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November 23, 2009

The Honorable Eric Garcetti
President
Los Angeles City Council

c/o Barbara A. Greaves
City Clerk
City Hall Room 410

Dear President Garcetti and Honorable Members:

Subject: Venice Dual Force Main (CF 08-0504) Environmental Impact Report

We transmit herewith additional information to clarify and amplify the information previously provided about the proposed Venice Dual Force Main, and we urge the City Council to move forward with certification of the Venice Dual Force Main Environmental Impact Report (EIR) and related actions as recommended in the report from the Public Works Committee dated December 4, 2008.

Following the committee's actions we received additional comments from Los Angeles County staff principally focusing on the EIR's analysis of traffic impacts. Even though those concerns were expressed well past the close of the public review period, the City elected to commission a new study to update the traffic analysis in the EIR. The City worked with County staff and accommodated their requests in the defining the scope of the updated traffic study and in selecting the firm that did the study: Fehr & Peers. The Fehr & Peers report, "Traffic Study for the Venice dual Force Main, Los Angeles, California," dated June, 2009, re-examined the potential impacts of the alternatives, recommended mitigation measures, and found that implementation of the mitigation measures, "would reduce the project traffic/transportation impacts for all project alignment alternatives to a less than significant level." (Attachment 1)

The recommendations of the 2009 traffic study are incorporated into an Addendum to the Mitigation Monitoring Program. (Attachment 2)

The Bureau of Engineering has documented the basis for its position that construction

along the Pacific Avenue alignment would substantially close Pacific Avenue. The Bureau's technical memorandum provides minimum dimensions of shaft and work areas for micro-tunneling operations based on historical data, industry standards, general requirements and project-specific parameters. (Attachment 3)

Also, the Bureau of Engineering, in consultation with the Department of Transportation, has provided additional information regarding the significance of impacts to traffic and circulation from in-street construction for Venice Dual Force Main. (Attachment 4)

On February 10, 2009, Los Angeles County Supervisor Don Knabe provided additional written comments regarding the validity of the EIR requested that the City amend and recirculate the EIR and then select the Pacific Avenue alternative as the preferred alignment. Subsequently, on July 9, 2009, four County department heads sent a joint letter expressing similar concerns. A detailed response to the County's comments is attached. (Attachment 5)

CEQA Guidelines Section 15088.5 sets forth specific conditions under which an EIR must be recirculated for public comment. City staff has considered the concerns and the comments received to date (the foregoing and CF 08-0504) and determined that recirculation of the EIR is not required by the Guidelines. The attached "2nd Addendum to the Council's Findings and Statement of Overriding Considerations" sets forth the basis for staff's determination that recirculation is not mandated nor recommended. (Attachment 6)

City staff will continue to work with County staff and to reach out to all stakeholders throughout the life of this project to produce the best project. We urge the City Council to move forward with certification of the EIR and related actions.

If you have any questions, please contact Jim Doty at (213) 485-5759.

Sincerely,

Gary Lee Moore

Gary Lee Moore, P.E.
City Engineer

GLM/transmittal letter to city council:jed
cc: Honorable Councilman Bill Rosendahl, CD 11
Cynthia Ruiz, President, Board of Public Works
Chris Westhoff, Assistant City Attorney
Siegmund Shyu, Deputy City Attorney
Valerie Lynne Shaw, Commissioner, Board of Public Works
Enrique Zaldivar, Director, Bureau of Sanitation
Tim Haug, Deputy City Engineer, Bureau of Engineering
Wayne Lawson, Wastewater Conveyance Engineering Division Engineer, Bureau of Engineering
Ara Kasparian, Group Manager, Environmental Management Group, Bureau of Engineering

Attached:

1. Fehr & Peers. "Traffic Study for the Venice dual Force Main, Los Angeles, California." June 2009
2. Addendum to the Mitigation Monitoring Program. June 2009
3. Bureau of Engineering Wastewater Conveyance Engineering Division. "Technical Memorandum Addressing Shaft and Work Area Dimensions for Micro-Tunneling Operations." March 23, 2009.
4. Bureau of Engineering Environmental Management Group. "Additional Information Re Significance of Impacts to Traffic & Circulation from In-Street Construction for Venice Dual Force Main." November 9, 2009
5. Comments Received After December 3, 2008
6. 2nd Addendum to Findings and Statement of Overriding Considerations

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Attachment 1

Fehr & Peers. “Traffic Study for the Venice dual Force Main, Los Angeles, California.” June 2009

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TRAFFIC STUDY
FOR THE
VENICE DUAL FORCE MAIN

LOS ANGELES, CALIFORNIA

JUNE 2009

PREPARED FOR

ICF JONES & STOKES

PREPARED BY

FEHR & PEERS
TRANSPORTATION CONSULTANTS

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TRAFFIC STUDY
FOR THE
VENICE DUAL FORCE MAIN

LOS ANGELES, CALIFORNIA

June 2009

Prepared for:

ICF JONES & STOKES

Prepared by:

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For convenience and efficiency, Appendices A-D (216 pages) are not included. Appendices A – D are available on request by contacting the Department of Public Works, Bureau of Engineering, Environmental Management Group.

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1. INTRODUCTION

In 2006, Kaku Associates, Inc. (now Fehr & Peers) completed the traffic impact analysis included in the draft environmental impact report (EIR) for the proposed Venice Pumping Plant Dual Force Main project. The project would construct a second sewer main line to provide redundancy for an existing line and would extend from 140 Hurricane Street in the Venice community to Vista del Mar near Waterview Street in the Playa del Rey community. In response to comments received on the draft EIR and minor changes in the project description, Fehr & Peers has updated the traffic impact analysis conducted for the draft EIR that assumes potential impacts in the area north of the Ballona Creek/Marina del Rey Channel. The scope of this report was determined by the City of Los Angeles Bureau of Engineering in a Task Order Solicitation (TOS) dated January 8, 2009. The TOS was based on discussions with the Los Angeles Department of Public Works and the Memorandum of Understanding that was executed for the initial EIR in 2005.

PROJECT DESCRIPTION

Micro-Tunneling Scenario

The City has provided plans showing the location, size and length of occupation of each work area. The traffic analysis assumes that each construction site will be occupied continuously from the time the pit is dug to the time that the pit is abandoned (i.e., assume that traffic lanes will not be re-opened during periods when the site may be inactive). Jacking sites would be at least 30 feet wide (to accommodate a pit with a minimum pit dimension of 20 feet and room for equipment movement) and an area of 10,000–12,000 square feet. Receiving sites would be at least 25 feet wide (to accommodate a pit with a minimum pit dimension of 15 feet and room for equipment movement) and an area of 5,000 square feet.

Open-Trench (Cut-and-Cover) Scenario

The cut-and-cover construction method involves excavation, installation of water-tight shoring, the pouring of a concrete foundation, backfilling with a bed of gravel, pipeline installation, backfill and compaction, restoration of curbs and utilities, and repaving the affected road. For the purpose of this analysis, it is assumed that the 54-inch pipe would be placed on a 1-foot gravel bed on top of a 1-foot concrete mud slab placed at the bottom of trench about 8.5 feet wide and 12 feet deep. A shoring-installation crew would get a head-start installing water-tight shoring approximately 200 to 300 feet in front of the pipeline crew. The latter would excavate approximately 80 feet of trench every work day and pour the mud slab. The next work day, 80 feet of pipe would then be installed and backfilled. This approach would yield an effective production rate of about 40 feet of completed pipe installation per work day (i.e., 200 feet per work week). Subsequent to pipe installation, a third crew would extract shoring, restore curbs and utilities, and repave about 600 feet of roadway every three weeks. The work area would be approximately 17 feet wide (including “K-rail” perimeter barriers) and approximately 1,000 feet long at any given time.

PROJECT ALTERNATIVES

Alternative 1A analyzes project impacts along the Via Marina Alignment using the Micro-Tunneling Method.

Alternative 1B analyzes project impacts along the Via Marina Alignment using the Open-Trench Method.

Alternative 2A analyzes project impacts along the Pacific Avenue Alignment using the Micro-Tunneling Method.

- Alternative 2A (Full Closure [FC]): Alternative 2A (FC) analyzes project impacts if Pacific Avenue were to be closed completely at Pacific Avenue & Hurricane Street and Pacific Avenue & Via Marina.

Alternative 2B analyzes project impacts along the Pacific Avenue Alignment using the Open-Trench Method.

Alternative 3A analyzes project impacts along the Venice Beach Alignment using the Micro-Tunneling Method.

- Alternative 3A (FC): Alternative 3A (FC) analyzes project impacts if Pacific Avenue were to be closed completely at Pacific Avenue & Hurricane Street.

Alternative 3B analyzes project impacts along the Venice Beach Alignment using the Open-Trench Method.

