9	24.7	5.6	0.0	21.4	24.9	17.9	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.4	30.9	24.7	5.6	0.0	21.4	24.9	17.9	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

0.0

12.9

12.9

11.9

4.6

0.0

13.1

13.1

5.5

0.0

0.0

0.0

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

TOU I(hoss as Cycle hength %) Method (base

Cycle (sec): Loss Time (sec): Optimal Cycle:			A	ritical verage D evel Of	elay (sec/veh)	:			0.293 12.3 A		
Approach:	Nor	th Bound	l	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R ••	L	T	R	L	T	R
Control:	Pe	rmitted		Pe	rmitted	1	Pe	rmitted	1		rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
Volume Module:			——()									
Base Vol:	0	0	0	100	538	56	0	155	19	50	206	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	100	538	56	0	155	19	50	206	C
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	100	538	56	0	155	19	50	206	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	100	538	56	0	155	19	50	206	C
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	100	538	56	0	155	19	50	206	0
Cabonation Elem Made			—			—			—			
Saturation Flow Modu Sat/Lane:		1.000	1.600	1.600	1.000	1600	1600	1.000	1600	1600	1.000	1600
	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600	1.00	1600 1.00	1600	1600 1.00	1600 1.00	1.00
Adjustment: Lanes:	0.00	0.00	0.00	0.47	2.53	1.00	0.00	0.89	0.11	0.20	0.80	0.00
Final Sat.:	0.00	0.00	0.00	752	4048	1600	0.00	1425	175	313	1288	0.00
rinai sat	- 	0	ĭı	752	4046			1425		313	1200	
Capacity Analysis Mo	odule:					-			-			
Vol/Sat:	0.00	0.00	0.00	0.06	0.13	0.04	0.00	0.11	0.11	0.03	0.16	0.00
Crit Moves:					****		****				****	
Volume/Cap:	0.00	0.00	0.00	0.07	0.29	0.08	0.00	0.26	0.26	0.26	0.29	0.00
Level Of Service Mod	- 		()			(1			(1			
Delay/Veh:	0.0	0.0	0.0	0.4	13.3	11.9	0.0	14.4	14.7	31.4	9.5	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.4	13.3	11.9	0.0	14.4	14.7	31.4	9.5	0.0
DesignQueue:	0.0	0.0	0.0	1.1	6.7	1.7	0.0	5.7	5.7	12.9	6.7	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			A	ritical verage D evel Of	elay (0.594 12.7 A							
Approach:	Nor	th Bound	l	Sou	South Bound			st Bound		West Bound			
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R	
Control:	Pr		Protected			otected nclude	()	Protected Include					
Min. Green:	0	nclude 0	0	0	nclude 0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0	
Volume Module:	•		- ''			- "							
Base Vol:	0	0	0	123	359	252	0	623	439	291	1671	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	0	0	0	123	359	252	0	623	439	291	1671	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	0	0	123	359	252	0	623	439	291	1671	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	123	359	252	0	623	439	291	1671	0	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	0	0	0	123	359	252	0	623	439	291	1671	0	
	_												

a ': 2 1 1			- 11			- 11			- 11			
Final Sat.:	0	0	0	1600	2602	2198	0	3200	1600	1600	4800	0
Lanes:	0.00	0.00	0.00	1.00	1.63	1.37	0.00	2.00	1.00	1.00	3.00	0.00
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Saturation Flow Mod	dule:											

Capacity Analysis	Module:											
Vol/Sat:	0.00	0.00	0.00	0.08	0.14	0.11	0.00	0.19	0.27	0.18	0.35	0.00
Crit Moves:					***				****	****		
Volume/Cap:	0.00	0.00	0.00	0.33	0.59	0.49	0.00	0.42	0.59	0.59	0.45	0.00
	—⊢—		——II-			——II-			——II-			
Level Of Service I	Module:											
Delay/Veh:	0.0	0.0	0.0	24.8	27.5	26.3	0.0	14.0	16.3	24.1	3.2	0.0

Delay/Veh:	0.0	0.0	0.0	24.8	27.5	26.3	0.0	14.0	16.3	24.1	3.2	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.8	27.5	26.3	0.0	14.0	16.3	24.1	3.2	0.0
DesignQueue:	0.0	0.0	0.0	5.3	9.7	8.0	0.0	9.7	14.0	11.7	7.8	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

IIIdex #15: Imperiar	iiigiiway a	110 1 110	NOT CIT	Journa Ital	mpb								
Cycle (sec):			100	С	ritical	Vol./Ca	ap.(X):				0.766		
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			18.1		
Optimal Cycle:			97	L	evel Of	Service	e:				С		
Approach:	Nor	th Bound		Con	th Bound		Fac	st Bound		Woo	st Bound		
Movement:	L NOT	Т	R	L	т Т	R	L L	Т	R	wes L	Т	R	
Movement:	_[1		п	1	II-		1		п	1	Λ	
Control:	■ Pr	otected	•	Pr	otected	••		otected	••	Protected			
Rights	I	include		I	nclude		I	nclude		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0	
	_					<u></u> Н			——II				
Volume Module:													
Base Vol:	861	308	468	0	0	0	95	665	0	0	1133	69	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	861	308	468	0	0	0	95	665	0	0	1133	69	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	861	308	468	0	0	0	95	665	0	0	1133	69	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	861	308	468	0	0	0	95	665	0	0	1133	69	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	861	308	468	0	0	0	95	665	0	0	1133	69	
			——II			<u>—</u> Н			<u></u> II			<u>—</u>	
Saturation Flow Mod	ule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.58	0.42	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.83	0.17	
Final Sat.:	2525	675	1600	0	0	0	1600	4800	0	0	4524	276	
Capacity Analysis Me	odule:												
Vol/Sat:	0.34	0.46	0.29	0.00	0.00	0.00	0.06	0.14	0.00	0.00	0.25	0.25	
Crit Moves:		****					****				****		
Volume/Cap:	0.57	0.77	0.49	0.00	0.00	0.00	0.77	0.34	0.00	0.00	0.77	0.77	
	_												
Level Of Service Mod	dule:		- 11						- 4 -				
Delay/Veh:	10.0	17.5	9.2	0.0	0.0	0.0	50.9	15.9	0.0	0.0	25.0	43.9	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Note: Queue reported is the number of cars per lane.

10.0

13.3

17.5

18.2

9.2

11.2

0.0

0.0

0.0

0.0

0.0

0.0

50.9

4.9

15.9

7.6

0.0

0.0

0.0

0.0

25.0

15.9

43.9

15.9

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 71 Level Of Service:											
Approach:	Nor	th Bound		South Bound			Eas	st Bound		Wes	st Bound		
Movement:	L ∎	Т	R	L	T	R ∎∎	L	Т	R ∎∎	L	Т	R.	
Control:	Pr	otected		Pro	otected		Pr	otected		Protected			
Rights	I	Include			nclude		I	nclude		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1	
	-		—			— Н			—			-	
Volume Module:													
Base Vol:	243	775	174	181	745	155	136	605	249	191	1143	214	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	243	775	174	181	745	155	136	605	249	191	1143	214	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	243	775	174	181	745	155	136	605	249	191	1143	214	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	243	775	174	181	745	155	136	605	249	191	1143	214	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	243	775	174	181	745	155	136	605	249	191	1143	214	
	_											—	
Saturation Flow Mod													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00	1.00	2.48	0.52	1.00	2.13	0.87	1.00	3.00	1.00	
Final Sat.:	1600 •	3200	1600	1600	3973	827 •••	1600	3400	1400 •	1600 I	4800	1600	
Capacity Analysis M	odule:					11							
Vol/Sat:	0.15	0.24	0.11	0.11	0.19	0.19	0.09	0.18	0.18	0.12	0.24	0.13	
Crit Moves:		****	- · · -	****			****			- · · -	****		
Volume/Cap:	0.65	0.68	0.30	0.68	0.65	0.65	0.68	0.62	0.62	0.62	0.68	0.38	
	-		——II			——[]			——II			——	
Level Of Service Mo	dule:												
Delay/Veh:	29.3	22.2	18.0	34.8	24.8	28.1	38.2	24.8	26.1	31.4	22.1	18.9	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	29.3	22.2	18.0	34.8	24.8	28.1	38.2	24.8	26.1	31.4	22.1	18.9	
DesignQueue:	10.7	14.6	6.4	8.6	12.4	12.4	6.7	11.8	11.8	8.8	14.5	8.0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:	A ⁻	ritical verage D evel Of	0.465 5.2 A										
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		West Bound			
Movement:	L •	Т	R	L	Т	R ∎∎	L	Т	R	L	Т	R	
Control:	Pr	otected		Pr	otected		Pr	otected		Permitted			
Rights	I	nclude		I	nclude		I	nclude		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1	
			——										
Volume Module:	•												
Base Vol:	31	1151	110	127	1037	8	13	4	24	28	0	31	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	31	1151	110	127	1037	8	13	4	24	28	0	31	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	31	1151	110	127	1037	8	13	4	24	28	0	31	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	31	1151	110	127	1037	8	13	4	24	28	0	31	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	31	1151	110	127	1037	8	13	4	24	28	0	31	
a	<u> </u>		—										
Saturation Flow Modul		1.000	1.600	1600	1.000	1600	1.000	1.600	1.000	1600	1.000	1.600	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment: Lanes:	1.00	1.00	1.00	1.00	1.00 2.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Sat.:	1.00 1600	3200	1.00 1600	1.00	2.98 4763	0.02	1.00	0.14 229	0.86 1371	1.00 1600	0.00	1.00	
rinai bat	1000	3200	_ _ _ _ _ _ _ _ _	1000	4/03	3 / I L	1000	449		1000	U	1000	
Capacity Analysis Mod	lule:												
Vol/Sat:	0.02	0.36	0.07	0.08	0.22	0.22	0.01	0.02	0.02	0.02	0.00	0.02	
Crit Moves:		****		****			****			****			
Volume/Cap:	0.25	0.46	0.09	0.46	0.25	0.25	0.46	0.32	0.32	0.46	0.00	0.26	

Note: Queue reported is the number of cars per lane.

33.7

1.00

33.7

1.6

3.2

3.2

7.9

1.00

2.1

1.00

2.1

1.4

29.7

1.00

29.7

6.0

0.9

0.9

2.7

1.00

1.7

1.00

1.7

2.7

45.2

1.00

45.2

0.7

39.3

1.00

39.3

1.5

35.8

1.00

35.8

1.5

40.2

1.00

40.2

1.5

0.0

0.0

0.0

1.00

33.8

1.00

33.8

1.6

Level Of Service Module:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec): Loss Time (sec): Optimal Cycle:	ss Time (sec): timal Cycle:						ap.(X): sec/veh) e:	:			0.475 15.1 A	
Approach:	Nor	th Bound		Sou	th Bound	ļ	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pe	rmitted		Pe	rmitted		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:			—"			!!			_			
Base Vol:	64	15	104	63	37	69	52	745	137	222	1339	85
Growth Adi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	64	15	104	63	37	69	52	745	137	222	1339	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	64	15	104	63	37	69	52	745	137	222	1339	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	15	104	63	37	69	52	745	137	222	1339	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	64	15	104	63	37	69	52	745	137	222	1339	85
Saturation Flow Mod	- 					!			—			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.81	0.19	1.00	0.37	0.22	0.41	1.00	2.53	0.47	1.00	2.82	0.18
Final Sat.:	1296	304	1600	596	350	653	1600	4054	746	1600	4513	287
			انّــــــــــــــــــــــــــــــــــــ			الّــــــــــــــــــــــــــــــــــــ			الّــــــ			
Capacity Analysis Mo	odule:		- 1			- 1			-			
Vol/Sat:	0.04	0.05	0.07	0.04	0.11	0.11	0.03	0.18	0.18	0.14	0.30	0.30

Volume/Cap:	0.47	0.26	0.34	0.34	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
	-								——II-			
Level Of Service Mod	lule:											
Delay/Veh:	36.1	27.0	27.2	32.5	29.4	27.9	37.0	17.4	18.1	22.6	7.8	9.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.1	27.0	27.2	32.5	29.4	27.9	37.0	17.4	18.1	22.6	7.8	9.2
DesignQueue:	4.1	3.6	4.7	8.5	7.5	7.5	2.7	10.3	10.3	8.9	10.6	10.6

Note: Queue reported is the number of cars per lane.

Crit Moves:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Cycle (sec):			100		Critica	l Vol./	Cap.(X)	•			0.199	
Loss Time (sec):			0		Average	Delay	(sec/vel	n):			0.0	
Optimal Cycle:			28		Level C	f Servi			А			
Approach:	No	rth Bou	nd	Sc	outh Bou	nd	E	ast Bour	ıd	We	est Bour	nd
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R

Approach:	Nor	th Bound	l	Sou	th Bound	ļ	Eas	st Bound		Wes	st Bound	
Movement:	L _	Т	R [L	T	R	L	Т	R	L	Т	R
Control:	Pr	otected	11		otected	- 1 "	Pr	otected	1.0	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.
Lanes:	0 1	1 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:	-											
Base Vol:	0	636	0	0	582	0	0	0	0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Initial Base:	0	636	0	0	582	0	0	0	0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	0	636	0	0	582	0	0	0	0	0	0	(
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	636	0	0	582	0	0	0	0	0	0	(
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	636	0	0	582	0	0	0	0	0	0	(
Saturation Flow Modu	le:								!!			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	0	0	3200	0	1600	0	1600	0	0	(
Consolitor Prolitoria No	33								——II			
Capacity Analysis Mo Vol/Sat:	0.00	0.20	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	0.00	****	0.00	****	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.20	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Level Of Service Mod	ule:					!!						
Delay/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
DesignQueue:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 54	A	ritical verage I evel Of	Delay (sec/veh)	:			0.577 16.9 A	
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	t Bound		Wes	st Bound	
Movement:	L 	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected	11	Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
Volume Module:			!			!			!			_
Base Vol:	0	0	0	490	0	9	376	723	0	0	482	425
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	490	0	9	376	723	0	0	482	425
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	490	0	9	376	723	0	0	482	425
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	490	0	9	376	723	0	0	482	425
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	490	0	9	376	723	0	0	482	425
Saturation Flow Mode	-											
		1.000	1.600	1.600	1600	1.000	1.600	1.600	1.600	1600	1.600	1.600
Sat/Lane: Adjustment:	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1.00	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.00	1.41
Final Sat.:	0.00	0.00	0.00	3200	0.00	1600	1600	3200	0.00	0.00	2551	2249
rinai bac.•		0		3200			1000	3200			2J)1	4443
Capacity Analysis Mo	odule:											
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.01	0.24	0.23	0.00	0.00	0.19	0.19
Crit Moves:				****			****				****	

0.00 0.58 0.00 0.02 0.58 0.31 0.00 0.58 Volume/Cap: 0.00 0.00 0.00 0.58 -||-Level Of Service Module: Delay/Veh: 0.0 0.0 0.0 25.3 0.0 20.9 18.6 3.5 0.0 0.0 22.2 22.3 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 0.0 0.0 0.0 25.3 0.0 20.9 18.6 3.5 0.0 0.0 22.2 22.3 DesignQueue: 0.0 0.0 0.0 10.4 0.0 0.4 13.1 5.6 0.0 0.0 11.8 11.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 79		Average		Cap.(X): (sec/veł ce:				0.711 24.7 C	
Approach: Movement:	No L	rth Bou T	nd R	So	outh Bou T	ınd R	E:	ast Bour	nd R	We	est Bour	nd R

Approach:	Nor	th Bound	l	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L ∎	Т	R	L	Т	R	L	Т	R	L	Т	R ∎
Control:	Pr	otected			otected			otected			otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0 _
Volume Module:			—-						—-			
Base Vol:	157	1034	104	178	1003	102	157	1112	126	167	585	157
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	157	1034	104	178	1003	102	157	1112	126	167	585	157
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	157	1034	104	178	1003	102	157	1112	126	167	585	157
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	1034	104	178	1003	102	157	1112	126	167	585	157
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	157	1034	104	178	1003	102	157	1112	126	167	585	157
	_		——			——			——			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.73	0.27	1.00	2.72	0.28	1.00	2.69	0.31	1.00	2.37	0.63
Final Sat.:	1600	4361	439	1600	4357	443	1600	4311	489 ———	1600	3784	1016 •
Capacity Analysis M	odule:											
Vol/Sat:	0.10	0.24	0.24	0.11	0.23	0.23	0.10	0.26	0.26	0.10	0.15	0.15
Crit Moves:		****		****				****		****		
Volume/Cap:	0.67	0.71	0.71	0.71	0.67	0.67	0.50	0.71	0.71	0.71	0.50	0.50
Level Of Service Mo	dule:		—						—			
Delay/Veh:	36.0	23.6	32.2	36.9	22.4	28.8	28.5	22.1	29.4	37.8	21.8	22.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.0	23.6	32.2	36.9	22.4	28.8	28.5	22.1	29.4	37.8	21.8	22.6
DesignQueue:	7.6	14.8	14.8	8.6	14.2	14.2	7.2	15.5	15.5	8.1	9.8	9.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:	oss Time (sec): otimal Cycle:						ap.(X): sec/veh)	:			0.667 21.1 B	
Approach:					th Bound			st Bound			st Bound	
Movement:	L 	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected			otected			otected		•	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	-		——			<u>—</u> П						——
Volume Module:	•								_			_
Base Vol:	113	576	131	67	524	67	113	1448	91	133	740	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	113	576	131	67	524	67	113	1448	91	133	740	54
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	113	576	131	67	524	67	113	1448	91	133	740	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	576	131	67	524	67	113	1448	91	133	740	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	113	576	131	67	524	67	113	1448	91	133	740	54
	-		<u>—</u> н			<u></u> II						
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.77	0.23	1.00	2.82	0.18	1.00	2.80	0.20
Final Sat.:	1600	2607	593	1600	2837	363	1600	4516	284	1600	4474	326
						<u> —</u> ІІ						<u> </u>
Capacity Analysis Mo												
Vol/Sat:	0.07	0.22	0.22	0.04	0.18	0.18	0.07	0.32	0.32	0.08	0.17	0.17
Crit Moves:	0 6=	****	0.65	****	0.65	0.65	0 20	****	0 65	****	0.00	0 00
Volume/Cap:	0.65	0.67	0.67	0.67	0.65	0.65	0.39	0.67	0.67	0.67	0.39	0.39
Lorrol Of Committee Man	- 											
Level Of Service Mod		22 5	27.7	45.5	25.4	22.0	20.2	15.0	00 1	27 7	1 - 2	16.0
Delay/Veh:	38.4	23.5	27.7	45.5	25.4	32.9	28.2	15.8	23.1	37.7	15.3	16.2

Note: Queue reported is the number of cars per lane.

1.00

38.4

5.7

1.00

23.5

13.8

1.00

27.7

13.8

1.00

45.5

3.5

1.00

25.4

12.2

1.00

32.9

12.2

1.00

28.2

5.2

1.00

15.8

15.9

1.00

23.1

15.9

1.00

37.7

6.6

1.00

15.3

8.8

1.00

16.2

8.8

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 65	A	ritical verage D evel Of	elay (sec/veh)	:			0.648 20.1 B	
Approach:	Nor	th Bound	l	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	T	R	L	Т	R
Control:	-⊩ Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:						!			!			
Base Vol:	58	565	91	60	368	41	101	1239	117	118	901	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	58	565	91	60	368	41	101	1239	117	118	901	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	565	91	60	368	41	101	1239	117	118	901	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	58	565	91	60	368	41	101	1239	117	118	901	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	58	565	91	60	368	41	101	1239	117	118	901	44
			—			<u>—</u> П			<u>—</u> п			
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	0.90	0.10	1.00	2.74	0.26	1.00	2.86	0.14
Final Sat.:	1600	2756	444	1600	1440	160	1600	4386	414	1600	4577	223

**** Crit Moves: *** *** * * * * 0.65 Volume/Cap: 0.65 0.65 0.65 0.47 0.54 0.54 0.54 0.47 0.65 0.47 0.65 ┨┞ Level Of Service Module: Delay/Veh: 45.6 19.0 21.2 38.5 20.8 32.4 32.1 17.6 22.5 38.0 16.5 19.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

20.8

14.6

0.26

0.26

32.4

14.6

0.06

32.1

4.9

0.28

17.6

15.1

0.28

22.5

15.1

0.07

38.0

5.9

0.20

16.5

10.7

0.20

19.1

10.7

0.04

38.5

3.1

Note: Queue reported is the number of cars per lane.

45.6

3.1

0.04

0.21

19.0

11.8

0.21

21.2

11.8

Capacity Analysis Module:

Vol/Sat:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 68	A	ritical verage I evel Of	Delay (sec/veh)	:			0.664 23.0 B	
Approach:	Nor	th Bound	i	Sou	th Bound	ì	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	_					——II						
Volume Module:												
Base Vol:	125	850	143	131	732	131	151	1027	123	122	792	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Initial Base:	125	850	143	131	732	131	151	1027	123	122	792	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	125	850	143	131	732	131	151	1027	123	122	792	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	125	850	143	131	732	131	151	1027	123	122	792	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Final Vol.:	125	850	143	131	732	131	151	1027	123	122	792	13
	-		<u>—</u>			<u></u> II						
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	160
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Lanes:	1.00	2.00	1.00	1.00	1.70	0.30	1.00	2.68	0.32	1.00	2.57	0.4
Final Sat.:	1600 •	3200	1600	1600	2714	486 ••	1600	4287	513 •	1600	4110	69
Capacity Analysis M	odule:											
Vol/Sat:	0.08	0.27	0.09	0.08	0.27	0.27	0.09	0.24	0.24	0.08	0.19	0.1
Crit Moves:	****			- · · · -	****			****		****		
Volume/Cap:	0.66	0.66	0.22	0.66	0.66	0.66	0.60	0.66	0.66	0.66	0.60	0.6
1 15			——			——II						
Level Of Service Mo	dule:											

Note: Queue reported is the number of cars per lane.

38.3

1.00

38.3

6.2

19.8

1.00

19.8

15.0

15.2

1.00

15.2

4.9

37.7

1.00

37.7

6.5

19.6

1.00

19.6

15.1

24.1

1.00

24.1

15.1

33.1

1.00

33.1

7.2

21.4

1.00

21.4

14.4

26.5

1.00

26.5

14.4

38.5

1.00

38.5

6.1

22.7

1.00

22.7

12.2

25.4

1.00

25.4

12.2

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 71	A	ritical verage D evel Of	elay (sec/veh)	:			0.679 22.6 B	
Approach:	Nor	th Bound	Į	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	Т	R	L	Т	R
Control:	− Pr	otected		Pr	otected	I I:	Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
			<u></u> II			<u></u> II						
Volume Module:	110	F10	0.0	116	F10	7.5	120	1004	٥٦	100	005	70
Base Vol:	119	510	82	116	518	75	138	1004	95	122	825	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base: User Adj:	119 1.00	510 1.00	82 1.00	116 1.00	518 1.00	75 1.00	138 1.00	1004	95 1.00	122 1.00	825 1.00	72 1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	119	510	82	116	518	75	138	1004	95	122	825	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	023	0
Reduced Vol:	119	510	82	116	518	75	138	1004	95	122	825	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	119	510	82	116	518	75	138	1004	95	122	825	72
			——II			——II			——			
Saturation Flow Mod	lule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.75	0.25	1.00	1.83	0.17	1.00	1.84	0.16
Final Sat.:	1600	2757	443	1600	2795	405	1600	2923	277	1600	2943	257
Capacity Analysis M	fodule:								!			
Vol/Sat:	0.07	0.19	0.19	0.07	0.19	0.19	0.09	0.34	0.34	0.08	0.28	0.28
Crit Moves:	****	··->	0.17	0.07	****	0.17	0.00	****	0.51	****	0.20	0.20
Volume/Cap:	0.68	0.67	0.67	0.67	0.68	0.68	0.59	0.68	0.68	0.68	0.59	0.59
			— ІІ			— ІІ						—
Level Of Service Mo Delay/Veh:	odule: 39.8	26.5	33.9	39.7	26.7	35.2	33.7	15.2	22.7	39.5	15.4	20.2
DCTay/ VCII.	33.0	20.5	22.2	22.1	20.7	J J . Z	55.1	10.4	44.1	39.3	10.4	20.2

Note: Queue reported is the number of cars per lane.

1.00

39.8

6.0

1.00

26.5

12.4

1.00

33.9

12.4

1.00

39.7

5.8

1.00

26.7

12.5

1.00

35.2

12.5

1.00

33.7

6.7

1.00

15.2

16.3

1.00

22.7

16.3

1.00

39.5

6.1

1.00

15.4

14.0

1.00

20.2

14.0

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 56	A	ritical verage D evel Of	elay (sec/veh)	:			0.595 19.8 A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L I	Т	R ∎∎	L	Т	R	L	Т	R ∎∎	L	T	R •
Control:	Pr	otected	11	Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:									<u>—</u> П			
Base Vol:	82	365	57	179	378	99	112	1336	66	95	761	184
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	82	365	57	1.00	378	99	112	1336	66	95	761	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	82	365	57	179	378	99	112	1336	66	95	761	184
Reduct Vol:	0	0	0	0	0	0	0	1330	0	0	0	104
Reduced Vol:	82	365	57	179	378	99	112	1336	66	95	761	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	82	365	57	179	378	99	112	1336	66	95	761	184
rinar voi.v	-	303	II	175	370		112	1330	I		701	
Saturation Flow Modu	ıle:											_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	1.58	0.42	1.00	2.86	0.14	1.00	2.42	0.58
Final Sat.:	1600	2768	432	1600	2536	664	1600	4574	226	1600	3865	935
Capacity Analysis Mc	dule:											
Vol/Sat:	0.05	0.13	0.13	0.11	0.15	0.15	0.07	0.29	0.29	0.06	0.20	0.20
Crit Moves:		****		****				****		****		
Volume/Cap:	0.49	0.60	0.60	0.60	0.49	0.49	0.45	0.60	0.60	0.60	0.45	0.45
Level Of Service Mod			——- I I			!!						
Delay/Veh:	34.3	28.0	33.5	30.9	22.3	23.4	30.5	14.4	19.9	37.3	15.4	15.8
DCIAY / VCII.	21.3	20.0	55.5	50.5	22.5	2J. I	50.5		10.0	31.3	10.1	10.0

Note: Queue reported is the number of cars per lane.

1.00

34.3

4.1

1.00

28.0

9.4

1.00

33.5

9.4

1.00

30.9

8.3

1.00

22.3

9.5

1.00

23.4

9.5

1.00

30.5

5.3

1.00

14.4

14.1

1.00

19.9

14.1

1.00

37.3

4.8

1.00

15.4

10.3

1.00

15.8

10.3

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec):	100	Critical Vol./Cap.(X):	0.709
Loss Time (sec):	0	Average Delay (sec/veh):	25.3
Optimal Cycle:	78	Level Of Service:	C

Approach:	Non	th Bound	ı	9011	th Bound	ı	Fac	st Bound		MO	st Bound	
Movement:	L •	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	——II	•	otected			otected	II		otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	_											
Base Vol:	411	967	186	227	747	117	136	1112	195	206	709	102
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	411	967	186	227	747	117	136	1112	195	206	709	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	411	967	186	227	747	117	136	1112	195	206	709	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	411	967	186	227	747	117	136	1112	195	206	709	102
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	411	967	186 ••	227	747	117	136	1112	195 ••	206	709	102
Saturation Flow Mo	dule:		-									
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.52	0.48	2.00	2.59	0.41	1.00	2.55	0.45	1.00	2.62	0.38
Final Sat.:	3200	4026	774	3200	4150	650	1600	4084	716	1600	4196	604
Capacity Analysis	Module:								11			
Vol/Sat:	0.13	0.24	0.24	0.07	0.18	0.18	0.09	0.27	0.27	0.13	0.17	0.17
Crit Moves:	****				***			****		****		
Volume/Cap:	0.71	0.72	0.72	0.72	0.71	0.71	0.45	0.71	0.71	0.71	0.45	0.45
Level Of Service M	odule:											
Delay/Veh:	32.4	23.7	28.5	38.7	27.7	35.0	28.4	21.2	25.7	34.9	18.2	19.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.4	23.7	28.5	38.7	27.7	35.0	28.4	21.2	25.7	34.9	18.2	19.0
DesignQueue:	9.6	15.0	15.0	5.8	12.4	12.4	6.2	15.9	15.9	9.6	9.7	9.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Approach:	North Bound	South Bound	East Bound	West Bound
Optimal Cycle:	54	Level Of Servi	ce:	А
Loss Time (sec):	0	Average Delay	(sec/veh):	15.5
Cycle (sec):	100	Critical Vol./	Cap.(X):	0.574

Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected	1 1	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0 -	0 0	1! 0	1
Volume Module:			——[]									
Base Vol:	165	986	0	0	890	269	0	0	0	113	6	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Initial Base:	165	986	0	0	890	269	0	0	0	113	6	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	165	986	0	0	890	269	0	0	0	113	6	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	165	986	0	0	890	269	0	0	0	113	6	6.
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Final Vol.:	165	986	0	0	890	269	0	0	0	113	6	61
Saturation Flow Mo	dule:		—()			—()			-			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	160
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Lanes:	1.00	3.00	0.00	0.00	2.30	0.70	0.00	0.00	0.00	0.31	0.02	1.6
Final Sat.:	1600	4800	0	0	3686	1114	0	0	0	493	26	268
Capacity Analysis	Module:		()			()			()-			
Vol/Sat:	0.10	0.21	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.23	0.23	0.2
Crit Moves:	****				****					****		
Volume/Cap:	0.57	0.34	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.57	0.57	0.
Level Of Service M	Module:		!!			!!			!}			
Delay/Veh:	30.9	7.8	0.0	0.0	17.4	18.3	0.0	0.0	0.0	21.0	52.5	18
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.
AdjDel/Veh:	30.9	7.8	0.0	0.0	17.4	18.3	0.0	0.0	0.0	21.0	52.5	18
DesignQueue:	7.7	7.6	0.0	0.0	13.1	13.1	0.0	0.0	0.0	12.9	12.9	12

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:	oss Time (sec):				ritical verage I evel Of	elay (sec/veh)	:		0.435 13.3 A				
Approach:	Nor	th Bound	d	Sou	th Bound	l	Eas	st Bound		Wes	st Bound			
Movement:	L T R			L	Т	R	L	T	R	L	T	R		
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected			
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0		
	-					——II			<u>—</u> П			—		
Volume Module:														
Base Vol:	0	914	71	181	796	0	238	136	156	0	0	0		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	0	914	71	181	796	0	238	136	156	0	0	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	914	71	181	796	0	238	136	156	0	0	0		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	0	914	71	181	796	0	238	136	156	0	0	0		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	0	914	71	181	796	0	238	136	156	0	0	0		
			——						<u>—</u> ІІ					
Saturation Flow Modu		1.600	1600	1.600	1600	1.600	1.000	1600	1.600	1.000	1600	1600		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	0.00	2.78	0.22	1.00	3.00	0.00	1.27	0.73	1.00	0.00	0.00	0.00		
Final Sat.:	0	4454	346	1600	4800	0	2036	1164	1600 •	0 I	0	0		
Capacity Analysis Mo	odule:		1											
Vol/Sat:	0.00	0.21	0.21	0.11	0.17	0.00	0.12	0.12	0.10	0.00	0.00	0.00		
Crit Moves:		****		****			****							
Volume/Cap:	0.00	0.44	0.44	0.44	0.23	0.00	0.44	0.44	0.36	0.00	0.00	0.00		
Level Of Service Moo	-		——			—"			—(1					

Note: Queue reported is the number of cars per lane.

0.0

0.0

0.0

1.00

13.6

1.00

13.6

10.1

14.7

1.00

14.7

10.1

24.3

1.00

24.3

7.6

3.3

3.3

4.1

1.00

0.0

1.00

0.0

0.0

23.7

1.00

23.7

7.8

24.0

1.00

24.0

7.8

23.1

1.00

23.1

6.5

0.0

0.0

0.0

1.00

0.0

0.0

0.0

1.00

0.0

1.00

0.0

0.0

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #11: 111th Place and I-110 SB Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.213
Loss Time (sec):	0	Average Delay (sec/veh):	9.6
Optimal Cycle:	18	Level Of Service:	А

Optimal Cycle:			18	8 Level Of Service:							A		
Approach:	Nor	th Bound		Sou	th Bound	l	Eas	st Bound		Wes	st Bound		
Movement:	L	T	R	L	T	R	L	Т	R ∎∎	L	Т	R	
Control:	Pe	rmitted	1		rmitted			rmitted		Pe	rmitted		
Rights	I	nclude		I	nclude		I	nclude		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0	
Volume Module:			—(—11				
Base Vol:	0	0	0	73	510	60	0	112	22	13	91		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
Initial Base:	0.00	0	1.00	73	510	60	0	112	22	1.00	91	1.0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
PHF Volume:	0	0	0	73	510	60	0	112	22	13	91	1.0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	·	
Reduced Vol:	0	0	0	73	510	60	0	112	22	13	91	·	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
Final Vol.:	0	0	0	73	510	60	0	112	22	13	91		
			i			I			I				
Saturation Flow Mo	dule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	160	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
Lanes:	0.00	0.00	0.00	0.38	2.62	1.00	0.00	0.84	0.16	0.12	0.88	0.0	
Final Sat.:	0	0	0	601	4199	1600	0	1337	263	200	1400	(
	———					<u>—</u>			——II				
Capacity Analysis	Module:												
Vol/Sat:	0.00	0.00	0.00	0.05	0.12	0.04	0.00	0.08	0.08	0.01	0.07	0.0	
Crit Moves:					****			***		****			
Volume/Cap:	0.00	0.00	0.00	0.04	0.21	0.07	0.00	0.21	0.21	0.21	0.15	0.0	
Level Of Service M	odule:												
Delay/Veh:	0.0	0.0	0.0	0.8	8.1	7.4	0.0	15.5	15.7	37.9	13.4	0.	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0	
AdjDel/Veh:	0.0	0.0	0.0	0.8	8.1	7.4	0.0	15.5	15.7	37.9	13.4	0.	
DesignQueue:	0.0	0.0	0.0	-1.5	4.8	1.4	0.0	4.6	4.6	5.6	3.3	0.	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:	100 0 55	A:	ritical verage I evel Of		0.587 11.9 A							
Approach:	Nor	th Bound		Sou	th Bound	l	Eas	t Bound		Wes	st Bound	
Movement:	L I	Т	R	L	Т	R ∎∎	L	Т	R	L	Т	R
Control:	Pr	otected	11	Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0
Volume Module:	-											
Base Vol:	0	0	0	216	209	185	0	1392	394	192	913	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	216	209	185	0	1392	394	192	913	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	216	209	185	0	1392	394	192	913	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	216	209	185	0	1392	394	192	913	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	216	209	185	0	1392	394	192	913	0
Saturation Flow Modu	le:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.42	1.37	1.21	0.00	2.34	0.66	1.00	3.00	0.00
Final Sat.:	0	0	0	2275	2191	1933	0	3741	1059	1600	4800	0
Capacity Analysis Mo			!!			——II						—
		0.00	0.00	0.09	0.10	0.10	0.00	0.27	0 27	0.12	0 10	0.00
Vol/Sat: Crit Moves:	0.00	0.00	0.00	0.09	0.10 ***	0.10	0.00	0.37 ***	0.37	0.12 ****	0.19	0.00

Note: Queue reported is the number of cars per lane.

0.00

0.0

1.00

0.0

0.0

0.00

0.0

0.0

0.0

1.00

0.00

0.0

0.0

0.0

1.00

0.58

31.6

1.00

31.6

7.2

0.59

31.7

1.00

31.7

7.3

0.59

32.0

1.00

32.0

7.3

┨┝

0.00

0.0

0.0

0.0

1.00

0.59

8.5

1.00

8.5

13.2

0.59

9.2

1.00

9.2

13.2

0.59

29.7

1.00

29.7

8.7

0.23

1.3

1.00

1.3

2.9

Volume/Cap:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

DesignQueue:

Level Of Service Module:

0.00

0.0

1.00

0.0

0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Loss Time (sec): Optimal Cycle:			100 0 44	A	ritical verage I evel Of	elay (:	0.480 13.9 A				
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	Т	L	T	R	L	Т	R ∎∎	L	R		
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0
Volume Module:			!						!			
Base Vol:	296	119	407	0	0	0	178	1468	0	0	796	154
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	296	119	407	0	0	0	178	1468	0	0	796	154
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	296	119	407	0	0	0	178	1468	0	0	796	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	296	119	407	0	0	0	178	1468	0	0	796	154
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	296	119	407	0	0	0	178	1468	0	0	796	154
	-					—			—			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.08	0.43	1.49	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.51	0.49
Final Sat.:	1728 •	695	2377	0	0	0	1600	4800	0	0	4022	778
Capacity Analysis Mo	odule:											
Vol/Sat:	0.17	0.17	0.17	0.00	0.00	0.00	0.11	0.31	0.00	0.00	0.20	0.20
Crit Moves:	****						****				****	
Volume/Cap:	0.48	0.48	0.48	0.00	0.00	0.00	0.48	0.48	0.00	0.00	0.48	0.48

Note: Queue reported is the number of cars per lane.

19.7

1.00

19.7

10.2

20.4

1.00

20.4

10.2

19.6

1.00

19.6

10.2

0.0

1.00

0.0

0.0

0.0

0.0

0.0

1.00

0.0

1.00

0.0

0.0

26.4

1.00

26.4

7.8

7.1

1.00

7.1

10.4

0.0

1.00

0.0

0.0

0.0

1.00

0.0

0.0

16.8

1.00

16.8

10.8

17.5

1.00

17.5

10.8

Level Of Service Module:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 82	A	ritical verage I evel Of	elay (sec/veh)	:			0.721 24.0 C	
Approach:	Nor	th Bound		Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	L	Т	R	L	Т	R	L	R		
Control:	Pr	otected			otected		Pr	otected	11	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
	-		——II			<u></u> Н						——I
Volume Module:												
Base Vol:	200	717	93	143	678	153	154	1347	195	138	628	187
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	200	717	93	143	678	153	154	1347	195	138	628	187
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	200	717	93	143	678	153	154	1347	195	138	628	187
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	200	717	93	143	678	153	154	1347	195	138	628	187
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	200	717	93	143	678	153	154	1347	195	138	628	187
			<u>—</u> ІІ			<u></u> II-			<u></u> II			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.45	0.55	1.00	2.62	0.38	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	1600	3916	884	1600	4193	607	1600	4800	1600
Capacity Analysis Mo	odule:		—(1			()-			()			
Vol/Sat:	0.13	0.22	0.06	0.09	0.17	0.17	0.10	0.32	0.32	0.09	0.13	0.12
Crit Moves:		****		****				****		***		
Volume/Cap:	0.69	0.72	0.19	0.72	0.69	0.69	0.40	0.72	0.72	0.72	0.40	0.36

Note: Queue reported is the number of cars per lane.