STUDY SCOPE

This study evaluates the potential for project-generated traffic impacts on the street system surrounding the project site. Peak hour traffic impacts for the project were evaluated during typical weekday morning (7:00 to 9:00 AM), weekday afternoon (4:00 to 6:00 PM), and Sunday midday (1:00 – 5:00 PM) peak periods. The following traffic scenarios were analyzed in the study:

- Existing Conditions – This analysis of existing weekday AM and PM peak hour and Sunday midday peak hour traffic conditions provided a basis for the assessment of future traffic conditions. The existing conditions analysis included a description of key area streets and highways, traffic volumes, current intersection and roadway operating conditions, and local transit service in the area.

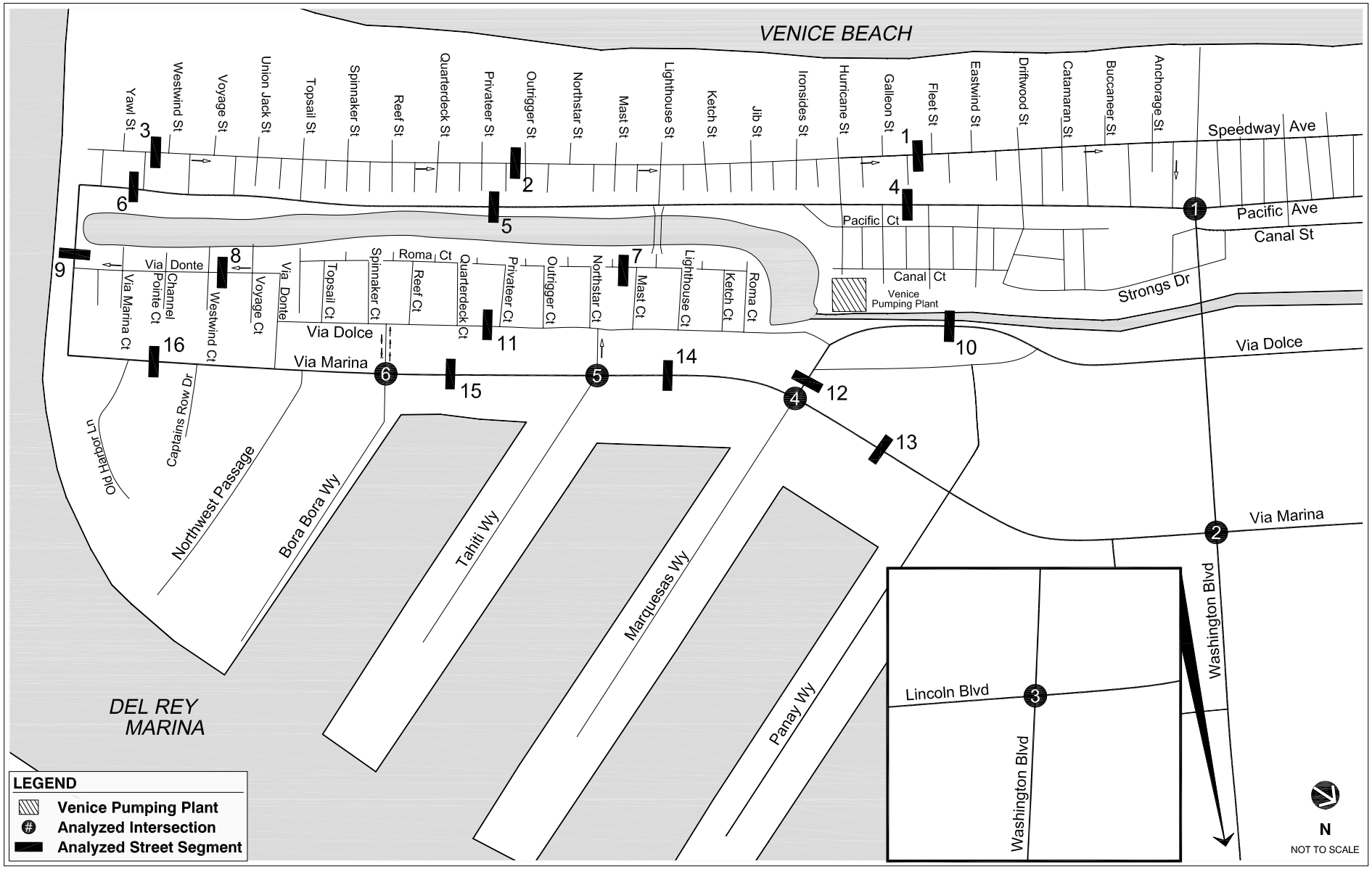
- Cumulative Base (Year 2011) Conditions – This scenario projected the future traffic growth and intersection operating conditions that could be expected from regional growth and known "related projects" in the vicinity of the project site by year 2011. These analyses provided the "baseline" conditions by which project impacts were evaluated.

- Cumulative plus Project (Year 2011) Conditions, Proposed Project – This analysis identified the potential incremental impacts of the proposed project on future traffic operating conditions by adding the traffic expected to be generated by the project to the cumulative base traffic forecasts.

The study examined six intersections and 16 street segments in the vicinity of the project site for each of the above traffic scenarios. The study locations, as stated in the TOS, are listed below and illustrated in Figure 1.

<u>Intersections</u>:

1. Pacific Avenue & Washington Boulevard
2. Via Marina & Washington Boulevard
3. Lincoln Boulevard & Washington Boulevard
4. Via Marina & Marquesas Way



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STUDY AREA AND ANALYZED LOCATIONS

FIGURE 1

5. Via Marina & Tahiti Way
6. Via Marina & Bora Bora Way (east/west stop-controlled)

Street Segments:

1. Speedway Avenue (alley) between Fleet Street and Galleon Street
2. Speedway Avenue (alley) between Privateer Street and Quarterdeck Street
3. Speedway Avenue (alley) between Westwind Street and Yawl Street
4. Pacific Avenue between Fleet Street and Galleon Street
5. Pacific Avenue between Privateer Street and Quarterdeck Street
6. Pacific Avenue between Westwind Street and Yawl Street
7. Roma Court between Lighthouse Mall and Outrigger Mall
8. Via Donte between Voyage Mall and Westwind Mall
9. Via Marina east of Pacific Avenue
10. Via Dolce north of Marquesas Way
11. Via Dolce between Privateer St and Quarterdeck Street
12. Marquesas Way between Via Dolce and Via Marina
13. Via Marina north of Marquesas Way
14. Via Marina south of Marquesas Way
15. Via Marina south of Tahiti Way
16. Via Marina north of Harbor Lane

ORGANIZATION OF REPORT

This report is divided into five chapters, including this introduction. Chapter II describes the existing circulation system, traffic volumes, intersection and roadway operating conditions of the street system, as well as existing public transit service in the study area. Chapter III describes the methodologies used to develop future cumulative traffic forecasts and project traffic volumes. Chapter IV presents an assessment of potential temporary traffic impacts on intersection and street segment operations in the vicinity of the project site. Chapter V summarizes the conclusions of the study and the recommendations intended to mitigate the adverse impacts expected to occur during construction of the proposed project.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed evaluation of existing transportation conditions in the study area. The assessment of existing conditions in the project study area includes a description of the street and highway system, traffic volumes on these facilities, operating conditions of the selected intersections and public transit services.

EXISTING HIGHWAY AND STREET SYSTEM

Primary regional access to the project site is provided by the Marina Freeway (SR 90), the San Diego Freeway (I-405), the Santa Monica Freeway (I-10) and the Glenn M. Anderson Freeway (I-105). SR 90, which runs in the east/west direction east of the Venice Pumping Plant site. Access to the site from the SR 90 Freeway can be obtained from Lincoln Boulevard. The I-405 runs in the north/south direction approximately three miles east of the project site, while the I-10 runs in an east/west direction approximately four miles north of the project site, and the I-105 runs east/west about three miles south of the project site. Both I-10 and I-105 connect with I-405 to the north and south, respectively.

The main streets carrying project-related construction traffic (both worker trips and truck trips) to the construction pits or zones would be Lincoln Boulevard (SR 1), Washington Boulevard, Venice Boulevard (SR 187), Via Marina, Pacific Avenue, and Hurricane Street adjacent to the Venice Pumping Plant.

The secondary highways, collectors and selected local streets in the project's study area offer sub-regional and local access and circulation opportunities. The physical characteristics and functional classifications for the above key streets in the project alignment area are summarized in Table 1. Existing parking supply has been included in Table 2. Lane configurations at the study intersections are illustrated in Appendix A.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections describe the peak hour traffic volumes, the methodology used to analyze the intersection operating conditions, and the resulting levels of service (LOS) for the selected study intersections under existing conditions.

Existing Traffic Volumes

Sixteen roadway segments and six intersections in the vicinity of project alignment alternatives were analyzed in the project study. New daily roadway traffic machine counts and weekday morning, weekday afternoon, and weekend midday intersection peak period traffic volumes (between 7:00 and 9:00 AM, 4:00 and 6:00 PM, and 1:00 and 5:00 PM, respectively) were conducted at the analyzed locations in February and March 2009, are included in Appendix B. Because the traffic counts used in this analysis were taken in early 2009, an adjustment factor of 1.25 was applied to the segment counts to reflect an increase in traffic during the summer. This adjustment is based on a comparison of the new weekday baseline traffic counts and those used in the draft EIR analysis, which were collected in July 2005. Additional traffic volume data collected at Washington Boulevard & Strongs Drive in May 2009 did not need to be adjusted. Existing intersection volumes are illustrated in Figure 2.