33.9

1.00

33.9

9.3

25.4

1.00

25.4

14.4

19.4

1.00

19.4

3.6

40.5

1.00

40.5

7.1

27.4

1.00

27.4

12.0

31.7

1.00

31.7

12.0

25.0

1.00

25.0

6.6

18.4

1.00

18.4

17.0

23.6

1.00

23.6

17.0

41.0

1.00

41.0

6.9

20.2

1.00

20.2

8.1

20.0

1.00

20.0

7.2

Level Of Service Module:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 31	A	ritical verage I evel Of	elay (sec/veh)	:		0.397 8.5 A				
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	st Bound		Wes	st Bound			
Movement:	L	Т	R	L	T	R	L	Т	R	L	Т	R		
Control:	− Pr	otected		Pr	otected		Pr	otected	<u> </u>	Pe	rmitted			
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1		
Volume Module:	_													
Base Vol:	45	895	28	78	887	10	57	2	67	29	3	52		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	45	895	28	78	887	10	57	2	67	29	3	52		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	45	895	28	78	887	10	57	2	67	29	3	52		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	45	895	28	78	887	10	57	2	67	29	3	52		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	45	895	28	78	887	10	57	2	67	29	3	52		
Saturation Flow Mod	ule:		!!						!			—		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		

	-											
Capacity Analysis Mc	dule:											
Vol/Sat:	0.03	0.28	0.02	0.05	0.19	0.19	0.04	0.04	0.04	0.02	0.02	0.03
Crit Moves:		***		****			****					****
Volume/Cap:	0.26	0.40	0.02	0.40	0.26	0.26	0.40	0.25	0.25	0.22	0.24	0.40
	-		——II-			——II-			———————————————————————————————————————			
Level Of Service Mod	lule:											
Delay/Veh:	31.7	4.7	3.4	31.8	3.7	4.5	34.0	30.7	27.7	33.2	35.0	34.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

2.97

4746

0.03

54

1.00

1600

0.03

46

0.97

1554

0.91

1450

0.09

150

1.00

1600

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 31.7 4.7 31.8 3.7 4.5 34.0 30.7 27.7 33.2 35.0 3.4 34.6 2.9 DesignQueue: 2.2 7.8 0.5 3.8 4.9 4.9 3.2 3.2 1.6 1.6 2.7

Note: Queue reported is the number of cars per lane.

1.00

1600

2.00

3200

1.00

1600

1.00

1600

Lanes:

Final Sat.:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	0	Average Delay (sec/veh):	9.7
Optimal Cycle:	35	Level Of Service:	A

Optimal Cycle:				L	evel Of	Servic	e:				А	
Approach: Movement:	Nor L	th Bound T	R	Sou L	th Bound T	R	Eas L	st Bound T	R	Wes	st Bound T	R
No velicite :	. <u> </u>	1			1			1			τ.	
Control:	Pe	rmitted	•		rmitted	••		otected	••		otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	-											
Base Vol:	36	7	61	53	10	70	46	1417	47	86	822	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	36	7	61	53	10	70	46	1417	47	86	822	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	7	61	53	10	70	46	1417	47	86	822	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	7	61	53	10	70	46	1417	47	86	822	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	7	61	53	10	70	46	1417	47	86	822	67
Saturation Flow Modu	le:					——						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.84	0.16	1.00	0.40	0.07	0.53	1.00	2.90	0.10	1.00	2.77	0.23
Final Sat.:	1340	260	1600	638	120	842	1600	4646	154	1600	4438	362
Capacity Analysis Mo	dule:		—			!			!			
Vol/Sat:	0.02	0.03	0.04	0.03	0.08	0.08	0.03	0.31	0.31	0.05	0.19	0.19
Crit Moves:	****				****				****	****		,
Volume/Cap:	0.46	0.22	0.31	0.31	0.46	0.46	0.28	0.46	0.46	0.46	0.28	0.28
Level Of Service Mod	,,10:								{}			
Delay/Veh:	39.3	31.1	31.2	32.7	38.0	30.0	32.1	6.6	8.9	33.2	5.2	5.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.3	31.1	31.2	32.7	38.0	30.0	32.1	6.6	8.9	33.2	5.2	5.4
DesignQueue:	2.3	2.1	3.0	6.7	6.2	6.2	2.3	10.0	10.0	4.3	5.7	5.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:	oss Time (sec): otimal Cycle:						ap.(X): sec/veh) e:	:			0.164 0.0 A	
Approach:	Nor	th Bound	l	Sou	th Bound	ļ	Eas	st Bound		Wes	st Bound	
Movement:	L ∎	L T R			Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected	 11	Pr	otected	 11	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	1 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
77-1 No. 3-1-1			——									<u> </u>
Volume Module:	0	F 0 4	0	0	470	0	0	0	0	0	0	
Base Vol:	0	524	0	0	472	0	0	0	0	0	0	0
Growth Adj: Initial Base:	1.00	1.00 524	1.00	1.00	1.00 472	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0 1.00	1.00	0 1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	524	0	0	472	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	524	0	0	472	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	524	0	0	472	0	0	0	0	0	0	0
			——			——			<u>—</u> ІІ			<u> </u>
Saturation Flow Modu												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3200	0 1 [0	3200	0 1 [1600	0	1600 	0	0	0
Capacity Analysis Mo	odule:		1			1			1 r			
Vol/Sat:	0.00	0.16	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		***		***								
Volume/Cap:	0.00	0.16	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Queue reported is the number of cars per lane.

0.0

1.00

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Level Of Service Module:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Appendix C

Level of Service Analysis

Cumulative Future with and without Project Conditions

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 75	A:	ritical verage D evel Of	elay (sec/veh)	:			0.698 21.9 B	
Approach:		th Bound			th Bound			st Bound			st Bound	
Movement:	L I	Т	R ∎∎	L	T	R ∎∎	L	Т	R ∎∎	L	T	R
Control:	Pr	otected		Pro	otected		Pro	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
			—			<u>—П</u>			—			_
Volume Module:												
Base Vol:	0	0	0	707	0	9	416	329	0	0	496	545
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	707	0	9	416	329	0	0	496	545
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	707	0	9	416	329	0	0	496	545
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C
Reduced Vol:	0	0	0	707	0	9	416	329	0	0	496	545
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	707 I	0	9 •••	416	329	0	0	496	545
Saturation Flow Mod	Bule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.43	1.57
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2287	2513
			—			<u>—</u> ІІ			—			
Capacity Analysis M		0.00	0.00	0.00	0.00	0.01	0.06	0 10	0.00	0.00	0.00	0.00
Vol/Sat:	0.00	0.00	0.00	0.22 ***	0.00	0.01	0.26 ***	0.10	0.00	0.00	0.22 ****	0.22
Crit Moves:	0.00	0.00	0 00		0.00	0 00		0 15	0 00	0 00		0 77
Volume/Cap:	0.00	0.00	0.00	0.70	0.00	0.02	0.70	0.15	0.00	0.00	0.70	0.70
Level Of Service Mo	odule:					71						
Delay/Veh:	0.0	0.0	0.0	24.6	0.0	18.1	23.0	4.3	0.0	0.0	25.5	25.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.6	0.0	18.1	23.0	4.3	0.0	0.0	25.5	25.3
DesignQueue:	0.0	0.0	0.0	14.1	0.0	0.3	15.4	3.0	0.0	0.0	14.0	14.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

<pre>Cycle (sec): Loss Time (sec):</pre>			100		ritical verage D			:			0.704	
Optimal Cycle:			77		evel Of	_					C	
Approach:	Nor	th Bound		Sou	th Bound		Fac	st Bound		Wes	st Bound	
Movement:	L	сп вошна Т	R	L	сп вошна Т	R	L	Т	R	L Wes	Т	R
MOVEMENT.		1		п	1		ш	1		ш	1	
Control:	Pr	otected	•••	Pr	otected	•••	Pr	otected	•••	Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
			—			<u> </u>			<u> </u>			<u> </u>
Volume Module:		0		E05	^		41.6	200			106	E 4 B
Base Vol:	0	0	1 00	725	0	1 00	416	329	0	0	496	547
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base: Added Vol:	0	0 0	0	707 18	0	9	416 0	329 0	0	0	496 0	545 2
	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol: Initial Fut:	0	0	0	725	0	9	416	329	0	0	496	547
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	725	0	9	416	329	0	0	496	547
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	725	0	9	416	329	0	0	496	547
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	725	0	9	416	329	0	0	496	547
	-		——П			<u>—</u> н						
Saturation Flow Mod	ule:											_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.43	1.57
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2283	2517
Companies and a second of the						<u></u> II						
Capacity Analysis M		0.00	0.00	0.00	0.00	0.01	0.06	0.10	0.00	0.00	0.00	0.00
Vol/Sat: Crit Moves:	0.00	0.00	0.00	0.23	0.00	0.01	0.26	0.10	0.00	0.00	0.22	0.22
Volume/Cap:	0.00	0.00	0.00	0.70	0.00	0.02	0.70	0.15	0.00	0.00	0.70	0.70
vorume/cap·		0.00	0.00 ——[]		0.00	 		0.15	——————————————————————————————————————		0.70	0.70
Level Of Service Mo	dule:											
Delay/Veh:	0.0	0.0	0.0	24.4	0.0	17.8	23.3	4.4	0.0	0.0	25.7	25.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.4	0.0	17.8	23.3	4.4	0.0	0.0	25.7	25.5
DesignQueue:	0.0	0.0	0.0	14.4	0.0	0.3	15.5	3.0	0.0	0.0	14.0	14.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 77	A	ritical verage I evel Of	elay (sec/veh)	:			0.704 24.0 C	
Approach:	Nor	th Bound	i	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R 	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	<u> </u>		otected	 11	Pr	otected		Pro	otected	
Rights	I	nclude	I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
77-1 M-J-1			<u>—</u> П						—			
Volume Module:	1.42	700	60	156	1055	1.00	1.40	47.6	111	170	1100	1 7 7
Base Vol:	143	792	69	156	1055	166	148	476	111	172	1109	177
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base: User Adj:	143 1.00	792 1.00	69 1.00	156 1.00	1055 1.00	166 1.00	148 1.00	476 1.00	111	172 1.00	1109 1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1.00	792	69	156	1055	166	148	476	111	172	1109	177
Reduct Vol:	0	792	0	150	1055	0	140	470	0	0	0	0
Reduced Vol:	143	792	69	156	1055	166	148	476	111	172	1109	177
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	792	69	156	1055	166	148	476	111	172	1109	177
Tillar Vol.	_L	,,,,	ÍI		1033		110	170		1,2	1100	
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.76	0.24	1.00	2.59	0.41	1.00	2.43	0.57	1.00	2.59	0.41
Final Sat.:	1600	4415	385	1600	4147	653	1600	3892	908	1600	4139	661
Capacity Analysis Mo	-											
Vol/Sat:	0.09	0.18	0.18	0.10	0.25	0.25	0.09	0.12	0.12	0.11	0.27	0.27
Crit Moves:	****		0		****	20	****				****	- • - /
Volume/Cap:	0.70	0.57	0.57	0.57	0.70	0.70	0.70	0.45	0.45	0.45	0.70	0.70
			——			——			—			_
Level Of Service Mod			0.5	0.5		0.5				0.5	0.0	
Delay/Veh:	39.3	22.3	26.3	31.3	22.1	27.3	38.9	23.4	24.1	25.5	21.2	26.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.3	22.3	26.3	31.3	22.1	27.3	38.9	23.4	24.1	25.5	21.2	26.0

Note: Queue reported is the number of cars per lane.

7.1

11.4

11.4

7.3

DesignQueue:

15.3 15.3

7.3

8.1

8.1

15.7

15.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 77	A	ritical verage I evel Of	elay (sec/veh)	:			0.705 24.2 C	
Approach: Movement:	Nor L	th Bound T	R	Sou L	th Bound T	l R	Eas L	st Bound T	R	Wes	st Bound T	R
			——II									
Control:		otected			otected			otected			otected	
Rights		nclude	0		nclude	0		nclude	0		nclude	0
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
1 1 1												${} =$
Volume Module:	1.40	700		160	1055	1.55	1.40	40.4		100	1111	100
Base Vol:	143	792	73	168	1055	166	148	494	111	172	1111	178
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	143 0	792	69 4	156 12	1055 0	166 0	148	476	111	172 0	1109	177
Added Vol:	0	0	0	0	0	0	0	18 0	0	0	2 0	1
PasserByVol: Initial Fut:		792	73	168		166			111	172		0 178
User Adj:	143 1.00	1.00	1.00	1.00	1055 1.00	1.00	148 1.00	494 1.00	1.00	1.00	1111	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	143	792	73	168	1055	166	148	494	111	172	1111	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	792	73	168	1055	166	148	494	111	172	1111	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	143	792	73	168	1055	166	148	494	111	172	1111	178
	_											
Saturation Flow Mod	ule:		•			- "						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.75	0.25	1.00	2.59	0.41	1.00	2.45	0.55	1.00	2.59	0.41
Final Sat.:	1600	4395	405	1600	4147	653	1600	3919	881	1600	4137	663
Compains Amalusia M												
Capacity Analysis Movey Vol/Sat:	0.09	0.18	0.18	0.11	0.25	0.25	0.09	0.13	0.13	0.11	0.27	0.27
Crit Moves:	****	0.10	0.10	0.11	U.⊿5 ****	0.45	****	0.13	0.13	0.11	U.Z/ ****	0.47
Volume/Cap:	0.70	0.58	0.58	0.58	0.70	0.70	0.70	0.46	0.46	0.46	0.70	0.70
. orame, cap.		0.50	——I		0.70	——II		0.10	——————————————————————————————————————		0.70	
Level Of Service Mod	dule:											
Delay/Veh:	39.3	23.0	27.3	31.2	22.2	27.3	38.9	23.3	24.0	25.8	21.2	26.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.3	23.0	27.3	31.2	22.2	27.3	38.9	23.3	24.0	25.8	21.2	26.0

Note: Queue reported is the number of cars per lane.

11.5

11.5

7.8

15.3

15.3

7.3

8.3

8.3

DesignQueue:

7.5

15.7

15.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 62	A	ritical verage I evel Of	elay (sec/veh)	:			0.633 21.2 B	
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected			otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	_		——II			——II			——II			
Volume Module:												
Base Vol:	135	564	129	127	592	104	50	562	76	136	1346	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	135	564	129	127	592	104	50	562	76	136	1346	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	564	129	127	592	104	50	562	76	136	1346	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	564	129	127	592	104	50	562	76	136	1346	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	135	564	129	127	592	104	50	562	76	136	1346	91
			<u></u> II			<u></u> П			<u></u> II			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.70	0.30	1.00	2.64	0.36	1.00	2.81	0.19
Final Sat.:	1600	2604	596	1600	2722	478	1600	4228	572	1600	4496	304
			<u></u> II			——			—-II			_
Capacity Analysis Mo												
Vol/Sat:	0.08	0.22	0.22	0.08	0.22	0.22	0.03	0.13	0.13	0.09	0.30	0.30
Crit Moves:	***				****		****				***	
Volume/Cap:	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.42	0.42	0.42	0.63	0.63

Note: Queue reported is the number of cars per lane.

35.7

1.00

35.7

6.6

21.7

1.00

21.7

13.2

24.7

1.00

24.7

13.2

35.7

1.00

35.7

6.3

22.2

1.00

22.2

13.3

26.4

1.00

26.4

13.3

46.0

1.00

46.0

2.7

20.7

1.00

20.7

8.3

21.5

1.00

21.5

8.3

27.2

1.00

27.2

6.1

15.7

1.00

15.7

15.0

21.2

1.00

21.2

15.0

Delay/Veh:

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.645	
Loss Time (sec):			0				sec/veh)	:			21.6	
Optimal Cycle:			64		evel Of						В	
Approach:	Nor	th Bound	i	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L ∎	Т	R	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected	<u> </u>	Pr	otected	11	Pr	otected	1	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	-		——II			II			——II			
Volume Module:												
Base Vol:	135	564	129	154	592	104	50	596	76	136	1349	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	135	564	129	127	592	104	50	562	76	136	1346	91
Added Vol:	0	0	0	27	0	0	0	34	0	0	3	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	564	129	154	592	104	50	596	76	136	1349	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	564	129	154	592	104	50	596	76	136	1349	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	564	129	154	592	104	50	596	76	136	1349	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	135	564	129	154	592	104	50	596	76	136	1349	94
	-		——II			II			——II			—
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.70	0.30	1.00	2.66	0.34	1.00	2.80	0.20
Final Sat.:	1600	2604	596	1600	2722	478 ■■	1600	4257	543 ••	1600	4487	313
Capacity Analysis M	odule:											
Vol/Sat:	0.08	0.22	0.22	0.10	0.22	0.22	0.03	0.14	0.14	0.09	0.30	0.30
Crit Moves:		****		****			****				****	
Volume/Cap:	0.62	0.64	0.64	0.64	0.62	0.62	0.64	0.44	0.44	0.44	0.64	0.64
	-		——II			——II			<u></u>			
Level Of Service Mo												
Delay/Veh:	35.2	22.8	26.4	34.9	21.7	25.6	47.1	20.8	21.8	28.0	16.2	22.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.2	22.8	26.4	34.9	21.7	25.6	47.1	20.8	21.8	28.0	16.2	22.1
DesignQueue:	6.6	13.4	13.4	7.4	13.2	13.2	2.7	8.7	8.7	6.2	15.3	15.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 56	A	ritical verage D evel Of	elay (sec/veh)	:			0.590 19.9 A	
Approach:	Nor	th Bound	Į	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	—-II		otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:									—-			
Base Vol:	59	579	79	44	425	38	50	640	121	131	1057	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	59	579	79	44	425	38	50	640	121	131	1057	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	579	79	44	425	38	50	640	121	131	1057	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	579	79	44	425	38	50	640	121	131	1057	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	59	579	79	44	425	38	50	640	121	131	1057	57
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	0.92	0.08	1.00	2.52	0.48	1.00	2.85	0.15
Final Sat.:	1600	2816	384	1600	1469	131	1600	4037	763	1600	4554	246
			انّــــــــــــــــــــــــــــــــــــ									
Capacity Analysis M	odule:		•			- ''						
Vol/Sat:	0.04	0.21	0.21	0.03	0.29	0.29	0.03	0.16	0.16	0.08	0.23	0.23
Crit Moves:	****				****		****				****	
Volume/Cap:	0.59	0.42	0.42	0.42	0.59	0.59	0.59	0.54	0.54	0.54	0.59	0.59
Level Of Service Moo	dule:											
Delay/Veh:	41.3	12.8	13.6	36.2	15.0	23.1	42.8	23.2	24.8	32.0	18.8	24.8

Note: Queue reported is the number of cars per lane.

1.00

41.3

3.1

1.00

12.8

9.8

1.00

13.6

9.8

1.00

36.2

2.3

1.00

15.0

14.0

1.00

23.1

14.0

1.00

42.8

2.6

1.00

23.2

10.3

1.00

24.8

10.3

1.00

32.0

6.3

1.00

18.8

13.2

1.00

24.8

13.2

Delay Adj:

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Index #4. Century Bo												
Cycle (sec):			100		ritical		_				0.600	
Loss Time (sec):			0		_		sec/veh)	:			20.1	
Optimal Cycle:			57	L	evel Of	Servic	e:				А	
Approach:	Nor	th Bound	_	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	T	R	L	Т	R	L	Т	R	L	T	R.
Control:	Pr	otected		Pr	otected	11	Pr	otected		Pr	otected	—
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:						!						
Base Vol:	60	580	79	44	440	38	50	646	133	131	1058	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	59	579	79	44	425	38	50	640	121	131	1057	57
Added Vol:	1	1	0	0	15	0	0	6	12	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	580	79	44	440	38	50	646	133	131	1058	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	580	79	44	440	38	50	646	133	131	1058	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	580	79	44	440	38	50	646	133	131	1058	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	580	79	44	440	38	50	646	133	131	1058	57
			<u>—</u> ІІ			<u></u> II			<u>—</u> ІІ			<u>—</u>
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	0.92	0.08	1.00	2.49	0.51	1.00	2.85	0.15
Final Sat.:	1600 L	2816	384	1600 L	1473	127 	1600	3980	820 	1600 L	4555	245
Capacity Analysis M	odule:					11						
Vol/Sat:	0.04	0.21	0.21	0.03	0.30	0.30	0.03	0.16	0.16	0.08	0.23	0.23
Crit Moves:	***				****		****				****	
Volume/Cap:	0.60	0.42	0.42	0.42	0.60	0.60	0.60	0.56	0.56	0.56	0.60	0.60
Level Of Service Mo	dule:		<u> </u>									
Delay/Veh:	41.8	12.5	13.3	36.1	14.8	23.7	43.5	23.5	25.2	32.7	19.2	25.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	12.5	13.3	36.1	14.8	23.7	43.5	23.5	25.2	32.7	19.2	25.7
DesignQueue:	3.2	9.7	9.7	2.3	14.3	14.3	2.7	10.6	10.6	6.3	13.3	13.3
pesidiiõrere.	3.2	2.1	2.1	4.3	11.3	T1.3	۷. /	10.0	10.0	0.3	10.0	13.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Index #5: Century Bou	icvara ai	ia webee.										
Cycle (sec):			100	C:	ritical	Vol./Ca	ap.(X):				0.700	
Loss Time (sec):			0	A ⁻	verage D	elay (sec/veh)	:			22.5	
Optimal Cycle:			76	L	evel Of	Service	e:				C	
Approach:		th Bound			th Bound			t Bound			st Bound	
Movement:	L ■	T	R	L	T	R ■■	L	T	R	L	Т	R ■
Control:	Pr	otected			otected	 11	Pro	otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	<u> </u>					<u>—</u> н			——П			——
Volume Module:												
Base Vol:	130	884	105	80	935	85	145	535	108	140	866	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	130	884	105	80	935	85	145	535	108	140	866	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	884	105	80	935	85	145	535	108	140	866	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	884	105	80	935	85	145	535	108	140	866	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	884	105	80	935	85	145	535	108	140	866	141
	Ь—		<u>—</u> П			—-			<u>—</u> ІІ			
Saturation Flow Modul												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.83	0.17	1.00	2.50	0.50	1.00	2.58	0.42
Final Sat.:	1600 •	3200	1600	1600	2933	267 ••	1600	3994	806 ••	1600	4128	672 ■
Capacity Analysis Mod	ule:											
Vol/Sat:	0.08	0.28	0.07	0.05	0.32	0.32	0.09	0.13	0.13	0.09	0.21	0.21
Crit Moves:	****				****		***				***	
Volume/Cap:	0.70	0.57	0.14	0.57	0.70	0.70	0.70	0.52	0.52	0.52	0.70	0.70
	<u> </u>					<u></u> н			——п			—
Level Of Service Modu	le:											_
Delay/Veh:	40.2	14.6	11.0	37.7	17.9	27.6	38.9	24.8	26.2	30.5	25.2	30.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.2	14.6	11.0	37.7	17.9	27.6	38.9	24.8	26.2	30.5	25.2	30.9
DesignQueue:	6.5	13.5	3.1	4.1	16.6	16.6	7.2	9.1	9.1	6.6	13.7	13.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 82 Level Of Service:												
Approach: Movement:	Nor L	North Bound L T R			South Bound L T R			East Bound L T R			West Bound L T R			
Control:	Pr	otected	Pr	otected		Pr	otected		Protected					
Rights		nclude			nclude			nclude			nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0		
Volume Module:														
Base Vol:	131	891	105	80	1005	85	145	535	114	142	866	141		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	130	884	105	80	935	85	145	535	108	140	866	141		
Added Vol:	1	7	0	0	70	0	0	0	6	2	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	131	891	105	80	1005	85	145	535	114	142	866	141		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	131	891	105	80	1005	85	145	535	114	142	866	141		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	131	891	105	80	1005	85	145	535	114	142	866	141		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	131	891	105	80	1005	85	145	535	114	142	866	141		
						<u>—</u> П								
Saturation Flow Mod	lule:					•								
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	2.47	0.53	1.00	2.58	0.42		
Final Sat.:	1600	3200	1600	1600	2950	250	1600	3957	843	1600	4128	672		
Connecitus Amelicaia M	fodulo:											_		
Capacity Analysis M Vol/Sat:	0.08	0.28	0.07	0.05	0.34	0.34	0.09	0.14	0.14	0.09	0.21	0.21		
Crit Moves:	****	0.20	0.07	0.05	****	0.34	****	U.14	U.14	0.09	****	∪.∠⊥		
Volume/Cap:	0.72	0.56	0.13	0.56	0.72	0.72	0.72	0.54	0.54	0.54	0.72	0.72		
volume/ cap·		0.50	——————————————————————————————————————		0.72	 -	0.72	0.54		0.54	0.72	U. 72		
Level Of Service Mo	dule:								•					
Delay/Veh:	41.8	13.9	10.5	37.3	17.7	29.1	40.5	25.5	27.1	31.2	26.1	32.9		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	41.8	13.9	10.5	37.3	17.7	29.1	40.5	25.5	27.1	31.2	26.1	32.9		
DesignQueue:	6.6	13.3	3.0	4.1	17.3	17.3	7.2	9.3	9.3	6.7	13.9	13.9		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 63 Level Of Service:										0.640 23.5 B			
Approach:		North Bound		South Bound				st Bound		West Bound					
Movement:	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R			
Control:	Pr	otected		Pro	otected		Pro	otected		Protected					
Rights	I	nclude		I	nclude		I	nclude		Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0			
			——			—			——						
Volume Module:															
Base Vol:	151	628	70	101	552	64	131	638	65	160	778	89			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Base:	151	628	70	101	552	64	131	638	65	160	778	89			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	151	628	70	101	552	64	131	638	65	160	778	89			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	151	628	70	101	552	64	131	638	65	160	778	89			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Final Vol.:	151	628	70	101	552	64 	131	638	65 	160 L	778	89			
Saturation Flow Moo	dule:		- "			- ''			- '						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lanes:	1.00	1.80	0.20	1.00	1.79	0.21	1.00	1.82	0.18	1.00	1.79	0.21			
Final Sat.:	1600	2879	321	1600	2868	332	1600	2904	296	1600	2872	328			
Capacity Analysis N	Module:					!!									
Vol/Sat:	0.09	0.22	0.22	0.06	0.19	0.19	0.08	0.22	0.22	0.10	0.27	0.27			
Crit Moves:	****	J. 22			****	0.10	****	V.22		0.10	****	٠. ـ			
Volume/Cap:	0.64	0.63	0.63	0.63	0.64	0.64	0.64	0.58	0.58	0.58	0.64	0.64			
	–⊢——		——			——									
Level Of Service Mo	odule:														
Delay/Veh:	34.9	21.8	28.1	38.4	24.4	31.9	36.4	19.6	24.2	31.5	18.4	24.0			
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	34.9	21.8	28.1	38.4	24.4	31.9	36.4	19.6	24.2	31.5	18.4	24.0			
DesignQueue:	7.3	13.3	13.3	5.1	12.5	12.5	6.5	12.7	12.7	7.5	14.8	14.8			

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec):		С	ritical	0.657										
Loss Time (sec):	A	verage D		23.7										
Optimal Cycle:			66	L	evel Of	Servic	e:				В			
Approach:	Nor	th Bound	Sou	South Bound East Bound						st Bound				
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R		
					_									
Control:	Pr	Protected			Protected			otected	•	Protected				
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0		
			——II			—			——II			—		
Volume Module:														
Base Vol:	151	633	70	101	604	64	131	638	65	160	780	89		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	151	628	70	101	552	64	131	638	65	160	778	89		
Added Vol:	0	5	0	0	52	0	0	0	0	0	2	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	151	633	70	101	604	64	131	638	65	160	780	89		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	151	633	70	101	604	64	131	638	65	160	780	89		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	151	633	70	101	604	64	131	638	65	160	780	89		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	151	633	70	101	604	64 ••	131	638	65 ••	160	780	89		
G : .:	-													
Saturation Flow Modu		1.000	1.600	1.500	1.000	1.600	1.600	1.500	1.600	1.500	1600	1.000		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment: Lanes:	1.00	1.00 1.80	1.00	1.00	1.00 1.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Sat.:	1600	2881	319	1.00 1600	2893	0.19 307	1600	1.82 2904	296	1600	1.80 2872	0.20		
rinai pat.•		2001	I	1000	4073		1000	4 J U 4	__ _ _ _ _	1000	2012	3∠8 ∎		
Capacity Analysis Mc	odule:													
Vol/Sat:	0.09	0.22	0.22	0.06	0.21	0.21	0.08	0.22	0.22	0.10	0.27	0.27		
Crit Moves:	****				****		****			0	****	/		
Volume/Cap:	0.66	0.61	0.61	0.61	0.66	0.66	0.66	0.59	0.59	0.59	0.66	0.66		
/ <u>-</u> -	_		I			I.								
Level Of Service Mod	dule:		- 11						- 11			•		
Delay/Veh:	35.7	21.1	26.7	37.6	23.8	32.5	37.3	20.2	25.4	32.1	19.1	25.5		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	35.7	21.1	26.7	37.6	23.8	32.5	37.3	20.2	25.4	32.1	19.1	25.5		
DesignQueue:	7.3	13.2	13.2	5.1	13.3	13.3	6.5	12.9	12.9	7.6	15.1	15.1		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 80 Level Of Service:									0.714 22.8 C		
Approach:	Nor	th Bound	ì	Sou	th Bound	l	Eas	st Bound		Wes	st Bound		
Movement:	L ■	Т	R	L	T	R	L	Т	R	L	Т	R	
Control:	Pr	otected			otected	—-II	-	otected	I		Protected		
Rights	I	nclude		I	nclude		I	nclude		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0	
Volume Module:	_												
Base Vol:	148	503	68	170	524	119	107	677	40	122	1515	185	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	148	503	68	170	524	119	107	677	40	122	1515	185	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	148	503	68	170	524	119	107	677	40	122	1515	185	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C	
Reduced Vol:	148	503	68	170	524	119	107	677	40	122	1515	185	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	148	503	68	170	524	119	107	677	40	122	1515	185	
Saturation Flow Mod	ule:								-				
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.76	0.24	1.00	1.63	0.37	1.00	2.83	0.17	1.00	2.67	0.33	
Final Sat.:	1600	2819	381	1600	2608	592 ••	1600	4532	268	1600	4278	522	
Capacity Analysis M	odule:												
Vol/Sat:	0.09	0.18	0.18	0.11	0.20	0.20	0.07	0.15	0.15	0.08	0.35	0.35	
Crit Moves:	****				****		****				****		
Volume/Cap:	0.71	0.69	0.69	0.69	0.71	0.71	0.71	0.38	0.38	0.38	0.71	0.71	
Level Of Service Mo	dule:												
Delay/Veh:	39.6	27.8	38.2	36.4	27.2	33.9	43.8	16.9	18.0	27.1	16.0	21.3	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Note: Queue reported is the number of cars per lane.

39.6

7.3

27.8

12.3

38.2

12.3

36.4

8.2

27.2

13.4

33.9

13.4

43.8

5.5

16.9

8.4

18.0

8.4

27.1

5.5

16.0

17.2

21.3

17.2

AdjDel/Veh:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec):		C	ritical	0.750									
Loss Time (sec):	A	verage D	23.8										
Optimal Cycle:			91	L	evel Of	Servic	e:			C			
Zarana ala	27	+1- D1		G	-1- D				_				
Approach:		th Bound			th Bound			t Bound	_		st Bound	_	
Movement:	L L	Т	R 	L	Т	R I.	L	Т	R 	L	Т	R 	
Control:	Pr	Protected			Protected			otected		Protected			
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0 _	
Welling Medule:			—						—				
Volume Module: Base Vol:	148	507	74	170	560	134	109	684	40	170	1601	185	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	1.00	503	68	170	524	119	1.00	677	40	122	1515	185	
Added Vol:	0	4	6	0	36	15	2	7	0	48	86	183	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	148	507	74	170	560	134	109	684	40	170	1601	185	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	148	507	74	170	560	134	109	684	40	170	1601	185	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	148	507	74	170	560	134	109	684	40	170	1601	185	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	148	507	74	170	560	134	109	684	40	170	1601	185	
			——П						——П				
Saturation Flow Mod	ule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.75	0.25	1.00	1.61	0.39	1.00	2.83	0.17	1.00	2.69	0.31	
Final Sat.:	1600	2792	408	1600	2582	618	1600	4535	265	1600	4303	497	
Capacity Analysis M	edulo:		!						!				
Vol/Sat:	0.09	0.18	0.18	0.11	0.22	0.22	0.07	0.15	0.15	0.11	0.37	0.37	
Crit Moves:	****	0.10	0.10	0.11	****	0.22	****	0.13	0.13	0.11	****	0.57	
Volume/Cap:	0.75	0.70	0.70	0.70	0.75	0.75	0.75	0.44	0.44	0.44	0.75	0.75	
volume/cap:	-	0.70	——II		0.75	——] - ——— -	0.75	0.11	——————————————————————————————————————		0.75		
Level Of Service Mod	dule:		11						11				
Delay/Veh:	42.4	27.8	37.6	36.7	27.8	35.5	46.9	19.6	21.6	25.2	16.6	23.7	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	42.4	27.8	37.6	36.7	27.8	35.5	46.9	19.6	21.6	25.2	16.6	23.7	
DesignQueue:	7.4	12.4	12.4	8.2	14.4	14.4	5.6	9.1	9.1	7.3	18.2	18.2	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 89	O Average Delay (sec/veh):						0.744 25.2 C			
Approach:	Nor	th Bound	l	Sou	th Bound	1	Eas	st Bound		Wes	st Bound		
Movement:	L	Т	R	L	T	R	L	Т	R	L	Т	R	
Control:	- ⊩ Pr	otected		Pr	otected		Pr	otected	 11	Pr	otected		
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0	
			——[]			——(1							
Volume Module:													
Base Vol:	435	1300	171	255	891	167	112	624	164	215	1158	224	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	435	1300	171	255	891	167	112	624	164	215	1158	224	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	435	1300	171	255	891	167	112	624	164	215	1158	224	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	435	1300	171	255	891	167	112	624	164	215	1158	224	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	435	1300	171 ••	255	891	167	112	624	164	215	1158	224	

G '			- 11			- 11			- 11			
Final Sat.:	3200	4242	558	3200	4042	758	1600	3801	999	1600	4022	778
Lanes:	2.00	2.65	0.35	2.00	2.53	0.47	1.00	2.38	0.62	1.00	2.51	0.49
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Saturation Flow Mo	dule:											

Capacity Analysis M	odule:											
Vol/Sat:	0.14	0.31	0.31	0.08	0.22	0.22	0.07	0.16	0.16	0.13	0.29	0.29
Crit Moves:		***		***			***				***	
Volume/Cap:	0.69	0.74	0.74	0.74	0.69	0.69	0.74	0.62	0.62	0.62	0.74	0.74
	_											
Level Of Service Mo	dule:		•									•

Level Of Service Modul	.e:											
Delay/Veh:	30.8	20.4	27.5	39.2	23.8	28.1	45.9	25.8	28.0	29.7	21.7	26.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.8	20.4	27.5	39.2	23.8	28.1	45.9	25.8	28.0	29.7	21.7	26.9
DesignQueue:	10.0	17.2	17.2	6.4	14.0	14.0	5.7	11.1	11.1	9.6	16.8	16.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#8:	Imperial	Highway	and	Vermont	Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 95	A	ritical verage I evel Of		0.760 25.8 C					
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected	1	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	472	1300	171	255	891	197	115	631	168	215	1226	224
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	435	1300	171	255	891	167	112	624	164	215	1158	224
Added Vol:	37	0	0	0	0	30	3	7	4	0	68	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	472	1300	171	255	891	197	115	631	168	215	1226	224
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	472	1300	171	255	891	197	115	631	168	215	1226	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	472	1300	171	255	891	197	115	631	168	215	1226	224
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	472	1300	171	255	891	197	115	631	168	215	1226	224
Saturation Flow Mode	-											\dashv
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.65	0.35	2.00	2.46	0.54	1.00	2.37	0.63	1.00	2.54	0.46
Final Sat.:	3200	4242	558	3200	3931	869	1600	3791	1009	1600	4058	742

									I-			
Capacity Analysis I	Module:		•			•						-
Vol/Sat:	0.15	0.31	0.31	0.08	0.23	0.23	0.07	0.17	0.17	0.13	0.30	0.30
Crit Moves:		****		****			****				****	
Volume/Cap:	0.74	0.76	0.76	0.76	0.74	0.74	0.76	0.61	0.61	0.61	0.76	0.76
			<u></u> Н-			——II-			<u></u> І-			
Level Of Service M	odule:											-
Delay/Veh:	32.0	21.2	29.2	40.2	25.5	30.8	47.2	25.2	27.3	29.3	21.6	27.5

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 32.0 21.2 29.2 40.2 25.5 30.8 47.2 25.2 27.3 29.3 21.6 27.5 DesignQueue: 10.8 17.4 17.4 6.5 14.7 14.7 5.9 11.2 11.2 9.6 17.3 17.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:		5										
Approach:		th Bound		Sou	th Bound			st Bound		Wes	st Bound	
Movement:	L ∎	Т	R ∎I	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected	<u> </u>	Pr	otected		Pe	rmitted	<u> </u>	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0	0 0	1! 0	1
77-3 M-3-3			<u> —</u> І			—			<u>—</u> П			
Volume Module:	255	1267	0	0	0.01	400	0	0	0	100	4.0	F.C.C
Base Vol:	255	1367	0	0	901	422	0	0	0	100	40	560
Growth Adj: Initial Base:	1.00 255	1.00 1367	1.00	1.00	1.00 901	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	255	1367	0	0	901	422	0	0	0	100	40	560
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	300
Reduced Vol:	255	1367	0	0	901	422	0	0	0	100	40	560
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	255	1367	0	0	901	422	0	0	0	100	40	560
						——		-				
Saturation Flow Mod	lule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.04	0.96	0.00	0.00	0.00	0.29	0.11	1.60
Final Sat.:	1600	4800	0	0	3269	1531	0	0	0	457	183	2560
Capacity Analysis M	odule:											
Vol/Sat:	0.16	0.28	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.22	0.22	0.22
Crit Moves:	****				****						***	
Volume/Cap:	0.65	0.43	0.00	0.00	0.65	0.65	0.00	0.00	0.00	0.65	0.65	0.65
	_		—			—			—			
Level Of Service Mo												
Delay/Veh:	4.0	0.4	0.0	0.0	1.7	2.6	0.0	0.0	0.0	7.6	15.4	2.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.0	0.4	0.0	0.0	1.7	2.6	0.0	0.0	0.0	7.6	15.4	2.4
DesignQueue:	0.6	0.5	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.2	0.1	1.1

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

C1 - ()			-	~		II-1 /0	(37)				0 661	
Cycle (sec):			5		ritical						0.661 1.9	
Loss Time (sec):			55		verage D evel Of	_		•				
Optimal Cycle:			22	Ш	evel OI	servic	e.				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		We	st Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	Т	R
	-		——II									—
Control:	Pr	otected		Pr	otected		Pe	rmitted		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0	0 0	1! 0	1
			——			<u></u> II			<u></u> II			<u> </u>
Volume Module:												
Base Vol:	255	1381	0	0	904	423	0	0	0	100	40	582
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	255	1367	0	0	901	422	0	0	0	100	40	560
Added Vol:	0	14	0	0	3	1	0	0	0	0	0	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	1381	0	0	904	423	0	0	0	100	40	582
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	255	1381	0	0	904	423	0	0	0	100	40	582
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	1381	0	0	904	423	0	0	0	100	40	582
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	255	1381	0	0	904	423	0	0	0	100	40	582
2	-											_
Saturation Flow Modu		1.000	1.600	1.000	1.000	1600	1600	1.600	1600	1.600	1600	1600
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment: Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1.00 1600	3.00 4800	0.00	0.00	2.04 3270	0.96 1530	0.00	0.00	0.00	0.28 443	0.11 177	1.61 2580
rillai Sat	_1600	4000		L	3270	1530	U	U		443	1//	2500
Capacity Analysis Mo	dule:								11			
Vol/Sat:	0.16	0.29	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.23	0.23	0.23
Crit Moves:	****	0.27	0.00	0.00	****	0.20		0.00		0.23	****	0.23
Volume/Cap:	0.66	0.44	0.00	0.00	0.66	0.66	0.00	0.00	0.00	0.66	0.66	0.66
	.		 			I			—— - -			
Level Of Service Mod	ule:		- "			- 11			- 11			
Delay/Veh:	4.2	0.4	0.0	0.0	1.8	2.7	0.0	0.0	0.0	8.0	16.2	2.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.2	0.4	0.0	0.0	1.8	2.7	0.0	0.0	0.0	8.0	16.2	2.4
DesignQueue:	0.6	0.5	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.2	0.1	1.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 62	A	ritical verage I evel Of	elay (sec/veh)	:			0.631 18.3 B	
Approach:	Nor	th Bound	i	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L ∎	Т	R 	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected	1		otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
Volume Module:	_											
Base Vol:	0	1006	43	304	700	0	600	111	155	0	0	(
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1006	43	304	700	0	600	111	155	0	0	(
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	0	1006	43	304	700	0	600	111	155	0	0	(
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	0	1006	43	304	700	0	600	111	155	0	0	(
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1006	43	304	700	0	600	111	155	0	0	(
Saturation Flow Mod						—						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.88	0.12	1.00	3.00	0.00	1.69	0.31	1.00	0.00	0.00	0.00
Final Sat.:	0	4603	197	1600	4800	0	2700	500	1600	0	0	(
	_					i						
Capacity Analysis M	odule:											
Vol/Sat:	0.00	0.22	0.22	0.19	0.15	0.00	0.22	0.22	0.10	0.00	0.00	0.00
Crit Moves:		****		****			****					
Volume/Cap:	0.00	0.63	0.63	0.63	0.23	0.00	0.63	0.63	0.28	0.00	0.00	0.00
Level Of Service Mo	dule:											
Delay/Veh:	0.0	21.6	32.3	25.1	5.6	0.0	21.7	25.6	18.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	0.0	21.6	32.3	25.1	5.6	0.0	21.7	25.6	18.0	0.0	0.0	0.