Level of Service Methodology – Intersections

Of the six study intersections, five intersections are controlled by traffic signals. The intersection of Via Marina & Bora Bora Way is a stop-controlled intersection. In accordance with City of Los Angeles Department of Transportation (LADOT) procedures, the "Critical Movement Analysis-Planning"

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

Segment	From	To	Functional Classification	Lane		Median Type	Parking Restrictions		Speed Limit
				NB/EB	SB/WB		NB/EB	SB/WB	
Speedway Ave	Fleet St	Galleon St	Local	1	n/a	UD	NPAT	NPAT	15
	Privateer St	Quarterdeck St.	Local	1	n/a	UD	NPAT	NPAT	15
	Westwind St	Yawl St	Local	1	n/a	UD	NPAT	NPAT	15
Pacific Ave	Fleet St	Galleon St	Local	1	1	SDY	NPAT	PA	30
	Privateer St	Quarterdeck St	Local	1	1	SDY	NPAT	PA	30
	Westwind St	Yawl St	Local	1	1	SDY	NPAT	PA	30
Pacific Ave	North of Convoy St		Local	1	1	UD	PA	PA	25
	63rd Ave and 64th Ave		Local	1	1	UD	PA	PA	25
Roma Court	Lighthouse Mall	Outrigger Mall	Local	1	1	UD	NPAT	NPAT	15
Via Donte	Union Jack Mall	Voyage Mall	Local	1	1	UD	NSAT	PA	15
Via Marina	East of Pacific Ave		Collector	1	1	SDY	PA	TANSAT	30
	North of Marquesas Way		Secondary	3	3	RM	NSAT	NSAT	40
	South of Tahiti Way		Secondary	2	2	RM	NPAT	NSAT	40
	North of Harbor Lane		Secondary	2	2	RM	NPAT	NSAT	40
Via Dolce	North of Marquesas Way		Secondary	2	2	2LT	PA	PA	35
	Privateer St	Quarterdeck St	Collector	1	1	SDY	PA	PA	25
Marquesas Way	Via Dolce	Via Marina	Secondary	2	2	2LT	NSAT	PA	35

Notes:

Median Type:
- DY = Double Yellow Centerline
- SDY = Single Dashed Yellow Centerline
- 2LT = Dual Left Turn Centerline
- RM = Raised Median
- UD = Undivided Lane

Speed Limit: miles per hour

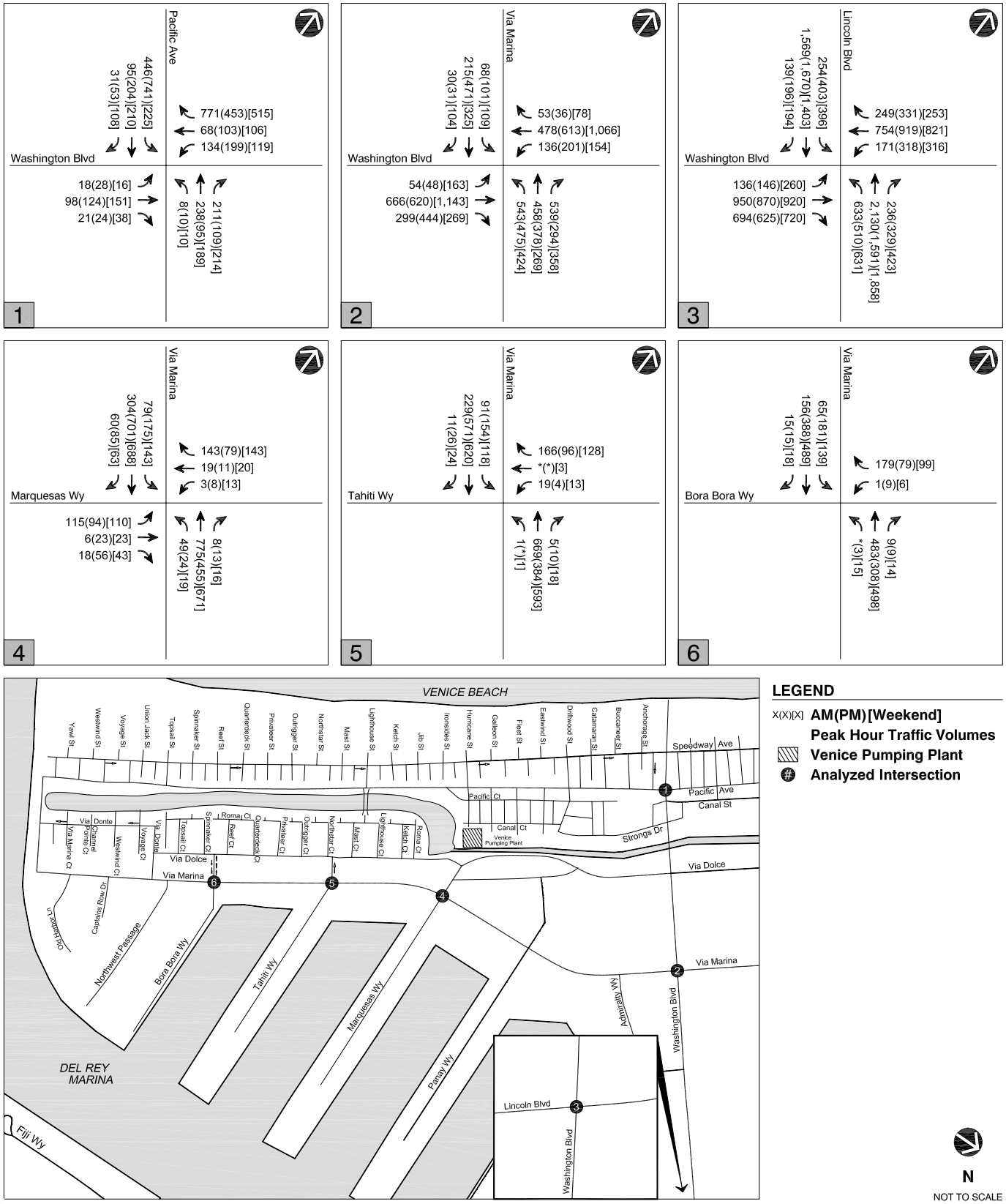
Parking:
- PA = Parking Allowed
- NPAT = No Parking Anytime
- NSAT = No Stopping Anytime
- TANSAT = Tow-Away No Stopping Anytime

Lanes: # = Number of lanes

TABLE 2
EXISTING ON-STREET PARKING SUPPLY IN STUDY AREA

Street	From	To	Approximate Distance (feet)	Number of Parking Spaces*	
				NB/EB	SB/WB
Speedway	Venice Bl North	Via Marina	--	0	0
Pacific Av	Via Marina	Westwind St	500	0	10
	Westwind St	Union Jack St	500	0	6
	Union Jack St	Reef St	740	0	21
	Reef St	Outrigger St	740	0	24
	Outrigger St	Lighthouse St	740	0	20
	Lighthouse St	Jib St	500	0	12
	Jib St	Hurricane St	500	0	17
	Hurricane St	Fleet St	500	0	10
	Fleet St	Driftwood St	500	0	13
	Driftwood St	Catamaran St	210	26	5
	Catamaran St	Washington Bl	690		
	Washington Bl	29th Av	500	70	6
	29th Av	27th Av	500		
	27th Av	25th Av	500		
	25th Av	Venice Bl South	740		
Via Dolce	Via Donte	Spinnaker Ct	500	19	11
	Spinnaker Ct	Quarterdeck Ct	500	31	8
	Quarterdeck Ct	Northstar Ct	690		
	Northstar Ct	Lighthouse Ct	500	37	11
	Lighthouse Ct	Roma Ct	370		
	Roma Ct	Marquesas Wy	630		
	Marquesas Wy	Washington Bl	1,850	61	51
Strongs Dr	Washington Bl	Anchorage St	190	7	5
	Anchorage St	Buccaneer St	225	9	7
	Bucaneer St	Catamaran St	215	9	2
	Catamaran St	Driftwood St	300	9	4
Hurricane St	Esplanade	Pacific Av	420	10	17
	Pacific Av	Ocean Front Walk	320	5	11
Washington Bl	Ocean Front Walk	Pacific Av	500	28	22
	Pacific Av	Via Dolce	780	15	13
	Via Dolce	Via Marina	900	20	18
Via Marina	Washington Bl	Channel Walk	--	0	0
	Channel Walk	Pacific Av	800	60	0
Marquesas Way	Via Dolce	Via Marina	350	0	10

Note:
*Where parking stalls were not marked, the number of parking spaces was estimated by measuring the distance and dividing by 22.5 feet per space.



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EXISTING PEAK HOUR TRAFFIC VOLUMES

FIGURE 2

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(Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume-to-capacity (V/C) ratio and corresponding LOS for the turning movements and intersection characteristics at the five signalized study intersections. The Computer Assisted Level of Service Calculations and Database (CALCADB) software developed by LADOT was used to implement the Critical Movement Analysis (CMA) methodology. In accordance with LADOT practices, a 7% increase in capacity was assumed on major and secondary street segments to reflect the benefits of the existing Automated Traffic Surveillance and Control (ATSAC) system. The ranges of V/C ratios and corresponding LOS for signalized intersections are included in Table 3. The "Two-Way Stop Controlled" methodology from the 2000 Highway Capacity Manual was used to determine the average vehicle delay (in seconds) and the corresponding LOS for the stop-controlled study intersection. The LOS definitions for the stop-controlled intersections are included in Table 4. Detailed assessment of the existing operating conditions at the six intersections, including the V/C ratio or delay (in seconds) and corresponding LOS at each of the study intersections during the morning and afternoon peak hour can be found in Table 5.

Level of Service Methodology – Street Segments

The V/C ratio and corresponding LOS of each segment was calculated. A capacity of 750 vehicles per lane per hour (vplph) for Secondary Arterials, 650 vplph for Collectors, 600 vplph for Local Streets was used in this analysis. The ranges of V/C ratios and corresponding LOS for signalized intersections are included in Table 6. Detailed assessment of the existing operating conditions at these 16 roadway segments and the LOS definitions for roadway segments are included in Table 7.

Existing Levels of Service – Intersections

Two (Lincoln Boulevard & Washington Boulevard and Via Marina & Washington) of the six analyzed intersections are not currently operating at acceptable levels of service (LOS D or better) during all three peak periods, as shown in Table 6. Detailed LOS calculations are provided in Appendix C.

Existing Levels of Service – Street Segments

Each of the 16 analyzed directional street segments in the project study area is currently operating acceptably during the morning, afternoon, and Sunday peak hours, as shown in Table 7.

EXISTING PUBLIC TRANSIT SERVICE

Public transit services operating in the Marina del Rey area include the Los Angeles County Metropolitan Transportation Authority (Metro) system, Los Angeles Department of Transportation Commuter Express (CE), Culver City Bus, and the Santa Monica City Big Blue Bus. The existing transit system in the vicinity of the project area is depicted in Figure 3. Bus routes and their frequencies during the weekday morning (7:00 – 9:00 AM), weekday afternoon (4:00 – 6:00 PM), and weekend midday (1:00 – 5:00 PM) peak periods are detailed as follows:

- Metro Line 108/358 – This line is a local east/west line that travels from Pico Rivera to Marina del Rey. Limited-stop Line 358 travels during the peak hours. These lines run primarily along Slauson Avenue and serve the Metro Blue Line Slauson Station and the Westfield Shoppingtown Fox Hills Transit Center. In the vicinity of the proposed project, they travel along Admiralty Way, Via Marina, Pacific Avenue, and Washington Boulevard. Both lines have stops on Via Marina and Pacific Avenue adjacent to the project area. These lines have an average AM and PM peak hour headway of 25 minutes and a Sunday midday headway of 60 minutes.

- LADOT Commuter Express 437 – This LADOT commuter express line serves the communities of Venice, Marina del Rey, Mar Vista, and Culver City and travels along Santa Monica Freeway

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	VOLUME/CAPACITY RATIO (V/C)	DEFINITION
A	$\leq$ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	> 0.600 $\leq$ 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 0.700 $\leq$ 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 0.800 $\leq$ 0.900	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	> 0.900 $\leq$ 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	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.

Source: Transportation Research Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, 1980.

TABLE 4
LEVEL OF SERVICE DEFINITIONS FOR STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: Transportation Research Board, *Highway Capacity Manual, 2000*

TABLE 5
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Existing (2009) V/C or Delay	Existing (2009) LOS
*1. Pacific Avenue & Washington Boulevard	**AM**	0.614	B
	PM	0.76	C
	WKND	0.501	A
*2. Via Marina & Washington Boulevard	**AM**	0.779	C
	PM	0.878	D
	WKND	0.962	E
*3. Lincoln Boulevard & Washington Boulevard	**AM**	0.989	E
	PM	1.000	E
	WKND	1.072	F
*4. Via Marina & Marquesas Way	**AM**	0.299	A
	PM	0.236	A
	WKND	0.317	A
*5. Via Marina & Tahiti Way	**AM**	0.297	A
	PM	0.198	A
	WKND	0.269	A
6. Via Marina & Bora Bora Way [a]	**AM**	2.8	A
	PM	2.5	A
	WKND	2.0	A
[worst approach only]	**AM**	11.2	B
[worst approach only]	**PM**	10.9	B
[worst approach only]	**WKND**	11.6	B

Notes:

* Intersection is currently operating under ATSAC & ATCS control

[a] Intersection is minor approach stop controlled. Average vehicular delay in seconds per vehicle is reported for the intersection on a whole and for the minor approach.

TABLE 6
ROADWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE	DEFINITION	DESCRIPTION
A	V/C $\leq$ 0.6	Describes primarily free flow operations at average travel speeds usually about 90% of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	0.6 < V/C $\leq$ 0.7	Represents reasonably unimpeded operations at average travel speeds usually about 70% of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome.
C	0.7 < V/C $\leq$ 0.8	Represents stable operations, however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50% of the average free flow speed for the arterial class.
D	0.8 < V/C $\leq$ 0.9	Borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40% of free flow speed.
E	0.9 < V/C $\leq$ 1.0	Is characterized by significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
F	V/C > 1.0	Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.

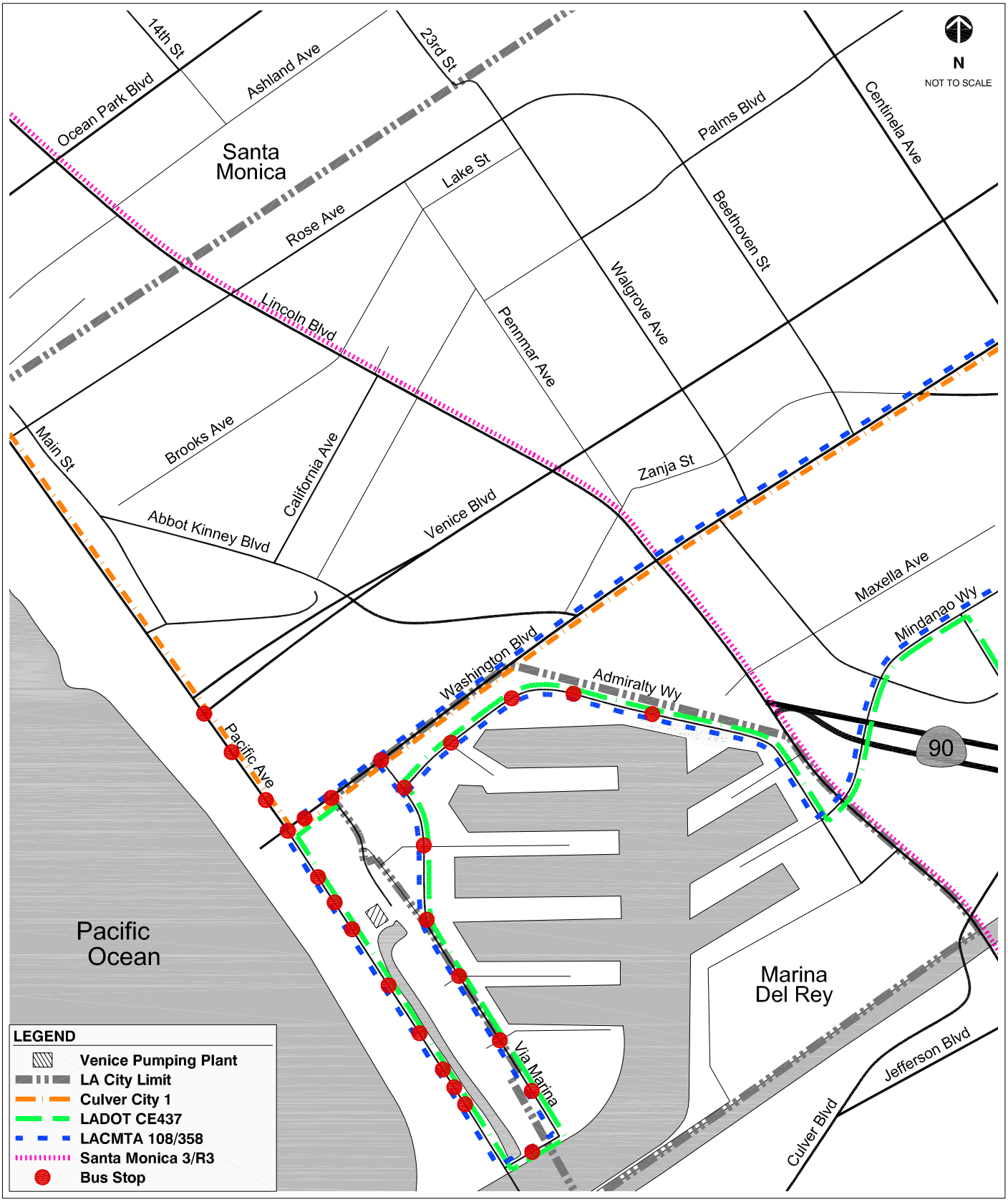
Source: Urban and Suburban Arterials", Highway Capacity Manual, Transportation Research Board (1985).