Note: Queue reported is the number of cars per lane.

0.0

13.3

DesignQueue:

4.7

0.0 13.5 13.5

13.3 12.3

0.0

0.0

5.7

0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Index #10. Vermone												
Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.636	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			18.4	
Optimal Cycle:			63	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound	i	Sou	th Bound		Eas	t Bound		Wes	st Bound	
Movement:	L	T	R.	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected	}	Pr	otected		Pr	otected	—
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
			—			<u> </u>						<u> </u>
Volume Module:	_					_				_	_	_
Base Vol:	0	1009	43	306	700	0	611	111	155	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	1006	43	304	700	0	600	111	155	0	0	0
Added Vol:	0	3	0	2	0	0	11	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1009	43	306	700	0	611	111	155	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1009	43	306	700	0	611	111	155	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1009	43	306	700	0	611	111	155	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1009	43	306	700	0	611	111	155	0	0	0
						— Н			——П			
Saturation Flow Mod	lule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.88	0.12	1.00	3.00	0.00	1.69	0.31	1.00	0.00	0.00	0.00
Final Sat.:	0	4604	196	1600	4800	0	2708	492	1600	0	0	0
Capacity Analysis M	lodule:								(1			
Vol/Sat:	0.00	0.22	0.22	0.19	0.15	0.00	0.23	0.23	0.10	0.00	0.00	0.00
Crit Moves:	0.00	****	0.22	****	0.13	3.00	****	0.23	3.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.64	0.64	0.64	0.23	0.00	0.64	0.64	0.27	0.00	0.00	0.00
voidile/cap.		0.04			0.23	—— - -	0.04	0.04	II		0.00	0.00
Level Of Service Mo	dule:		11						11			1
Delay/Veh:	0.0	21.8	33.0	25.2	5.7	0.0	21.7	25.8	17.8	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.8	33.0	25.2	5.7	0.0	21.7	25.8	17.8	0.0	0.0	0.0
DesignQueue:	0.0	13.4	13.4	12.4	4.8	0.0	13.6	13.6	5.7	0.0	0.0	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Indev	#11:	111+h	Place	and	T-110	SB	Pamn
THUEX	# 1 1 .	$\perp \perp \perp \perp \cup \square$	Place	anu	T-TT0	OD	Raille

Cycle (sec):	100	Critical Vol./Cap.(X):	0.302
Loss Time (sec):	0	Average Delay (sec/veh):	10.5
Optimal Cycle:	27	Level Of Service:	A

Optimal Cycle:	27	L	evel Of			A						
Approach:	Nor	th Bound		Sou	th Bound	ļ	Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pe	rmitted			rmitted	11	Pr	otected		Pe	rmitted	
Rights		nclude		Include				Include			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
Volume Module:	_											
Base Vol:	0	0	0	103	554	58	0	160	20	52	212	C
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	103	554	58	0	160	20	52	212	C
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	103	554	58	0	160	20	52	212	C
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C
Reduced Vol:	0	0	0	103	554	58	0	160	20	52	212	C
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	103	554	58	0	160	20	52	212	C
Saturation Flow Mo	dule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.47	2.53	1.00	0.00	0.89	0.11	0.20	0.80	0.00
Final Sat.:	0	0	0	753	4047	1600	0	1422	178	315	1285	C
			<u>—</u> ІІ			<u>—</u> ІІ						
Capacity Analysis												
Vol/Sat:	0.00	0.00	0.00	0.06	0.14	0.04	0.00	0.11	0.11	0.03	0.17	0.00
Crit Moves:					****		****				****	
Volume/Cap:	0.00	0.00	0.00	0.07	0.30	0.08 	0.00	0.21	0.21	0.06	0.30	0.00
Level Of Service M	odule:											
Delay/Veh:	0.0	0.0	0.0	0.4	13.4	11.9	0.0	8.9	9.1	8.2	9.6	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.4	13.4	11.9	0.0	8.9	9.1	8.2	9.6	0.0
DesignQueue:	0.0	0.0	0.0	1.2	6.9	1.8	0.0	4.7	4.7	6.9	6.9	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#11:	111th	Place	and	I-110	SB	Ramp

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 27	A	ritical verage I evel Of	Delay (:	0.306 10.5 A				
Approach:	Nor	th Bound	l	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	T	R	L	Т	R
Control:	Pe	rmitted		Pe	rmitted	 !	Pr	otected	11	Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
	_											
Volume Module:	•								•			_
Base Vol:	0	0	0	103	574	58	0	160	20	52	212	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	103	554	58	0	160	20	52	212	0
Added Vol:	0	0	0	0	20	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	103	574	58	0	160	20	52	212	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	103	574	58	0	160	20	52	212	0

Final Vol.:	0	0	0	103	574	58	0	160	20	52	212	0
Saturation Flow Mo	dule:											•
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	2.54	1.00	0.00	0.89	0.11	0.20	0.80	0.00
Final Sat.:	0	0	0	730	4070	1600	0	1422	178	315	1285	0
Capacity Analysis	Module:											•
Vol/Sat:	0.00	0.00	0.00	0.06	0.14	0.04	0.00	0.11	0.11	0.03	0.17	0.00

0

574

1.00

1.00

0

58

1.00

1.00

0

0

1.00

1.00

0

160

1.00

1.00

0

20

1.00

1.00

0

52

1.00

1.00

0

212

1.00

1.00

0

0

1.00

1.00

0

103

1.00

1.00

0

0

1.00

1.00

Volume/Cap:	0.00	0.00	0.00	0.07	0.31	0.08	0.00	0.21	0.21	0.06	0.31	0.00
			———————————————————————————————————————			———			IL			
Level Of Service Mo	dule:								•			•
Delay/Veh:	0.0	0.0	0.0	0.3	13.1	11.6	0.0	9.2	9.4	8.5	9.9	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.3	13.1	11.6	0.0	9.2	9.4	8.5	9.9	0.0
DesignQueue:	0.0	0.0	0.0	1.0	7.0	1.8	0.0	4.7	4.7	7.0	7.0	0.0

Note: Queue reported is the number of cars per lane.

0

0

1.00

1.00

0

0

1.00

1.00

Reduct Vol:

PCE Adj:

MLF Adj:

Crit Moves:

Reduced Vol:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:	100											
Approach:	Nor	th Bound	l	Sou	th Bound	l		st Bound		Wes	st Bound	
Movement:	L I	Т	R ∎∎	L	Т	R	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0
Volume Module:												
Base Vol:	0	0	0	127	370	260	0	642	452	300	1721	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	127	370	260	0	642	452	300	1721	1.00
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	127	370	260	0	642	452	300	1721	(
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C
Reduced Vol:	0	0	0	127	370	260	0	642	452	300	1721	(
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	127	370	260	0	642	452	300	1721	C
	_					———			<u>—</u> —П			
Saturation Flow Mod	lule:		•			•			•			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	1.63	1.37	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1600	2601	2199	0	3200	1600	1600	4800	C
Capacity Analysis M	odule:											
Vol/Sat:	0.00	0.00	0.00	0.08	0.14	0.12	0.00	0.20	0.28	0.19	0.36	0.00
Crit Moves:					***				***	****		
Volume/Cap:	0.00	0.00	0.00	0.34	0.61	0.51	0.00	0.43	0.61	0.61	0.47	0.00
Level Of Service Mo												
Delay/Veh:	0.0	0.0	0.0	24.9	27.8	26.4	0.0	14.1	16.7	24.4	3.3	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.9	27.8	26.4	0.0	14.1	16.7	24.4	3.3	0.0
	0.0		0.0	2					,,		5.5	٠.٠

Note: Queue reported is the number of cars per lane.

0.0

0.0

0.0

5.5

10.0

8.3

0.0

10.1

14.4

12.1

8.0

0.0

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.619	
Loss Time (sec):			0	А	verage D	elay (sec/veh)	:			13.0	
Optimal Cycle:			60	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	•	Pr	otected	••	Pr	otected	••	Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0
			——			——			——			-
Volume Module:												
Base Vol:	0	0	0	127	370	280	0	648	453	300	1769	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	127	370	260	0	642	452	300	1721	0
Added Vol:	0	0	0	0	0	20	0	6	1	0	48	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	127	370	280	0	648	453	300	1769	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	127	370	280	0	648	453	300	1769	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	127	370	280	0	648	453	300	1769	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	127	370	280	0	648	453	300	1769	0
	-, 											
Saturation Flow Mod		1.500	1.600	1.500	1.000	1.600	1.600	1.500	1.600	1.500	1600	1.600
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	1.55	1.45	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	•	0	0	1600	2487	2313	0	3200	1600	1600	4800	0
Capacity Analysis M	indule:					11			11			1
Vol/Sat:	0.00	0.00	0.00	0.08	0.15	0.12	0.00	0.20	0.28	0.19	0.37	0.00
Crit Moves:	0.00	0.00	3.00	0.00	****	J.11	0.00	0.20	****	****	0. 5.	0.00
Volume/Cap:	0.00	0.00	0.00	0.33	0.62	0.50	0.00	0.44	0.62	0.62	0.49	0.00
	_		——II						——[]			
Level Of Service Mo	dule:		11			11			- 11			
Delay/Veh:	0.0	0.0	0.0	24.3	27.5	25.9	0.0	14.4	17.0	24.8	3.6	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.3	27.5	25.9	0.0	14.4	17.0	24.8	3.6	0.0
DesignQueue:	0.0	0.0	0.0	5.5	10.4	8.4	0.0	10.2	14.6	12.1	8.6	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 108 Level Of Service:									0.789 18.6 C			
Approach:		th Bound			th Bound			st Bound			st Bound			
Movement:	L ∎	T	R	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R		
Control:	Pr	otected			otected		Pr	otected		Pro	otected			
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0		
	-		<u>—</u> ІІ			—			<u>—</u> ІІ			—		
Volume Module:														
Base Vol:	887	317	482	0	0	0	98	685	0	0	1167	71		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	887	317	482	0	0	0	98	685	0	0	1167	71		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	887	317	482	0	0	0	98	685	0	0	1167	71		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C		
Reduced Vol:	887	317	482	0	0	0	98	685	0	0	1167	71		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	887	317	482	0	0	0	98	685	0	0	1167	71		
	- 		—											
Saturation Flow Mod														
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.58	0.42	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.83	0.17		
Final Sat.:	2525 •	675	1600 ••	0	0	0	1600	4800	0	0	4525	275		
Capacity Analysis M	odule:													
Vol/Sat:	0.35	0.47	0.30	0.00	0.00	0.00	0.06	0.14	0.00	0.00	0.26	0.26		
Crit Moves:	0.55	****	0.50	0.00	0.00	0.00	****	U.11	0.00	0.00	****	0.20		
Volume/Cap:	0.59	0.79	0.51	0.00	0.00	0.00	0.79	0.35	0.00	0.00	0.79	0.79		
- To Lame / Gap	_	0.75	I		0.00	I	0.75	0.33	I	0.00	0.75			
Level Of Service Mo	dule:		- 1			- 11			- 11					
Delay/Veh:	10.2	18.8	9.4	0.0	0.0	0.0	53.4	16.0	0.0	0.0	25.6	47.1		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	10.2	18.8	9.4	0.0	0.0	0.0	53.4	16.0	0.0	0.0	25.6	47.1		
DesignQueue:	13.7	18.9	11.6	0.0	0.0	0.0	5.1	7.8	0.0	0.0	16.4	16.4		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

index #13. Imperiar n.												
Cycle (sec):			100		ritical						0.808	
Loss Time (sec):			0			_	sec/veh)	:			19.1	
Optimal Cycle:			119	L	evel Of	Service	e:				D	
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		Wes	t Bound	
Movement:	L	Т	R	L	Т	R	L	T	R	L	Т	R •
Control:	Pr	otected		Pr	otected	—-II	Pro	otected		Pr	otected	_
Rights	I	nclude		I	nclude		Ιı	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0
Volume Module:												_
Base Vol:	898	317	482	0	0	0	100	689	0	0	1204	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	887	317	482	0	0	0	98	685	0	0	1167	71
Added Vol:	11	0	0	0	0	0	2	4	0	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	898	317	482	0	0	0	100	689	0	0	1204	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	898	317	482	0	0	0	100	689	0	0	1204	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	898	317	482	0	0	0	100	689	0	0	1204	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	898	317	482	0	0	0	100	689	0	0	1204	71
			<u>—</u> п						<u>—</u> п			<u> </u>
Saturation Flow Modul												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.59	0.41	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.83	0.17
Final Sat.:	2540 	660	1600	U	0	0 ! [1600	4800	0 	0	4533	267
Capacity Analysis Mod	ule:											
Vol/Sat:	0.35	0.48	0.30	0.00	0.00	0.00	0.06	0.14	0.00	0.00	0.27	0.27
Crit Moves:		****					****				****	
Volume/Cap:	0.60	0.81	0.51	0.00	0.00	0.00	0.81	0.35	0.00	0.00	0.81	0.81
Level Of Service Modu	le:					I			—			
Delay/Veh:	10.3	20.4	9.5	0.0	0.0	0.0	55.8	15.9	0.0	0.0	26.1	50.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	20.4	9.5	0.0	0.0	0.0	55.8	15.9	0.0	0.0	26.1	50.5
DesignQueue:	13.8	19.4	11.6	0.0	0.0	0.0	5.2	7.8	0.0	0.0	16.8	16.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Cycle (sec):			100	C	ritical	vol /a	on (V):				0.698	
Loss Time (sec):			0		ricicai verage D						25.0	
Optimal Cycle:			76		verage D evel Of	_		•			25.0 B	
Optimal Cycle:			70	п	evel OI	SELVIC	٠.				ь	
Approach:	Nor	th Bound	ļ	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	T	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
	_		<u>—</u> П			<u>—</u> ІІ			<u>—</u>			<u>——</u>
Volume Module:												
Base Vol:	250	798	179	186	767	160	140	623	256	197	1177	220
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	250	798	179	186	767	160	140	623	256	197	1177	220
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	798	179	186	767	160	140	623	256	197	1177	220
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	798	179	186	767	160	140	623	256	197	1177	220
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	250	798	179	186	767	160	140	623	256	197	1177	220
Saturation Flow Mod	10.											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.48	0.52	1.00	2.13	0.87	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	1600	3972	828	1600	3402	1398	1600	4800	1600
rinai Sat.:		3200	I		3312	——II		3402			4000	1000
Capacity Analysis M	odule:								- '			•
Vol/Sat:	0.16	0.25	0.11	0.12	0.19	0.19	0.09	0.18	0.18	0.12	0.25	0.14
Crit Moves:		****		****			****				****	
Volume/Cap:	0.67	0.70	0.31	0.70	0.67	0.67	0.70	0.64	0.64	0.64	0.70	0.39
	_		<u> </u>						<u> </u>			
Level Of Service Mo	dule:											
Delay/Veh:	29.9	22.5	18.0	35.6	25.1	28.8	39.2	25.1	26.6	31.9	22.4	19.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.9	22.5	18.0	35.6	25.1	28.8	39.2	25.1	26.6	31.9	22.4	19.0
DesignQueue:	11.0	15.1	6.6	8.8	12.7	12.7	6.9	12.1	12.1	9.1	15.0	8.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.726	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			25.8	
Optimal Cycle:			83	L	evel Of	Servic	e:				С	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R		L T R		L	Т	R	L	Т	R
	_		——									
Control:	Pr	otected			otected	••	Pro	otected	•	Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
	_		——						<u>—</u>			
Volume Module:												
Base Vol:	250	802	179	226	805	160	140	680	260	197	1183	224
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	250	798	179	186	767	160	140	623	256	197	1177	220
Added Vol:	0	4	0	40	38	0	0	57	4	0	6	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	250	802	179	226	805	160	140	680	260	197	1183	224
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	802	179	226	805	160	140	680	260	197	1183	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	802	179	226	805	160	140	680	260	197	1183	224
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	250	802	179	226	805	160	140	680	260	197	1183	224
			<u> </u>			—()						
Saturation Flow Modu												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.50	0.50	1.00	2.17	0.83	1.00	3.00	1.00
Final Sat.:	1600 •	3200	1600	1600	4004	796	1600	3472	1328	1600	4800	1600
Capacity Analysis Mo	odule:											
Vol/Sat:	0.16	0.25	0.11	0.14	0.20	0.20	0.09	0.20	0.20	0.12	0.25	0.14
Crit Moves:	0.10	****	0.11	****	0.20	0.20	****	0.20	0.20	0.12	****	0.11
Volume/Cap:	0.66	0.73	0.32	0.73	0.66	0.66	0.73	0.69	0.69	0.69	0.73	0.41
volume/cap:		0.75	——[]		0.00		0.73	0.09	——[]		0.73	0.11
Level Of Service Mod	dule:											
Delay/Veh:	29.6	23.7	18.7	34.7	24.3	27.9	41.2	26.1	28.4	34.5	23.4	19.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.6	23.7	18.7	34.7	24.3	27.9	41.2	26.1	28.4	34.5	23.4	19.8
DesignQueue:	11.0	15.4	6.7	10.4	13.0	13.0	7.0	13.1	13.1	9.3	15.3	8.5

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.489	
Loss Time (sec):			0				sec/veh)	:			5.8	
Optimal Cycle:			36		evel Of	_					А	
Approach:	Nor	th Bound	l	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pe:	rmitted		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1
Volume Module:												
Base Vol:	32	1186	113	131	1068	8	13	4	25	29	0	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	32	1186	113	131	1068	8	13	4	25	29	0	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	1186	113	131	1068	8	13	4	25	29	0	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C
Reduced Vol:	32	1186	113	131	1068	8	13	4	25	29	0	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	32	1186	113	131	1068	8	13	4	25	29	0	32
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.98	0.02	1.00	0.14	0.86	1.00	0.00	1.00
Final Sat.:	1600	3200	1600	1600	4764	36	1600	221	1379	1600	0	1600
Capacity Analysis M	odule:		—"									
Vol/Sat:	0.02	0.37	0.07	0.08	0.22	0.22	0.01	0.02	0.02	0.02	0.00	0.02
Crit Moves:		****		****				****		****		
Volume/Cap:	0.26	0.49	0.09	0.49	0.26	0.26	0.38	0.49	0.49	0.49	0.00	0.54
Level Of Service Mo	- H											
Delay/Veh:	33.8	3.7	2.4	30.2	1.1	2.2	40.4	60.9	41.8	41.1	0.0	43.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.8	3.7	2.4	30.2	1.1	2.2	40.4	60.9	41.8	41.1	0.0	43.3
DesignQueue:	1.7	8.7	1.5	6.2	3.1	3.1	0.7	1.6	1.6	1.6	0.0	1.7
pesidilănene.	1.7	0.7	1.5	0.2	3.1	3.1	0.7	1.0	1.0	1.0	0.0	т.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 38	A	ritical verage I evel Of	elay (sec/veh)	:		0.517 6.8 A			
Approach:		th Bound			th Bound			st Bound			st Bound		
Movement:	L	Т	R	L	Т	R	L	Т	R	L	T	R	
Control:	-⊩ Pr	otected		Pr	otected		Pe	rmitted		Pe	rmitted		
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1	
Volume Module:												_	
Base Vol:	32	1186	139	173	1068	8	13	4	25	32	0	36	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	32	1186	113	131	1068	8	13	4	25	29	0	32	
Added Vol:	0	0	26	42	0	0	0	0	0	3	0	4	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	32	1186	139	173	1068	8	13	4	25	32	0	36	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	32	1186	139	173	1068	8	13	4	25	32	0	36	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	32	1186	139	173	1068	8	13	4	25	32	0	36	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	32	1186	139	173	1068	8	13	4	25	32	0	36	
	-		——II			 ⊪			——II				
Saturation Flow Modu	ule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	2.00	1.00	1.00	2.98	0.02	1.00	0.14	0.86	1.00	0.00	1.00	
Final Sat.:	1600	3200	1600 ••	1600	4764	36 II	1600	221	1379 ∎∎	1600	0	1600	
Capacity Analysis Mo	odule:					11							
Vol/Sat:	0.02	0.37	0.09	0.11	0.22	0.22	0.01	0.02	0.02	0.02	0.00	0.02	
Crit Moves:		***		****				****		****			
Volume/Cap:	0.26	0.52	0.12	0.52	0.26	0.26	0.42	0.52	0.52	0.52	0.00	0.58	
Level Of Service Mod	dule:					(I-							
Delay/Veh:	33.8	5.1	3.4	28.1	1.1	2.2	42.1	67.0	43.6	42.0	0.0	45.3	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	33.8	5.1	3.4	28.1	1.1	2.2	42.1	67.0	43.6	42.0	0.0	45.3	
DesignOueue:	1.7	10.2	2.2	7.8	3.1	3.1	0.7	1.6	1.6	1.7	0.0	1.9	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	0	Average Delay (sec/veh):	15.2
Optimal Cycle:	36	Level Of Service:	A

Approach:		Optimal Cycle: 36					6 Level Of Service:						
	th Bound		Sou	th Bound		Eas	t Bound		Wes	st Bound			
Movement:	L	T	R	L	Т	R	L	Т	R	L	Т	R	
Control:	Pe	rmitted		Pe	rmitted	11	Pr	otected	11	Pr	otected		
Rights		nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	C	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0	
Volume Module:	1								I I-				
Base Vol:	66	15	107	65	38	71	54	767	141	229	1379	88	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	66	15	107	65	38	71	54	767	141	229	1379	88	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	66	15	107	65	38	71	54	767	141	229	1379	88	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C	
Reduced Vol:	66	15	107	65	38	71	54	767	141	229	1379	88	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	66	15	107	65	38	71	54	767	141	229	1379	88	
Saturation Flow Modul													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.81	0.19	1.00	0.37	0.22	0.41	1.00	2.53	0.47	1.00	2.82	0.18	
Final Sat.:	1304	296	1600	598	349	653	1600	4055	745	1600	4512	288	
rinai sat.:	1304	200			349	IL	1000	4033	/ 1 3	1000	4312	200	
Capacity Analysis Mod	lule:												
Vol/Sat:	0.04	0.05	0.07	0.04	0.11	0.11	0.03	0.19	0.19	0.14	0.31	0.31	
Crit Moves:	****				****		****				****		
Volume/Cap:	0.49	0.27	0.35	0.35	0.49	0.49	0.49	0.48	0.48	0.48	0.49	0.49	
Level Of Service Modu	le:					——II			—II-				
Delay/Veh:	36.4	27.2	27.3	32.6	29.9	28.2	37.2	17.6	18.4	22.7	7.9	9.5	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	36.4	27.2	27.3	32.6	29.9	28.2	37.2	17.6	18.4	22.7	7.9	9.5	
DesignQueue:	4.2	3.7	4.9	8.8	7.7	7.7	2.8	10.6	10.4	9.2	10.9	10.9	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

T	1176	T 2 - 3	TT 4 - 1	7	D 1	7	/	The transfer of the Control of the C	`
ınaex	#TP:	ımperiai	Highway	ana	Denker	avenue	(Campus	Entrance)

Cycle (sec): Loss Time (sec): Optimal Cycle:	100 0 43	A	ritical verage D evel Of	elay (:	0.572 16.0 A						
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	T	R	L	T	R
Control:	Pe	rmitted	——II		rmitted			otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	_					——II						
Base Vol:	76	15	116	65	38	71	54	767	237	331	1379	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	66	15	107	65	38	71	54	767	141	229	1379	88
Added Vol:	10	0	9	0	0	0	0	0	96	102	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	15	116	65	38	71	54	767	237	331	1379	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	15	116	65	38	71	54	767	237	331	1379	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	15	116	65	38	71	54	767	237	331	1379	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	76 •	15	116	65	38	71	54	767	237	331	1379	88
0			—			—						_
Saturation Flow Mod		1.600	1.600	1.600	1600	1.600	1.000	1.600	1.600	1.500	1600	1.660
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600

-												
Lanes:	0.84	0.16	1.00	0.37	0.22	0.41	1.00	2.29	0.71	1.00	2.82	0.18
Final Sat.:	1336	264	1600	598	349	653	1600	3667	1133	1600	4512	288
	— ——		——II-			——II-			——II-			
Capacity Analysis	Module:											-
Vol/Sat:	0.05	0.06	0.07	0.04	0.11	0.11	0.03	0.21	0.21	0.21	0.31	0.31
Crit Moves:	****				****			****		* * * *		
Volume/Cap:	0.57	0.33	0.41	0.41	0.57	0.57	0.47	0.57	0.57	0.57	0.47	0.47
			——II-			——II-			——II-			
Level Of Service	Module:											_
Delay/Veh:	39.0	29.2	28.8	35.3	36.2	32.8	36.5	20.0	21.0	20.8	6.7	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

36.2

8.0

1.00

1.00

32.8

8.0

36.5

2.8

20.0

12.4

1.00 1.00

1.00

21.0

12.4

1.00

20.8

12.3

1.00

6.7

10.1

1.00

8.0

10.1

1.00 1.00

Note: Queue reported is the number of cars per lane.

39.0

4.7

29.2

4.2

28.8

5.4

35.3

8.9

1.00 1.00

Adjustment:

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Average Delay (sec/ve	eh):		0.0	V	Norst Ca	se Leve	l Of Sei	rvice:			A[7.5]	
Approach:	Nor	th Bound	l	Sou	ıth Boun	d	Ea	st Bound		We	st Bound	
Movement:	L •	T	R	L	T	R	L	T	R	L	T	R
Control:	Unco	ontrolle	 ₫		ontrolle	ed	St	op Sign	——II		op Sign	
Rights	I	nclude		I	include		I	include]	Include	
Lanes:	0 1	1 0	0	0 0	1 1	. 0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	655	0	0	599	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	655	0	0	599	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	655	0	0	599	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	655	0	0	599	0	0	0	0	0	0	0
			——II			—— Н						
Critical Gap Module:	-											_
Critical Gp:	****	****	****	****	***	****	6.8	****	6.9	****	***	****
FollowUpTim:	****	****	****	****	***	****	3.5	****	3.3	****	****	****
			——II			——II						
Capacity Module:												
Cnflict Vol:	****	****	****	****	****	****	629	****	0	****	****	****
Potent Cap.:	****	****	****	****	****	****	367	****	954	****	****	****
Move Cap.:	****	****	****	****	***	****	367	****	954	****	****	****
Volume/Cap:	****	***	****	****	****	****	0.00	****	0.00	****	****	****
			——II			⊦						
Level Of Service Modu	ıle:											
2Way95thQ:	****	****	****	****	***	****	****	****	****	***	***	****
Control Del:	****	***	****	****	***	****	***	***	****	****	****	****
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	$_{ m LT}$	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	****	****	***	***	***	****	****	****	****	***	***	****
SharedQueue:	0.0	***	****	****	***	****	****	****	***	****	***	****
Shrd ConDel:	7.5	***	****	****	***	****	***	***	****	****	****	****
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		***			***			****			****	
ApproachLOS:		*			*			*			*	

Level Of Service Detailed Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Approach:	Nor	rth Bound	d	Sou	ıth Bound	d	Ea	st Bound	d	We	st Bound	l
Movement:	L 	Т	R	L	Т	R	L	Т	R	L	Т	R
% Hev Veh:		0 %			0 %			0 5	1 1		0 %	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Sp	eed: 4.00 f	eet/sec										
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	1
Time Period: 0.25	hour											
Upstream Signals:												
Link Index:		#97			#15							
Dist(miles):		0.350			0.150							
Speed (mph):		40.00			40.00							
Node Index:		#18			#7							
Cycle Time:			ecs		100 s	ecs						
FinalVolume:	0	0		122	524							
Saturation:	0	0		1600	2608							
ArrivalType:	0	0		3	3							
G/C:	0.00	0.00		0.19	0.27							
*** Computation 1:			Clear a			m Inter	section					
P:	0.000	0.000	CICAL	0.188	0.274	iii IIICCI	30001011					
gq1:	0.00	0.00		6.19	14.59							
gq2:	0.00	0.00		0.51	3.67							
ad:	0.00	0.00		6.70	18.26							
*** Computation 2:			Plagko			atroom 1	Dlatoon	7				
_	TIME INCEL	0.000	DIOCKE	ı becau	0.500	scream i	racoons	•				
alpha: beta:		0.000			0.667							
		0.000			13.500							
ta (secs): F:		0.000			0.182							
	0 00			0 02								
f:	0.00	0.00		0.93	1.00							
vcmax:	0	0		1097	2541							
vcg:	0	0		200	848							
vcmin:	0	0		2000	2000							
tp:	0.0	0.0		0.0	12.6							
p:		0.000			0.126							
*** Computation 3:	Platoon Ev											
pdom/psubo:			0.000/U1									
*** Computation 4:												
InitCnflVol:	0	****	****	0	****	****	927	1254	300	955	1254	32
AdjCnflVol:	-377	****	****	0	****	****	550	877	-77	578	877	32
UpstreamAdj:	0.874	****	****	1.000	****	****	0.874	0.874	0.874	0.874	0.874	1.00
ConflictVol:	***	****	****	****	****	****	629	****	0	****	****	***
*** Computation 5:		-										
InitPotCap:	1636	****	****	1636	****	****	419	244	1091	400	244	67
UpstreamAdj:	0.874	****	****	1.000	****	****	0.874	0.874	0.874	0.874	0.874	1.00
Potent Cap.:	****	****	****	****	***	****	367	****	954	****	****	***

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Average Delay (sec/	rerage Delay (sec/veh): 0.						l Of Ser	rvice:		C	[15.0]	
Approach:	Nor	th Bound	i	Sou	ıth Boun	d	Ea	st Bound		We	st Bound	l
Movement:	L	Т	R	L	T	R	L	Т	R	L	T	R
Control:	Unco	ontrolle	d		ontrolle	ed.		op Sign		St	op Sign	
Rights	I	nclude		I	nclude		I	include]	Include	
Lanes:	0 1	1 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:			!			!!						
Base Vol:	19	655	0	0	599	84	10	0	2	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Initial Base:	0	655	0	0	599	0	0	0	0	0	0	(
Added Vol:	19	0	0	0	0	84	10	0	2	0	0	(
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	19	655	0	0	599	84	10	0	2	0	0	
User Adi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	19	655	0	0	599	84	10	0	2	0	0	1.0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Final Vol.:	19	655	0	0	599	84	10	0	2	0	0	
		033		Ŭ	3,7,7		10	Ŭ			Ŭ	
Critical Gap Module	·:					11			11			
Critical Gp:	4.1	***	****	***	***	****	6.8	***	6.9	****	****	***
FollowUpTim:	2.2	****	****	****	****	****	3.5	****	3.3	****	****	***
							3.3		 			
Capacity Module:			- ''			- 11						
Cnflict Vol:	305	****	***	***	****	****	681	****	0	***	***	***
Potent Cap.:	1090	****	****	***	****	****	334	****	938	***	****	***
Move Cap.:	1090	****	****	***	****	****	329	***	938	****	****	***
Volume/Cap:	0.02	****	****	***	****	****	0.03	***	0.00	****	****	***
									——II			
Level Of Service Mo	dule:								•			
2Way95thQ:	0.1	***	****	***	****	****	0.1	****	0.0	***	****	***
Control Del:	8.4	***	****	****	****	****	16.3	****	8.8	****	****	***
LOS by Move:	А	*	*	*	*	*	С	*	А	*	*	
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	****	****	****	***	****	****	***	****	****	****	****	***
SharedQueue:	0.1	****	***	***	****	****	***	****	****	****	***	***
Shrd ConDel:	8.4	****	****	***	****	****	***	***	****	****	****	***
Shared LOS:	А	*	*	*	*	*	*	*	*	*	*	
ApproachDel:		****			****			15.0			****	

Level Of Service Detailed Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Movement: * Hev Veh:	L	Т	-									
% Hev Veh:			R IL	L	Т	R II	L	Т	R	L	Т	R
		0 %	11		0 %	11		0 %	1 I		0 %	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed:	4.00 f	eet/sec										
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	1:
Time Period: 0.25 hour	:											
Upstream Signals:												
Link Index:		#97			#15							
Dist(miles):		0.350			0.150							
Speed (mph):		40.00			40.00							
Node Index:		#18			#7							
Cycle Time:		0 se	ecs		100 s	ecs						
FinalVolume:	0	0		170	560							
Saturation:	0	0		1600	2582							
ArrivalType:	0	0		3	3							
G/C:	0.00	0.00		0.23	0.28							
*** Computation 1: Tim			Clear a			m Inter	section					
P:	0.000	0.000		0.231	0.282							
gq1:	0.00	0.00		8.17	15.57							
gq2:	0.00	0.00		0.97	4.31							
gd:	0.00	0.00		9.14	19.88							
*** Computation 2: Tim			Blocked			stream 1	Platoons	1				
alpha:	.0 111001	0.000	2200,100	200441	0.500		2000011					
beta:		0.000			0.667							
ta (secs):		0.000			13.500							
F:		0.000			0.182							
f:	0.00	0.00		0.94	1.00							
vcmax:	0.00	0.00		1258	2534							
vcg:	0	0		226	932							
vcmin:	0	0		2000	2000							
tp:	0.0	0.0		0.0	14.0							
p:	0.0	0.000		0.0	0.140							
*** Computation 3: Pla	toon Ev		ode		0.140							
pdom/psubo:	ICOOII EV	0.140/0		aonatra	ainod							
*** Computation 4: Con	fliatin					Doriod						
	683	****	****	0	****	****	1007	1224	242	002	1376	2.21
InitCnflVol:	262	***	****	0	****	****	1007 586	1334	342	993		32
AdjCnflVol: UpstreamAdj:		****	****		****	****		913	-79	572	955	32
-	0.860	****	****	1.000	****	****	0.860	0.860 ***	0.860	0.860	0.860 ***	1.00
ConflictVol:	305						681	^^^	0	^ ^ ^ *	* * * *	^ ^ *
*** Computation 5: Cap	_	or Subje	****		aring Uni ****	****		005	1.001	250	011	6 17
<pre>InitPotCap: UpstreamAdj:</pre>	1267			1636			388	225	1091	350	211	67
	0.860	****	****	1.000	****	****	0.860	0.860	0.860	0.860	0.860	1.00

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 56	A	ritical verage I evel Of	elay (sec/veh)	:		0.594 17.1 A			
Approach:	Nor	th Bound	i	Sou	th Bound	l	Eas	t Bound		Wes	st Bound		
Movement:	L I	Т	R 	L	Т	R ■■	L	Т	R ∎∎	L	Т	R	
Control:	Pr	otected			otected	11	Pr	otected		Pr	otected		
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1	
Volume Module:	-												
Base Vol:	0	0	0	505	0	9	387	745	0	0	496	438	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	0	0	0	505	0	9	387	745	0	0	496	438	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	0	0	505	0	9	387	745	0	0	496	438	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	0	0	0	505	0	9	387	745	0	0	496	438	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	0	0	0	505	0	9	387	745	0	0	496	438	
	-		——										
Saturation Flow Modu	ıle:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.59	1.41	
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2549	2251	
Capacity Analysis Mo	odule:					1							
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.01	0.24	0.23	0.00	0.00	0.19	0.19	
Crit Moves:				****			****				***		
Volume/Cap:	0.00	0.00	0.00	0.59	0.00	0.02	0.59	0.32	0.00	0.00	0.59	0.59	
	33												
Level Of Service Mod	aure:												
	0.0	0.0	0.0	25.5	0.0	20.9	18.9	3.6	0.0	0.0	22.5	22.	
Level Of Service Mod Delay/Veh: Delay Adj:		0.0	0.0	25.5 1.00	0.0	20.9	18.9	3.6	0.0	0.0	22.5	22.0	

Note: Queue reported is the number of cars per lane.