TABLE 7
EXISTING STUDY ROADWAY SEGMENT VOLUMES AND LEVELS OF SERVICE

				EXISTING (2009) PEAK HOUR TRAFFIC VOLUMES						EXISTING ROADWAY CAPACITY					EXISTING ROADWAY PEAK HOUR LEVEL OF SERVICE											
				NB/WB			SB/EB				NB/WB		SB/EB		NB/EB						SB/EB					
															AM		PM		WKND		AM		PM		WKND	
Segment #	Location	From	To	AM	PM	WKND	AM	PM	WKND	Roadway Class.	No. of Lanes	Capacity	No. of Lanes	Capacity	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
1	Speedway Av	Fleet St	Galleon St	40	53	146	-	-	-	L	1	600	-	-	0.067	A	0.088	A	0.243	A	-	-	-	-	-	-
2	Speedway Av	Privateer St	Quarterdeck St	26	36	69	-	-	-	L	1	600	-	-	0.043	A	0.060	A	0.115	A	-	-	-	-	-	-
3	Speedway Av	Westwind St	Yawl St	23	31	59	-	-	-	L	1	600	-	-	0.038	A	0.052	A	0.098	A	-	-	-	-	-	-
4	Pacific Av	Fleet St	Galleon St	294	178	246	170	310	404	S	1	750	1	750	0.392	A	0.237	A	0.328	A	0.227	A	0.413	A	0.539	A
5	Pacific Av	Privateer St	Quarterdeck St	179	135	260	124	191	329	S	1	750	1	750	0.239	A	0.180	A	0.347	A	0.165	A	0.255	A	0.439	A
6	Pacific Av	Westwind St	Yawl St	139	163	288	103	174	298	S	1	750	1	750	0.185	A	0.217	A	0.384	A	0.137	A	0.232	A	0.397	A
7	Roma Court	Lighthouse Mall	Outrigger Mall	21	30	31	16	24	45	L	1	600	1	600	0.035	A	0.050	A	0.052	A	0.027	A	0.040	A	0.075	A
8	Via Donte	Voyage Mall	Westwind Mall	19	11	38	44	34	39	L	1	600	1	600	0.032	A	0.018	A	0.063	A	0.073	A	0.057	A	0.065	A
9	Via Marina	East of Pacific Av		154	131	220	90	140	230	C	1	650	1	650	0.237	A	0.202	A	0.338	A	0.138	A	0.215	A	0.354	A
10	Via Dolce	North of Marquesas Wy		233	141	114	90	225	146	S	2	1,500	2	1,500	0.155	A	0.094	A	0.076	A	0.060	A	0.150	A	0.097	A
11	Via Dolce	Privateer St	Quarterdeck St	94	64	75	49	78	55	C	1	650	1	650	0.145	A	0.098	A	0.115	A	0.075	A	0.120	A	0.085	A
12	Marquesas Way	Via Dolce	Via Marina	125	121	129	133	149	135	S	2	1,500	2	1,500	0.083	A	0.081	A	0.086	A	0.089	A	0.099	A	0.090	A
13	Via Marina	North of Marquesas Wy		965	570	760	429	921	840	S	3	2,250	3	2,250	0.429	A	0.253	A	0.338	A	0.191	A	0.409	A	0.373	A
14	Via Marina	South of Marquesas Wy		821	504	629	419	709	729	S	2	1,500	2	1,500	0.547	A	0.336	A	0.419	A	0.279	A	0.473	A	0.486	A
15	Via Marina	South of Tahiti Wy		685	384	506	236	565	543	S	2	1,500	2	1,500	0.457	A	0.256	A	0.337	A	0.157	A	0.377	A	0.362	A
16	Via Marina	North of Harbor Ln		216	210	309	99	200	230	S	2	1,500	2	1,500	0.144	A	0.140	A	0.206	A	0.066	A	0.133	A	0.153	A

Note: Adjustment factor of 1.25 was applied to existing counts in order to account for seasonal fluctuation in traffic. Counts were taken in February and March 2009 and were scaled to reflect summer season volumes

S = Secondary
C = Collector
L = Local



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EXISTING TRANSIT LINES

FIGURE 3

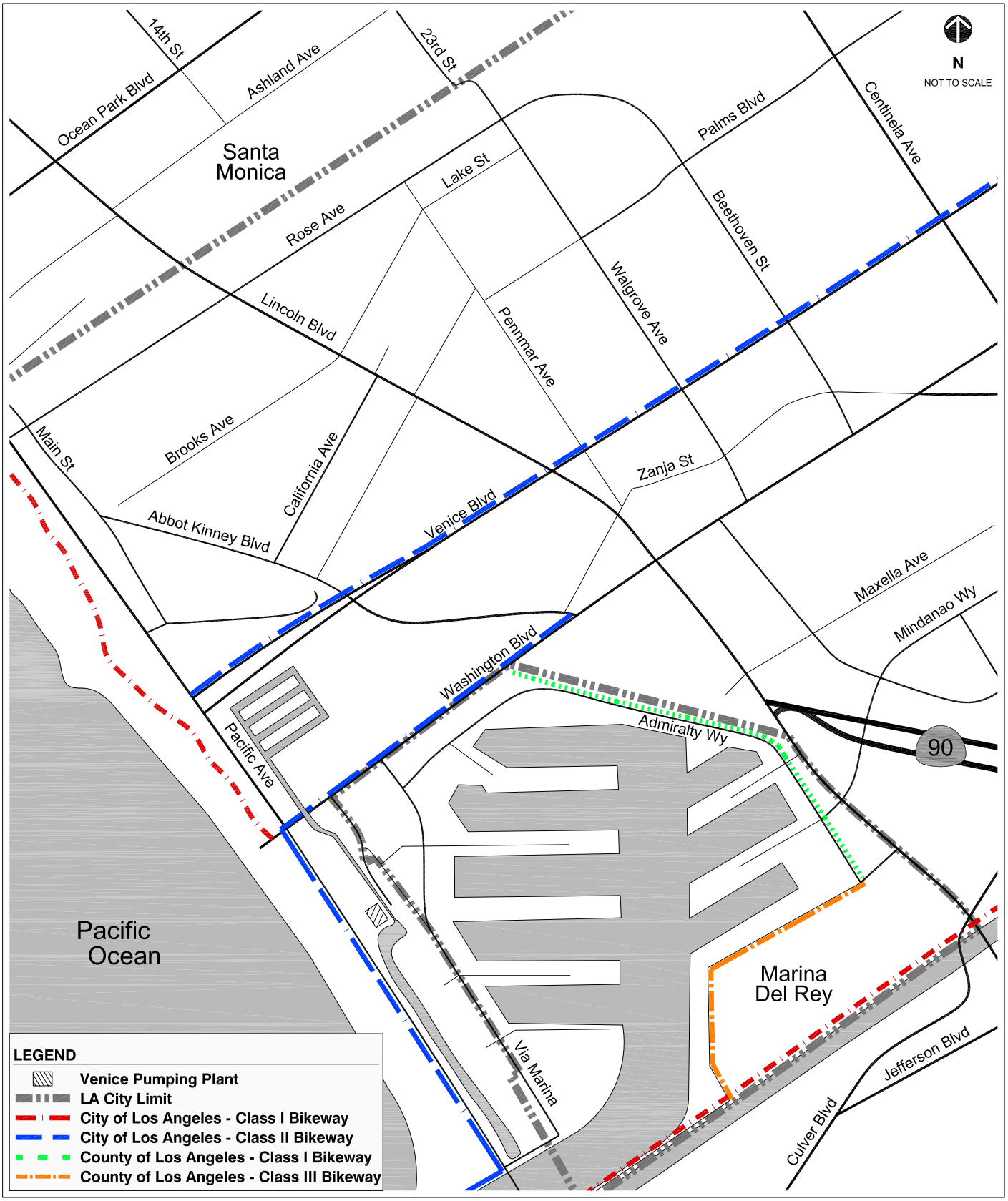
(I-10) to connect them with downtown Los Angeles. In the vicinity of the project, this line travels along Admiralty Way and Via Marina and terminates at Pacific Avenue and Washington Boulevard. This line provides average AM and PM peak hour headways of approximately 30 minutes.

- Culver City Line 1 – This Culver City Bus line travels primarily along Washington Boulevard and Pacific Avenue, and connects the Venice Beach area, Culver City area, and West LA Transit Center. In the vicinity of the project, this line has stops at Washington Boulevard and Pacific Avenue, with 15-minute headways throughout the day.

- Santa Monica Big Blue Bus Line 3/Rapid 3 – These lines travel primarily along Lincoln Boulevard and connect Santa Monica, Marina del Rey and the Los Angeles International Airport. Line 3 provides a 10-minute headway throughout the day and Rapid 3 provides additional limited-stop service during peak hours.

NON-MOTORIZED TRANSPORTATION

Biking and walking are non-motorized transportation modes that typically serve shorter trips than do motorized travel modes. In the Venice Pumping Plant area, bikeways facilitate and encourage this mode of non-motorized transportation. Class I bikeways are separate off-street paths, Class II bikeways are striped lanes within streets, and Class III bikeways are signed bicycle routes. The existing bicycle network in the vicinity of the project area is depicted in Figure 4. Pedestrian access at and near public transit, in local commercial and residential areas is facilitated by sidewalks, which are present on most streets, with the exception of Speedway and other alleys as well as portions of Pacific Avenue.



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EXISTING BIKEWAYS

FIGURE 4

3. FUTURE TRAFFIC CONDITIONS

To evaluate the potential impacts of the proposed project on the surrounding street system, it was necessary to develop estimates of future traffic conditions in the area both without and with the proposed project's traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the project (related projects). These projected traffic volumes, identified herein as the cumulative base conditions, represent the future study year conditions without the proposed project. The traffic generated by the proposed project was then estimated and assigned to the surrounding street system. The project traffic was added to the cumulative base to form the cumulative plus project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the project itself. For the scenario that requires the full closure of Pacific Avenue, traffic was shifted in order to account for the closure.

The assumptions and analysis methodology used to develop each of the future traffic scenarios discussed above are described in more detail in the following sections.

CUMULATIVE BASE TRAFFIC PROJECTIONS

The cumulative base traffic projections reflect growth in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects within, or in the vicinity of, the study area. These factors are described below.

Future cumulative conditions during construction were evaluated for all street segments where in-street construction activities associated with project alignment alternatives analyzed could result in temporary lane closures. These locations lie along the alignments under consideration for each of the two construction methods (micro-tunneling and open trench). Although the project would occur in several stages, it has been assumed that construction specified at all sites could be performed at any given time between the start and the end of construction (2009 – 2011). Therefore, to be conservative, all roadway segments and intersections in the vicinity of Venice Pumping Plant project were evaluated for the future year 2011, which corresponds to the Draft EIR construction timeframe.

Areawide Traffic Growth

Consistent with the Memorandum of Understanding that was developed with LADOT for the draft EIR, traffic volumes in the vicinity of the study area are assumed to increase at a rate of 1% per year. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate, at least through the year 2011. With the assumed completion date of 2011, the existing 2009 traffic volumes were adjusted upward by 2% to reflect areawide regional growth.

Traffic Generation of Cumulative Development Projects

Traffic expected to be generated by specific development projects within, or with the potential to affect, the study area was considered in addition to the ambient area wide traffic growth. For this study, cumulative development projects were identified by LADOT and the Los Angeles County Department of Public Works.

Trip generation estimates were prepared for the cumulative projects using standard trip generation rates from *Trip Generation, 7th Edition* (Institute of Transportation Engineers, 2003), relevant traffic studies and/or environmental impact reports for specific projects, and from information provided by LA County staff. Construction trips were used in place of standard trip generation estimates for projects that would

be construction during the time of construction for this project. The list of related projects included in this analysis, including trip generation estimates for each, is included in Table 8 and has been depicted in Figure 5. These estimates are conservative, in that they may not in every case account for existing uses to be removed by the cumulative development projects.

Cumulative Development Project Traffic Distribution

The geographic distribution of traffic generated by developments, such as those included in the list of cumulative projects, depends on several factors. These factors include the type and density of the proposed land use, the geographic distribution of the population from which employees and potential patrons of proposed commercial developments may be drawn, the geographic distribution of employment and activity centers to which residents of proposed residential developments may be drawn, the location of the project in relation to the surrounding street system and the extent of the roadway network (e.g., its continuity).

Baseline Street System Improvements

Several key roadway improvements in or near the study area are planned to occur but their precise construction schedules are not yet known. Construction of these improvements, whether the result of local or regional Capital Improvement Programs or as mitigation for ongoing or entitled related projects, could result in additional delay during their construction at various locations throughout the study area. The street network improvements listed below, however, are assumed to be completed after the conclusion of the construction phase of the Venice Dual Force Main project:

- The transition of Admiralty and Via Marina to provide those traveling along Admiralty Way onto Via Marina with the right-of-way
- The widening of Admiralty Way between Palawan Way and Fiji Way
- The conversion of Washington Boulevard and Palawan Way to a signalized intersection

Cumulative Base Traffic Volumes

Using the trip generation estimates and trip distribution patterns developed for this study, the resulting future year 2011 cumulative base traffic volumes are shown in Figure 6 for the analyzed peak hours.

PROJECT TRAFFIC PROJECTIONS

The traffic projections for the proposed project were developed using three steps: estimating the trip generation of the project, determining trip distribution, and assigning the project traffic to the roadway system based on assumptions made about construction methods.

Construction Assumptions

Trip generation estimates prepared for each project alignment alternative and construction method were based upon projected staffing and truck activity levels provided by the City of Los Angeles. Future traffic conditions on these roadway segments prior to construction of the project alignment alternatives, and the changes related to construction activities (additional vehicular traffic and reduction of roadway capacity due to the project, if any), at each of the worksites were evaluated to identify adverse impacts. This traffic analysis represents a worst-case scenario in that it considers the upper bounds of impacts likely to be experienced on the street system in the immediate vicinity of each site where in-street construction activities could result in temporary lane closures and temporary loss of on-street parking.