0.0

0.0

DesignQueue:

10.7

0.0

0.0 0.4 13.5

5.8

0.0

0.0

12.2

12.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.601	
Loss Time (sec):			0		verage D		_	:			17.3	
Optimal Cycle:			57		evel Of	_					В	
Annua a rib t	27	+b D		g -	+b D 1			. De 1		7.7	- Dan 1	
Approach:		th Bound			th Bound			st Bound	_		st Bound	_
Movement:	L	Т	R 	L	Т	R 	L	Т	R	L	Т	R
Control:	Pr	otected	•		otected		Pr	otected		Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
TT-l M-l-l			<u> </u>			!!						_
Volume Module:	0	0	0	F00	0	0	207	745	0	0	106	116
Base Vol:	0	0	0	522	0	9	387	745	0	0	496	446
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	505	0	9	387	745	0	0	496	438
Added Vol:	0	0	0	17	0	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	522	0	9	387	745	0	0	496	446
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	522	0	9	387	745	0	0	496	446
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	522	0	9	387	745	0	0	496	446
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	522 I	0	9	387	745	0	0	496	446
Saturation Flow Mod	lule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.58	1.42
Final Sat.:	0.00	0.00	0.00	3200	0	1600	1600	3200	0.00	0.00	2527	2273
- Inai Sac.	_ 		Ĭ	3200		.	1000	3200	ĭ		2327	
Capacity Analysis M	Module:								41			
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.01	0.24	0.23	0.00	0.00	0.20	0.20
Crit Moves:				****			****				***	
Volume/Cap:	0.00	0.00	0.00	0.60	0.00	0.02	0.60	0.32	0.00	0.00	0.60	0.60
Tarrel Of Carrel			—-						—			_
Level Of Service Mo Delay/Veh:	0.0	0.0	0.0	25.3	0.0	20.6	19.3	3.7	0.0	0.0	22.6	22.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.3	0.0	20.6	19.3	1.00 3.7	0.0	0.0	22.6	22.7
												12.3
DesignQueue:	0.0	0.0	0.0	11.0	0.0	0.4	13.6	5.9	0.0	0.0	12.3	

PHF Volume:

Reduct Vol:

Reduced Vol:

PCE Adj:

MLF Adj:

Cumulative Plus Project PM

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

162

0

162

1.00

1.00

1065

1065

1.00

1.00

0

107

0

107

1.00

1.00

183

183

1.00

1.00

0

Cycle (sec):			100	C	ritical	Vol./C		0.732				
Loss Time (sec):			0	A	verage 1	Delay (sec/veh)	:			25.2	
Optimal Cycle:			85	L	evel Of	Servic	e:				C	
Approach:	Nor	th Bound	i	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	—
Rights	I	Include			Include			nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
	_											
Volume Module:	•					•			•			
Base Vol:	162	1065	107	183	1033	105	162	1145	130	172	603	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	162	1065	107	183	1033	105	162	1145	130	172	603	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Final Vol.:	162	1065	107	183	1033	105	162	1145	130	172	603	162
			——II-			——II-						
Saturation Flow Modul	e:											_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.73	0.27	1.00	2.72	0.28	1.00	2.69	0.31	1.00	2.36	0.64
Final Sat.:	1600	4362	438	1600	4357	443	1600	4311	489	1600	3784	1016

1033

0

1033

1.00

1.00

105

0

105

1.00

1.00

162

0

162

1.00

1.00

1145

1145

1.00

1.00

0

130

0

130

1.00

1.00

172

0

172

1.00

1.00

603

0

603

1.00

1.00

162

0

162

1.00

1.00

	· — — —											
Capacity Analysis Mo	dule:											
Vol/Sat:	0.10	0.24	0.24	0.11	0.24	0.24	0.10	0.27	0.27	0.11	0.16	0.16
Crit Moves:		***		****				***		****		
Volume/Cap:	0.69	0.73	0.73	0.73	0.69	0.69	0.51	0.73	0.73	0.73	0.51	0.51
	·		——II-			——II-			——II-			——
Level Of Service Mod	ule:											
Delay/Veh:	36.8	24.0	33.9	38.0	22.7	30.1	28.7	22.5	30.8	38.9	22.0	22.9

nevel of pervice mod	uic.											
Delay/Veh:	36.8	24.0	33.9	38.0	22.7	30.1	28.7	22.5	30.8	38.9	22.0	22.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.8	24.0	33.9	38.0	22.7	30.1	28.7	22.5	30.8	38.9	22.0	22.9
DesignQueue:	7.9	15.3	15.3	8.8	14.6	14.6	7.4	16.0	16.0	8.4	10.1	10.1

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:	100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 89 Level Of Service:							0.744 25.5 C				
Approach: Movement:	Nor L	th Bound	i R	Sou L	th Bound T	l R	Eas L	st Bound T	R	Wes L	st Bound T	R
Movement:		1		_	1	.		1		ь	1	
Control:	■ Pr	otected	•		otected	••		otected	•	Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	162	1065	110	194	1033	105	162	1162	130	174	611	167
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	162	1065	107	183	1033	105	162	1145	130	172	603	162
Added Vol:	0	0	3	11	0	0	0	17	0	2	8	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	162	1065	110	194	1033	105	162	1162	130	174	611	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	162	1065	110	194	1033	105	162	1162	130	174	611	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	162	1065	110	194	1033	105	162	1162	130	174	611	167
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	162	1065	110	194	1033	105	162	1162	130	174	611	167
Saturation Flow Mod	- -					—-{						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.72	0.28	1.00	2.72	0.28	1.00	2.70	0.30	1.00	2.36	0.64
Final Sat.:	1600	4351	449	1600	4357	443	1600	4317	483	1600	3770	1030
	-					<u></u> Н			—			
Capacity Analysis M		0 04	0.04	0 10	0 04	0.04	0 10	0 07	0 05	0 11	0.16	0 10
Vol/Sat:	0.10	0.24	0.24	0.12	0.24	0.24	0.10	0.27	0.27	0.11	0.16	0.16
Crit Moves: Volume/Cap:	0.69	0.74	0.74	0.74	0.69	0.69	0.52	0.74	0.74	0.74	0.52	0.52
	-					 }						
Level Of Service Mo	dule:											
Delay/Veh:	36.7	24.5	35.0	38.1	22.6	29.8	29.0	22.8	32.0	39.7	22.0	22.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.7	24.5	35.0	38.1	22.6	29.8	29.0	22.8	32.0	39.7	22.0	22.9

Note: Queue reported is the number of cars per lane.

7.9

15.4

15.4

9.3

14.6

14.6

7.4 16.2

16.2

DesignQueue:

8.5

10.3

10.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

| Cycle (sec): Loss Time (sec): Optimal Cycle: North Bound Movement: L T R L T R L T R L T R L T R L T R Control: Protected Protected Protected O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): O.686 Loss Time (sec): Optimal Cycle: Develog: Optimal Cycle: Develog: Optimal Cycle: Develog: Optimal Cycle: ₹ _ |
|--|----------|
| Movement: L T R L T R L T R | ٤ _ |
| | ર _ |
| Control: Protected Protected Protected Protected | |
| | — |
| Rights Include Include Include Include | |
| Min. Green: 0 0 0 0 0 0 0 0 0 0 | 0 |
| Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 | 4.0 |
| Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 1 0 1 0 2 1 | 0 |
| | — |
| Volume Module: | |
| Base Vol: 116 593 135 69 540 69 116 1491 94 137 762 | 56 |
| Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| Initial Base: 116 593 135 69 540 69 116 1491 94 137 762 | 56 |
| User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| PHF Volume: 116 593 135 69 540 69 116 1491 94 137 762 | 56 |
| Reduct Vol: 0 0 0 0 0 0 0 0 0 0 | 0 |
| Reduced Vol: 116 593 135 69 540 69 116 1491 94 137 762 | 56 |
| PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| Final Vol.: 116 593 135 69 540 69 116 1491 94 137 762 | 56 |
| | - |
| Saturation Flow Module: | |
| Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160 | L600 |
| Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| Lanes: 1.00 1.63 0.37 1.00 1.77 0.23 1.00 2.82 0.18 1.00 2.79 0 | 0.21 |
| Final Sat.: 1600 2607 593 1600 2837 363 1600 4515 285 1600 4471 | 329 |
| Capacity Analysis Module: | \dashv |
| | 0.17 |
| Crit Moves: **** **** **** | |
| | 0.40 |
| —————————————————————————————————————— | |
| Level Of Service Module: | |
| Delay/Veh: 39.3 23.9 28.7 46.9 25.8 34.2 28.4 16.1 24.4 38.6 15.4 1 | 16.4 |
| Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0 | 1.00 |
| AdjDel/Veh: 39.3 23.9 28.7 46.9 25.8 34.2 28.4 16.1 24.4 38.6 15.4 1 | 16.4 |
| DesignQueue: 5.8 14.2 14.2 3.6 12.6 12.6 5.4 16.4 16.4 6.8 9.1 | 9.1 |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec):			100		ritical						0.708	
Loss Time (sec):			0		verage D			:			21.9	
Optimal Cycle:			78	L	evel Of	Servic	e:				С	
Approach:	Nor	th Bound	i	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L •	T	R.	L	Т	R	L	T	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	—
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
			<u> </u>						—			—
Volume Module:												
Base Vol:	116	593	135	93	540	69	116	1522	94	137	776	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	116	593	135	69	540	69	116	1491	94	137	762	56
Added Vol:	0	0	0	24	0	0	0	31	0	0	14	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	593	135	93	540	69	116	1522	94	137	776	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	593	135	93	540	69	116	1522	94	137	776	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	593	135	93	540	69	116	1522	94	137	776	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	116	593	135	93	540	69	116	1522	94	137	776	67
			——			<u>—</u> П			—			<u>—</u> І
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.77	0.23	1.00	2.83	0.17	1.00	2.76	0.24
Final Sat.:	1600 •	2607	593	1600 •	2837	363	1600	4521	279 ••	1600	4419	381
Capacity Analysis M	odule:											
Vol/Sat:	0.07	0.23	0.23	0.06	0.19	0.19	0.07	0.34	0.34	0.09	0.18	0.18
Crit Moves:		***		****				****		****		
Volume/Cap:	0.65	0.71	0.71	0.71	0.65	0.65	0.42	0.71	0.71	0.71	0.42	0.42
	-		——						——			—
Level Of Service Mod		0.4 -		4= -	0.5					46 -	4 = -	
Delay/Veh:	38.3	24.9	30.6	45.0	25.1	32.7	28.9	16.7	26.5	40.1	15.7	16.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.3	24.9	30.6	45.0	25.1	32.7	28.9	16.7	26.5	40.1	15.7	16.6
DesignQueue:	5.8	14.5	14.5	4.8	12.5	12.5	5.4	17.0	17.0	6.8	9.4	9.4

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 69	A	ritical verage I evel Of	elay (sec/veh)	:	0.668 20.5 B			
Approach:	Nor	th Bound	ì	Sou	th Bound	L	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	60	582	94	62	379	42	104	1276	121	122	928	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	60	582	94	62	379	42	104	1276	121	122	928	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	582	94	62	379	42	104	1276	121	122	928	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	60	582	94	62	379	42	104	1276	121	122	928	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	582	94	62	379	42	104	1276	121	122	928	45
Saturation Flow Mode			!			!			!			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	0.90	0.10	1.00	2.74	0.26	1.00	2.86	0.14
Final Sat.:	1600	2755	445	1600	1440	160	1600	4384	416	1600	4578	222
Capacity Analysis Mo	odule:		!			!			!			
Vol/Sat:	0.04	0.21	0.21	0.04	0.26	0.26	0.07	0.29	0.29	0.08	0.20	0.20
Crit Moves:	****				****		/	****		****		
Volume/Cap:	0.67	0.56	0.56	0.56	0.67	0.67	0.49	0.67	0.67	0.67	0.49	0.49
Level Of Service Moo	dule:		—									
Delay/Veh:	47.0	19.2	21.7	39.0	21.3	34.4	32.3	17.9	23.4	38.8	16.6	19.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.0	19.2	21.7	39.0	21.3	34.4	32.3	17.9	23.4	38.8	16.6	19.

Note: Queue reported is the number of cars per lane.

3.2

12.2

12.2

3.2

15.1

15.1

5.1 15.6

15.6

6.1

11.0

11.0

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec):			100		ritical		_				0.683	
Loss Time (sec):			0		verage D	_		:			20.8	
Optimal Cycle:			72	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
						<u></u> II						—
Volume Module:	65	F00	0.4	60	200	4.0	104	1000	120	100	021	4.5
Base Vol:	65	588	94	62	392	42	104	1282	132	122	931	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base: Added Vol:	60 5	582 6	94 0	62 0	379	42 0	104 0	1276 6	121	122 0	928 3	45 0
	0	0	0	0	13 0	0		0	11	0	0	
PasserByVol:							0					0
Initial Fut:	65	588	94	62	392	1 00	104	1282	132	122	931	45
User Adj: PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1.00 65	1.00 588	1.00	1.00 62	1.00 392	1.00	1.00 104	1.00 1282	1.00	1.00 122	1.00 931	1.00
Reduct Vol:	0	0	0	0	392	0	0	0	132	0	931	0
Reduced Vol:	65	588	94	62	392	42	104	1282	132	122	931	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	65	588	94	62	392	42	104	1282	132	122	931	45
rinai voi		500		02	392		104	1202		122	931	45
Saturation Flow Mod	dule:		11			-11						
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	0.90	0.10	1.00	2.72	0.28	1.00	2.86	0.14
Final Sat.:	1600	2759	441	1600	1445	155	1600	4352	448	1600	4579	221
	–⊨––					—— -			——			
Capacity Analysis M	Module:											
Vol/Sat:	0.04	0.21	0.21	0.04	0.27	0.27	0.07	0.29	0.29	0.08	0.20	0.20
Crit Moves:	***				****			***		****		
Volume/Cap:	0.68	0.55	0.55	0.55	0.68	0.68	0.49	0.68	0.68	0.68	0.49	0.49
I areal Of Carrel and									—-			
Level Of Service Mc		10 0	21 2	20 0	21 5	26.2	32.6	10 4	24 0	20 7	16.0	20 1
Delay/Veh:	47.4	18.9	21.3	38.8 1.00	21.5	36.2		18.4	24.0	39.7	16.9	20.1
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh: DesignOueue:	47.4	18.9	21.3	38.8	21.5	36.2	32.6	18.4	24.0	39.7	16.9	20.1
vesignQueue:	3.4	12.2	12.2	3.2	15.5	15.5	5.1	15.9	15.9	6.1	11.1	11.1

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Index #5: Century Bou												
Cycle (sec):			100	C:	ritical	Vol./Ca	ap.(X):				0.684	
Loss Time (sec):			0	A ⁻	verage D	elay (sec/veh)	:			23.4	
Optimal Cycle:			72	L	evel Of	Service	e:				В	
Approach:		th Bound			th Bound			t Bound			t Bound	
Movement:	L ■	T	R ∎∎	L	Т	R	L	T	R	L	T	R ■
Control:	Pr	otected	——II		otected	——II:	Pro	otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	<u> </u>		<u>—</u> П			———————————————————————————————————————						
Volume Module:												
Base Vol:	129	876	147	135	754	135	156	1058	127	126	816	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	129	876	147	135	754	135	156	1058	127	126	816	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	129	876	147	135	754	135	156	1058	127	126	816	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	876	147	135	754	135	156	1058	127	126	816	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	129	876	147	135	754	135	156	1058	127	126	816	137
	<u> </u>		—			<u></u> Н			II			—
Saturation Flow Modul												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.70	0.30	1.00	2.68	0.32	1.00	2.57	0.43
Final Sat.:	1600 •	3200	1600	1600	2714	486	1600	4286	514	1600	4110	690 •
Capacity Analysis Mod	ule:											
Vol/Sat:	0.08	0.27	0.09	0.08	0.28	0.28	0.10	0.25	0.25	0.08	0.20	0.20
Crit Moves:	****				****			****		***		
Volume/Cap:	0.68	0.68	0.23	0.68	0.68	0.68	0.62	0.68	0.68	0.68	0.62	0.62
	<u> </u>		——II									
Level Of Service Modu	le:											•
Delay/Veh:	39.2	20.1	15.3	38.6	20.0	25.1	33.6	21.8	27.6	39.5	22.9	26.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	20.1	15.3	38.6	20.0	25.1	33.6	21.8	27.6	39.5	22.9	26.0
DesignQueue:	6.4	15.5	5.0	6.7	15.6	15.6	7.5	14.8	14.8	6.3	12.6	12.6

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec):			100	С	ritical	Vol./C	ap.(X):				0.708	
Loss Time (sec):			0				sec/veh)	:			23.8	
Optimal Cycle:			78	L	evel Of	Servic	e:				С	
Approach:		th Bound			th Bound			st Bound			st Bound	
Movement:	L _ L	Т	R 	L L	Т	R IL	L	Т	R I I	L	Т	R
Control:	Pr	otected			otected		Pro	otected		Pr	otected	•
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
						<u></u> Н						
Volume Module:	120	0.06	1.40	125	010	125	156	1050	122	100	016	100
Base Vol:	132	906	148	135	818	135	156	1058	133	128	816	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	129	876	147	135	754	135	156	1058	127	126	816	137
Added Vol:	3	30	1	0	64	0	0	0	6	2	0	0
PasserByVol:	122	0	140	125	0	125	156	1050	122	100	0	127
Initial Fut:	132	906	148	135	818	135	156	1058	133	128	816	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj: PHF Volume:	1.00 132	1.00 906	1.00	1.00 135	1.00 818	1.00	1.00 156	1.00 1058	1.00	1.00 128	1.00 816	1.00
Reduct Vol:	0	908	140	135	0	135	126	1056	133	0	0	137
Reduced Vol:	132	906	148	135	818	135	156	1058	133	128	816	137
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	132	906	148	135	818	135	156	1058	133	128	816	137
		300	——II		010		130	1030		120	010	
Saturation Flow Modu	ule:		- 11						- ''			1
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.72	0.28	1.00	2.66	0.34	1.00	2.57	0.43
Final Sat.:	1600	3200	1600	1600	2747	453	1600	4264	536	1600	4110	690
	-		—			<u></u> II						
Capacity Analysis Mo		0.00	0 00	0.00	0.20	0.20	0 10	0.05	0 05	0.00	0.00	0.00
Vol/Sat:	0.08	0.28	0.09	0.08	0.30	0.30	0.10	0.25 ***	0.25	0.08	0.20	0.20
Crit Moves:	0.71	0.68	0.22	0.68	0.71	0.71	0.64	0.71	0.71	0.71	0.64	0.64
Volume/Cap:	0.71	0.68	0.22 ——[]		0.71		0.64	0.71	0.71 		0.64	0.64
Level Of Service Mod	dule:											
Delay/Veh:	40.6	19.5	14.6	38.7	19.8	26.1	34.5	22.7	29.4	41.0	23.6	27.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.6	19.5	14.6	38.7	19.8	26.1	34.5	22.7	29.4	41.0	23.6	27.1
DesignQueue:	6.6	15.7	4.9	6.7	16.4	16.4	7.5	15.2	15.2	6.4	12.7	12.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 76 Level Of Service:										0.700 23.2 C		
Approach:		North Bound			South Bound			East Bound			West Bound			
Movement:	L ∎	Т	R ∎∎	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R.		
Control:	Pr	otected		Protected			Pr	otected		Protected				
Rights	I	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0		
	_		<u>—</u> ІІ			— ІІ			<u>—</u> ІІ					
Volume Module:														
Base Vol:	123	525	84	119	534	77	142	1034	98	126	850	74		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	123	525	84	119	534	77	142	1034	98	126	850	74		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	123	525	84	119	534	77	142	1034	98	126	850	74		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	123	525	84	119	534	77	142	1034	98	126	850	74		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	123	525	84	119	534	77	142	1034	98	126	850	74		
						<u> —</u> ІІ			——					
Saturation Flow Mod														
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.00	1.72	0.28	1.00	1.75	0.25	1.00	1.83	0.17	1.00	1.84	0.16		
Final Sat.:	1600 •	2759	441 ••	1600	2797	403	1600	2923	277 ∎∎	1600 I	2944	256		
Capacity Analysis M	odule:					I								
Vol/Sat:	0.08	0.19	0.19	0.07	0.19	0.19	0.09	0.35	0.35	0.08	0.29	0.29		
Crit Moves:	****				****			****		****				
Volume/Cap:	0.70	0.69	0.69	0.69	0.70	0.70	0.61	0.70	0.70	0.70	0.61	0.61		
	_								<u> </u>					
Level Of Service Mo	dule:											•		
Delay/Veh:	40.9	26.9	35.2	40.7	27.2	36.9	34.2	15.6	24.1	40.6	15.6	21.1		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	40.9	26.9	35.2	40.7	27.2	36.9	34.2	15.6	24.1	40.6	15.6	21.1		
DesignQueue:	6.2	12.8	12.8	6.0	12.9	12.9	6.9	16.9	16.9	6.3	14.5	14.5		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec):			100		ritical	Vol /0	on (V):				0 715		
- ·	0				0.715								
Loss Time (sec):			80							23.5			
Optimal Cycle:			80	1.	evel OI	Set ATC	e·				С		
Approach:	Nor	North Bound			th Bound		Eas	East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	Т	R	L	Т	R	
Control:	Pr	Protected			Protected			Protected			Protected		
Rights	I	Include			Include			Include			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	
	-		———			——II			<u>—</u> Н			—	
Volume Module:													
Base Vol:	123	547	84	119	581	77	142	1035	98	126	852	74	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	123	525	84	119	534	77	142	1034	98	126	850	74	
Added Vol:	0	22	0	0	47	0	0	1	0	0	2	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	123	547	84	119	581	77	142	1035	98	126	852	74	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	123	547	84	119	581	77	142	1035	98	126	852	74	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	123	547	84	119	581	77	142	1035	98	126	852	74	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	123	547	84	119	581	77	142	1035	98	126	852	74	
						<u> </u>			<u> </u>			<u> </u>	
Saturation Flow Mode													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.73	0.27	1.00	1.77	0.23	1.00	1.83	0.17	1.00	1.84	0.16	
Final Sat.:	1600 •	2774	426 ∎∎	1600 I	2826	374	1600	2923	277 ■■	1600	2944	256 •	
Capacity Analysis Mo	odule:												
Vol/Sat:	0.08	0.20	0.20	0.07	0.21	0.21	0.09	0.35	0.35	0.08	0.29	0.29	
Crit Moves:	****	0.20	0.20	0.07	****	J.21	0.09	****	5.55	****	0.20	0.29	
Volume/Cap:	0.72	0.69	0.69	0.69	0.72	0.72	0.62	0.72	0.72	0.72	0.62	0.62	
. orame, cap.		0.05	——————————————————————————————————————		V • 12	—— ——		V./2	 -		0.02		
Level Of Service Mod	dule:												
Delay/Veh:	42.0	26.1	34.3	40.4	26.7	37.7	34.8	16.4	25.9	41.7	16.3	22.3	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	42.0	26.1	34.3	40.4	26.7	37.7	34.8	16.4	25.9	41.7	16.3	22.3	
DesignQueue:	6.2	13.1	13.1	6.0	13.6	13.6	6.9	17.3	17.3	6.3	14.8	14.8	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 59 Level Of Service:									0.613 20.0 B		
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound		
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R	
Control:	Pr	otected		Protected			Pr	otected		Protected			
Rights	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0	
	· 		——П		——————————————————————————————————————								
Volume Module:													
Base Vol:	84	376	59	184	389	102	115	1376	68	98	784	190	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	84	376	59	184	389	102	115	1376	68	98	784	190	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	84	376	59	184	389	102	115	1376	68	98	784	190	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	84	376	59	184	389	102	115	1376	68	98	784	190	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	84	376	59	184	389	102	115	1376	68	98	784	190	
	·												
Saturation Flow Modu													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.73	0.27	1.00	1.58	0.42	1.00	2.86	0.14	1.00	2.41	0.59	
Final Sat.:	1600	2766	434	1600	2535	665	1600	4574	226	1600	3864	936	
Capacity Analysis Mo	dulo:											_	
Vol/Sat:	0.05	0.14	0.14	0.12	0.15	0.15	0.07	0.30	0.30	0.06	0.20	0.20	
Crit Moves:	0.05	****	0.14	****	0.13	0.13	0.07	****	0.50	****	0.20	0.20	
Volume/Cap:	0.50	0.61	0.61	0.61	0.50	0.50	0.47	0.61	0.61	0.61	0.47	0.47	
	0.50	0.01		0.01	0.50		0.47	0.01		0.01	0.47	0.4/	
Level Of Service Mod	ule:		11										
Delay/Veh:	34.6	28.3	34.5	31.3	22.4	23.7	30.7	14.6	20.9	37.9	15.5	16.0	
- '													

Note: Queue reported is the number of cars per lane.

1.00

34.6

4.2

1.00

28.3

9.7

1.00

34.5

9.7

1.00

31.3

8.5

1.00

22.4

9.8

1.00

23.7

9.8

1.00

30.7

5.5

1.00

14.6

14.6

1.00

20.9

14.6

1.00

37.9

5.0

1.00

15.5

10.7

1.00

16.0

10.7

Delay Adj:

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

				-								
Cycle (sec):			100		ritical		_				0.660	
Loss Time (sec):			0		verage D	_		:			21.2	
Optimal Cycle:			67	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound	_	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R ■■	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	I I:	Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
			<u> —</u> ІІ			<u>—</u> ІІ			—11			—
Volume Module:												
Base Vol:	84	391	86	184	422	116	122	1406	68	142	862	190
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	84	376	59	184	389	102	115	1376	68	98	784	190
Added Vol:	0	15	27	0	33	14	7	30	0	44	78	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	391	86	184	422	116	122	1406	68	142	862	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	391	86	184	422	116	122	1406	68	142	862	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	391	86	184	422	116	122	1406	68	142	862	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	84	391	86	184	422	116	122	1406	68	142	862	190
			<u>—</u> н			<u>—</u> П			——			—
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.57	0.43	1.00	2.86	0.14	1.00	2.46	0.54
Final Sat.:	1600	2623	577	1600	2510	690	1600	4579	221	1600	3933	867
Capacity Analysis M	lodulo:								!			
Vol/Sat:	0.05	0.15	0.15	0.12	0.17	0.17	0.08	0.31	0.31	0.09	0.22	0.22
Crit Moves:	0.03	****	0.13	****	0.1/	0.1/	0.00	****	0.31	****	0.44	0.44
Volume/Cap:	0 55	0 66	0.66	0 66	0 55	0 55	0 40	0 66	0 66	0 66	0 40	0 40
volume/cap:	0.55 L	0.66	 -	0.66	0.55	0.55 ——[]	0.49	0.66	0.66	0.66	0.49	0.49
Level Of Service Mo	dule:											
Delay/Veh:	36.4	29.0	34.9	33.6	23.0	24.7	31.0	16.4	25.5	36.6	15.4	16.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.4	29.0	34.9	33.6	23.0	24.7	31.0	16.4	25.5	36.6	15.4	16.0
DesignQueue:	4.3	10.6	10.6	8.7	10.8	10.8	5.8	15.7	15.7	7.0	11.4	11.4
J ~												

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 85	A	ritical verage I evel Of	elay (sec/veh)	:			0.731 25.8 C	
Approach:	Nor	th Bound	L	Sou	th Bound	L	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L	Т	R	L	T	R
Control:	Pr	otected		Pr	otected	11	Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:												
Base Vol:	423	996	192	234	769	121	140	1145	201	212	730	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	423	996	192	234	769	121	140	1145	201	212	730	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	423	996	192	234	769	121	140	1145	201	212	730	10!
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	423	996	192	234	769	121	140	1145	201	212	730	10!
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	423	996	192	234	769	121	140	1145	201	212	730	10
			—			<u>—</u> —П			——			
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Lanes:	2.00	2.52	0.48	2.00	2.59	0.41	1.00	2.55	0.45	1.00	2.62	0.38
Final Sat.:	3200 L	4024	776 	3200	4147	653	1600	4083	717 	1600	4196	604
Capacity Analysis M	odule:											
Vol/Sat:	0.13	0.25	0.25	0.07	0.19	0.19	0.09	0.28	0.28	0.13	0.17	0.1
Crit Moves:	****				****			***		****		
Volume/Cap:	0.73	0.74	0.74	0.74	0.73	0.73	0.46	0.73	0.73	0.73	0.46	0.46
Level Of Service Mo	dule:					()						
Delay/Veh:	33.0	24.1	29.7	39.7	28.2	36.4	28.6	21.6	26.8	35.9	18.3	19.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	33.0	24.1	29.7	39.7	28.2	36.4	28.6	21.6	26.8	35.9	18.3	19.

Note: Queue reported is the number of cars per lane.

9.9

15.5

15.5

6.0

12.8

12.8

6.4

16.4

16.4

9.9

10.0

10.0

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 93	A ⁻	ritical verage D evel Of	elay (sec/veh)	:			0.756 26.2 C	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	T	R
Control:	Pr	otected	!	Pro	otected		Pro	otected	-	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
			——II			——II			——II			
Volume Module:	_											
Base Vol:	456	996	192	234	769	148	153	1174	217	212	792	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	423	996	192	234	769	121	140	1145	201	212	730	105
Added Vol:	33	0	0	0	0	27	13	29	16	0	62	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	456	996	192	234	769	148	153	1174	217	212	792	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	456	996	192	234	769	148	153	1174	217	212	792	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	456	996	192	234	769	148	153	1174	217	212	792	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	456	996	192	234	769	148	153	1174	217	212	792	105
						——						
Saturation Flow Modul	.e:					•						-
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.52	0.48	2.00	2.52	0.48	1.00	2.53	0.47	1.00	2.65	0.35
Final Sat.:	3200	4024	776	3200	4025	775	1600	4051	749	1600	4238	562
Capacity Analysis Mod						——II						
Capacity Analysis Mod Vol/Sat:		0.25	0.25	0.07	0 10	0 10	0 10	0.20	0.20	0 12	0.10	0 10
Voi/Sat: Crit Moves:	0.14	0.25	0.25	0.07	0.19	0.19	0.10	0.29	0.29	0.13	0.19	0.19
		0.72	0 72	0 72	0.76	0.76	0 51	0.76	0.76	0.76	0 [1	0 [1
Volume/Cap:	0.76	0.73	0.73	0.73	0.76	0.76 ——[[0.51	0.76	0.76	0.76	0.51	0.51
Level Of Service Modu	le:											
Delay/Veh:	33.3	23.6	28.8	39.0	28.9	36.9	29.2	22.1	28.0	37.7	19.0	20.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	33.3	23.6	28.8	39.0	28.9	36.9	29.2	22.1	28.0	37.7	19.0	20.5
AdjDel/Veh:	2,1.1											

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:		5										
Approach:	Nor	th Bound	l	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L •	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected			otected		Pe	rmitted			otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0	0 0	1! 0	1
			<u>—</u> п			——II			—11			_
Volume Module:												
Base Vol:	170	1016	0	0	917	277	0	0	0	116	6	633
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	170	1016	0	0	917	277	0	0	0	116	6	633
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	1016	0	0	917	277	0	0	0	116	6	633
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	1016	0	0	917	277	0	0	0	116	6	633
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	170	1016	0	0	917	277	0	0	0	116	6	633
Saturation Flow Mod			—									
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	0.00	0.00	2.30	0.70	0.00	0.00	0.00	0.31	0.01	1.68
Final Sat.:	1600	4800	0.00	0	3686	1114	0.00	0	0	492	25	2683
2 1 2 3 1 1	-		——			——			!			
Capacity Analysis M		0.01	0.00	0.00	0.05	0 25	0.00	0.00	0.00	0.24	0 04	0 04
Vol/Sat:	0.11	0.21	0.00	0.00	0.25 ***	0.25	0.00	0.00	0.00	0.24	0.24	0.24
Crit Moves: Volume/Cap:	0.59	0.35	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.59	0.59	0.59
	_		<u> </u>			<u> </u>			<u>—</u> İI			
Level Of Service Mod	dule:			_								
Delay/Veh:	3.8	0.4	0.0	0.0	1.3	2.3	0.0	0.0	0.0	4.2	39.6	1.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.8	0.4	0.0	0.0	1.3	2.3	0.0	0.0	0.0	4.2	39.6	1.6

Note: Queue reported is the number of cars per lane.

0.4

0.4

0.0

0.0

DesignQueue:

0.7

0.0

0.0

0.0

0.2

0.0

1.2

0.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Volume Module: Base Vol: 170 1029 0 0 928 282 0 0 0 1.00 1.00 1.00 1.00 Initial Base: 170 1016 0 0 917 277 0 0 0 116 6 65 Added Vol: 0 13 0 0 0 0 928 282 0 0 0 0 116 6 65 Base Pyol: 170 1016 0 0 917 277 0 0 0 0 116 6 65 Base Vol: 0 13 0 0 11 5 0 0 0 0 1.00 1.00 1.00 Initial Base: 170 1016 0 0 917 277 0 0 0 0 116 6 65 Base Pyol: 0 13 0 0 11 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cycle (sec):			5		ritical		_				0.601	
Approach: North Bound South Bound East Bound West Bound West Bound Movement: L T R R L T T R L T R R L T T R L T R R L T T R R L T T R R L T T R R L T T R R L T T R R L T T R R L T T R R L T T R R L							_		:				
Novement: L T R L T T T T T T T T T	Optimal Cycle:			47	L	evel Of	Servic	e:				В	
Protected Rights Include Inclu	Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		We	st Bound	
Control: Protected Rights Include Incl	Movement:	L	Т		_	T	R	L	T	R	L	T	R
Min. Green: 0	Control:	Pr	otected		-	otected	11	Pe:	rmitted		Pr	otected	
Y+R:	Rights	I	nclude		I	nclude		I	nclude		I	include	
Volume Module: Base Vol: 170 1029 0 0 928 282 0 0 0 116 6 6 6 6 6 6 70 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Base Vol: 170 1029 0 0 928 282 0 0 0 116 6 65 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	Lanes:	1 0	3 0			2 1	0	0 0	0 0	0	0 0	1! 0	1
Base Vol: 170 1029 0 0 928 282 0 0 0 116 6 65 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module:						!						
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		170	1029	0	0	928	282	0	0	0	116	6	653
Initial Base: 170 1016 0 0 917 277 0 0 0 116 6 6 63 Added Vol: 0 13 0 0 11 5 0 0 0 0 0 0 0 0 2 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 170 1029 0 0 928 282 0 0 0 116 6 6 65 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													1.00
Added Vol: 0 13 0 0 11 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												633
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													20
Initial Fut: 170 1029 0 0 928 282 0 0 0 116 6 65 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_												653
PHF Adj:													1.00
PHF Volume: 170 1029 0 0 928 282 0 0 0 116 6 65 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												1.00
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													653
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	170	1029	0	0	928	282	0	0	0	116	6	653
Final Vol.: 170 1029 0 0 928 282 0 0 0 116 6 65 Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Final Vol.:	170	1029	0	0	928	282	0	0	0	116	6	653
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160					-		——II						
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Saturation Flow Mod	ule:											
Lanes: 1.00 3.00 0.00 0.00 2.30 0.70 0.00 0.00 0.00 0.30 0.02 1.60 Final Sat.: 1600 4800 0 0 3681 1119 0 0 0 0 479 25 269 Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.24 Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Final Sat.: 1600 4800 0 0 3681 1119 0 0 0 479 25 269 Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.2 Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.2 Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Lanes:	1.00	3.00	0.00	0.00	2.30	0.70	0.00	0.00	0.00	0.30	0.02	1.68
Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.2 Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Final Sat.:	1600 •	4800	0	0	3681	1119	0	0	0	479	25	2696 •
Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.2 Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Capacity Analysis M	odule:											
Crit Moves: **** Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00			0.21	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.24	0.24	0.24
Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00													
Level Of Service Module: Delay/Veh: 4.0 0.4 0.0 0.0 1.3 2.4 0.0 0.0 0.0 4.5 42.1 1. Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.60	0.36			0.60			0.00			0.60	0.60
Delay/Veh: 4.0 0.4 0.0 0.0 1.3 2.4 0.0 0.0 0.0 4.5 42.1 1. Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							——II			——			
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
AdjDel/Veh: 4.0 0.4 0.0 0.0 1.3 2.4 0.0 0.0 0.0 4.5 42.1 1.	_												1.6
													1.00
DesignQueue: 0.4 0.4 0.0 0.0 0.7 0.7 0.0 0.0 0.0 0.2 0.0 1.													1.6
	DesignQueue:	0.4	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.2	0.0	1.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 41	A	ritical verage I evel Of	elay (sec/veh)	:			0.448 13.3 A	
Approach:	Nor	th Bound	l	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L ∎	Т	R	L	T	R II	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected			otected	11	Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
Volume Module:	_											
Base Vol:	0	941	73	186	820	0	245	140	161	0	0	(
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	941	73	186	820	0	245	140	161	0	0	(
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	941	73	186	820	0	245	140	161	0	0	(
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	0	941	73	186	820	0	245	140	161	0	0	(
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	941	73	186	820	0	245	140	161	0	0	(
			<u>—</u> ІІ			—			<u>—</u> ІІ			
Saturation Flow Mod		1600	1.000	1.600	1.600	1.600	1.600	1.000	1.000	1600	1.000	1600
Sat/Lane: Adjustment:	1600 1.00	1600 1.00	1600	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600 1.00	1600	1600 1.00	1600 1.00	1.00
Lanes:	0.00	2.78	0.22	1.00	3.00	0.00	1.27	0.73	1.00	0.00	0.00	0.00
Final Sat.:	0.00	4454	346	1600	4800	0.00	2036	1164	1600	0.00	0.00	0.00
rinai sac		4454	I	1000	4000	ĭ	2030	1104			0	
Capacity Analysis M	odule:		•						•			
Vol/Sat:	0.00	0.21	0.21	0.12	0.17	0.00	0.12	0.12	0.10	0.00	0.00	0.00
Crit Moves:		****		****			****					
Volume/Cap:	0.00	0.45	0.45	0.45	0.23	0.00	0.45	0.45	0.37	0.00	0.00	0.00
Level Of Service Mo	dule:											
Delay/Veh:	0.0	13.7	15.0	24.4	3.4	0.0	23.8	24.1	23.2	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	0.0	13.7	15.0	24.4	3.4	0.0	23.8	24.1	23.2	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

0.0

10.4

10.4

7.9

0.0

4.2

8.0

8.0

DesignQueue:

0.0

6.7

0.0

0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Approach: North Bound South Bound East Bound Neet Bound North Bound Nort	Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.457	
Approach: North Bound Movement: L T R L T	-								:				
Approach: North Bound Approach: North Bound Approach: L T R L						_							
Novement: L T R L T R L T R L T R L T R L T R R L T R R L T R R R R R R R R R													
Rights Include	Approach:	Nor	th Bound	l	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Rights Include	Movement:	L L	Т	R	L	Т	R	L	Т	R	L	Т	R
Min. Green: 0	Control:	Pr	otected	-	Pr	otected		Pr	otected		Pr	otected	
Y+R:	Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Volume Module: Base Vol: 0 944 73 195 821 0 255 140 161 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Base Vol: 0 944 73 195 821 0 255 140 161 0 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Base Vol: 0 944 73 195 821 0 255 140 161 0 0 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
Base Vol: 0 944 73 195 821 0 255 140 161 0 0 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		-		——						—			—
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module:												
Initial Base: 0 941 73 186 820 0 245 140 161 0 0 Added Vol: 0 3 0 9 1 0 10 0 0 0 0 0 Added Vol: 0 0 3 0 9 1 0 10 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 0 944 73 195 821 0 255 140 161 0 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Base Vol:	0	944	73	195	821	0	255	140	161	0	0	0
Added Vol: 0 3 0 9 1 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Initial Base:	0	941	73	186	820	0	245	140	161	0	0	0
Initial Fut: 0 944 73 195 821 0 255 140 161 0 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Added Vol:	0	3	0	9	1	0	10	0	0	0	0	0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
PHF Adj:	Initial Fut:	0	944	73	195	821	0	255	140	161	0	0	0
PHF Volume: 0 944 73 195 821 0 255 140 161 0 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 944 73 195 821 0 255 140 161 0 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduced Vol: 0 944 73 195 821 0 255 140 161 0 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PHF Volume:	0	944	73	195	821	0	255	140	161	0	0	0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	0	944	73	195	821	0	255	140	161	0	0	0
Final Vol.: 0 944 73 195 821 0 255 140 161 0 0 Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Final Vol.:	0	944	73	195	821	0	255	140	161	0	0	0
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160							<u>—</u> ІІ						<u> </u>
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Saturation Flow Mod	lule:											
Lanes: 0.00 2.78 0.22 1.00 3.00 0.00 1.29 0.71 1.00 0.00 0.00 0.00 Final Sat.: 0 4455 345 1600 4800 0 2066 1134 1600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sat/Lane:	1600	1600		1600	1600	1600	1600	1600		1600	1600	1600
Tinal Sat.: 0 4455 345 1600 4800 0 2066 1134 1600 0 0 Capacity Analysis Module: Vol/Sat: 0.00 0.21 0.21 0.12 0.17 0.00 0.12 0.12 0.10 0.00 0.00 Crit Moves: **** Volume/Cap: 0.00 0.46 0.46 0.46 0.23 0.00 0.46 0.46 0.37 0.00 0.00 Level Of Service Module: Delay/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 0.0 AdjDel/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 1.00 1.00 AdjDel/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 0.0	Adjustment:				1.00								1.00
Capacity Analysis Module: Vol/Sat: 0.00 0.21 0.21 0.12 0.17 0.00 0.12 0.12 0.10 0.00 0.00 0.00 Crit Moves: **** **** Volume/Cap: 0.00 0.46 0.46 0.46 0.23 0.00 0.46 0.46 0.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Lanes:	0.00			1.00	3.00	0.00		0.71		0.00	0.00	0.00
Vol/Sat: 0.00 0.21 0.21 0.12 0.17 0.00 0.12 0.12 0.10 0.00 0.00 0.00 0.00	Final Sat.:	0	4455	345 ∎∎	1600 I	4800	0	2066	1134	1600	0	0	0
Vol/Sat: 0.00 0.21 0.21 0.12 0.17 0.00 0.12 0.12 0.10 0.00 0.00 0.00 0.00	Capacity Analysis M	odule:		1			11						
Crit Moves:	Vol/Sat:		0.21	0.21	0.12	0.17	0.00	0.12	0.12	0.10	0.00	0.00	0.00
Volume/Cap: 0.00 0.46 0.46 0.46 0.23 0.00 0.46 0.46 0.37 0.00 0.00 0.00 0.00 0.00 0.00 0.00													
Level Of Service Module: Delay/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume/Cap:	0.00	0.46	0.46	0.46	0.23	0.00	0.46	0.46	0.37	0.00	0.00	0.00
Delay/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							<u> </u>			<u> </u>			
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Level Of Service Mo	dule:											
AdjDel/Veh: 0.0 14.2 15.5 24.1 3.4 0.0 23.8 24.2 23.1 0.0 0.0 0.0	Delay/Veh:	0.0	14.2			3.4	0.0	23.8	24.2		0.0	0.0	0.0
	Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
DesignQueue: 0.0 10.6 10.6 8.2 4.3 0.0 8.2 8.2 6.7 0.0 0.0 0.0	AdjDel/Veh:	0.0	14.2	15.5	24.1	3.4	0.0	23.8	24.2	23.1	0.0	0.0	0.0
	DesignQueue:	0.0	10.6	10.6	8.2	4.3	0.0	8.2	8.2	6.7	0.0	0.0	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index	#11:	111th	Place	and	T - 110	SB	Ramp

Cycle (sec):	100	Critical Vol./Cap.(X):	0.211
Loss Time (sec):	0	Average Delay (sec/veh):	12.7
Optimal Cycle:	26	Level Of Service:	A

Optimal Cycle:			26	П	evel Oi	SELVIC	e.				А	
Approach:	Nor	th Bound		Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L L	Т	R	L	T	R	L	Т	R -	L	Т	R
Control:	Pe	rmitted	11	-	rmitted	11	Pr	otected	11	Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	0	0	0	75	525	62	0	115	23	13	94	(
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	75	525	62	0	115	23	13	94	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	0	0	0	75	525	62	0	115	23	13	94	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	75	525	62	0	115	23	13	94	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Final Vol.:	0	0	0	75	525	62	0	115	23	13	94	
						——11			<u></u> Н			
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.38	2.62	1.00	0.00	0.83	0.17	0.12	0.88	0.0
Final Sat.:	0 _	0	0 	600 L	4200	1600 	0	1333	267 ∎	194	1406	(
Capacity Analysis M	Module:											
Vol/Sat:	0.00	0.00	0.00	0.05	0.13	0.04	0.00	0.09	0.09	0.01	0.07	0.00
Crit Moves:					***			***				
Volume/Cap:	0.00	0.00	0.00	0.05	0.28	0.09	0.00	0.16	0.16	0.03	0.28	0.0
- 1.66.5.1	_		——			——			——II			
Level Of Service Mo		0 0	0.0	0.4	12.4	10.1	0.0	0 5	0 5	20.4	22.2	^
Delay/Veh:	0.0	0.0	0.0	0.4	13.4	12.1	0.0	8.5	8.6	22.4	23.9	0.
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	0.0	0.0	0.0	0.4	13.4	12.1	0.0	8.5	8.6	22.4	23.9	0.
DesignQueue:	0.0	0.0	0.0	1.2	6.3	1.9	0.0	3.5	3.5	4.6	4.6	0.

0

Cumulative Plus Project PM

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#11:	111th	Place	and	T - 110	SB	Ramp

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 26	А	ritical verage I evel Of	Delay (sec/veh)	:			0.215 12.6 A	
Approach:	Nor	th Bound	l	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Movement:	L I	Т	R	L	Т	R	L	Т	R	L	Т	R ■
Control:	Pe	rmitted		Pe	rmitted		Pr	otected		Pe	rmitted	
Rights	I	include		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
Volume Module:	-											
Base Vol:	0	0	0	75	543	62	0	115	23	13	94	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	75	525	62	0	115	23	13	94	0
Added Vol:	0	0	0	0	18	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	75	543	62	0	115	23	13	94	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	75	543	62	0	115	23	13	94	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	75	543	62	0	115	23	13	94	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

	_											
Saturation Flow Mo	dule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.36	2.64	1.00	0.00	0.83	0.17	0.12	0.88	0.00
Final Sat.:	0	0	0	583	4217	1600	0	1333	267	194	1406	0
	_											
G												-

543

62

115

0

23

13

94

•												
Capacity Analysis M	Module:											
Vol/Sat:	0.00	0.00	0.00	0.05	0.13	0.04	0.00	0.09	0.09	0.01	0.07	0.00
Crit Moves:					****			***				
Volume/Cap:	0.00	0.00	0.00	0.05	0.28	0.08	0.00	0.16	0.16	0.03	0.28	0.00
	_											
Level Of Service Mo	odule:		•			•			•			•
Delay/Veh:	0.0	0.0	0.0	0.3	13.1	11.8	0.0	8.8	8.8	22.6	24.1	0.0

Delay/Veh:	0.0	0.0	0.0	0.3	13.1	11.8	0.0	8.8	8.8	22.6	24.1	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.3	13.1	11.8	0.0	8.8	8.8	22.6	24.1	0.0
DesignQueue:	0.0	0.0	0.0	1.0	6.4	1.9	0.0	3.6	3.6	4.6	4.6	0.0

Note: Queue reported is the number of cars per lane.

0

0

0

75

Final Vol.:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 58	A	ritical verage D evel Of	elay (sec/veh)	:			0.605 12.1 B	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L ∎	Т	R ∎I	L	Т	R ∎∎	L	Т	R ∎∎	L	Т	R
Control:	Pr	otected			otected			otected			otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0
	_		<u>—</u> П			<u>—</u> П			——			
Volume Module:												
Base Vol:	0	0	0	222	215	191	0	1434	406	198	940	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	222	215	191	0	1434	406	198	940	C
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	222	215	191	0	1434	406	198	940	(
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	C
Reduced Vol:	0	0	0	222	215	191	0	1434	406	198	940	C
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	222	215	191	0	1434	406	198	940	C
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.41	1.37	1.22	0.00	2.34	0.66	1.00	3.00	0.00
Final Sat.:	0	0	0 •	2259 •	2192	1949 ∎∎	0	3741	1059 ∎∎	1600 I	4800	C
Capacity Analysis M	odule:											
Vol/Sat:	0.00	0.00	0.00	0.10	0.10	0.10	0.00	0.38	0.38	0.12	0.20	0.00
Crit Moves:				****				****		****		
Volume/Cap:	0.00	0.00	0.00	0.61	0.60	0.60	0.00	0.61	0.61	0.61	0.23	0.00
	_		——II			<u> </u>			<u> </u>			
Level Of Service Mo	dule:					-						
Delay/Veh:	0.0	0.0	0.0	32.0	32.0	32.3	0.0	8.7	9.5	30.1	1.3	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	32.0	32.0	32.3	0.0	8.7	9.5	30.1	1.3	0.0
DesignQueue:	0.0	0.0	0.0	7.5	7.5	7.5	0.0	13.7	13.7	9.0	3.0	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 59	A	ritical verage D evel Of	elay (sec/veh)	:			0.614 12.1 B	
Approach:	Nor	th Bound		Sou	th Bound	Į.	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:		otected	1	Pr	otected	11		otected	1		otected	•
Rights		nclude			nclude	_		nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	1 1	0 1	1	0 0	2 1	0	1 0	3 0	0
Wales Madela	·		——									
Volume Module: Base Vol:	0	0	0	222	215	209	0	1458	411	198	984	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	222	215	191	0	1434	406	198	940	0
Added Vol:	0	0	0	0	0	18	0	24	5	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	222	215	209	0	1458	411	198	984	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	222	215	209	0	1458	411	198	984	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	222	215	209	0	1458	411	198	984	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	222	215	209	0	1458	411	198	984	0
			—			<u></u> II			<u>—</u> ІІ			
Saturation Flow Modu												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.38	1.33	1.29	0.00	2.34	0.66	1.00	3.00	0.00
Final Sat.:	0	0	0	2199 •	2130	2071	0	3744	1056	1600	4800	0
Capacity Analysis Mo	dule:											
Vol/Sat:	0.00	0.00	0.00	0.10	0.10	0.10	0.00	0.39	0.39	0.12	0.21	0.00
Crit Moves:	0.00	0.00	0.00	****	0.10	0.10	0.00	****	0.55	****	0.21	0.00
Volume/Cap:	0.00	0.00	0.00	0.61	0.61	0.61	0.00	0.61	0.61	0.61	0.25	0.00
	. 					——						
Level Of Service Mod	ule:											
Delay/Veh:	0.0	0.0	0.0	32.1	32.2	32.2	0.0	8.8	9.7	30.5	1.3	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	32.1	32.2	32.2	0.0	8.8	9.7	30.5	1.3	0.0
DesignQueue:	0.0	0.0	0.0	7.7	7.7	7.7	0.0	13.9	13.9	9.0	3.1	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec):			100		ritical						0.491	
Loss Time (sec):			0			_	sec/veh)	•			14.1	
Optimal Cycle:			45	Ъ	evel Of	Servic	e:				A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	Include		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0
	-		——			——II			——[
Volume Module:												
Base Vol:	305	123	419	0	0	0	183	1512	0	0	820	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	305	123	419	0	0	0	183	1512	0	0	820	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	305	123	419	0	0	0	183	1512	0	0	820	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	123	419	0	0	0	183	1512	0	0	820	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	305	123	419	0	0	0	183	1512	0	0	820	159
	-											
Saturation Flow Modu	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.08	0.44	1.48	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.51	0.49
Final Sat.:	1728	697	2374	0	0	0	1600	4800	0	0	4020	780
Capacity Analysis Mo	odule:											
Vol/Sat:	0.18	0.18	0.18	0.00	0.00	0.00	0.11	0.32	0.00	0.00	0.20	0.20
Crit Moves:	****							***		****		
Volume/Cap:	0.49	0.49	0.49	0.00	0.00	0.00	0.50	0.49	0.00	0.00	0.50	0.50
	-1											
Level Of Service Mod												
Delay/Veh:	19.7	20.5	19.6	0.0	0.0	0.0	26.7	7.4	0.0	0.0	17.0	17.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.7	20.5	19.6	0.0	0.0	0.0	26.7	7.4	0.0	0.0	17.0	17.8
DesignQueue:	10.5	10.5	10.5	0.0	0.0	0.0	8.0	10.8	0.0	0.0	11.2	11.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec):			100		ritical						0.510	
Loss Time (sec):			0		verage D			:			14.1	
Optimal Cycle:			46	L	evel Of	Servic	e:				А	
Approach:	Nor	rth Bound	ļ	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	Т	R
	-		——II			——II			<u>—</u> —п			——
Control:	Pr	rotected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	Include		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0
			——			<u></u>			<u>—</u> п			<u>—</u>
Volume Module:												
Base Vol:	315	123	419	0	0	0	192	1528	0	0	854	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	305	123	419	0	0	0	183	1512	0	0	820	159
Added Vol:	10	0	0	0	0	0	9	16	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	315	123	419	0	0	0	192	1528	0	0	854	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	123	419	0	0	0	192	1528	0	0	854	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	123	419	0	0	0	192	1528	0	0	854	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	315	123	419	0	0	0	192	1528	0	0	854	159
Saturation Flow Mod				4.500	4.500	1.500	1.500	4.500		4.500	4.500	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.10	0.43	1.47	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.53	0.47
Final Sat.:	1764 ∎	689	2347 ••	0	0	0	1600	4800	0	0	4047	753
Capacity Analysis M	odule:					11						
Vol/Sat:	0.18	0.18	0.18	0.00	0.00	0.00	0.12	0.32	0.00	0.00	0.21	0.21
Crit Moves:	****	0.10	0.10	0.00	0.00	0.00	****	0.52	0.00	0.00	****	0.21
Volume/Cap:	0.51	0.51	0.51	0.00	0.00	0.00	0.51	0.49	0.00	0.00	0.51	0.51
vorume/cap·		0.91	 		0.00	—— - -		U. 47	——II		0.51	0.51
Level Of Service Mo	dule:					11			1			
Delay/Veh:	20.4	21.3	20.2	0.0	0.0	0.0	26.5	7.0	0.0	0.0	17.0	17.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.4	21.3	20.2	0.0	0.0	0.0	26.5	7.0	0.0	0.0	17.0	17.9
DesignQueue:	10.7	10.7	10.7	0.0	0.0	0.0	8.4	10.7	0.0	0.0	11.5	11.5
5 2 · ·		- • •										

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Index #14: Imperial	ніgnway ai	na weste	rn Ave	nue								
Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 89	A	ritical verage D evel Of	elay (sec/veh)	:			0.742 24.5 C	
Approach:	Nor	th Bound		Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R •••	L	Т	R	L	Т	R	L	Т	R •
Control:	Pr	otected	•	Pr	otected	—		otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
			——			——II			——II			—
Volume Module:												
Base Vol:	206	739	96	147	698	158	159	1387	201	142	647	193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	206	739	96	147	698	158	159	1387	201	142	647	193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	739	96	147	698	158	159	1387	201	142	647	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	739	96	147	698	158	159	1387	201	142	647	193
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	739	96	147	698	158	159	1387	201	142	647	193
	_					——II						
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.45	0.55	1.00	2.62	0.38	1.00	3.00	1.00
Final Sat.:	1600 •	3200	1600 •	1600 •	3914	886 ••	1600	4192	608 ••	1600 •	4800	1600 •
Capacity Analysis M	odule:											
Vol/Sat:	0.13	0.23	0.06	0.09	0.18	0.18	0.10	0.33	0.33	0.09	0.13	0.12
Crit Moves:		***		****				***		****		
Volume/Cap:	0.71	0.74	0.19	0.74	0.71	0.71	0.41	0.74	0.74	0.74	0.41	0.37
	- 		——II									
Level Of Service Mo	dule:											
Delay/Veh:	34.7	25.9	19.5	41.9	27.8	32.8	25.1	18.8	24.8	42.4	20.4	20.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.7	25.9	19.5	41.9	27.8	32.8	25.1	18.8	24.8	42.4	20.4	20.1
DesignQueue:	9.6	14.9	3.7	7.3	12.3	12.3	6.9	17.6	17.6	7.1	8.3	7.4

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Dots													
Approach: North Bound South Bound South Bound Meyer Bound Meyer Bound Movement: L T R L T T R L T T R L T T R L T T T T T T T T T	Cycle (sec):			100				_				0.781	
Approach: North Bound South Bound Fast Bound West Bound Movement: L T R R L T R L T R L T R L T R L T R L T R L T R L T R L T R R L T							_		:				
Movement: L T R T R L T R T R T T R T T T	Optimal Cycle:			104	L	evel Of	Servic	e:				С	
Protected Rights	Approach:	Nor	th Bound	l	Sou	th Bound		Eas	t Bound		Wes	st Bound	
Rights Include	Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Min. Green: 0	Control:	−	otected		Pr	otected	—'II	Pro	otected		Pr	otected	—
Yer:	Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Volume Module: Base Vol: 208 755 96 183 733 158 159 1442 201 142 671 2 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Base Vol: 208 755 96 183 733 158 159 1442 201 142 671 2 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: 208	Lanes:	1 0	2 0	1	1 0	2 1			2 1	0	1 0	3 0	1
Base Vol: 208 755 96 183 733 158 159 1442 201 142 671 2 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volumo Modulo:						<u> </u>			—			_
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		208	755	96	183	733	158	159	1442	201	142	671	210
Initial Base: 206 739 96 147 698 158 159 1387 201 142 647 1 Added Vol: 2 16 0 36 35 0 0 55 0 0 24 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 208 755 96 183 733 158 159 1442 201 142 671 2 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													1.00
Added Vol: 2 16 0 36 35 0 0 55 0 0 24 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 208 755 96 183 733 158 159 1442 201 142 671 2 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	-												193
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													17
Initial Fut: 208 755 96 183 733 158 159 1442 201 142 671 2 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_		755							201			210
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	User Adj:		1.00				1.00						1.00
PHF Volume: 208 755 96 183 733 158 159 1442 201 142 671 2 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Reduced Vol: 208 755 96 183 733 158 159 1442 201 142 671 2 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PHF Volume:		755	96	183	733	158	159	1442	201	142	671	210
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Reduced Vol:	208	755	96	183	733	158	159	1442	201	142	671	210
Final Vol.: 208 755 96 183 733 158 159 1442 201 142 671 2 Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Final Vol.:	208	755	96	183	733	158	159	1442	201	142	671	210
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160				II						——П			——
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Saturation Flow Mod	ule:											
Lanes: 1.00 2.00 1.00 1.00 2.47 0.53 1.00 2.63 0.37 1.00 3.00 1. Final Sat.: 1600 3200 1600 1600 3949 851 1600 4213 587 1600 4800 16 Capacity Analysis Module: Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.34 0.34 0.09 0.14 0. Crit Moves: **** **** Volume/Cap: 0.70 0.78 0.20 0.78 0.70 0.70 0.43 0.78 0.78 0.78 0.78 0.43 0. Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Final Sat.: 1600 3200 1600 1600 3949 851 1600 4213 587 1600 4800 1600 1600 1600 1600 1600 1600 1600 1	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity Analysis Module: Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.34 0.34 0.09 0.14 0. Crit Moves: **** **** Volume/Cap: 0.70 0.78 0.20 0.78 0.70 0.70 0.43 0.78 0.78 0.78 0.78 0.43 0. Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1.00	2.00	1.00	1.00	2.47	0.53	1.00	2.63	0.37	1.00	3.00	1.00
Capacity Analysis Module: Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.34 0.34 0.09 0.14 0. Crit Moves: **** **** **** Volume/Cap: 0.70 0.78 0.20 0.78 0.70 0.70 0.43 0.78 0.78 0.78 0.43 0. Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Final Sat.:	1600	3200	1600	1600	3949			4213	587	1600	4800	1600
Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.34 0.34 0.09 0.14 0. Crit Moves: **** **** **** Volume/Cap: 0.70 0.78 0.20 0.78 0.70 0.70 0.43 0.78 0.78 0.78 0.43 0. Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Canadity Analysis M			!						!			\dashv
Crit Moves:			0 24	0 06	0 11	0 19	0 19	0 10	0.34	0 34	0 09	0 14	0.13
Volume/Cap: 0.70 0.78 0.20 0.78 0.70 0.70 0.43 0.78 0.78 0.78 0.43 0. Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.13	****	0.00	****	0.13	0.13	0.10	****	0.34	****	0.14	0.13
Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.70	0.78	0 20	0.78	0.70	0 70	0 43	0.78	0.78	0.78	0 43	0.41
Level Of Service Module: Delay/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	· · · · · · · · · · · · · · · · · · ·		0.70			0.70			0.70			0.15	——————————————————————————————————————
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Level Of Service Mo	dule:					-						
	Delay/Veh:	34.4	27.5	20.0	42.2	27.2	32.1	25.9	20.1	28.2	46.2	20.7	20.6
AdjDel/Veh: 34.4 27.5 20.0 42.2 27.2 32.1 25.9 20.1 28.2 46.2 20.7 20	Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	AdjDel/Veh:	34.4	27.5	20.0	42.2	27.2	32.1	25.9	20.1	28.2	46.2	20.7	20.6
DesignQueue: 9.7 15.4 3.8 8.9 12.7 12.7 7.0 18.5 18.5 7.1 8.7 8	DesignQueue:	9.7	15.4	3.8	8.9	12.7	12.7	7.0	18.5	18.5	7.1	8.7	8.1

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:	Loss Time (sec): Optimal Cycle:				ritical verage I evel Of	elay (sec/veh)	:			0.409 8.7 A	
Approach:	Nor	th Bound	i.	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	T	R	L	T	R
Control:	Pr	otected		Pr	otected	11	Pe	rmitted	11	Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1
Volume Module:												
Base Vol:	46	922	29	80	914	10	59	2	69	30	3	54
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	46	922	29	80	914	10	59	2	69	30	3	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
PHF Volume:	46	922	29	80	914	10	59	2	69	30	3	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	46	922	29	80	914	10	59	2	69	30	3	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Final Vol.:	46	922	29	80	914	10	59	2	69	30	3	5
			—			—			—			
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	160
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Lanes:	1.00	2.00	1.00	1.00	2.97	0.03	1.00	0.03	0.97	0.91	0.09	1.0
Final Sat.:	1600 L	3200	1600	1600	4748	52	1600	45	1555 	1455	145	160
Capacity Analysis M	odule:											
Vol/Sat:	0.03	0.29	0.02	0.05	0.19	0.19	0.04	0.04	0.04	0.02	0.02	0.0
Crit Moves:		****		****			****					***
Volume/Cap:	0.27	0.41	0.03	0.41	0.27	0.27	0.41	0.37	0.37	0.37	0.25	0.43
Level Of Service Mo	dule:											
Delay/Veh:	31.8	4.8	3.4	32.0	3.8	4.7	34.2	44.5	31.6	36.7	35.2	34.
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	31.8	4.8	3.4	32.0	3.8	4.7	34.2	44.5	31.6	36.7	35.2	34.

Note: Queue reported is the number of cars per lane.

2.3

8.1

DesignQueue:

3.9

5.0

5.0

0.5

3.0

3.5

3.5

1.7

1.7

2.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#15:	Western	Avenue	and	Campus	Entrance

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 33	A	ritical verage D evel Of	elay (sec/veh)	:			0.442 10.2 A	
Approach:	Nor	th Bound	Į.	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L	Т	R	L	Т	R
Control:	Pr	otected	 11	Pr	otected	 "	Pe	rmitted		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1
	-		II						II			
Volume Module:												
Base Vol:	46	922	52	115	914	10	59	2	69	41	3	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	46	922	29	80	914	10	59	2	69	30	3	54
Added Vol:	0	0	23	35	0	0	0	0	0	11	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	922	52	115	914	10	59	2	69	41	3	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	922	52	115	914	10	59	2	69	41	3	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	922	52	115	914	10	59	2	69	41	3	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	46	922	52	115	914	10	59	2	69	41	3	72
			ا آــــــــــــــــــــــــــــــــــــ									
Saturation Flow Mod	ule:		•						- ''			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.97	0.03	1.00	0.03	0.97	0.93	0.07	1.00
Final Sat.:	1600	3200	1600	1600	4748	52	1600	45	1555	1491	109	1600
	_								——II			
Capacity Analysis M	odule:											
Vol/Sat:	0.03	0.29	0.03	0.07	0.19	0.19	0.04	0.04	0.04	0.03	0.03	0.05
Crit Moves:		***		****			****					****
Volume/Cap:	0.27	0.44	0.05	0.44	0.27	0.27	0.44	0.38	0.38	0.38	0.27	0.44
I 1 Of C '			!						!			
Level Of Service Mo		6 7	4 0	20.0	4 7	F 0	25 1	16.6	20.0	25.5	24.0	22.0
Delay/Veh:	31.9	6.7	4.8	29.9	4.1	5.0	35.1	46.6	32.0	35.5	34.8	33.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.9	6.7	4.8	29.9	4.1	5.0	35.1	46.6	32.0	35.5	34.8	33.8
DesignQueue:	2.3	9.5	1.0	5.4	5.2	5.2	3.0	3.5	3.5	2.3	2.2	3.6

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 36	A	ritical verage I evel Of	Delay (sec/veh)	:			0.479 9.8 A	
Approach:	Nor	th Bound	Į	Sou	th Bound	ł	Eas	st Bound	•	Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	T	R	L	T	R
Control:	Pe	rmitted	II-	Pe	rmitted		Pr	otected	1	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
			——II			——II			——II			
Volume Module:	_											
Base Vol:	37	7	63	55	10	72	47	1460	48	89	847	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	37	7	63	55	10	72	47	1460	48	89	847	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	7	63	55	10	72	47	1460	48	89	847	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	7	63	55	10	72	47	1460	48	89	847	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	37	7	63	55	10	72	47	1460	48	89	847	69
	_		——II			——II						
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600

Lanes:	0.84	0.16	1.00	0.40	0.07	0.53	1.00	2.90	0.10	1.00	2.77	0.23
Final Sat.:	1345	255	1600	642	117	841	1600	4647	153	1600	4438	362
			——ІІ-			———			——— -			
Capacity Analysis Modu	ıle:											_
Vol/Sat:	0.02	0.03	0.04	0.03	0.09	0.09	0.03	0.31	0.31	0.06	0.19	0.19
Crit Moves:	***				***			***		***		
Volume/Cap:	0.48	0.23	0.32	0.32	0.48	0.48	0.28	0.48	0.48	0.48	0.28	0.28

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

						I-			———			
Level Of Service Modu	ıle:					•						-
Delay/Veh:	39.8	31.2	31.3	32.9	39.4	30.2	32.2	6.7	9.3	33.4	5.2	5.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.8	31.2	31.3	32.9	39.4	30.2	32.2	6.7	9.3	33.4	5.2	5.4
DesignQueue:	2.3	2.2	3.1	6.9	6.4	6.4	2.4	10.3	10.3	4.4	5.9	5.9

Note: Queue reported is the number of cars per lane.

1.00

1.00

1.00

1.00

Adjustment:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 44	A	ritical verage D evel Of	elay (sec/veh)	:			0.581 13.3 A	
Approach:	Nor	th Bound	Į.	Sou	th Bound	ļ	Eas	st Bound		Wes	st Bound	
Movement:	L •	Т	R	L	T	R	L	T	R	L	Т	R
Control:	Pe	rmitted		Pe	rmitted		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
Volume Module:			——II			!			——			
Base Vol:	78	7	100	55	10	72	47	1460	139	181	847	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	37	7	63	55	10	72	47	1460	48	89	847	69
Added Vol:	41	0	37	0	0	0	0	0	91	92	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	7	100	55	10	72	47	1460	139	181	847	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	78	7	100	55	10	72	47	1460	139	181	847	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	7	100	55	10	72	47	1460	139	181	847	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	78	7	100	55	10	72	47	1460	139	181	847	69
_	-		———			——П			———			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.92	0.08	1.00	0.40	0.07	0.53	1.00	2.74	0.26	1.00	2.77	0.23
Final Sat.:	1468	132	1600 ••	642	117	841	1600	4383	417	1600	4438	362
Capacity Analysis M	odule:											
Vol/Sat:	0.05	0.05	0.06	0.03	0.09	0.09	0.03	0.33	0.33	0.11	0.19	0.19
Crit Moves:	****				****			***		****		
Volume/Cap:	0.58	0.36	0.42	0.42	0.58	0.58	0.29	0.58	0.58	0.58	0.29	0.29
Level Of Service Mo	dule:		—			—						
Delay/Veh:	38.7	33.7	30.4	36.6	55.5	35.4	32.2	10.7	13.1	30.1	5.3	5.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Detay Auj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Note: Queue reported is the number of cars per lane.

38.7

4.4

33.7

4.1

30.4

4.8

36.6

7.1

55.5

6.6

35.4

6.6

32.2

2.4

10.7

13.6

13.1

13.6

30.1

8.3

5.3

5.9

5.5

5.9

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Average Delay (sec/ve	eh):		0.0	V	Norst Ca	se Leve	l Of Ser	rvice:			A[7.2]	
Approach:	Nor	th Bound	Į	Sou	ıth Boun	d	Eas	st Bound		We	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R
Control:	Unco	ontrolle	 ₫		ontrolle	ed	St	op Sign	——II		op Sign	—
Rights	I	nclude		I	Include		I	include]	Include	
Lanes:	0 1	1 0	0	0 0	1 1	. 0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	540	0	0	486	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	540	0	0	486	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	540	0	0	486	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	540	0	0	486	0	0	0	0	0	0	0
	<u> </u>		——II			——————————————————————————————————————						
Critical Gap Module:	_											
Critical Gp:	****	****	****	****	****	****	6.8	****	6.9	****	***	****
FollowUpTim:	****	****	****	****	***	****	3.5	****	3.3	****	****	****
			——II			——II						——
Capacity Module:												
Cnflict Vol:	****	****	****	****	***	****	756	***	243	****	****	****
Potent Cap.:	****	****	****	****	***	****	348	***	764	****	****	****
Move Cap.:	****	****	****	****	***	****	348	***	764	****	****	****
Volume/Cap:	****	***	****	****	***	****	0.00	****	0.00	****	****	****
			<u> —</u> П									
Level Of Service Modu	ıle:											
2Way95thQ:	****	****	****	****	****	****	****	****	****	****	****	****
Control Del:	****	****	****	****	****	****	****	****	****	****	****	****
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	****	****	****	****	****	****	****	****	****	****	****	****
SharedQueue:	0.0	****	****	****	****	****	****	****	****	****	****	****
Shrd ConDel:	7.2	****	****	****	***	****	****	****	****	***	***	****
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		***			***			****			****	
ApproachLOS:		*			*			*			*	

Level Of Service Detailed Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Approach:	No	rth Boun	d	Sou	ıth Bound	d	Ea	st Bound	1	We	st Bound	l
Movement:	L	Т	R	L	T	R	L	Т	R	L	T	R
% Hev Veh:	— ——	0 %	 		0 %			0 %	 }		0 %	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk S	peed: 4.00 f											
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
Time Period: 0.25												
Upstream Signals:												
Link Index:		#97			#15							
Dist(miles):		0.250			0.000							
Speed (mph):		40.00			0.00							
Node Index:		#18			#7							
Cycle Time:		100 s	secs			ecs						
FinalVolume:	0	0		0	0	000						
Saturation:	0	0		0	0							
ArrivalType:	0	0		0	0							
G/C:	0.00	0.00		0.00	0.00							
*** Computation 1			Clear			m Inter	section					
P:	0.000	0.000	Oloul .	0.000	0.000	111001	50001011					
gq1:	0.00	0.00		0.00	0.00							
gq2:	0.00	0.00		0.00	0.00							
gd:	0.00	0.00		0.00	0.00							
*** Computation 2			Blocke			stream '	Platoons	3				
alpha:	110 111001	0.500	2100110	a 200aa.	0.000	DOL COM.	1 1000011					
beta:		0.667			0.000							
ta (secs):		22.500			0.000							
F:		0.118			0.000							
f:	1.00	1.00		0.00	0.00							
vcmax:	0	0		0	0							
vcg:	0	0		0	0							
vcmin:	0	0		0	0							
tp:	0.0	0.0		0.0	0.0							
p:	0.0	0.000		0.0	0.000							
*** Computation 3	: Platoon Ex		iods		0.000							
pdom/psubo:	11000011 2			nconstra	ained							
*** Computation 4	: Conflictin					Period						
InitCnflVol:	0	****	****	0	****	****	756	1026	243	783	1026	270
AdjCnflVol:	0	****	****	0	****	****	756	1026	243	783	1026	270
UpstreamAdj:	1.000	****	****	1.000	****	****	1.000	1.000	1.000	1.000	1.000	1.000
ConflictVol:	****	****	****	****	****	****	756	****	243	****	****	****
*** Computation 5									213			
InitPotCap:	1636	****	****	1636	****	****	348	237	764	335	237	734
UpstreamAdj:	1.000	***	****	1.000	****	****	1.000	1.000	1.000	1.000	1.000	1.000
Potent Cap.:	****	****	****	****	****	****	348	****	764	****	****	****
Locale cap.							510		, 0 1			

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Average Delay (sec	/veh):		0.9	W	orst Ca	se Level	l Of Ser	rvice:		C	[17.2]	
Approach:	Nor	th Bound	i	Sou	th Bound	d	Ea	st Bound		We	st Bound	
Movement:	L 	Т	R	L	T	R	L	Т	R	L	T	R
Control:	Unco	ontrolle		•	ontrolle	• • • • • • • • • • • • • • • • • • • •	St	op Sign	11	St	op Sign	
Rights	I	nclude		I	nclude		I	include		I	Include	
Lanes:	0 1	1 0	0	0 0	1 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:						()-						
Base Vol:	17	540	0	0	486	76	43	0	8	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	540	0	0	486	0	0	0	0	0	0	0
Added Vol:	17	0	0	0	0	76	43	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	540	0	0	486	76	43	0	8	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	540	0	0	486	76	43	0	8	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	17	540	0	0	486	76	43	0	8	0	0	0
Critical Gap Module			—			 II						_
Critical Gap Moduli	4.1	****	***	****	***	****	6.8	****	6.9	****	***	****
-	2.2	***	****	****	****	****	3.5	***	3.3	****	****	****
FollowUpTim:			 				3.5		3.3 -			
Capacity Module:			- 11			11						
Cnflict Vol:	562	****	****	****	****	****	828	****	281	***	****	****
Potent Cap.:	1019	****	****	****	****	****	313	****	722	****	****	****
Move Cap.:	1019	****	****	****	****	****	309	****	722	****	****	****
Volume/Cap:	0.02	***	****	****	****	****	0.14	****	0.01	****	****	****
Level Of Service Mo	odule:											
2Way95thQ:	0.1	***	****	***	***	****	0.5	****	0.0	****	***	****
Control Del:	8.6	***	****	****	****	****	18.5	****	10.0	****	****	****
LOS by Move:	A	*	*	*	*	*	C	*	В	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	***	****	****	****	****	****	****	***	***	****	****	***
SharedQueue:	0.1	****	****	****	****	****	****	****	****	****	****	****
Shrd ConDel:	8.6	****	****	****	****	****	****	****	****	****	****	****
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		****			****			17.2			****	
ApproachLOS:		*			*			C				

Appendix D

Level of Service Analysis

Cumulative Future with Proposed Project Mitigated

Cumulative Plus Project PM (Mitigated)