TABLE 8
CUMULATIVE DEVELOPMENT PROJECTS TRIP GENERATION ESTIMATES

Map #	Location	Size	Unit	Description	Daily	Weekend Daily	AM			PM			WKND		
							In	Out	Total	In	Out	Total	In	Out	Total
1	1332 Ocean Park Blvd	8	du	Condominium	47	39	1	3	4	3	1	4	2	2	4
2	525 Marine St	4	du	Condominium	23	19	0	2	2	1	1	2	1	1	2
3	521 Marine St	4	du	Condominium	23	19	0	2	2	1	1	2	1	1	2
4	100 Sunset Av	225	du	Condominium	1,319	1,089	17	82	99	106	52	158	49	52	101
5	901 Abbott Kinney Bl	57	rm	Hotel	757	339	19	11	30	33	24	57	15	17	32
		1,200	sf	Specialty Restaurant		87							5	5	10
		4,300	sf	Restaurant		567							43	36	79
6	115 Lincoln Bl	8,800	sf	Shopping Center (addition)	378	222	5	4	9	61	67	128	13	14	27
7	1400 Lincoln Bl (assumed 50% complete)	280	du	Apartment	12,139	1,641	169	203	372	618	601	1,219	72	71	143
		188,600	sf	Shopping Center		4,760							288	300	588
8	841 California Av	420	st	Charter High School	718	0	119	53	172	28	31	59	0	0	0
9	2005 Lincoln Bl	6	p	Service Station w/ Convenience Store [a]	977	N/A	30	30	60	11	11	22	11	11	22
10	2100 Abbott Kinney Bl	15,180	sf	Office	167	15	21	3	24	7	36	43	1	1	2
11	330 W. Washington Bl	123	du	Apartment	827	721	13	50	63	56	30	86	32	31	63
12	S/s Washington Bl btw. Via Marina/Via Dolce	72	du	Apartment	1,360	422	23	42	65	77	58	135	19	18	37
	(Parcel 95)	368	st	Restaurant		1,903							131	108	239
		16,352	sf	Retail		413							25	26	51
		7,888	sf	Office		8							1	0	1
		-9,180	sf	Office (to be removed)		-9							-1	0	-1
		-165	st	Restaurant (to be removed)		-853							-59	-48	-107
13	514-586 Washington Bl btw. Via	6,236	sf	Specialty Retail [b]	18	127	1	0	1	1	1	2	1	1	2
	Marina/Palawan Wy	-5,750	sf	Specialty Retail [b]		-117									
14	S/s Admiralty Wy, E/s Via Marina (Parcel IR)	147	rm	Hotel	1,201	875	50	32	82	23	29	52	38	44	82
15	NWC Admiralty Wy/Palawan Wy (Parcel 140)	179	du	Apartment	417	1,049	7	33	40	22	15	37	46	45	91
		-64	du	Apartment (to be removed)		-375							-17	-16	-33
16	SWC Admiralty Wy & Palawan Wy (Parcel 27)	111	rm	Hotel	564	660	23	15	38	11	13	24	29	33	62
		-42	rm	Hotel (to be removed)		-250							-11	-13	-24
17*	E/o Palawan Wy btw Washington Bl/Admiralty	114	du	Congregate Care Retirement Facility	430	0	27	27	54	27	27	54	0	0	0
	Wy (Parcel OT); N/s Panay Wy, E/o Via Marina	5,000	sf	Retail											
	(Parcel 21)	6,000	sf	Marine Commercial Office											
		-6,000	sf	Health Club (to be removed)											
18*	E/o Via Marina & S/o Panay Wy (Parcels 10R,	526	du	Apartment	658	0	41	41	82	41	41	82	0	0	0
	FF, 9U)	288	rm	Hotel											
		174	sl	Boat Slip											
		1.46	ac	Public Park											
		-136	du	Apartment (to be removed)											
		-184	sl	Boat Slip (to be removed)											
19	4333 Admiralty Wy	600	du	Condominium	3,516	2,904	45	219	264	134	62	196	132	138	270
20	512 Rose Av [c]	50	du	Condominium	1,020	242	11	23	34	57	39	96	48	48	96
		6,290	sf	Specialty Retail [b]											
		4,985	sf	Restaurant											
21	S/s Admiralty Wy, E/s Palawan Wy (Parcel	351	du	Apartment	1,145	2,057	40	144	184	-10	32	22	90	89	179
	33/NR)	24,300	sf	Retail		613							37	39	76
		266	st	Restaurant		1,375							95	78	173
		-1,067	st	Restaurant (to be removed)		-5,516							-382	-312	-694
22*	W/s Via Marina (Parcels 100, 101)	544	du	Apartment	500	0	31	31	62	31	31	62	0	0	0
		-202	du	Apartment (to be removed)											
23*	E/s Via Marina btw Panay Wy/Marquesas Wy	940	du	Apartment	500	0	31	31	62	31	31	62	0	0	0
	(Parcels 12, 15)	82	du	Senior Apartment											
		4,000	sf	Specialty Retail											
		6,000	sf	Commercial											
		439	sl	Boat Slip											
24	4500 Via Marina	120	du	Apartment (expansion)	806	703	12	49	61	27	12	39	31	30	61
25	Southern terminus of Fiji Wy (Parcel 64)	478	du	Multi-family Residential	1,106	2,801	17	76	93	58	30	88	122	122	244
		500	sf	Restaurant		66							5	4	9
		34	sl	Boat Slip		218							7	4	11
		-224	du	Apartment (to be removed)		-1,313							-57	-57	-114
26	W/o Fiji Wy near terminus Fisherman's Village	132	rm	Hotel	2,375	785	41	57	98	114	95	209	34	40	74
	(Parcels 55, 56, W)	1,230	st	Restaurant		6,359							440	360	800
		24,250	sf	Retail		612							37	39	76
		5,200	sf	Office		5							1	0	1
		26	sl	Boat Slip		166							5	3	8
		-12,984	sf	Retail (to be removed)		-328							-20	-21	-41
		-16,149	sf	Restaurant (to be removed)		-2,129							-164	-134	-298
		-17	sl	Boat Slip (to be removed)		-109							-3	-2	-5
27	W/o Lincoln Bl N/o Fiji Wy (Parcels 50, 83)	4,700	sf	Specialty Retail [b]	208	96	4	2	6	9	12	21	11	10	21
28	4363 Lincoln Blvd [c]	158	du	Condominium	386	579	0	47	47	53	18	71	36	35	71
		3,178	sf	Specialty Retail											
		-48,000	sf	Car Rental Facility (to be removed)											
29	E/o Lincoln Bl btw SR-90 & Maxella Av	244	du	Condominium	903	1,181	11	84	95	73	10	83	54	56	110
		9,000	sf	Shopping Center		227							14	14	28
		-21,038	sf	Shopping Center (to be removed)		-531							-32	-34	-66
30	NWC Princeton Dr/Carter Av	298	du	Apartment	860	1,746	-70	103	33	47	-79	-32	76	76	152
		-24,000	sf	Light Manufacturing (to be removed)		-16							-1	-1	-2
		-21,600	sf	Office (to be removed)		-21							-2	-1	-3
		-40,000	sf	Auto Service/Repair (to be removed)		-104							-121	-143	-264
31	4004 S. Lincoln Blvd	98	du	Condominium	841	474	11	39	50	59	40	99	22	22	44
		6,020	sf	Specialty Retail											
32	13400 W. Washington Bl	4,300	sf	Walk-in Bank	673	36	10	8	18	36	36	72	4	4	8
33	13340 Washington Bl	41	du	Condominium	240	198	3	15	18	19	10	29	9	9	18
34	13365 Washington Bl	5,000	sf	Specialty Retail [b]	333	102	5	9	14	13	11	24	12	12	24
		19	du	Condominium		92							4	5	9
35	13322 Washington Bl	4,257	sf	Specialty Retail [b]	189	87	3	2	5	9	12	21	11	10	21
36	4055, 4063, 4071 S. Redwood Av	140	du	Condominium	820	678	11	51	62	65	33	98	31	32	63
37	4155 Redwood Av	118	du	Condominium	691	571	9	43	52	56	27	83	26	27	53
38	N/s Fiji Wy, W/o Admiralty Wy (Parcel 52/GG) [d	345	vessel	Dry Stack Storage Facility	1,081	1,622	16	31	47	18	33	51	51	51	102
		30	vessel	Mast Up Storage Space											
		1,500	sf	Sheriff Boatwright Facility											

Source: Los Angeles Department of Transportation, November 2008.

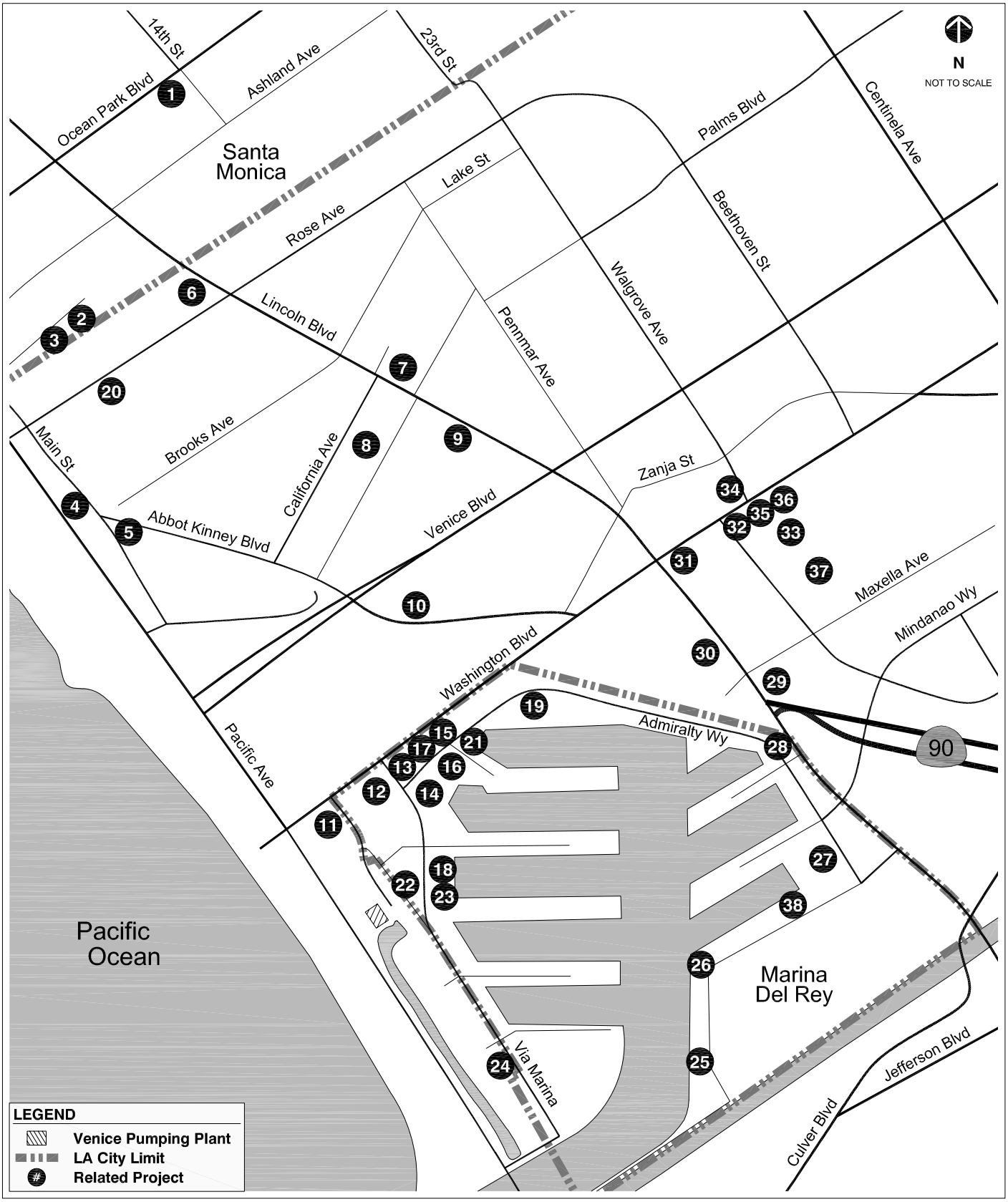
* Project will be constructed during Venice Dual Force Main construction. Daily construction truck trips were provided by LA County in February 2009. A Passenger Car Equivalent (PCE) factor of 2.5 was applied to truck trips and divided over an assumed 8-hour work day to determine number of peak hour trips