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Index #14. Imperiar	iiigiiwa ₁ a.	noboo.										
Cycle (sec):			100		ritical		_				0.658	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			22.5	
Optimal Cycle:			92	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	−	otected		Pe	rmitted		Pro	otected		Pe	rmitted	 -
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
Volume Module:	_					!						\dashv
Base Vol:	208	755	96	183	733	158	159	1442	201	142	671	210
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	206	739	96	147	698	158	159	1387	201	142	647	193
Added Vol:	2	16	0	36	35	0	0	55	0	0	24	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	208	755	96	183	733	158	159	1442	201	142	671	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	208	755	96	183	733	158	159	1442	201	142	671	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	208	755	96	183	733	158	159	1442	201	142	671	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	208	755	96	183	733	158	159	1442	201	142	671	210
			<u>—</u> ІІ			<u></u> II			<u>—</u> ІІ			<u> — </u>
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.47	0.53	1.00	2.63	0.37	1.00	3.00	1.00
Final Sat.:	1600 L	3200	1600 	1600 L	3949	851 	1600	4213	587 ▮	1600 L	4800	1600
Capacity Analysis M	odule:					11						
Vol/Sat:	0.13	0.24	0.06	0.11	0.19	0.19	0.10	0.34	0.34	0.09	0.14	0.13
Crit Moves:	***				***			****				
Volume/Cap:	0.80	0.60	0.15	0.49	0.80	0.80	0.23	0.57	0.57	0.51	0.80	0.75
Level Of Service Mo	dulo:		—			!!			—			_
Delay/Veh:	41.8	19.0	15.0	26.4	31.3	41.3	14.0	9.4	10.7	30.0	34.3	37.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	19.0	15.0	26.4	31.3	41.3	14.0	9.4	10.7	30.0	34.3	37.4
DesignQueue:	10.0	13.4	3.3	8.0	13.2	13.2	5.2	13.0	13.0	6.6	10.6	9.9
pepigiiQueue.	10.0	T7.T	ر. ر	0.0	10.4	10.2	٧. ٧	13.0	10.0	0.0	10.0	2.9

Appendix E

Level of Service Analysis

Cumulative Future Plus Related Projects with and without Proposed Project Conditions

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

C			100	g.		77-1 /C	(V):				0.720	
Cycle (sec):			100		ritical		_				0.729	
Loss Time (sec): Optimal Cycle:			84		verage D evel Of	_		•			22.6 C	
Optimal Cycle:			04	ш	evel OI	SET ATC	· .				C	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
			—						——I			—
Control:		otected		Pr	otected		Pr	otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
			—									<u> </u>
Volume Module:	_	_	_		_				_	_		
Base Vol:	0	0	0	725	0	12	426	333	0	0	499	633
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	707	0	12	426	333	0	0	499	631
Added Vol:	0	0	0	18	0	0	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	1 00	725	0	12	426	333	1 00	0	499	633
User Adj: PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0.00	725	0	1.00	426	333	0	0	499	633
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	033
Reduced Vol:	0	0	0	725	0	12	426	333	0	0	499	633
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	725	0	12	426	333	0	0	499	633
		-					-			_		
Saturation Flow Modul	e:								•			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.32	1.68
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	2116	2684
			——II			——II						
Capacity Analysis Mod	ule:											
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.01	0.27	0.10	0.00	0.00	0.24	0.24
Crit Moves:				****			****				***	
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.02	0.73	0.15	0.00	0.00	0.73	0.73
			—			<u></u>						
Level Of Service Modu				0.5			0.4				A= -	
Delay/Veh:	0.0	0.0	0.0	25.5	0.0	18.4	24.3	4.2	0.0	0.0	25.8	25.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.5	0.0	18.4	24.3	4.2	0.0	0.0	25.8	25.2
DesignQueue:	0.0	0.0	0.0	14.6	0.0	0.5	16.0	2.9	0.0	0.0	15.0	15.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Charle (max):			1.00	~		T7-1 /~	(37)				0 777	
Cycle (sec):			100		ritical						0.775	
Loss Time (sec):			101		verage D evel Of			•			25.6	
Optimal Cycle:			101	Ш	ever or	PET ATG					С	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R
	-		——			—— -		_	—— -		_	
Control:		otected			otected			otected			otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0 -
Taluma Madulas			—									
Volume Module:	157	014	0.2	102	1226	167	140	E 1 6	100	100	1100	210
Base Vol:	157 1.00	914 1.00	82 1.00	193 1.00	1236 1.00	167 1.00	149 1.00	546 1.00	123 1.00	180 1.00	1189 1.00	210 1.00
Growth Adj: Initial Base:	1.00	914	78	1.00	1236	1.00	1.00	528	123	180	1187	209
Added Vol:	0	914	4	12	0	167	0	18	123	0	2	209
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	157	914	82	193	1236	167	149	546	123	180	1189	210
User Adi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	157	914	82	193	1236	167	149	546	123	180	1189	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	157	914	82	193	1236	167	149	546	123	180	1189	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	157	914	82	193	1236	167	149	546	123	180	1189	210
			———			——II			<u>—</u> П			
Saturation Flow Modu	ıle:											_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.75	0.25	1.00	2.64	0.36	1.00	2.45	0.55	1.00	2.55	0.45
Final Sat.:	1600	4405	395	1600	4229	571	1600	3917	883	1600	4079	721
Companible 2007						 }			—			_
Capacity Analysis Mc Vol/Sat:		0 01	0 01	0 10	0.00	0 20	0.00	0 14	0 14	0 11	0 20	0.20
,	0.10	0.21	0.21	0.12	0.29 ****	0.29	0.09 ***	0.14	0.14	0.11	0.29 ***	0.29
Crit Moves:	0.78	0.65	0.65	0.65	0.78	0.78	0.78	0.51	0.51	0.51	0.78	0.78
Volume/Cap:	0.78 _ L	0.05	0.65		0.78	0.78 		0.51	0.51 		0.78	0.78
Level Of Service Mod	dule:											
Delay/Veh:	43.9	23.3	30.2	32.5	22.8	31.9	44.8	23.9	25.0	27.3	23.0	30.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	23.3	30.2	32.5	22.8	31.9	44.8	23.9	25.0	27.3	23.0	30.0
DesignQueue:	7.8	13.2	13.2	9.0	17.3	17.3	7.4	9.3	9.3	8.0	17.3	17.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.664	
Loss Time (sec):			0	А	verage D	elay (sec/veh)	:			21.6	
Optimal Cycle:			68	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	T	R
Control:	− Pr	otected	——	-	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	-		——II			II			——II			
Volume Module:												
Base Vol:	135	564	129	154	592	104	50	682	76	136	1442	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	135	564	129	127	592	104	50	648	76	136	1439	91
Added Vol:	0	0	0	27	0	0	0	34	0	0	3	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	564	129	154	592	104	50	682	76	136	1442	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	135	564	129	154	592	104	50	682	76	136	1442	94
Reduct Vol:	125	0	100	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	564	129	154	592	104	50	682	76	136	1442	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj: Final Vol.:	1.00 135	1.00 564	1.00	1.00 154	1.00 592	1.00	1.00 50	1.00 682	1.00 76	1.00 136	1.00	1.00
Final VOI.		304			392		50	002	/ 6	136	1442	94
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.70	0.30	1.00	2.70	0.30	1.00	2.82	0.18
Final Sat.:	1600	2604	596	1600	2722	478	1600	4319	481	1600	4506	294
Capacity Analysis M	odule:											
Vol/Sat:	0.08	0.22	0.22	0.10	0.22	0.22	0.03	0.16	0.16	0.09	0.32	0.32
Crit Moves:		****		****			****				****	
Volume/Cap:	0.64	0.66	0.66	0.66	0.64	0.64	0.66	0.46	0.46	0.46	0.66	0.66
Level Of Service Mo	dulo:		—						—			
Delay/Veh:	36.1	23.7	27.9	35.9	22.5	27.1	48.9	19.8	21.1	28.8	15.7	22.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	19.8	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.1	23.7	27.9	35.9	22.5	27.1	48.9	1.00	21.1	28.8	15.7	22.7
DesignQueue:	6.6	13.6	13.6	7.5	13.4	13.4	2.7	9.5	9.5	6.3	15.7	15.9
Deptalifaere.	0.0	13.0	13.0	1.5	19.7	T 2 . 4	۷./	٠.٥	٠.٥	0.3	13.3	13.9

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec):			100		ritical						0.700	
Loss Time (sec): Optimal Cycle:			76		verage I evel Of		sec/veh)	•			19.6 B	
optimal cycle:			70	ш	evel OI	SET ATC	e·				ь	
Approach:	Nor	th Bound	i	Sou	th Bound	l	Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
	-		——II			——П			<u>—</u> п			
Volume Module:												
Base Vol:	60	580	79	44	440	38	50	646	451	131	1342	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	59	579	79	44	425	38	50	640	439	131	1341	57
Added Vol:	1	1	0	0	15	0	0	6	12	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	580	79	44	440	38	50	646	451	131	1342	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	580	79	44	440	38	50	646	451	131	1342	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	580	79	44	440	38	50	646	451	131	1342	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	580	79	44	440	38	50	646	451	131	1342	57
			<u>—</u> —П			——П			<u>—</u> П			
Saturation Flow Mode	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	0.92	0.08	1.00	2.00	1.00	1.00	2.88	0.12
Final Sat.:	1600 •	2816	384 ■■	1600 I	1473	127 ••	1600	3200	1600 •	1600 I	4604	196
Capacity Analysis Mo	odule:		1			11						
Vol/Sat:	0.04	0.21	0.21	0.03	0.30	0.30	0.03	0.20	0.28	0.08	0.29	0.29
Crit Moves:	****				***				****	****		
Volume/Cap:	0.70	0.49	0.49	0.49	0.70	0.70	0.62	0.50	0.70	0.70	0.62	0.62
Level Of Service Moo	dule:											
Delay/Veh:	50.2	16.4	17.9	38.4	20.4	38.8	45.0	17.5	21.5	40.1	15.7	23.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.2	16.4	17.9	38.4	20.4	38.8	45.0	17.5	21.5	40.1	15.7	23.5
DesignQueue:	3.2	11.1	11.1	2.3	16.3	16.3	2.7	11.2	16.0	6.5	14.7	14.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec):	С	ritical		0.837								
Loss Time (sec):	A	verage D		26.6								
Optimal Cycle:			140	L	evel Of	Servic	e:				D	
Annua a ala t	Man	th David		Con	th David							
Approach:		th Bound			th Bound			t Bound	D		st Bound	D
Movement:	_ L	Т	R 	L	Т	R 	L	Т	R 	L	Т	R
Control:	Pr	otected	•		otected	••	Pr	otected	•	Protected		
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0 -
Volume Module:									!			
Base Vol:	170	976	105	102	1091	103	159	774	178	142	872	368
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	169	969	105	102	1021	103	159	774	172	140	872	368
Added Vol:	103	7	0	0	70	0	0	0	6	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	976	105	102	1091	103	159	774	178	142	872	368
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	976	105	102	1091	103	159	774	178	142	872	368
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	976	105	102	1091	103	159	774	178	142	872	368
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	170	976	105	102	1091	103	159	774	178	142	872	368
			——П			<u>—</u> н			———			
Saturation Flow Mode	ule:											-
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.83	0.17	1.00	2.44	0.56	1.00	2.11	0.89
Final Sat.:	1600	3200	1600	1600	2924	276	1600	3903	897	1600	3375	1425
Committee Production M			—			—II-						
Capacity Analysis Mo		0.21	0 07	0.06	0.27	0 27	0 10	0.00	0 00	0.00	0.00	0.00
Vol/Sat: Crit Moves:	0.11	0.31	0.07	0.06	0.37	0.37	0.10	0.20	0.20	0.09	0.26 ***	0.26
Volume/Cap:	0.84	0.64	0.14	0.64	0.84	0.84	0.84	0.67	0.67	0.67	0.84	0.84
volume/cap.	0.84	0.64	0.14 		0.84	0.84 	0.84	0.67	 		0.84	0.84
Level Of Service Mod	dule:		- 11						- 11			
Delay/Veh:	50.0	16.0	11.4	39.3	22.4	43.8	51.2	24.9	28.3	37.3	29.1	34.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.0	16.0	11.4	39.3	22.4	43.8	51.2	24.9	28.3	37.3	29.1	34.0
DesignQueue:	8.4	15.3	3.1	5.2	20.0	20.0	8.0	13.0	13.0	7.0	16.8	16.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

C1- ():			100		ritical	17-1 /C	(V):				0 705		
Cycle (sec): Loss Time (sec):			0.725										
Optimal Cycle:	0 Average Delay (sec/veh): 83 Level Of Service:									24.4 C			
Optimal cycle:			03		ever or	DET VIC	.				C		
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound		
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R	
Control:	Pr	otected	—		otected		Pr	otected		Pr	otected		
Rights		nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	
	<u> </u>		——П			———			——П				
Volume Module:	-											-	
Base Vol:	151	633	70	101	604	64	131	884	65	160	999	89	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	151	628	70	101	552	64	131	884	65	160	997	89	
Added Vol:	0	5	0	0	52	0	0	0	0	0	2	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	151	633	70	101	604	64	131	884	65	160	999	89	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	151	633	70	101	604	64	131	884	65	160	999	89	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	151	633	70	101	604	64	131	884	65	160	999	89	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	151	633	70	101	604	64 ••	131	884	65 ••	160	999	89 •	
Coturntion Flow Modu	10:					——I I:			——I I:				
Saturation Flow Modu	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.80	0.20	1.00	1.81	0.19	1.00	1.86	0.14	1.00	1.84	0.16	
Final Sat.:	1600	2881	319	1600	2893	307	1600	2981	219	1600	2938	262	
		2001		1000	2075		1000	2701		1000	2,50		
Capacity Analysis Moo	dule:					- 11			- 16				
Vol/Sat:	0.09	0.22	0.22	0.06	0.21	0.21	0.08	0.30	0.30	0.10	0.34	0.34	
Crit Moves:	****				****		***				****		
Volume/Cap:	0.73	0.68	0.68	0.68	0.73	0.73	0.73	0.68	0.68	0.68	0.73	0.73	
	<u> </u>		——			— 			-				
Level Of Service Mode	ule:												
Delay/Veh:	40.1	23.9	33.1	41.5	26.9	41.1	42.0	18.5	29.2	36.5	17.8	29.0	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	40.1	23.9	33.1	41.5	26.9	41.1	42.0	18.5	29.2	36.5	17.8	29.0	
DesignQueue:	7.5	13.9	13.9	5.2	13.9	13.9	6.6	15.9	15.9	7.8	17.4	17.4	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec):			100	C	ritical	Tal /0	on (V):				0.760			
Loss Time (sec):			0.769											
Optimal Cycle:		0 Average Delay (sec/veh): 99 Level Of Service:									23.9 C			
Optimal Cycle:			22	11	evel OI	SELVIC	⊂•				C			
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound			
Movement:	L	Т	R	L	Т	R	L	T	R	L	T	R		
Control:	Pr	otected			otected		Pr	otected	 !!	Pr	otected	\neg		
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0		
	-		——			——II						—		
Volume Module:														
Base Vol:	148	507	74	170	560	134	109	770	40	170	1694	185		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	148	503	68	170	524	119	107	763	40	122	1608	185		
Added Vol:	0	4	6	0	36	15	2	7	0	48	86	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	148	507	74	170	560	134	109	770	40	170	1694	185		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	148	507	74	170	560	134	109	770	40	170	1694	185		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	148	507	74	170	560	134	109	770	40	170	1694	185		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	148	507	74	170	560	134	109	770	40	170	1694	185		
			——			——			<u></u> II			<u> </u>		
Saturation Flow Modu														
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.00	1.75	0.25	1.00	1.61	0.39	1.00	2.85	0.15	1.00	2.70	0.30		
Final Sat.:	1600	2792	408 ∎∎	1600 I	2582	618 •••	1600	4563	237 II	1600	4327	473 ■		
Capacity Analysis Mo	odule:													
Vol/Sat:	0.09	0.18	0.18	0.11	0.22	0.22	0.07	0.17	0.17	0.11	0.39	0.39		
Crit Moves:	***				****		****				***			
Volume/Cap:	0.77	0.72	0.72	0.72	0.77	0.77	0.77	0.46	0.46	0.46	0.77	0.77		
			—			—								
Level Of Service Moo							4.5	10 =	0.0	0.5				
Delay/Veh:	44.2	28.6	39.8	37.9	28.8	37.7	49.0	18.7	21.3	26.1	16.5	24.7		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	44.2	28.6	39.8	37.9	28.8	37.7	49.0	18.7	21.3	26.1	16.5	24.7		
DesignQueue:	7.4	12.5	12.5	8.2	14.5	14.5	5.6	9.9	9.9	7.4	18.7	18.7		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#8:	Imperial	Highway	and	Vermont	Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 103	A	ritical verage D evel Of		0.779 26.3 C						
Approach: Movement:	Nor L	th Bound T	l R	Sou L	th Bound T	R	Eas L	t Bound T	R	Wes L	st Bound T	R	
Control:		otected			Protected			otected		Protected			
Rights		nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0	
						—							
Volume Module:	450	1000	4.54	0.5.5			44-			0.1.5	4040		
Base Vol:	472	1300	171	255	891	197	115	717	168	215	1319	224	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	435	1300	171	255	891	167	112	710	164	215	1251	224	
Added Vol:	37	0	0	0	0	30	3	7	4	0	68	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	472	1300	171	255	891	197	115	717	168	215	1319	224	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	472	1300	171	255	891	197	115	717	168	215	1319	224	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	472	1300	171	255	891	197	115	717	168	215	1319	224	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	472	1300	171	255	891	197	115	717	168	215	1319	224	
	-					<u>—</u> ІІ							
Saturation Flow Modu	ıle:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	2.00	2.65	0.35	2.00	2.46	0.54	1.00	2.43	0.57	1.00	2.56	0.44	
Final Sat.:	3200	4242	558	3200	3931	869	1600	3889	911	1600	4103	697	
Capacity Analysis Mo	- I												
		0 21	0 21	0.00	0.22	0 22	0.07	0 10	0 10	0 12	0 22	0.32	
Vol/Sat: Crit Moves:	0.15	0.31	0.31	0.08	0.23	0.23	0.07 ****	0.18	0.18	0.13	0.32 ***	0.32	
	0.76		0.70		0.76	0.76		0 62	0 63	0 63		0 70	
Volume/Cap:	0.76 _ L	0.78	0.78	0.78 L	0.76	0.76	0.78	0.63	0.63	0.63 L	0.78	0.78	
Level Of Service Mod	dule:												
Delay/Veh:	32.9	22.2	31.4	41.5	26.4	32.4	49.4	24.5	27.0	30.2	21.3	28.3	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	32.9	22.2	31.4	41.5	26.4	32.4	49.4	24.5	27.0	30.2	21.3	28.3	
v ·	24.7		J I		20.1	J 4 . I	10.1	2	_ , . U	J J . Z		20.0	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Cycle (sec):			5	С	ritical	0.661							
Loss Time (sec):	ime (sec):					Average Delay (sec/veh):							
Optimal Cycle:				В									
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound	d West Bound				
Movement:	L	T	R ∎∎	L	T	R	L	T	R	L	T	R ■	
Control:	Protected				otected	 1)	Pe	rmitted		Protected			
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	3 0	0	0 0	2 1	0	0 0	0 0	0	0 0	1! 0	1	
			——II			II							
Volume Module:													
Base Vol:	255	1381	0	0	904	423	0	0	0	100	40	582	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	255	1367	0	0	901	422	0	0	0	100	40	560	
Added Vol:	0	14	0	0	3	1	0	0	0	0	0	22	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	255	1381	0	0	904	423	0	0	0	100	40	582	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	255	1381	0	0	904	423	0	0	0	100	40	582	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	255	1381	0	0	904	423	0	0	0	100	40	582	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	255	1381	0	0	904	423	0	0	0	100	40	582	
									<u>—</u> п			<u> </u>	
Saturation Flow Modul													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	3.00	0.00	0.00	2.04	0.96	0.00	0.00	0.00	0.28	0.11	1.61	
Final Sat.:	1600 •	4800	0	0	3270	1530	0	0	0	443	177	2580 •	
Capacity Analysis Mod	hule:								11				
Vol/Sat:	0.16	0.29	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.23	0.23	0.23	
Crit Moves:	****	0.25	0.00	0.00	****	0.20	0.00	0.00	0.00	0.23	****	0.23	
Volume/Cap:	0.66	0.44	0.00	0.00	0.66	0.66	0.00	0.00	0.00	0.66	0.66	0.66	
			—			<u></u>			—				
Level Of Service Modu													
Delay/Veh:	4.2	0.4	0.0	0.0	1.8	2.7	0.0	0.0	0.0	8.0	16.2	2.4	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	4.2	0.4	0.0	0.0	1.8	2.7	0.0	0.0	0.0	8.0	16.2	2.4	
DesignQueue:	0.6	0.5	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.2	0.1	1.2	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

Deptimal Cycle: 0	Cycle (sec):			100	С	ritical	Vol./C	ap.(X):				0.636	
Approach: North Bound Novement: L T R L T	- ·							_	:				
Description Protected Pr	Optimal Cycle:			63		_							
Description Protected Pr	-												
Protected dights	Approach:	Nor	th Bound		Sou	th Bound		Eas			Wes	st Bound	
Rights Include	Movement:	L 	Т	R	L	Т	R ■■■	L	Т	R ■■■	L	Т	R
fin. Green: 0	Control:	Pr	otected	11	Pr	otected		Pr	otected	1	Pr	otected	
### Addi	Rights	I	nclude		I	nclude		I	nclude		I	nclude	
From Module: Same Vol:	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Sarse Vol: 0 1009 43 306 700 0 611 111 155 0 0 0 0 Sarse Vol: 0 1006 43 304 700 0 600 111 155 0 0 0 0 Initial Base: 0 1006 43 304 700 0 600 111 155 0 0 0 0 Initial Base: 0 1006 43 304 700 0 600 111 155 0 0 0 0 Initial Ful: 0 1009 43 306 700 0 611 111 155 0 0 0 0 Initial Ful: 0 100 1.00 1.00 1.00 1.00 1.00 1.00 1.	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Rase Vol: 0 1009 43 306 700 0 611 111 155 0 0 0 0 6 1	Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
Rase Vol: 0 1009 43 306 700 0 611 111 155 0 0 0 0 6 1		-		—						—			-
Prowth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module:												
Enitial Base: 0 1006 43 304 700 0 600 111 155 0 0 0 60ded Vol: 0 3 0 2 0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Vol:	0	1009				0				0	0	0
Added Vol: 0 3 0 2 0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Growth Adj:	1.00	1.00	1.00							1.00	1.00	1.00
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Initial Base:												0
Initial Fut: 0 1009 43 306 700 0 611 111 155 0 0 0 Gree Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Added Vol:												0
### Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_												0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00													0
PHF Volume: 0 1009 43 306 700 0 611 111 155 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3												1.00
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:												1.00
Reduced Vol: 0 1009 43 306 700 0 611 111 155 0 0 0 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
CEE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
ALF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
Final Vol.: 0 1009 43 306 700 0 611 111 155 0 0 0 0 62													
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160													
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Final Vol.:	0	1009	43	306 •	700	0	611	111	155	0	0	0
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Cotombian Blooms												$\overline{}$
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Danes: 0.00 2.88 0.12 1.00 3.00 0.00 1.69 0.31 1.00 0.00 0.00 0.00 0.00 0.00 0.00													
Final Sat.: 0 4604 196 1600 4800 0 2708 492 1600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												
Capacity Analysis Module: Capacity Analysis Mod													0.00
7/01/Sat: 0.00 0.22 0.22 0.19 0.15 0.00 0.23 0.23 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.0	rinar bac.	_ L	1001		1000	1000	ĭı	2700	1,7,2			· ·	<u>`</u>
Crit Moves:	Capacity Analysis M	odule:											
Tolume/Cap: 0.00 0.64 0.64 0.64 0.23 0.00 0.64 0.64 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Vol/Sat:	0.00	0.22	0.22	0.19	0.15	0.00	0.23	0.23	0.10	0.00	0.00	0.00
Tolume/Cap: 0.00 0.64 0.64 0.64 0.23 0.00 0.64 0.64 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Crit Moves:		****		****			****					
Level Of Service Module: Delay/Veh: 0.0 21.8 33.0 25.2 5.7 0.0 21.7 25.8 17.8 0.0 0.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume/Cap:	0.00	0.64			0.23	0.00	0.64	0.64			0.00	0.00
Delay/Veh: 0.0 21.8 33.0 25.2 5.7 0.0 21.7 25.8 17.8 0.0 0.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0										—			-
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
AdjDel/Veh: 0.0 21.8 33.0 25.2 5.7 0.0 21.7 25.8 17.8 0.0 0.0 0.0	Delay/Veh:												0.0
	Delay Adj:												1.00
DesignQueue: 0.0 13.4 13.4 12.4 4.8 0.0 13.6 13.6 5.7 0.0 0.0 0.0	AdjDel/Veh:												0.0
	DesignQueue:	0.0	13.4	13.4	12.4	4.8	0.0	13.6	13.6	5.7	0.0	0.0	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#11:	111th	Place	and	T - 110	SB	Ramp

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 27	A	ritical verage D evel Of	elay (sec/veh)	:			0.306 10.5 A	
Approach:	Nor	th Bound	l	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	T	R	L	Т	R
Control:	Pe	rmitted		Pe	rmitted		Pr	otected		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
			—			<u>—</u> ІІ			—			—
Volume Module:												
Base Vol:	0	0	0	103	574	58	0	160	20	52	212	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	103	554	58	0	160	20	52	212	0
Added Vol:	0	0	0	0	20	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	103	574	58	0	160	20	52	212	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	103	574	58	0	160	20	52	212	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	103	574	58	0	160	20	52	212	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	103	574	58	0	160	20	52	212	0
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	2.54	1.00	0.00	0.89	0.11	0.20	0.80	0.00
Final Sat.:	0	0	0	730	4070	1600	0	1422	178	315	1285	0.00
	-		<u>—</u>			——			<u>——</u>			
Capacity Analysis M	odule:											-
Vol/Sat:	0.00	0.00	0.00	0.06	0.14	0.04	0.00	0.11	0.11	0.03	0.17	0.00
Crit Moves:					****		****				****	

Note: Queue reported is the number of cars per lane.

0.00

0.0

0.0

0.0

1.00

0.00

0.0

0.0

0.0

1.00

Volume/Cap:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

DesignQueue:

Level Of Service Module:

0.07

0.3

0.3

1.0

1.00

0.31

13.1

1.00

13.1

7.0

0.08

11.6

1.00

11.6

1.8

0.00

0.0

1.00

0.0

0.0

0.00

0.0

0.0

0.0

1.00

0.21

9.2

9.2

4.7

1.00

0.06

8.5

1.00

8.5

7.0

0.31

9.9

1.00

9.9

7.0

0.00

0.0

1.00

0.0

0.0

0.21

9.4

1.00

9.4

4.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:	oss Time (sec): ptimal Cycle:						ap.(X): sec/veh) e:	:			0.646 13.3 B	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L 	Т	R ∎∎	L	Т	R	L	Т	R	L	Т	R
Control:		otected			otected			otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	_
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0 	1 1	0 1	1 	0 0	2 1		1 0	3 0	0
Volume Module:						- 1			- ''			
Base Vol:	0	0	0	127	370	313	0	708	479	300	1829	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	127	370	293	0	702	478	300	1781	0
Added Vol:	0	0	0	0	0	20	0	6	1	0	48	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	127	370	313	0	708	479	300	1829	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	127	370	313	0	708	479	300	1829	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	127	370	313	0	708	479	300	1829	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	127	370	313	0	708	479	300	1829	0
Saturation Flow Modu	le:					——II			—			_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	1.46	1.54	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1600	2330	2470	0	3200	1600	1600	4800	0
Capacity Analysis Mo	odule:								—			
Vol/Sat:	0.00	0.00	0.00	0.08	0.16	0.13	0.00	0.22	0.30	0.19	0.38	0.00
Crit Moves:	0.00	0.00	0.00	0.00	****	0.13	0.00	0.22	****	****	0.30	0.00
Volume/Cap:	0.00	0.00	0.00	0.32	0.65	0.52	0.00	0.48	0.65	0.65	0.51	0.00
			<u>—</u> ІІ			——			—			<u> </u>
Level Of Service Mod					0.5					0.5.5		
Delay/Veh:	0.0	0.0	0.0	24.0	27.8	25.7	0.0	14.4	17.2	26.0	3.9	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.0	27.8	25.7	0.0	14.4	17.2	26.0	3.9	0.0
DesignQueue:	0.0	0.0	0.0	5.4	11.0	8.7	0.0	11.1	15.3	12.3	9.1	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec):			100	С	ritical	Vol./Ca	ap.(X):				0.845	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			20.4	
Optimal Cycle:			147	L	evel Of	Service	e:				D	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	Т	R	L	Т	R	L	T	R
Control:	Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0
			—			—			——II			<u> —</u>
Volume Module:												
Base Vol:	913	317	482	0	0	0	120	729	0	0	1249	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	902	317	482	0	0	0	118	725	0	0	1212	71
Added Vol:	11	0	0	0	0	0	2	4	0	0	37	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	913	317	482	0	0	0	120	729	0	0	1249	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	913	317	482	0	0	0	120	729	0	0	1249	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	913	317	482	0	0	0	120	729	0	0	1249	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	913	317	482	0	0	0	120	729	0	0	1249	71
Saturation Flow Module	o •								—"			_
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.60	0.40	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.84	0.16
Final Sat.:	2560	640	1600	0.00	0.00	0.00	1600	4800	0.00	0.00	4542	258
	2500	040		<u> </u>	U		1000	4000			4542	258
Capacity Analysis Modu	ule:											
Vol/Sat:	0.36	0.50	0.30	0.00	0.00	0.00	0.08	0.15	0.00	0.00	0.28	0.28
Crit Moves:		****					****				****	
Volume/Cap:	0.61	0.85	0.51	0.00	0.00	0.00	0.85	0.37	0.00	0.00	0.85	0.85
and the same			I			 -			I			
Level Of Service Modu	le:		- 11						- 11			
Delay/Veh:	10.8	24.2	9.9	0.0	0.0	0.0	58.1	15.6	0.0	0.0	27.5	58.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	24.2	9.9	0.0	0.0	0.0	58.1	15.6	0.0	0.0	27.5	58.2
DesignQueue:	14.3	20.5	11.9	0.0	0.0	0.0	6.2	8.2	0.0	0.0	17.6	17.6

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Cycle (sec):			100	C	ritical	Val /Cr	on (V):				0.745	
• •			0				_				26.0	
Loss Time (sec): Optimal Cycle:			89		verage D evel Of	_		•			20.0 C	
Optimal Cycle:			09	Ш	evel OI	Set vice	- ·				C	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
			——			 -			——{			
Control:		otected		Pr	otected		Pr	otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1 _
			—									<u> </u>
Volume Module:												
Base Vol:	250	802	179	226	805	160	140	766	260	197	1276	224
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	250	798	179	186	767	160	140	709	256	197	1270	220
Added Vol:	0	4 0	0	40 0	38 0	0	0	57 0	4	0	6 0	4 0
PasserByVol: Initial Fut:		802	179	226		160	140	766	260	197		224
User Adj:	250 1.00	1.00	1.00	1.00	805 1.00	1.00	1.00	1.00	1.00	1.00	1276 1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	250	802	179	226	805	160	140	766	260	197	1276	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	250	802	179	226	805	160	140	766	260	197	1276	224
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	250	802	179	226	805	160	140	766	260	197	1276	224
Saturation Flow Modul	e:		- "			- "			- "			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.50	0.50	1.00	2.24	0.76	1.00	3.00	1.00
Final Sat.:	1600	3200	1600	1600	4004	796	1600	3584	1216	1600	4800	1600
			——ІІ			——II						——
Capacity Analysis Mod	ule:											
Vol/Sat:	0.16	0.25	0.11	0.14	0.20	0.20	0.09	0.21	0.21	0.12	0.27	0.14
Crit Moves:		****		****			****				***	
Volume/Cap:	0.68	0.75	0.33	0.75	0.68	0.68	0.75	0.71	0.71	0.71	0.75	0.39
Level Of Service Modu				0.5				A= =		0.5.		10 -
Delay/Veh:	30.5	24.6	19.2	36.0	25.0	29.1	42.8	25.5	28.3	35.6	23.0	18.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.5	24.6	19.2	36.0	25.0	29.1	42.8	25.5	28.3	35.6	23.0	18.8
DesignQueue:	11.1	15.7	6.8	10.5	13.2	13.2	7.0	13.9	13.9	9.3	16.2	8.3

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #15: Western Avenue and Campus Entrance

Cycle (sec): 100 Critical Vol./Cap.(X): 0.517 Loss Time (suc): 38 Average Delay (sec/veh): 6.8 A Optimal Cycle: 38 Level Of Service: Seath Bound Nest Bound Approach: North Hound South Bound East Hound New Hound New Hound Control: Protected Protected Protected Permitted Include	Index #15: Western A												
Approach: North Bound Movement: L T T R L	- · · · · · · · · · · · · · · · · · · ·												
Approach: North Bound South Bound East Bound West Bound Wovement: L T R L T T R L T							_		:				
Movement: L T R L T T R T T R T T T T	Optimal Cycle:			38	L	evel Of	Servic	e:				А	
Rights Include	Approach:	Nor	th Bound	i	Sou	th Bound	i	Eas	st Bound		Wes	st Bound	
Rights Include	Movement:	L	Т	R	L	T	R	L	Т	R	L	T	R
Min. Green: 0	Control:	− Pr	otected		Pr	otected		Pe	rmitted		Pe	rmitted	
Yer:	Rights	I	include		I	nclude		I	nclude		I	nclude	
Volume Module: Base Vol: 32 1186 139 173 1068 8 13 4 25 32 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Base Vol:	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Base Vol: 32 1186 139 173 1068 8 13 4 25 32 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1
Base Vol: 32 1186 139 173 1068 8 13 4 25 32 0 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0				—						—			
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		2.0	1106	120	1.00	1060		1.2	4	0.5	2.0		2.5
Initial Base: 32 1186 113 131 1068 8 13 4 25 29 0 Added Vol: 0 0 0 26 42 0 0 0 0 0 0 0 3 0 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 100 1.00 1.00 1.00 1.00 1.00 1.00 1.00													36
Added Vol: 0 0 0 26 42 0 0 0 0 0 0 3 0 0 3 0 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3												1.00
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													32
Initial Fut: 32 1186 139 173 1068 8 13 4 25 32 0 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													4
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	-												0 36
PHF Adj:													1.00
PHF Volume: 32 1186 139 173 1068 8 13 4 25 32 0 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 32 1186 139 173 1068 8 13 4 25 32 0 PCR Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	•												1.00
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	•												36
Reduced Vol: 32 1186 139 173 1068 8 13 4 25 32 0 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													36
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													1.00
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	-												1.00
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	•												36
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Tillar Vol.	_ــــــــــــــــــــــــــــــــــــــ	1100			1000	انّــــــــــــــــــــــــــــــــــــ	13	-			ŭ	
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Saturation Flow Mod	ule:											
Lanes: 1.00 2.00 1.00 1.00 2.98 0.02 1.00 0.14 0.86 1.00 0.00 Final Sat.: 1600 3200 1600 1600 4764 36 1600 221 1379 1600 0 Capacity Analysis Module: Vol/Sat: 0.02 0.37 0.09 0.11 0.22 0.22 0.01 0.02 0.02 0.02 0.00 Crit Moves: **** **** **** Volume/Cap: 0.26 0.52 0.12 0.52 0.26 0.26 0.42 0.52 0.52 0.52 0.00 Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Final Sat.: 1600 3200 1600 1600 4764 36 1600 221 1379 1600 0 Capacity Analysis Module: Vol/Sat: 0.02 0.37 0.09 0.11 0.22 0.22 0.01 0.02 0.02 0.02 0.00 Crit Moves: **** **** Volume/Cap: 0.26 0.52 0.12 0.52 0.26 0.26 0.42 0.52 0.52 0.52 0.00 Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity Analysis Module: Vol/Sat: 0.02 0.37 0.09 0.11 0.22 0.22 0.01 0.02 0.02 0.02 0.00 Crit Moves: **** **** Volume/Cap: 0.26 0.52 0.12 0.52 0.26 0.26 0.42 0.52 0.52 0.52 0.00 Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1.00	2.00	1.00	1.00	2.98	0.02	1.00	0.14	0.86	1.00	0.00	1.00
Vol/Sat: 0.02 0.37 0.09 0.11 0.22 0.22 0.01 0.02 0.02 0.00 Crit Moves: **** **** **** **** **** **** Volume/Cap: 0.26 0.52 0.12 0.52 0.26 0.26 0.42 0.52 0.52 0.52 0.00 Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Final Sat.:	1600	3200	1600	1600	4764	36	1600	221	1379	1600	0	1600
Vol/Sat: 0.02 0.37 0.09 0.11 0.22 0.22 0.01 0.02 0.02 0.00 Crit Moves: **** **** **** **** **** **** **** *	Canacity Analysis M	odule:					!						
Crit Moves:			0.37	0.09	0.11	0.22	0.22	0.01	0.02	0.02	0.02	0.00	0.02
Volume/Cap: 0.26 0.52 0.12 0.52 0.26 0.26 0.42 0.52 0.52 0.52 0.00 Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.02		0.00		V.22	J.22	0.01		0.02			0.02
Level Of Service Module: Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.26		0.12		0.26	0.26	0.42		0.52		0.00	0.58
Delay/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0				—			——			——			—
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			F 1	2 4	00.1	1 1	0.0	40.1	67.0	12.6	40.0	0.0	45.0
AdjDel/Veh: 33.8 5.1 3.4 28.1 1.1 2.2 42.1 67.0 43.6 42.0 0.0													45.3
													1.00
DesignQueue: 1.7 10.2 2.2 7.8 3.1 3.1 0.7 1.6 1.6 1.7 0.0													45.3
	DesignQueue:	1.7	10.2	2.2	7.8	3.1	3.1	0.7	1.6	1.6	1.7	0.0	1.9

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #16: Imperial Highway and Denker Avenue (Campus Entrance)

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 45	A	ritical verage D evel Of	elay (sec/veh)	:			0.590 15.8 A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	Т	R
Control:	Pe	rmitted	—	Pe	rmitted	11	Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
			——(1			——II						
Volume Module:												
Base Vol:	76	15	116	65	38	71	54	853	237	331	1472	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	66	15	107	65	38	71	54	853	141	229	1472	88
Added Vol:	10	0	9	0	0	0	0	0	96	102	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	15	116	65	38	71	54	853	237	331	1472	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	15	116	65	38	71	54	853	237	331	1472	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	15	116	65	38	71	54	853	237	331	1472	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	76	15	116	65	38	71	54	853	237	331	1472	88
	-⊩		—			— ІІ			<u>—</u> ІІ			
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.84	0.16	1.00	0.37	0.22	0.41	1.00	2.35	0.65	1.00	2.83	0.17
Final Sat.:	1336 •	264	1600	598	349	653	1600	3756	1044	1600	4529	271
Capacity Analysis M	odule:											
Vol/Sat:	0.05	0.06	0.07	0.04	0.11	0.11	0.03	0.23	0.23	0.21	0.33	0.33
Crit Moves:	****				****			***		****		
Volume/Cap:	0.59	0.34	0.43	0.43	0.59	0.59	0.49	0.59	0.59	0.59	0.49	0.49
	_		—			<u></u>						
Level Of Service Mo	dule:											
Delay/Veh:	40.0	29.8	29.3	35.9	37.9	34.0	37.2	19.3	20.5	21.7	6.5	8.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	29.8	29.3	35.9	37.9	34.0	37.2	19.3	20.5	21.7	6.5	8.0
DesignQueue:	4.7	4.3	5.4	9.0	8.1	8.1	2.8	13.1	13.1	12.5	10.4	10.4

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #1: 120th Street and I-105 Eastbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 49	A	ritical verage D evel Of	elay (sec/veh)	:			0.537 16.4 A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	•		otected	•	Pr	otected	•	Pr	otected	•
Rights	I	nclude		I	nclude			nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	2 0	0 0	1	1 0	2 0	0	0 0	1 1	1
Volume Module:												
Base Vol:	0	0	0	539	0	21	295	757	0	0	509	373
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	522	0	21	295	757	0	0	509	365
Added Vol:	0	0	0	17	0	0	0	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	539	0	21	295	757	0	0	509	373
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	539	0	21	295	757	0	0	509	373
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	539	0	21	295	757	0	0	509	373
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	539	0	21	295	757	0	0	509	373
			<u>—</u>			<u>—</u>			<u>—</u>			<u>—</u>
Saturation Flow Modul	le:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.73	1.27
Final Sat.:	0	0	0	3200 L	0	1600	1600	3200	0	0	2770	2030
Capacity Analysis Moo	dule:					- ''			- ''			
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.01	0.18	0.24	0.00	0.00	0.18	0.18
Crit Moves:				****			****				***	
Volume/Cap:	0.00	0.00	0.00	0.54	0.00	0.04	0.54	0.34	0.00	0.00	0.54	0.54
- 1 - 5	<u> </u>		—						—			
Level Of Service Modu				0.5								
Delay/Veh:	0.0	0.0	0.0	22.2	0.0	18.4	21.2	5.0	0.0	0.0	20.9	21.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.2	0.0	18.4	21.2	5.0	0.0	0.0	20.9	21.0
DesignQueue:	0.0	0.0	0.0	10.7	0.0	0.8	11.2	7.0	0.0	0.0	11.2	11.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.930 Loss Time (sec): 0 Average Delay (sec/ver): 33.2 Optimal Cycls: 180 Level Of Service: Ex Approach: North Bound South Bound East Bound Weat Bound Movement: L T R L L T R L L T R L L </th <th>Cyglo (gog):</th> <th></th> <th></th> <th>100</th> <th></th> <th>riticol</th> <th>Vol. /C</th> <th>an (V).</th> <th></th> <th></th> <th></th> <th>0.930</th> <th></th>	Cyglo (gog):			100		riticol	Vol. /C	an (V).				0.930	
Approach: North Bound South Bound East Bound West Bound Tolor	-							_					
Approach: North Bound North Bound North Bound L T R L T R L T R L T R L T R L T R L T R R R L T R R L T R R R R							_		•				
Notement: L T R L T R L T R L T R L T R L T R L T R R R R R R R R R	Optimal Cycle:			180	Ц	evel OI	Service	ۥ				Ľ	
Protected Rights	Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Control: Protected Protected Protected Protected Include Inclu	Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Rights Include	Control:	Pr	otected		Pr	otected		Pr	otected		Pr	otected	
Y+R:													
Nolume Module: Base Vol:	Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Volume Module: Base Vol: 195 1483 133 317 1038 106 163 1139 163 198 711 284 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: Base Vol: 195 1483 133 317 1038 106 163 1139 163 198 711 284 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module: Base Vol: 195 1483 133 317 1038 106 163 1139 163 198 711 284 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							——II-			——II			
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module:												
Initial Base: 195 1483 130 306 1038 106 163 1122 163 196 703 279 Added Vol: 0 0 0 3 111 0 0 0 17 0 2 8 5 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 195 1483 133 317 1038 106 163 1139 163 198 711 284 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Base Vol:	195	1483	133	317	1038	106	163	1139	163	198	711	284
Added Vol: 0 0 0 3 11 0 0 0 0 17 0 2 8 5 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
Initial Fut: 195 1483 133 317 1038 106 163 1139 163 198 711 284 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_												
PHF Adj:													
PHF Volume: 195 1483 133 317 1038 106 163 1139 163 198 711 284 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
Reduced Vol: 195 1483 133 317 1038 106 163 1139 163 198 711 284 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	-												
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	-												
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160													
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Saturation Flow Modu	ıle:								-			
Lanes: 1.00 2.75 0.25 1.00 2.72 0.28 1.00 2.62 0.38 1.00 2.14 0.86 Final Sat.: 1600 4405 395 1600 4355 445 1600 4199 601 1600 3430 1370 Capacity Analysis Module: Vol/Sat: 0.12 0.34 0.34 0.20 0.24 0.24 0.10 0.27 0.27 0.12 0.21 0.21 Crit Moves: **** **** Volume/Cap: 0.63 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73 Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Final Sat.: 1600 4405 395 1600 4355 445 1600 4199 601 1600 3430 1370 Capacity Analysis Module: Vol/Sat: 0.12 0.34 0.34 0.20 0.24 0.24 0.10 0.27 0.27 0.12 0.21 0.21 Crit Moves: **** **** Volume/Cap: 0.63 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73 Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Capacity Analysis Module: Vol/Sat: 0.12 0.34 0.34 0.20 0.24 0.24 0.10 0.27 0.27 0.12 0.21 0.21 Crit Moves: **** **** Volume/Cap: 0.63 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73 Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1.00	2.75	0.25	1.00	2.72	0.28	1.00	2.62	0.38	1.00	2.14	0.86
Vol/Sat: 0.12 0.34 0.34 0.20 0.24 0.24 0.10 0.27 0.27 0.12 0.21 0.21 Crit Moves: **** **** **** **** **** **** Volume/Cap: 0.63 0.93 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73	Final Sat.:	1600	4405	395	1600	4355	445	1600	4199	601	1600	3430	1370
Vol/Sat: 0.12 0.34 0.34 0.20 0.24 0.24 0.10 0.27 0.27 0.12 0.21 0.21 Crit Moves: **** **** **** **** **** **** **** Volume/Cap: 0.63 0.93 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73	- 1 1 1												
Crit Moves:						2 24		2 12			2.12		
Volume/Cap: 0.63 0.93 0.93 0.93 0.63 0.63 0.73 0.93 0.93 0.93 0.73 0.73 Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0.12		0.34		0.24	0.24	0.10		0.27		0.21	0.21
Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		0 62		0 02		0 62	0 62	0 72		0 02		0.72	0.72
Level Of Service Module: Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	vorume/cap:		0.93			0.63			0.93		0.93	0.73	0.73
Delay/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Level Of Service Mod	lule:											
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			31.0	62.5	52.2	19.9	24.3	39.3	35.6	60.9	63.5	26.8	29.4
AdjDel/Veh: 31.2 31.0 62.5 52.2 19.9 24.3 39.3 35.6 60.9 63.5 26.8 29.4	Delay Adj:												
	AdjDel/Veh:	31.2	31.0		52.2	19.9	24.3	39.3	35.6	60.9	63.5	26.8	29.4
	DesignQueue:	9.0	20.6	20.6	14.5	13.9	13.9	8.0	18.2	18.2	9.8	13.8	13.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #3: Imperial Highway and Van Ness Avenue

Cycle (sec):			100	C	ritical	Vol./Ca	ap.(X):				0.733	
Loss Time (sec):			0		verage D		_	:			21.9	
Optimal Cycle:			85		evel Of						С	
Approach:		th Bound			th Bound			st Bound		Wes	st Bound	
Movement:	L _ L	Т	R	L	Т	R IL	L	Т	R IL	L	Т	R
Control:	Pr	otected			otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	-		—			—			—			<u> —</u>
Volume Module:												
Base Vol:	116	593	135	93	540	69	116	1640	94	137	876	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	116	593	135	69	540	69	116	1609	94	137	862	56
Added Vol:	0	0	0	24	0	0	0	31	0	0	14	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	593	135	93	540	69	116	1640	94	137	876	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	116	593	135	93	540	69	116	1640	94	137	876	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	593	135	93	540	69	116	1640	94	137	876	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	116	593	135	93	540	69	116	1640	94	137	876	67
												<u> </u>
Saturation Flow Modu												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.77	0.23	1.00	2.84	0.16	1.00	2.79	0.21
Final Sat.:	1600 •	2607	593	1600	2837	363	1600	4540	260 ••	1600	4459	341
Capacity Analysis Mo	odulo:											
Vol/Sat:	0.07	0.23	0.23	0.06	0.19	0.19	0.07	0.36	0.36	0.09	0.20	0.20
Crit Moves:	0.07	****	0.23	****	0.19	0.19	0.07	****	0.30	****	0.20	0.20
Volume/Cap:	0.67	0.73	0.73	0.73	0.67	0.67	0.44	0.73	0.73	0.73	0.44	0.44
vorume/cap.		0.73	 		0.67	—— - -		0.73			0.44	0.44
Level Of Service Mod	dule:											
Delay/Veh:	39.8	26.1	33.0	47.4	26.1	35.0	29.8	16.4	28.1	42.0	14.8	16.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.8	26.1	33.0	47.4	26.1	35.0	29.8	16.4	28.1	42.0	14.8	16.1
DesignQueue:	5.8	14.7	14.7	4.8	12.7	12.7	5.5	17.7	17.7	6.9	10.1	10.1
	3.3				•	•	3.5					

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Cycle (sec):			100		ritical		_				0.794	
Loss Time (sec):			0			_	sec/veh)	:			21.0	
Optimal Cycle:			111	L	evel Of	Servic	e:				С	
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		Wes	t Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pro	otected		Pr	otected		Pro	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0 _
Volume Module:			——II						—-			—
Base Vol:	65	588	94	62	392	42	104	1818	132	122	1638	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	60	582	94	62	379	42	104	1812	121	122	1635	45
Added Vol:	5	6	0	0	13	0	0	6	11	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	588	94	62	392	42	104	1818	132	122	1638	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	65	588	94	62	392	42	104	1818	132	122	1638	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	588	94	62	392	42	104	1818	132	122	1638	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	65	588	94	62	392	42	104	1818	132	122	1638	45
			<u>—</u> П			<u>—</u> н			——			—
Saturation Flow Modul	e:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	0.90	0.10	1.00	2.80	0.20	1.00	2.92	0.08
Final Sat.:	1600	2759	441	1600	1445	155	1600	4475	325	1600	4672	128
Capacity Analysis Mod	,,1a.											
Vol/Sat:	0.04	0.21	0.21	0.04	0.27	0.27	0.07	0.41	0.41	0.08	0.35	0.35
Crit Moves:	****	0.21	0.21	0.04	***	0.27	0.07	****	0.41	****	0.33	0.33
Volume/Cap:	0.79	0.64	0.64	0.64	0.79	0.79	0.68	0.79	0.79	0.79	0.68	0.68
	<u> </u>	0.01	——— - ——— -		.,,	 -			———]}			
Level Of Service Modu	le:											
Delay/Veh:	62.2	22.9	28.0	44.3	28.9	58.6	41.7	16.9	30.7	50.2	14.7	30.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.2	22.9	28.0	44.3	28.9	58.6	41.7	16.9	30.7	50.2	14.7	30.3
DesignQueue:	3.5	13.3	13.3	3.3	16.9	16.9	5.3	19.4	19.4	6.2	16.5	16.5

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Cycle (sec):			100	C	ritical	Vol./Ca	ap.(X):				0.893	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			30.3	
Optimal Cycle:			180	L	evel Of	Servic	e:				D	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
	_		——			——II			———			
Control:	Pr	otected			otected		Pr	otected		Pr	otected	-
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
			—			—			<u>—</u> —П			—
Volume Module:												
Base Vol:	174	957	148	150	886	158	182	1512	175	128	1488	164
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	171	927	147	150	822	158	182	1512	169	126	1488	164
Added Vol:	3	30	1	0	64	0	0	0	6	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	174	957	148	150	886	158	182	1512	175	128	1488	164
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	957	148	150	886	158	182	1512	175	128	1488	164
Reduct Vol:	0	0	140	0	0	150	0	0	175	0	0	1.64
Reduced Vol:	174	957	148	150	886	158	182	1512	175	128	1488	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj: Final Vol.:	174	1.00 957	1.00	1.00 150	1.00 886	1.00 158	1.00 182	1.00 1512	1.00 175	1.00 128	1.00 1488	1.00
Final VOI.:		951	140		000		102	1312	1/5	120	1400	104
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.70	0.30	1.00	2.69	0.31	1.00	2.70	0.30
Final Sat.:	1600	3200	1600	1600	2716	484	1600	4302	498	1600	4323	477
	_		———			——			———			
Capacity Analysis M	odule:								- 1			•
Vol/Sat:	0.11	0.30	0.09	0.09	0.33	0.33	0.11	0.35	0.35	0.08	0.34	0.34
Crit Moves:	****				****		****				****	
Volume/Cap:	0.89	0.81	0.25	0.81	0.89	0.89	0.89	0.84	0.84	0.84	0.89	0.89
			—			—Н			—			_
Level Of Service Mo												
Delay/Veh:	58.7	24.7	16.8	48.2	30.4	50.2	57.7	22.8	37.4	56.2	26.9	48.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.7	24.7	16.8	48.2	30.4	50.2	57.7	22.8	37.4	56.2	26.9	48.6
DesignQueue:	8.7	17.9	5.3	7.5	19.8	19.8	9.1	19.7	19.7	6.6	20.4	20.4

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec):			100		ritical		_				0.866	
Loss Time (sec): Optimal Cycle:			0 170		verage D evel Of			•			27.6 D	
opening of the											_	
Approach:	Nor	th Bound		Sou	th Bound	L	Eas	st Bound		Wes	st Bound	
Movement:	L _ L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:		otected	11	-	otected		Pr	otected		Pr	otected	•
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0 _
			<u> </u>			<u> </u>						
Volume Module:	100	E 4 7	0.4	110	F.0.1	77	140	1.450	0.0	106	1510	7.4
Base Vol:	123	547	1 00	119	581	77	142	1459	98	126	1510	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	123 0	525 22	84	119 0	534 47	77 0	142 0	1458 1	98 0	126 0	1508 2	74 0
Added Vol:	0	0	0	0		0	0	0	0	0	0	
PasserByVol: Initial Fut:		547	84	119	0 581	77	142	1459	98	126	1510	0 74
	123	1.00		1.00		1.00	1.00		1.00			
User Adj: PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	123	547	84	119	581	77	142	1459	98	126	1510	74
Reduct Vol:	0	0	0	0	0	0	0	1433	0	0	0	0
Reduced Vol:	123	547	84	119	581	77	142	1459	98	126	1510	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	123	547	84	119	581	77	142	1459	98	126	1510	74
		317	ا أــــــــــــــــــــــــــــــــــــ		301	ا نــــــــــــــــــــــــــــــــــــ	112	1133			1310	
Saturation Flow Modu	ıle:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.73	0.27	1.00	1.77	0.23	1.00	1.87	0.13	1.00	1.91	0.09
Final Sat.:	1600	2774	426	1600	2826	374	1600	2999	201	1600	3051	149
			<u>—</u>			——II			——II			
Capacity Analysis Mo	odule:											
Vol/Sat:	0.08	0.20	0.20	0.07	0.21	0.21	0.09	0.49	0.49	0.08	0.50	0.50
Crit Moves:	****				***		****				****	
Volume/Cap:	0.87	0.83	0.83	0.83	0.87	0.87	0.87	0.84	0.84	0.84	0.87	0.87
Level Of Service Mod	dule:								<u>—</u> П			
Delay/Veh:	61.4	34.2	55.9	56.2	36.3	65.0	58.3	16.0	39.3	56.1	17.5	51.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.4	34.2	55.9	56.2	36.3	65.0	58.3	16.0	39.3	56.1	17.5	51.8
DesignQueue:	6.3	14.0	14.0	6.1	14.6	14.6	7.2	20.4	20.4	6.5	21.2	21.2
zezigiigacac.	0.5	11.0	11.0	J. ±	11.0	11.0	/ • 4	20.1	20.1	5.5	21.2	21.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

Cycle (sec): Loss Time (sec):			100	A	ritical verage D			0.684				
Optimal Cycle:			72	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
	-		——II	-		—-II			——II			
Control:		otected			otected			otected			otected	
Rights		nclude	0		nclude	0		nclude	0		nclude	0
Min. Green:	0 4.0	0	0	0	0	0	0	0	0	0	0	0
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:			—									_
Base Vol:	84	391	86	184	422	116	122	1524	68	142	962	190
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	84	376	59	184	389	102	115	1494	68	98	884	190
Added Vol:	0	15	27	0	33	14	7	30	0	44	78	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	391	86	184	422	116	122	1524	68	142	962	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	391	86	184	422	116	122	1524	68	142	962	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	391	86	184	422	116	122	1524	68	142	962	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	84	391	86	184	422	116	122	1524	68	142	962	190
	-		——			<u>—</u> П			——П			
Saturation Flow Modu	ıle:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.57	0.43	1.00	2.87	0.13	1.00	2.51	0.49
Final Sat.:	1600	2623	577	1600	2510	690	1600	4595	205	1600	4008	792
						—			<u>—</u> ІІ			
Capacity Analysis Mo												
Vol/Sat:	0.05	0.15	0.15	0.12	0.17	0.17	0.08	0.33	0.33	0.09	0.24	0.24
Crit Moves:		****		****				****		****		
Volume/Cap:	0.57	0.68	0.68	0.68	0.57	0.57	0.51	0.68	0.68	0.68	0.51	0.51
Level Of Service Mod	3110:								—			
Delay/Veh:		30 0	27 1	34.9	23.9	25.9	21 0	15.9	26.9	38.1	14 6	15.5
Delay Adj:	37.3 1.00	30.0 1.00	37.1 1.00	1.00	1.00	1.00	31.8 1.00	1.00	1.00	1.00	14.6 1.00	1.00
AdjDel/Veh:	37.3	30.0	37.1	34.9	23.9	25.9	31.8	15.9	26.9	38.1	14.6	15.5
DesignQueue:	4.3	10.7	10.7	8.7	11.0	11.0	5.9	16.4	16.4	7.0	12.0	12.0
pepidifaeae.	4.3	10.7	10.7	0.7	±±.0	11.0	3.3	10.4	10.4	7.0	⊥∠.∪	14.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	# R :	Imperial	Highway	and	Vermont	Avenue

Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.780	
Loss Time (sec):			0				sec/veh)	:			26.6	
Optimal Cycle:			104		evel Of	_					С	
Approach:		th Bound			th Bound			st Bound			st Bound	
Movement:	L ∎	Т	R 	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		_	otected		Pr	otected		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
	-		——II			——			——II			
Volume Module:												
Base Vol:	456	996	192	234	769	148	153	1292	217	212	892	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	423	996	192	234	769	121	140	1263	201	212	830	105
Added Vol:	33	0	0	0	0	27	13	29	16	0	62	C
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	(
Initial Fut:	456	996	192	234	769	148	153	1292	217	212	892	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	456	996	192	234	769	148	153	1292	217	212	892	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	456	996	192	234	769	148	153	1292	217	212	892	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	456 •	996	192	234	769	148	153	1292	217	212	892	105
Saturation Flow Mod	nle:		——II						<u>—</u> ІІ			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.52	0.48	2.00	2.52	0.48	1.00	2.57	0.43	1.00	2.68	0.32
Final Sat.:	3200	4024	776	3200	4025	775	1600	4110	690	1600	4294	506
	-								——			
Capacity Analysis M	odule:											
Vol/Sat:	0.14	0.25	0.25	0.07	0.19	0.19	0.10	0.31	0.31	0.13	0.21	0.21
Crit Moves:	***				****			****		****		
Volume/Cap:	0.78	0.75	0.75	0.75	0.78	0.78	0.53	0.78	0.78	0.78	0.53	0.53
Level Of Service Moo	dule:					—"						
Delay/Veh:	34.7	24.7	30.9	40.4	30.0	39.6	30.1	21.8	29.1	39.8	18.2	20.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.7	24.7	30.9	40.4	30.0	39.6	30.1	21.8	29.1	39.8	18.2	20.1
DesignQueue:	10.7	15.6	15.6	6.0	13.4	13.4	7.1	17.9	17.9	10.1	11.8	11.8

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #9: Vermont Avenue and I-105 Westbound Ramps

Approach: North Bound South Bound Fast Bound Mest Bound Movement: L T R L T	Cycle (sec):			5	C	ritical	Vol /C	an (V):				0.601	
Approach:	- ·								:				
Approach: North Bound							_		•				
Movement:	opermar eyere.			1,		CVCI OI	DCI VIC	C -				D	
Protected Rights Tholude Tholu	Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Rights	Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Rights		-		——II			II			——II			— І
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
Y+R:													
Volume Module: 1													
Volume Module: Base Vol:													
Volume Module: Base Vol: 170 1029 0 0 928 282 0 0 0 0 116 6 653 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lanes:	1 0	3 0			2 1	0	0 0	0 0	0	0 0	1! 0	1 _
Base Vol: 170 1029 0 0 928 282 0 0 0 116 6 653 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							<u>—</u> п			—11			<u> </u>
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					_			_	_	_		_	
Initial Base:													
Added Vol: 0 13 0 0 11 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
Initial Fut: 170 1029 0 0 928 282 0 0 0 116 6 653 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	_												
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
PHF Volume: 170 1029 0 0 928 282 0 0 0 116 6 653 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-												
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0													
Reduced Vol: 170 1029 0 0 928 282 0 0 0 116 6 653 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													
Final Vol.: 170 1029 0 0 928 282 0 0 0 116 6 653 Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	•												
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160													
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Fillal VOI.		1029		L	920		U	U		110	0	053
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Saturation Flow Modu	ıle:											
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Lanes: 1.00 3.00 0.00 0.00 2.30 0.70 0.00 0.00 0.00 0.30 0.02 1.68 Final Sat.: 1600 4800 0 0 3681 1119 0 0 0 0 479 25 2696 Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.24 Crit Moves: ****													
Final Sat.: 1600 4800 0 0 3681 1119 0 0 0 479 25 2696 Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.24 Crit Moves: ****													
Capacity Analysis Module: Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.24 Crit Moves: **** ****	Final Sat.:												
Vol/Sat: 0.11 0.21 0.00 0.00 0.25 0.25 0.00 0.00 0.00 0.24 0.24 0.24 Crit Moves: **** ****									_		_		
Crit Moves: **** **** ****	Capacity Analysis Mc	dule:		•									
	Vol/Sat:	0.11	0.21	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.24	0.24	0.24
Volume/Cap: 0.60 0.36 0.00 0.00 0.60 0.60 0.00 0.00	Crit Moves:	***				****						****	
	Volume/Cap:	0.60	0.36	0.00	0.00	0.60	0.60	0.00	0.00	0.00	0.60	0.60	0.60
		-		<u> </u>						——			
Level Of Service Module:	Level Of Service Mod	lule:											
Delay/Veh: 4.0 0.4 0.0 0.0 1.3 2.4 0.0 0.0 0.0 4.5 42.1 1.6	Delay/Veh:	4.0	0.4	0.0	0.0	1.3	2.4	0.0	0.0	0.0	4.5	42.1	1.6
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh: 4.0 0.4 0.0 0.0 1.3 2.4 0.0 0.0 0.0 4.5 42.1 1.6	AdjDel/Veh:	4.0	0.4	0.0	0.0		2.4	0.0	0.0	0.0	4.5		1.6
DesignQueue: 0.4 0.4 0.0 0.0 0.7 0.7 0.0 0.0 0.0 0.2 0.0 1.2	DesignQueue:	0.4	0.4	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.2	0.0	1.2

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #10: Vermont Avenue and I-105 Eastbound Ramps

G1- ():			100			17-1 /G	(V):				0 457	
Cycle (sec): Loss Time (sec):			100		ritical verage D						0.457 13.6	
Optimal Cycle:			42		evel Of			•			13.6 A	
Optimal Cycle:			42	11	evel OI	Set ATC	e ·				A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L	T	R	L	Т	R
	- 		——II	<u> </u>						_		—
Control:		otected			otected			otected			otected	
Rights		nclude	0		nclude			nclude			nclude	0
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 1	0	1 0	3 0	0	1 1	0 0	1	0 0	0 0	0
Taluma Madulat			<u> </u>						—"			
Volume Module: Base Vol:	0	944	73	195	821	0	255	1.4.0	161	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	140 1.00	1.00	1.00	1.00	1.00
Initial Base:	0	941	73	186	820	0	245	140	161	0	0	0
Added Vol:	0	3	0	9	1	0	10	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	944	73	195	821	0	255	140	161	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	944	73	195	821	0	255	140	161	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	944	73	195	821	0	255	140	161	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	944	73	195	821	0	255	140	161	0	0	0
											-	
Saturation Flow Mod	ule:		•									
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.78	0.22	1.00	3.00	0.00	1.29	0.71	1.00	0.00	0.00	0.00
Final Sat.:	0	4455	345	1600	4800	0	2066	1134	1600	0	0	0
	-								——II			
Capacity Analysis M	odule:											
Vol/Sat:	0.00	0.21	0.21	0.12	0.17	0.00	0.12	0.12	0.10	0.00	0.00	0.00
Crit Moves:		****		****			****					
Volume/Cap:	0.00	0.46	0.46	0.46	0.23	0.00	0.46	0.46	0.37	0.00	0.00	0.00
Level Of Service Mo	dule:											
Delay/Veh:	0.0	14.2	15.5	24.1	3.4	0.0	23.8	24.2	23.1	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.2	15.5	24.1	3.4	0.0	23.8	24.2	23.1	0.0	0.0	0.0
DesignQueue:	0.0	10.6	10.6	8.2	4.3	0.0	8.2	8.2	6.7	0.0	0.0	0.0
peprandacae.	0.0	10.0	±0.0	0.2	1.5	0.0	0.2	0.2	0.7	0.0	0.0	0.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index	#11:	111th	Place	and	T - 110	SB	Ramp

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 26	A	ritical verage D evel Of	elay (sec/veh)	:			0.215 12.6 A	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	T	R	L.	T	R ∎I	L	T	R
Control:	Pe	rmitted	——II		rmitted		Pr	otected		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	(
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 0	0	0 1	2 0	1	0 0	0 1	0	0 1	0 0	0
			—			—			——			
Volume Module:												
Base Vol:	0	0	0	75	543	62	0	115	23	13	94	C
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	75	525	62	0	115	23	13	94	C
Added Vol:	0	0	0	0	18	0	0	0	0	0	0	(
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	(
Initial Fut:	0	0	0	75	543	62	0	115	23	13	94	(
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	75	543	62	0	115	23	13	94	C
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	(
Reduced Vol:	0	0	0	75	543	62	0	115	23	13	94	(
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	75	543	62	0	115	23	13	94	C
	_		—			—			—			
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.36	2.64	1.00	0.00	0.83	0.17	0.12	0.88	0.00
Final Sat.:	0	0	0	583	4217	1600 ••	0	1333	267 ∎∎	194 •	1406	C
Capacity Analysis M	Iodule:											
Vol/Sat:	0.00	0.00	0.00	0.05	0.13	0.04	0.00	0.09	0.09	0.01	0.07	0.00
Crit Moves:	0.00	0.00	0.00	0.03	****	0.01	0.00	****	0.00	0.01	0.07	5.00
Volume/Cap:	0.00	0.00	0.00	0.05	0.28	0.08	0.00	0.16	0.16	0.03	0.28	0.00
			<u>—</u>			<u> </u>			——II	_		
Level Of Service Mo	dule:											
Delay/Veh:	0.0	0.0	0.0	0.3	13.1	11.8	0.0	8.8	8.8	22.6	24.1	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Note: Queue reported is the number of cars per lane.

0.0

0.0

0.0

0.0

0.0

0.0

0.3

1.0

13.1

6.4

11.8

1.9

0.0

0.0

8.8

3.6

8.8

3.6

22.6

4.6

24.1

4.6

0.0

0.0

AdjDel/Veh:

DesignQueue:

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #12: Imperial Highway and I-110 Southbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 64	A	ritical verage I evel Of			0.643 12.2 B				
Approach:	Nor	th Bound	[Sou	th Bound	[Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:		otected	•		otected	•	Pr	otected	•		otected	•
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 I	0 0	 	1 1 L	0 1	1 	0 0	2 1	0	1 0	3 0	0
Volume Module:			-									
Base Vol:	0	0	0	222	215	239	0	1541	446	198	1054	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	0	0	222	215	221	0	1517	441	198	1010	0
Added Vol:	0	0	0	0	0	18	0	24	5	0	44	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	222	215	239	0	1541	446	198	1054	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	222	215	239	0	1541	446	198	1054	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	222	215	239	0	1541	446	198	1054	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	222	215	239	0	1541	446	198	1054	0
			<u> </u>			—						_
Saturation Flow Mod		4.500	1.500	4.500	1.500	1.500	4.500	4.500		4.500	4.500	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.31	1.27	1.42	0.00	2.33	0.67	1.00	3.00	0.00
Final Sat.:	0	0	0 	2101	2035	2263	0	3723	1077	1600	4800	0
Capacity Analysis M	odule:		- 1			- 11			- 11			- 1
Vol/Sat:	0.00	0.00	0.00	0.11	0.11	0.11	0.00	0.41	0.41	0.12	0.22	0.00
Crit Moves:				****				***		****		
Volume/Cap:	0.00	0.00	0.00	0.64	0.64	0.64	0.00	0.64	0.64	0.64	0.26	0.00
Level Of Service Mo	dule:								—			
Delay/Veh:	0.0	0.0	0.0	32.9	33.0	32.7	0.0	8.8	9.8	31.8	1.3	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	32.9	33.0	32.7	0.0	8.8	9.8	31.8	1.3	0.0
DesignQueue:	0.0	0.0	0.0	8.0	8.0	8.0	0.0	14.4	14.4	9.1	3.4	0.0
zesigueae.	0.0	0.0	5.0	5.0	0.0	5.0	0.0			J • ±	٥. ١	5.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 0 48	A	ritical verage D evel Of	elay (sec/veh)	:			0.524 14.2 A		
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R ■■	L	Т	R	L	Т	R	L	T	R
Control:		otected			otected	1		otected		Pr	otected	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	1 	0 0 L	0 0	0 	1 0	3 0	° 	0 0	2 1	0
Volume Module:						- 11			- ''			
Base Vol:	333	123	419	0	0	0	192	1528	0	0	906	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	323	123	419	0	0	0	183	1512	0	0	872	159
Added Vol:	10	0	0	0	0	0	9	16	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	333	123	419	0	0	0	192	1528	0	0	906	159
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	333	123	419	0	0	0	192	1528	0	0	906	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	123	419	0	0	0	192	1528	0	0	906	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	333	123	419	0	0	0	192	1528	0	0	906	159
Saturation Flow Modul	le:								!			
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.14	0.42	1.44	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.55	0.45
Final Sat.:	1827	675	2299	0	0	0	1600	4800	0	0	4083	717
Compain Analysis Mar			—-						—			<u> </u>
Capacity Analysis Moo Vol/Sat:		0 10	0 10	0.00	0.00	0.00	0 12	0.32	0.00	0.00	0.22	0.22
	0.18	0.18	0.18	0.00	0.00	0.00	0.12 ***	∪.3∠	0.00	0.00	0.22	0.22
Crit Moves: Volume/Cap:	0.52	0.52	0.52	0.00	0.00	0.00	0.52	0.49	0.00	0.00	0.52	0.52
vorume/cap·	J. 52	0.52	0.52 ——[]		0.00	——[]		U. #3	——[]		0.54	
Level Of Service Modu	ıle:		•			-			1			-
Delay/Veh:	20.7	21.8	20.5	0.0	0.0	0.0	27.1	6.9	0.0	0.0	16.7	17.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.7	21.8	20.5	0.0	0.0	0.0	27.1	6.9	0.0	0.0	16.7	17.8
DesignQueue:	11.0	11.0	11.0	0.0	0.0	0.0	8.5	10.6	0.0	0.0	12.0	12.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

<pre>Cycle (sec): Loss Time (sec):</pre>			100		ritical verage D			:			0.806 25.6	
Optimal Cycle:			117	L	evel Of	Servic	e:				D	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected		Pr	otected	11	Pr	otected	11	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	2 1	0	1 0	3 0	1
						——II			——II			_
Volume Module:	206	755	0.6	100	722	1 5 0	1 = 0	1560	201	140	772	210
Base Vol: Growth Adj:	206 1.00	755 1.00	96 1.00	183 1.00	733 1.00	158 1.00	159 1.00	1560 1.00	201	142 1.00	773 1.00	210 1.00
Initial Base:	206	739	96	1.00	698	158	159	1505	201	1.00	747	193
Added Vol:	200	16	0	36	35	130	159	55	0	0	26	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	206	755	96	183	733	158	159	1560	201	142	773	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	755	96	183	733	158	159	1560	201	142	773	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	755	96	183	733	158	159	1560	201	142	773	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	206	755	96	183	733	158	159	1560	201	142	773	210
	_		—			<u></u> Н						
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.47	0.53	1.00	2.66	0.34	1.00	3.00	1.00
Final Sat.:	1600 •	3200	1600	1600	3949	851	1600	4252	548 ••	1600	4800	1600 •
Capacity Analysis M	odule:					11						
Vol/Sat:	0.13	0.24	0.06	0.11	0.19	0.19	0.10	0.37	0.37	0.09	0.16	0.13
Crit Moves:		****		****				****		****		
Volume/Cap:	0.72	0.81	0.20	0.81	0.72	0.72	0.46	0.81	0.81	0.81	0.46	0.38
Level Of Service Mo	-					<u></u> II						
Delay/Veh:		28.9	20 5	44.8	27.9	22 7	27.0	19.9	29.8	49.1	19.6	19.0
Delay Adj:	35.8 1.00	1.00	20.5	1.00	1.00	33.7 1.00	1.00	19.9	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.8	28.9	20.5	44.8	27.9	33.7	27.0	19.9	29.8	49.1	19.6	19.0
DesignQueue:	9.7	15.7	3.8	9.0	12.8	12.8	7.1	19.3	19.3	7.2	9.7	7.8
Deptail acae.	9.1	13.1	5.0	٠.٥	14.0	14.0	/.1	12.3	19.3	1.4	9.1	7.0

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #	15:	Western	Avenue	and	Campus	Entrance
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Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 33	A	ritical verage I evel Of	Delay (sec/veh)	:			0.441 10.1 A	
Approach:		th Bound			th Bound			st Bound			st Bound	
Movement:	L •	Т	R	L	Т	R ∎∎	L	Т	R	L	Т	R
Control:	- ⊩ Pr	otected		Pr	otected		Pe	rmitted		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 1	0	1 0	0 1	0	0 1	0 0	1
Volume Module:			—									
Base Vol:	46	922	52	115	914	10	59	2	69	41	3	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	46	922	29	80	914	10	59	2	69	30	3	54
Added Vol:	0	0	23	35	0	0	0	0	0	11	0	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	922	52	115	914	10	59	2	69	41	3	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	46	922	52	115	914	10	59	2	69	41	3	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	922	52	115	914	10	59	2	69	41	3	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	46	922	52	115	914	10	59	2	69	41	3	70
	-		——II			II			——II			
Saturation Flow Modu	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.97	0.03	1.00	0.03	0.97	0.93	0.07	1.00
Final Sat.:	1600	3200	1600 ••	1600	4748	52 II	1600	45	1555 ∎∎	1491	109	1600
Capacity Analysis Mo	odule:					11						
Vol/Sat:	0.03	0.29	0.03	0.07	0.19	0.19	0.04	0.04	0.04	0.03	0.03	0.04
Crit Moves:		****		****			****					****
Volume/Cap:	0.27	0.44	0.05	0.44	0.27	0.27	0.44	0.38	0.38	0.38	0.28	0.44
Level Of Service Mod	dule:								—-			
Delay/Veh:	31.9	6.6	4.8	29.8	4.0	5.0	35.1	47.4	32.2	35.6	35.3	34.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.9	6.6	4.8	29.8	4.0	5.0	35.1	47.4	32.2	35.6	35.3	34.0
DesignOueue:	2.3	9.5	1.0	5.4	5.2	5.2	3.0	3.5	3.5	2.3	2.2	3.5

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Tndox	#16.	Importal	Uichwar	and	Donkor	Arroniio	/ Campua	Entrance)	١
Index	#T0.	Imperial	Highway	and	Denker	Avenue	(Campus	Entrance)

Cycle (sec): Loss Time (sec):			100		ritical verage D		_	:			0.606 12.9	
Optimal Cycle:			47	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:		rmitted	—	De	rmitted		Dri	otected	!!	Dr	otected	—
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	0 0	1! 0	0	1 0	2 1	0	1 0	2 1	0
			—			<u></u> II			—			<u> </u>
Volume Module:		_										
Base Vol:	80	7	100	55	10	72	47	1578	139	181	947	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	37	7	63	55	10	72	47	1578	48	89	947	69
Added Vol:	43	0	37	0	0	0	0	0	91	92	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	7	100	55	10	72	47	1578	139	181	947	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	80	7	100	55	10	72	47	1578	139	181	947	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	7	100	55	10	72	47	1578	139	181	947	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	80	7	100	55	10	72	47	1578	139	181	947	69 •
Saturation Flow Mod	ule:					I I:						=
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.92	0.08	1.00	0.40	0.07	0.53	1.00	2.76	0.24	1.00	2.80	0.20
Final Sat.:	1471	129	1600	642	117	841	1600	4411	389	1600	4474	326
	_						1000			1000		
Capacity Analysis M	Module:											•
Vol/Sat:	0.05	0.05	0.06	0.03	0.09	0.09	0.03	0.36	0.36	0.11	0.21	0.21
Crit Moves:	***				****			***		****		
Volume/Cap:	0.61	0.38	0.43	0.43	0.61	0.61	0.31	0.61	0.61	0.61	0.31	0.31
			—			<u>—</u> ІІ			—			—
Level Of Service Mo												
Delay/Veh:	39.9	35.3	30.9	37.4	60.9	37.0	32.9	10.4	13.3	31.2	5.0	5.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	35.3	30.9	37.4	60.9	37.0	32.9	10.4	13.3	31.2	5.0	5.2
DesignQueue:	4.5	4.2	4.8	7.1	6.7	6.7	2.4	14.2	14.2	8.4	6.3	6.3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Index #17: Normandie Avenue and Proposed Campus Entrance

Average Delay (sec	/veh):		0.9	V	Torst Ca	se Leve	l Of Ser	rvice:		C	[17.2]	
Approach:	Nor	th Bound	i	Sou	ıth Boun	d	Ea	st Bound		We	st Bound	
Movement:	L	Т	R	L	T	R	L	T	R	L	Т	R
Control:	Unco	ontrolle	d		ontrolle	ed		op Sign			op Sign	
Rights	I	nclude		I	nclude]	Include		I	include	
Lanes:	0 1	1 0		0 0	1 1	. 0	1 0	0 0	1	0 0	0 0	0
Volume Module:			—									
Base Vol:	17	540	0	0	486	76	43	0	8	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	0	540	0	0	486	0	0	0	0	0	0	0
Added Vol:	17	0	0	0	0	76	43	0	8	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	540	0	0	486	76	43	0	8	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	540	0	0	486	76	43	0	8	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	17	540	0	0	486	76	43	0	8	0	0	0
	— 											
Critical Gap Modul	e:											
Critical Gp:	4.1	****	****	****	****	****	6.8	****	6.9	****	****	****
FollowUpTim:	2.2	****	****	***	****	****	3.5	****	3.3	****	***	****
						<u>—</u> ІІ			<u>II</u>			
Capacity Module:												
Cnflict Vol:	562	****	****	****	****	****	828	****	281	***	****	****
Potent Cap.:	1019	****	****	****	****	****	313	****	722	****	****	****
Move Cap.:	1019	****	****	****	****	****	309	****	722	***	****	****
Volume/Cap:	0.02	****	****	****	****	****	0.14	***	0.01	****	****	****
- 1									<u></u> II			
Level Of Service M		****	****					****		****	****	****
2Way95thQ:	0.1			****	****	****	0.5		0.0			
Control Del:	8.6	****	****	****	****	****	18.5	****	10.0	****	****	****
LOS by Move:	A	*	*	*	*	*	C	*	В	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	****	****	****	****	****	****	****	****	* * * *	****	****	****
SharedQueue:	0.1	****	****	****	****	****	****	****	****	****	****	****
Shrd ConDel:	8.6	****	****	****	****	****	****	****	****	****	****	****
Shared LOS:	А	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		****			****			17.2			****	
ApproachLOS:		*			*			C			*	

Level Of Service Detailed Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Index #17: Normandie Avenue and Prop	posed Campus Entrance
--------------------------------------	-----------------------

Approach:	Non	rth Boun	d	Sou	ıth Bound	d	Ea	st Bound	l	We	st Bound	l
Movement:	L	T	R	L	T	R	L	T	R	L	Т	R
% Hev Veh:	_	0 %			0 %			0 %			0 %	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Sp	peed: 4.00 f	eet/sec										
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
Time Period: 0.25	hour											
Upstream Signals:												
Link Index:		#97			#15							
Dist(miles):		0.250			0.000							
Speed (mph):		40.00			0.00							
Node Index:		#18			#7							
Cycle Time:		100 s	ecs			ecs						
FinalVolume:	0	20		0	0	CCD						
Saturation:	0	0		0	0							
ArrivalType:	0	3		0	0							
G/C:	0.00	0.00		0.00	0.00							
*** Computation 1:			Cloar			m Inton	acation					
P:	0.000	0.000	Clear	0.000	0.000	. IIICEL	section					
	0.00			0.00	0.00							
gq1:		0.00										
gq2:	0.00	0.00		0.00	0.00							
gq:	0.00	0.00	Dlaska	0.00	0.00		D1 - +	_				
*** Computation 2:	· IIme Inter		втоске	a Becaus		stream .	Piacoons	j				
alpha:		0.500			0.000							
beta:		0.667			0.000							
ta (secs):		22.500			0.000							
F:	1 00	0.118		0 00	0.000							
f:	1.00	1.00		0.00	0.00							
vcmax:	0	0		0	0							
vcg:	0	0		0	0							
vcmin:	2000	2000		0	0							
tp:	0.0	0.0		0.0	0.0							
p:	_	0.000			0.000							
*** Computation 3	: Platoon Ev											
pdom/psubo:				nconstra								
*** Computation 4												
InitCnflVol:	562	****	****	0	****	****	828	1098	281	817	1136	270
AdjCnflVol:	562	***	****	0	****	****	828	1098	281	817	1136	270
UpstreamAdj:	1.000	***	****	1.000	****	****	1.000	1.000	1.000	1.000	1.000	1.000
ConflictVol:	562	****	****	****	****	****	828	****	281	***	****	***
*** Computation 5	: Capacity f	or Subj	ect Move	ement Du	uring Unl	blocked	Period					
InitPotCap:	1019	****	****	1636	****	****	313	215	722	272	204	734
UpstreamAdj:	1.000	***	****	1.000	****	****	1.000	1.000	1.000	1.000	1.000	1.000
Potent Cap.:	1019	****	****	****	***	****	313	****	722	****	****	***

Appendix F

Level of Service Analysis

Cumulative Future Plus Related Projects with Proposed Project Mitigated

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 61	A	ritical verage D evel Of	elay (sec/veh)	:			0.698 19.2 B	
Approach:	Nor	th Bound	Į.	Sou	th Bound	[Eas	st Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected	—-II		rmitted		Pr	otected		Pe	rmitted	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:									—"			_
	157	014	0.0	102	1026	167	1.40	E 1 6	100	100	1100	210
Base Vol:	157 1.00	914 1.00	82 1.00	193 1.00	1236 1.00	167 1.00	149 1.00	546 1.00	123	180 1.00	1189 1.00	210 1.00
Growth Adj:												
Initial Base:	157	914	78	181	1236	167	149	528	123	180 0	1187	209
Added Vol:	0	0	4	12	0	0	0	18	0		2	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	157	914	82	193	1236	167	149	546	123	180	1189	210
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	141	823	74	174	1112	150	134	491	111	162	1070	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	823	74	174	1112	150	134	491	111	162	1070	189
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	141	823	74	174	1112	150	134	491	111	162	1070	189
Saturation Flow Mod												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.75	0.25	1.00	2.64	0.36	1.00	2.45	0.55	1.00	2.55	0.45
Final Sat.:	1600	4405	395	1600	4229	571	1600	3917	883	1600	4079	721
			——			——II			——			——
Capacity Analysis M	odule:											
Vol/Sat:	0.09	0.19	0.19	0.11	0.26	0.26	0.08	0.13	0.13	0.10	0.26	0.26
Crit Moves:	****				****		****				****	
Volume/Cap:	0.70	0.37	0.37	0.29	0.70	0.70	0.70	0.25	0.25	0.27	0.70	0.70
Level Of Service Mo	dulo:		!!						—			
Delay/Veh:		11.7	12.2	16.8	21.2	26.7	39.6	11.2	11.2	16.7	21.3	25.5
Delay Adj:	39.0 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:										1.00		
3	39.0	11.7	12.2	16.8	21.2	26.7	39.6	11.2	11.2	16.7	21.3	25.5
DesignQueue:	7.0	8.6	8.6	6.2	15.5	15.5	6.7	5.8	5.8	5.7	15.4	15.4

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

index #4. Century Bo	ourvara an	u (uii iic	1110									
Cycle (sec):			100	C	ritical	Vol./C	ap.(X):				0.621	
Loss Time (sec):			0	A	verage D	elay (sec/veh)	:			24.4	
Optimal Cycle:			108	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound	d	Sou	th Bound		Eas	st Bound		Wes	st Bound	
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R
Control:	Pe	rmitted		Pr	otected		Pr	otected		Pe	rmitted	—
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0
			<u>—</u> П			<u>—</u> п			<u>—</u> п			<u> </u>
Volume Module:												
Base Vol:	60	580	79	44	440	38	50	646	451	131	1342	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	59	579	79	44	425	38	50	640	439	131	1341	57
Added Vol:	1	1	0	0	15	0	0	6	12	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	580	79	44	440	38	50	646	451	131	1342	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	60	580	79	44	440	38	50	646	451	131	1342	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	580	79	44	440	38	50	646	451	131	1342	57
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	60	580	79	44	440	38	50	646	451	131	1342	57
	_								——			
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.76	0.24	1.00	0.92	0.08	1.00	2.00	1.00	1.00	2.88	0.12
Final Sat.:	1600 •	2816	384	1600	1473	127	1600	3200	1600	1600	4604	196 •
Capacity Analysis M	odule:											
Vol/Sat:	0.04	0.21	0.21	0.03	0.30	0.30	0.03	0.20	0.28	0.08	0.29	0.29
Crit Moves:					****		****				****	
Volume/Cap:	0.15	0.83	0.83	0.08	0.49	0.49	0.83	0.52	0.72	0.23	0.83	0.83
	-		——						——II			
Level Of Service Mo	dule:											
Delay/Veh:	22.6	33.0	55.6	16.2	8.7	12.1	75.5	18.3	22.8	17.6	25.4	58.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.6	33.0	55.6	16.2	8.7	12.1	75.5	18.3	22.8	17.6	25.4	58.2
DesignQueue:	2.5	14.4	14.4	1.6	11.1	11.1	2.7	11.5	16.3	4.8	17.9	17.9

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

Creale (sec):			100		mi+i7	Val /C	n (V):				0 727	
Cycle (sec):			100		ritical		_				0.737	
Loss Time (sec):			0		verage D	_		•			23.4	
Optimal Cycle:			87	Ц	evel Of	Service	e:				С	
Approach:	Nor	th Bound		Sou	th Bound		Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pr	otected			otected		Pro	otected	11	Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
	·		<u>—</u> ІІ			<u></u> Н			<u></u>			-
Volume Module:												
Base Vol:	170	976	105	102	1091	103	159	774	178	142	872	368
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	169	969	105	102	1021	103	159	774	172	140	872	368
Added Vol:	1	7	0	0	70	0	0	0	6	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	976	105	102	1091	103	159	774	178	142	872	368
User Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	150	859	92	90	960	91	140	681	157	125	767	324
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	859	92	90	960	91	140	681	157	125	767	324
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	150	859	92	90	960	91	140	681	157	125	767	324
	·		<u>—</u> П			——II						——
Saturation Flow Modu	le:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.83	0.17	1.00	2.44	0.56	1.00	2.11	0.89
Final Sat.:	1600	3200	1600	1600	2924	276	1600	3903	897	1600	3375	1425
Capacity Analysis Mo	dule:											
Vol/Sat:	0.09	0.27	0.06	0.06	0.33	0.33	0.09	0.17	0.17	0.08	0.23	0.23
Crit Moves:	****				****		****				****	
Volume/Cap:	0.74	0.57	0.12	0.57	0.74	0.74	0.74	0.59	0.59	0.59	0.74	0.74
	.		——									
Level Of Service Mod	ule:											_
Delay/Veh:	41.2	15.0	11.3	36.5	19.2	31.1	42.1	23.8	25.7	34.6	25.8	28.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	15.0	11.3	36.5	19.2	31.1	42.1	23.8	25.7	34.6	25.8	28.2
DesignQueue:	7.4	13.4	2.7	4.5	17.5	17.5	7.0	11.4	11.4	6.1	14.7	14.7

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 46	A	ritical verage D evel Of	elay (sec/veh)	:		0.599 19.6 A West Bound			
Approach:	Nor	th Bound		Sou	th Bound		Eas	st Bound		Wes	st Bound		
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R	
Control:		rmitted	•	Pr	otected	"		otected	"		otected	•	
Rights		nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0 	1 1		1 0 L	1 1	0 1 I	1 0	1 1	0	1 0	1 1	0	
Volume Module:			- 1			11			11				
Base Vol:	151	633	70	101	604	64	131	884	65	160	999	89	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	151	628	70	101	552	64	131	884	65	160	997	89	
Added Vol:	0	5	0	0	52	0	0	0	0	0	2	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	151	633	70	101	604	64	131	884	65	160	999	89	
User Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	128	538	60	86	513	54	111	751	55	136	849	76	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	128	538	60	86	513	54	111	751	55	136	849	76	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	128	538	60 •	86	513	54	111	751	55 ••	136	849	76	
Saturation Flow Modu	le:		—-II									\neg	
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.80	0.20	1.00	1.81	0.19	1.00	1.86	0.14	1.00	1.84	0.16	
Final Sat.:	1600	2881	319	1600	2893	307	1600	2981	219	1600	2938	262	
Capacity Analysis Mo	odule:		—									—	
Vol/Sat:	0.08	0.19	0.19	0.05	0.18	0.18	0.07	0.25	0.25	0.09	0.29	0.29	
Crit Moves:	3.00	****	0.10	****	0.10	0.10	****	0.23	0.25	0.00	****	· · · · ·	
Volume/Cap:	0.26	0.60	0.60	0.60	0.44	0.44	0.60	0.56	0.56	0.56	0.60	0.60	
	-												
Level Of Service Mod				0.0 =	4					0.5			
Delay/Veh:	19.9	23.2	29.0	38.5	17.0	18.4	36.0	16.1	20.9	32.6	15.0	19.8	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	19.9	23.2	29.0	38.5	17.0	18.4	36.0	16.1	20.9	32.6	15.0	19.8	
DesignQueue:	5.0	11.9	11.9	4.4	9.8	9.8	5.6	13.1	13.1	6.5	14.2	14.2	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #7: Imperial Highway and Normandie Avenue

index #/· imperiar i	J											
Cycle (sec):			100		ritical		_				0.679	
Loss Time (sec):			0			_	sec/veh)	:			22.3	
Optimal Cycle:			122	L	evel Of	Servic	e:				В	
Approach:	Nor	th Bound	l	Sou	th Bound		Eas	t Bound		Wes	st Bound	
Movement:	L	Т	R	L	Т	R	L	Т	R	L	Т	R
Control:	Pe	rmitted		Pr	otected	}	Pe:	rmitted		Pr	otected	
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	_											
Base Vol:	148	507	74	170	560	134	109	770	40	170	1694	185
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	148	503	68	170	524	119	107	763	40	122	1608	185
Added Vol:	0	4	6	0	36	15	2	7	0	48	86	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	507	74	170	560	134	109	770	40	170	1694	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	148	507	74	170	560	134	109	770	40	170	1694	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	507	74	170	560	134	109	770	40	170	1694	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	148	507	74	170	560	134	109	770	40	170	1694	185
			<u>—</u> ІІ			—			<u>—</u> ІІ			<u>—</u>
Saturation Flow Mod	ule:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	1.00	1.61	0.39	1.00	2.85	0.15	1.00	2.70	0.30
Final Sat.:	1600 L	2792	408	1600	2582	618 	1600	4563	237 	1600 L	4327	473
Capacity Analysis M	odule:					- 11						
Vol/Sat:	0.09	0.18	0.18	0.11	0.22	0.22	0.07	0.17	0.17	0.11	0.39	0.39
Crit Moves:		***		****							****	
Volume/Cap:	0.43	0.85	0.85	0.85	0.64	0.64	0.34	0.85	0.85	0.23	0.59	0.59
Level Of Service Mo	dule:											
Delay/Veh:	26.8	36.8	62.8	51.6	22.6	25.9	26.8	35.1	80.2	12.5	7.5	9.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.8	36.8	62.8	51.6	22.6	25.9	26.8	35.1	80.2	12.5	7.5	9.5
DesignQueue:	6.6	13.2	13.2	8.5	13.4	13.4	4.9	12.5	12.5	5.2	12.9	12.9
pepiditaene.	0.0	10.4	13.4	0.5	13.1	10.1	7.9	14.5	12.3	J. Z	14.9	14.9

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:			100 0 80	A	ritical verage I evel Of		0.768 20.9 C					
Approach: Movement:	Nor L	th Bound	i R	Sou L	th Bound	l R	Eas L	st Bound T	R	Wes	st Bound T	R
MOVEMENT.		1	I	<u> </u>		.	ш	1		ш	1	K
Control:	Protected			Pe	rmitted		Pr	otected		Pe	rmitted	-
Rights	I	nclude		I	nclude		I	nclude		I	nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0
Volume Module:	-		<u>—</u> ІІ									
Base Vol:	472	1300	171	255	891	197	115	717	168	215	1319	224
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	435	1300	171	255	891	167	112	710	164	215	1251	224
Added Vol:	37	0	0	0	0	30	3	7	4	0	68	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	472	1300	171	255	891	197	115	717	168	215	1319	224
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	472	1300	171	255	891	197	115	717	168	215	1319	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	472	1300	171	255	891	197	115	717	168	215	1319	224
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	472	1300	171	255	891	197	115	717	168	215	1319	224
			——II			<u></u> Н			— ІІ			_
Saturation Flow Modu	ile:											
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.65	0.35	2.00	2.46	0.54	1.00	2.43	0.57	1.00	2.56	0.44
Final Sat.:	3200 •	4242	558	3200 I	3931	869 II	1600	3889	911 •••	1600	4103	697
Capacity Analysis Mo	dule:					11			1			
Vol/Sat:	0.15	0.31	0.31	0.08	0.23	0.23	0.07	0.18	0.18	0.13	0.32	0.32
Crit Moves:	****				****		***				***	
Volume/Cap:	0.77	0.63	0.63	0.27	0.77	0.77	0.77	0.36	0.36	0.32	0.77	0.77
	-		—			<u></u> Н						_
Level Of Service Mod		15.0	17 0	20.0	26.0	22.6	40.0	11 2	11 4	1 - 1	20.7	0.7.1
Delay/Veh: Delay Adj:	33.5 1.00	15.0 1.00	17.8	20.8	26.9 1.00	33.6 1.00	48.0 1.00	11.3 1.00	11.4	15.1 1.00	20.7 1.00	27.1
		1 1111	1 1111	1 (1()								1 (1()
AdjDel/Veh:	33.5	15.0	17.8	20.8	26.9	33.6	48.0	11.3	11.4	15.1	20.7	27.1

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #13: Imperial Highway and I-110 Northbound Ramps

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 180 Level Of Service:										0.770 22.3 C		
Approach:	Nor	th Bound		Sou	South Bound East B					und West Bound				
Movement:	L	Т	R	L	Т	R	L	Т	R	L	T	R		
Control:	Pr	Protected			otected	——II	Pe	rmitted		Protected				
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	1! 0	1	0 0	0 0	0	1 0	3 0	0	0 0	2 1	0		
Volume Module:									''					
Base Vol:	913	317	482	0	0	0	120	729	0	0	1249	71		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	902	317	482	0	0	0	118	725	0	0	1212	71		
Added Vol:	11	0	0	0	0	0	2	4	0	0	37	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	913	317	482	0	0	0	120	729	0	0	1249	71		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	913	317	482	0	0	0	120	729	0	0	1249	71		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	913	317	482	0	0	0	120	729	0	0	1249	71		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	913	317	482	0	0	0	120	729	0	0	1249	71		
	·		——[II						——		
Saturation Flow Modu	le:													
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.60	0.40	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.84	0.16		
Final Sat.:	2560 •	640	1600	0	0	0	1600	4800	0	0	4542	258		
Capacity Analysis Mo	dule:								11					
Vol/Sat:	0.36	0.50	0.30	0.00	0.00	0.00	0.08	0.15	0.00	0.00	0.28	0.28		
Crit Moves:		****									****			
Volume/Cap:	0.66	0.92	0.56	0.00	0.00	0.00	0.46	0.92	0.00	0.00	0.59	0.59		
Tarrel Of Grander 1	-1		—											
Level Of Service Mod		27 -	10.4	0 0	0.0	0 0	20.0	42.4	0 0	0 0	15 5	20 7		
Delay/Veh:	13.7	37.5	12.4	0.0	0.0	0.0	29.9	43.4	0.0	0.0	15.7	20.7		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	13.7	37.5	12.4	0.0	0.0	0.0	29.9	43.4	0.0	0.0	15.7	20.7		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #2: Imperial Highway and Crenshaw Boulevard

Cycle (sec):			100		ritical	0.602						
Loss Time (sec):			0		verage D			:		18.4		
Optimal Cycle:		47 Level Of Service:									В	
Approach:	Nor	th Bound		Sou	South Bound East Bound					West Bound		
Movement:	L			L	Т	R	L	T	R	L	Т	R
Control:	-	otected		Pe	rmitted		Pro	otected		Pe	rmitted	
Rights		nclude			nclude			nclude			nclude	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0	1 0	2 1	0
			—			—			——			_
Volume Module:				04.5	4000		4.50	4400		4.00	544	
Base Vol:	195	1483	133	317	1038	106	163	1139	163	198	711	284
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	195	1483	130	306	1038	106	163	1122	163	196	703	279
Added Vol:	0	0	3	11	0	0	0	17	0	2	8	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	195	1483	133	317	1038	106	163	1139	163	198	711	284
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	176	1335	120	285	934	95	147	1025	147	178	640	256
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	1335	120	285	934	95	147	1025	147	178	640	256
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	176	1335	120	285	934	95 ••	147	1025	147	178	640	256
a	_											
Saturation Flow Mod		1.000	1.600	1.600	1.000	1.600	1.600	1.000	1.600	1.500	1600	1.600
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.75	0.25	1.00	2.72	0.28	1.00	2.62	0.38	1.00	2.14	0.86
Final Sat.:	1600 L	4405	395 	1600	4355	445	1600	4199	601	1600	3430	1370
Capacity Analysis M	Module:		11			11			11			
Vol/Sat:	0.11	0.30	0.30	0.18	0.21	0.21	0.09	0.24	0.24	0.11	0.19	0.19
Crit Moves:	***				****		****				***	
Volume/Cap:	0.60	0.56	0.56	0.50	0.60	0.60	0.60	0.53	0.53	0.36	0.60	0.60
	_		——II									
Level Of Service Mo	dule:											
Delay/Veh:	31.4	12.0	14.3	20.0	20.8	24.7	33.4	15.0	16.3	20.8	23.3	24.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.4	12.0	14.3	20.0	20.8	24.7	33.4	15.0	16.3	20.8	23.3	24.3
DesignQueue:	8.2	13.3	13.3	10.6	12.9	12.9	7.1	12.3	12.3	7.0	11.9	11.9

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #4: Century Boulvard and Van Ness Avenue

Index #4. Century Bo													
Cycle (sec):			100		ritical	0.687							
Loss Time (sec):			0		verage D		27.7						
Optimal Cycle:			180	L	evel Of	Servic	e:				В		
Approach:	Nor	th Bound		Sou	South Bound			East Bound			West Bound		
Movement:	L	Т	R	L	T	R	L	Т	R	L	Т	R	
Control:	- Pe	rmitted		Pr	otected		Pro	otected		Pe	rmitted	—	
Rights	I	nclude		I	nclude		I	nclude		I	nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	0 1	0	1 0	2 1	0	1 0	2 1	0 _	
Volume Module:													
Base Vol:	65	588	94	62	392	42	104	1818	132	122	1638	45	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	60	582	94	62	379	42	104	1812	121	122	1635	45	
Added Vol:	5	6	0	0	13	0	0	6	11	0	3	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	65	588	94	62	392	42	104	1818	132	122	1638	45	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	65	588	94	62	392	42	104	1818	132	122	1638	45	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	65	588	94	62	392	42	104	1818	132	122	1638	45	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	65	588	94	62	392	42	104	1818	132	122	1638	45	
			<u>—</u> П			II			<u>—</u> п			<u>—</u>	
Saturation Flow Mod	ule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.72	0.28	1.00	0.90	0.10	1.00	2.80	0.20	1.00	2.92	0.08	
Final Sat.:	1600 L	2759	441 	1600 L	1445	155 	1600	4475	325 	1600 L	4672	128	
Capacity Analysis M	odule:					11							
Vol/Sat:	0.04	0.21	0.21	0.04	0.27	0.27	0.07	0.41	0.41	0.08	0.35	0.35	
Crit Moves:					****		****				****		
Volume/Cap:	0.17	0.90	0.90	0.13	0.50	0.50	0.90	0.88	0.88	0.20	0.90	0.90	
Level Of Service Mo	dule:					()							
Delay/Veh:	23.4	39.6	68.4	19.6	11.7	15.2	72.9	22.2	46.8	15.6	26.8	84.7	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	23.4	39.6	68.4	19.6	11.7	15.2	72.9	22.2	46.8	15.6	26.8	84.7	
DesignQueue:	2.8	15.2	15.2	2.4	11.8	11.8	5.4	21.4	21.4	4.2	20.6	20.6	
zezzgiigacae.	2.0	19.2	19.2	2.1	11.0	0	5.1	21.1	22.1	1.2	20.0	20.0	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #5: Century Boulevard and Western Avenue

a 1 ():			100		1.1.2		(**) .				0 505			
Cycle (sec):			100		ritical	0.725								
Loss Time (sec):			0 68			_	sec/veh)	•		18.6				
Optimal Cycle:	68 Level Of Service:									С				
Approach:	Nor	th Bound		Sou	South Bound East Bound					West Bound				
Movement:	L	T	R	L	T	R	L	Т	R	L	T	R		
	<u> </u>		— Н			<u></u> н			— Н			——		
Control:	Pe	rmitted		Pr	otected		Pe	rmitted		Pr	otected			
Rights	I	nclude		I	nclude		I	nclude		I	nclude			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 1	0	1 0	2 1	0		
	⊢—		—			—			—			<u> </u>		
Volume Module:														
Base Vol:	174	957	148	150	886	158	182	1512	175	128	1488	164		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Base:	171	927	147	150	822	158	182	1512	169	126	1488	164		
Added Vol:	3	30	1	0	64	0	0	0	6	2	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	174	957	148	150	886	158	182	1512	175	128	1488	164		
User Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	153	842	130	132	780	139	160	1331	154	113	1309	144		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	153	842	130	132	780	139	160	1331	154	113	1309	144		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Final Vol.:	153 •	842	130	132	780	139 ••	160	1331	154 ••	113	1309	144		
Saturation Flow Modul	<u> </u>								—— I I					
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Lanes:	1.00	2.00	1.00	1.00	1.70	0.30	1.00	2.69	0.31	1.00	2.70	0.30		
Final Sat.:	1600	3200	1600	1600	2716	484	1600	4302	498	1600	4323	477		
Tillar bac.		3200		1000	2710		1000	1302		1000	1323			
Capacity Analysis Mod	lule:													
Vol/Sat:	0.10	0.26	0.08	0.08	0.29	0.29	0.10	0.31	0.31	0.07	0.30	0.30		
Crit Moves:		****		****				****		****				
Volume/Cap:	0.26	0.73	0.22	0.73	0.60	0.60	0.23	0.73	0.73	0.73	0.58	0.58		
	<u> </u>					I								
Level Of Service Modu	le:		T I						# 1					
Delay/Veh:	17.3	22.8	17.1	41.9	15.4	17.9	14.1	19.4	26.2	44.1	12.8	15.0		
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	17.3	22.8	17.1	41.9	15.4	17.9	14.1	19.4	26.2	44.1	12.8	15.0		
DesignQueue:	5.5	15.8	4.7	6.6	14.3	14.3	5.2	16.9	16.9	5.7	13.8	13.8		

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #6: Century Boulevard and Normandie Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:	Loss Time (sec):				ritical verage D evel Of	0.729 21.4 C							
Approach:	Nor	th Bound		Sou	South Bound			st Bound		West Bound			
Movement:	L •	Т	R	L	T	R	L	Т	R	L	Т	R •	
Control:	Pr	otected		Pr	otected	11	Pr	Protected			Protected		
Rights		nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	
Volume Module:													
Base Vol:	123	547	84	119	581	77	142	1429	98	126	1482	74	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	123	525	84	119	534	77	142	1428	98	126	1480	74	
Added Vol:	0	22	0	0	47	0	0	1	0	0	2	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	123	547	84	119	581	77	142	1429	98	126	1482	74	
User Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	105	465	71	101	494	65	121	1215	83	107	1260	63	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	105	465	71	101	494	65	121	1215	83	107	1260	63	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	105	465	71	101	494	65	121	1215	83	107	1260	63	
			——II			II						—	
Saturation Flow Modul	e:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	1.00	1.73	0.27	1.00	1.77	0.23	1.00	1.87	0.13	1.00	1.90	0.10	
Final Sat.:	1600	2774	426	1600	2826	374	1600	2995	205	1600	3048	152	
Capacity Analysis Mod	ule:											_	
Vol/Sat:	0.07	0.17	0.17	0.06	0.17	0.17	0.08	0.41	0.41	0.07	0.41	0.41	
Crit Moves:	****	**-			****		****	***			****		
Volume/Cap:	0.73	0.70	0.70	0.70	0.73	0.73	0.73	0.70	0.70	0.70	0.73	0.73	
	<u> </u>		——П			<u></u> н			——II			——	
Level Of Service Modu	le:												
Delay/Veh:	45.4	29.1	39.3	43.3	29.7	43.5	43.4	12.6	23.0	43.0	13.4	29.4	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	45.4	29.1	39.3	43.3	29.7	43.5	43.4	12.6	23.0	43.0	13.4	29.4	
DesignQueue:	5.4	11.8	11.8	5.2	12.3	12.3	6.1	16.8	16.8	5.5	17.5	17.5	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #8: Imperial Highway and Vermont Avenue

Cycle (sec): Loss Time (sec): Optimal Cycle:		100 Critical Vol./Cap.(X): 0 Average Delay (sec/veh): 51 Level Of Service:									0.637 19.7 B		
Approach: Movement:	Nor L	th Bound T	R	Sou L	th Bound T	R	Eas L	st Bound T	R	Wes	st Bound T	R	
Control:	Pr	Protected			rmitted	——II	Pr	otected	—-II	Pe	rmitted		
Rights	I	nclude			nclude			nclude			nclude		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2 0	2 1	0	2 0	2 1	0	1 0	2 1	0	1 0	2 1	0	
			——			<u></u> II			<u>—</u>				
Volume Module:													
Base Vol:	456	996	192	234	769	148	153	1292	217	212	892	105	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Base:	423	996	192	234	769	121	140	1263	201	212	830	105	
Added Vol:	33	0	0	0	0	27	13	29	16	0	62	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	456	996	192	234	769	148	153	1292	217	212	892	105	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	456	996	192	234	769	148	153	1292	217	212	892	105	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	456	996	192	234	769	148	153	1292	217	212	892	105	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Final Vol.:	456	996	192	234	769	148	153	1292	217	212	892	105	
	_					—— П			——				
Saturation Flow Moo	dule:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Lanes:	2.00	2.52	0.48	2.00	2.52	0.48	1.00	2.57	0.43	1.00	2.68	0.32	
Final Sat.:	3200	4024	776	3200	4025	775	1600	4110	690	1600	4294	506	
	———								<u> —</u> П				
Capacity Analysis N	Module:												
Vol/Sat:	0.14	0.25	0.25	0.07	0.19	0.19	0.10	0.31	0.31	0.13	0.21	0.21	
Crit Moves:	* * * *				***		****				****		
Volume/Cap:	0.64	0.47	0.47	0.24	0.64	0.64	0.64	0.66	0.66	0.41	0.64	0.64	
T1 05 0 1	- 1 - 1 - 1					—							
Level Of Service Mo		11 7	10.2	20.4	24 1	27.2	24.6	16.0	10.7	20 5	22.0	277 -	
Delay/Veh:	28.4	11.7	12.3	20.4	24.1	27.3	34.6	16.0	18.7	20.5	22.8	27.5	
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	28.4	11.7	12.3	20.4	24.1	27.3	34.6	16.0	18.7	20.5	22.8	27.5	
DesignQueue:	10.2	11.1	11.1	4.6	12.4	12.4	7.4	15.7	15.7	8.2	13.0	13.0	

Level Of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Index #14: Imperial Highway and Western Avenue

Approach: North Bound Movement: L T R L T	Cycle (sec): Loss Time (sec):			100		ritical verage D	0.681 23.2							
Novement: L T R L T T R L T T R L T T R L T T T T T T T T T	Optimal Cycle:		118 Level Of Service:							В				
Movement: L T R L T T R L T T R L T T R L T T R L T T R L T T R L T T R L T T L L L L L L L	Approach:	Nor	th Bound		Sou	South Bound East Bound					West Bound			
Rights Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		L	Т	R	L	Т	R	L	Т	R	L	Т	R	
Rights Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	g 1 .			——										
Min. Green: 0														
Y+R:	-			0			0			0			0	
Volume Module: Base Vol: 206 755 96 183 733 158 159 1560 201 142 773 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													4.0	
Volume Module: Base Vol: 206 755 96 183 733 158 159 1560 201 142 773 (Added Vol: 0 160 160 1600 100 1.00 1.00 1.00 1.00													1	
Base Vol: 206 755 96 183 733 158 159 1560 201 142 773 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					_		الـــــــــــــــــــــــــــــــــــــ							
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume Module:						- 11			- 11				
Initial Base: 206 739 96 147 698 158 159 1505 201 142 747 Added Vol: 0 16 0 36 35 0 0 55 0 0 26 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 101 1141 Fult: 206 755 96 183 733 158 159 1560 201 142 773 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		206	755	96	183	733	158	159	1560	201	142	773	210	
Added Vol: 0 16 0 36 35 0 0 55 0 0 26 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Initial Fut: 206 755 96 183 733 158 159 1560 201 142 773 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 142 773 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Initial Base:	206	739	96	147	698	158	159	1505	201	142	747	193	
Initial Fut: 206 755 96 183 733 158 159 1560 201 142 773 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Added Vol:	0	16	0	36	35	0	0	55	0	0	26	17	
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Initial Fut:	206	755	96	183	733	158	159	1560	201	142	773	210	
PHF Volume: 206 755 96 183 733 158 159 1560 201 142 773 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Reduced Vol: 206 755 96 183 733 158 159 1560 201 142 773 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0									1560				210	
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0	
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													210	
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	•												1.00	
Saturation Flow Module: Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	-												1.00	
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Final Vol.:	206	755	96 ••	183	733	158	159	1560	201	142	773	210	
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 160	Caturation Elevi Med						——I I:							
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Lanes: 1.00 2.00 1.00 1.00 2.47 0.53 1.00 2.66 0.34 1.00 3.00 Final Sat.: 1600 3200 1600 1600 3949 851 1600 4252 548 1600 4800 Capacity Analysis Module: Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.37 0.37 0.09 0.16 Crit Moves: **** Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													1.00	
Final Sat.: 1600 3200 1600 1600 3949 851 1600 4252 548 1600 4800 Capacity Analysis Module: Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.37 0.37 0.09 0.16 Crit Moves: **** Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	-												1.00	
Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.37 0.37 0.09 0.16 Crit Moves: **** Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Final Sat.:												1600	
Vol/Sat: 0.13 0.24 0.06 0.11 0.19 0.19 0.10 0.37 0.37 0.09 0.16 Crit Moves: **** Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0		_												
Crit Moves: **** Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Capacity Analysis M	odule:												
Volume/Cap: 0.84 0.63 0.16 0.52 0.84 0.84 0.23 0.59 0.59 0.46 0.84 Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Vol/Sat:	0.13	0.24	0.06	0.11	0.19	0.19	0.10	0.37	0.37	0.09	0.16	0.13	
Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Crit Moves:	***				****			***					
Level Of Service Module: Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Volume/Cap:	0.84	0.63			0.84			0.59			0.84	0.69	
Delay/Veh: 47.1 20.6 16.1 27.5 34.0 47.6 13.6 8.7 10.4 28.5 35.1 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lovel Of Commiss Ma	- dulo:								()				
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			20 6	16 1	27 5	34 0	47 6	13 6	8 7	10 4	28 5	35 1	33.3	
	-												1.00	
	AdjDel/Veh:	47.1	20.6	16.1	27.5	34.0	47.6	13.6	8.7	10.4	28.5	35.1	33.3	
DesignQueue: 10.0 13.9 3.4 8.1 13.4 13.4 5.1 13.3 13.3 6.5 12.0													9.7	

Appendix G

Traffic Signal Warrant Analysis

Warrant 1A (Minimum Vehicular Volume) Numbers above which a traffic signal may be justified* Major Minor **Major Street** Minor Street Street Street Not Not # of Lanes # of Lanes Reduced Reduced Reduced Reduced 1 1 8850 6200 2650 1850 2 1 1850 10600 7450 2650 2 2 10600 7450 3550 2500

Warrant 1B (Interruption of Continuous Traffic)

6200

3550

2500

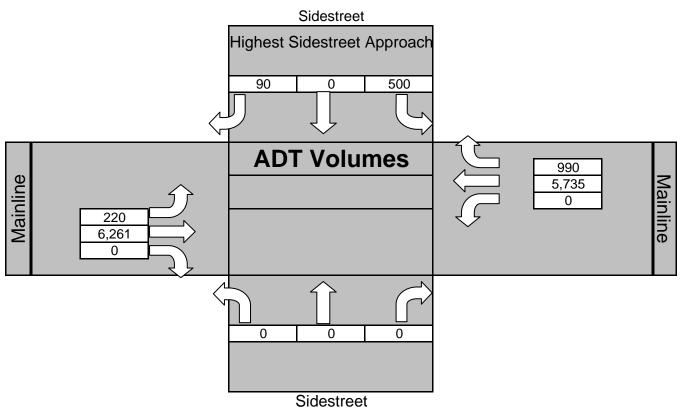
8850

2

1

Numbers above which a traffic signal may be justified* Major Minor **Major Street** Minor Street Street Street Not Not # of Lanes # of Lanes Reduced Reduced Reduced Reduced 1 1 13250 9300 1350 950 2 1 15950 11150 950 1350 2 2 11150 1800 1250 15950 1 2 13250 9300 1800 1250

^{*}Numbers are achieved by dividing the minimum hourly volume for either non-reduced or reduced criteria as outlined in the 2003 MUTCD (Table 4C-1) by 5.65% to achieve the minimum ADT value necessary to satisfy Warrant 1A and Warrant 1B. Reduced values are approximately 70% of non-reduced values.



The peak hour trafic volumes were converted to ADT for SBR,NBL,EBL and EBR, a general rule of thumb is that the peak hour volumes are typically 10% of the ADT.

The total mainline ADT for both directions as entered above is:	13,206
The highest ADT for the sidestreet as entered above is:	590
What is the number of lanes for moving traffic on the Major Street per app	
NA/legat in the annual constitution of legacy for many institution on the Misson Change and a constitution	2
What is the number of lanes for moving traffic on the Minor Street per app	2 2
Is either the posted speed limit on the Major Street greater than 40 MPH o	
intersection located in an isolated community with a population less than 1	0,000?

Warrant 1A (Minimum Vehicular Volume)

(Numbers are not reduced.)

Mainline Traffic

ADT volumes above which a signal may be warranted:	10,600
Mainline ADT as entered above:	13,206

Sidestreet Traffic

ADT volumes above which a signal may be warranted:

Sidestreet ADT as entered above:

3,550

590

Warrant 1B (Interruption of Continuous Traffic)

(Numbers are not reduced.)

Mainline Traffic

ADT volumes above which a signal may be warranted:	15,950
Mainline ADT as entered above:	13,206

Sidestreet Traffic

ADT volumes above which a signal may be warranted:	1,800
Sidestreet ADT as entered above:	590

Satisfaction of Warrants

	Major Street	Minor Street	Warrant Satisfied?
Warrant 1A	Yes	No	No
Warrant 1B	No	No	No