[a] Weekend Daily trips were assumed to be approximately 1.5 of Weekday Daily trips. Weekend peak hour trips were assumed to be the same as PM peak hour trips with a 50% directional split

[b] Weekend peak hour trips were assumed to be the same as PM peak hour trips with a 50% directional split

[c] Weekend Daily trips were assumed to be approximately 1.5 of Weekday Daily trips. Weekend peak hour trips were assumed to be the same as PM peak hour trips with a 50% directional split

[d] Weekend Daily trips were assumed to be approximately 1.5 of Weekday Daily trips. Weekend peak hour trips were assumed to be 2 times the PM peak hour trips



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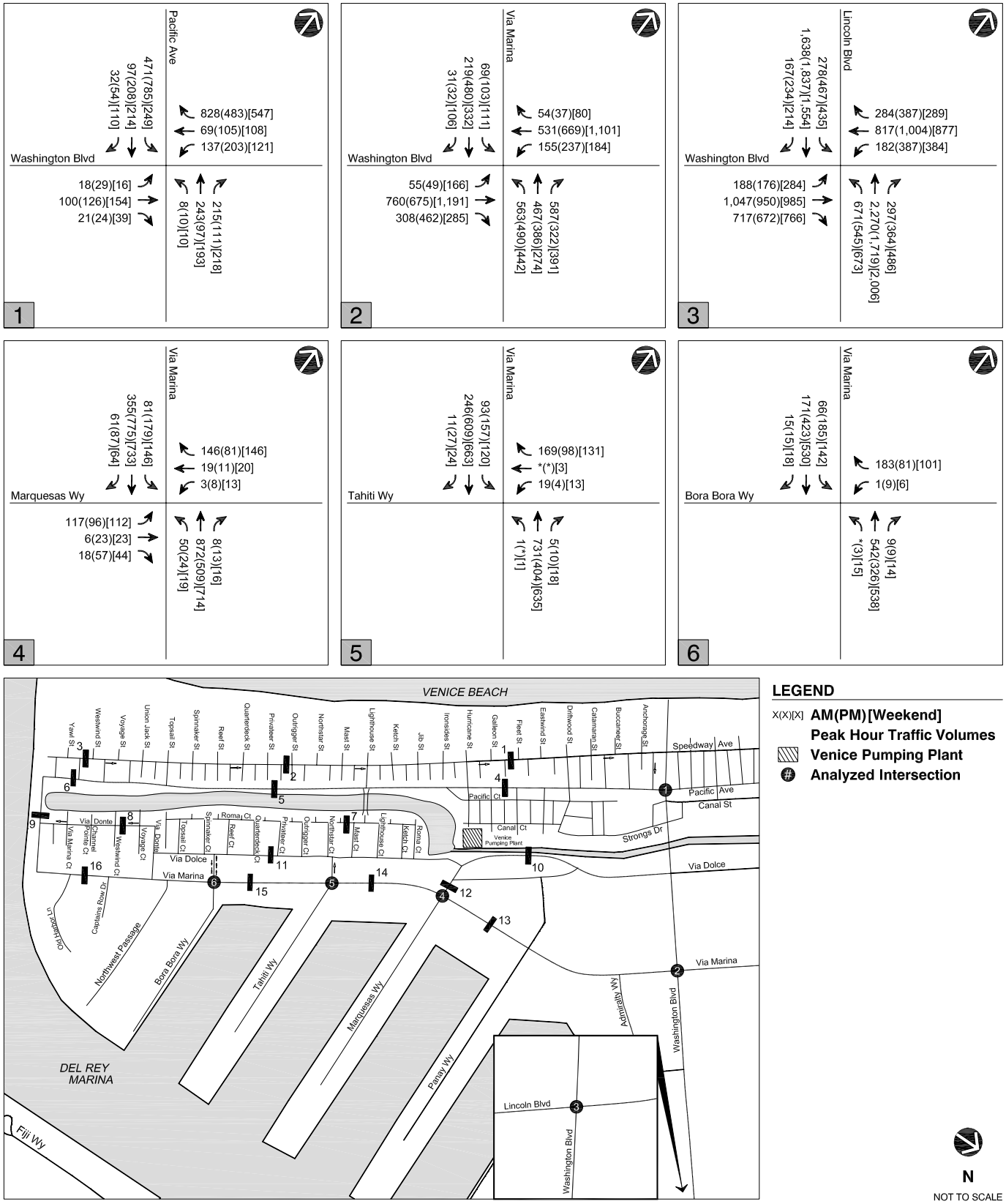
LOCATION OF CUMULATIVE DEVELOPMENT PROJECTS

FIGURE 5



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CUMULATIVE BASE PEAK HOUR TRAFFIC VOLUMES

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FIGURE 6

Via Marina Alignment Assumptions

For the alternatives along Via Marina, it was assumed that construction would require the closure of multiple lanes in both directions south of Marquesas Way. These alternatives were analyzed with only one lane in each direction for both construction methods. Under Alternatives 1A and 1B, the capacity of the analyzed intersections along Via Marina south of Panay Way and adjacent to the project site would be reduced to the lane configurations shown in Appendix A. Via Marina & Marquesas Way would be temporarily reconfigured with the northbound approach using one shared left/through/right lane, the southbound approach using one shared through/left lane and one right-turn lane, the eastbound approach using one shared left/through/right lane, and the westbound approach using one shared through/left lane and one right-turn lane. Via Marina & Tahiti Way would be temporarily reconfigured with the northbound approach using one shared left/through/right lane, the southbound approach using one shared left/through/right lane, and the westbound approach using one shared through/left lane and one right-turn lane. Via Marina & Bora Bora Way would be temporarily reconfigured with the northbound approach using one shared left/through/right lane, the southbound approach using one shared left/through/right lane, and the westbound approach using one shared left/right lane.

Pacific Avenue Alignment Assumptions

In the alternatives along Pacific Avenue that do not require full street closure, it was assumed that construction would require the closure of one of the two lanes. Using the micro-tunneling method, Pacific Avenue would be reduced to one lane along the pit area and remain two lanes where there are no pits. Using the open-trench method, Pacific Avenue would have only one lane open for approximately 1,000 feet at a time. It was assumed that two-way travel along Pacific Avenue would remain available with the use of appropriate traffic control measures (flag person or temporary signal) in the areas along the street that would be reduced to one lane. If two-way travel along Pacific Avenue were found to be infeasible when a detailed transportation management plan is prepared for the project, it is assumed that Pacific Avenue would be restricted to one-way travel southbound. In this case, most vehicles (not including school buses or transit buses) would be able to use Speedway as a detour route to travel northbound. Alternatively, school buses traveling to the charter school on Pacific Avenue south of Washington Boulevard could be routed from westbound Washington Boulevard to southbound Strongs Drive to westbound Driftwood Street to northbound Pacific Avenue to reach the existing student loading zone.

In the scenario that assumes that a full closure at Pacific Avenue & Hurricane Street and Pacific Avenue & Via Marina would be required for construction, traffic was rerouted to reflect its affect on the surrounding street segments. During construction, Pacific Avenue & Hurricane Street would be fully closed during Phase 2D and Pacific Avenue & Via Marina would be fully closed during Phases 2B & 2A (Figure 7). There would be no time during construction in which both areas would be fully closed simultaneously. For the purposes of this analysis, a full closure at Pacific Avenue & Hurricane Street was evaluated because it was the more intense closure of the two intersections; that is, existing volumes are higher there. Traffic was rerouted along Speedway (for vehicles intending to travel northbound on Pacific Avenue at Hurricane Street) and Via Marina (for vehicles intending to travel southbound on Pacific Avenue at Hurricane Street).With a full closure anywhere along Pacific Avenue, buses would be unable to travel along Pacific Avenue and would not be able to use Speedway as an alternate route. In this case, the City may consider the use of a smaller shuttle to take transit patrons from this area to the nearest accessible bus stop during the construction period. In addition, under the full closure scenarios, Strongs Drive would need to be temporarily configured of southbound only traffic between Washington Boulevard and Driftwood Street to accommodate school bus circulation.

Venice Beach Alignment Assumptions

No lane closures were evaluated for the Venice Beach Alignments since no construction would take place on public streets, with the exception of the area near Pacific Avenue & Hurricane Street. It was therefore

assumed that the analysis performed for the full closure at Pacific Avenue & Hurricane Street along the Pacific Alignment would provide the same results as a closure in the same location for the Venice Beach Alignment.

Micro-Tunneling Construction Method Assumptions

The traffic analysis assumes that each construction site would be occupied continuously from the time the pit is dug to the time that the pit is abandoned (i.e., assume that traffic lanes will not be re-opened during periods when the site may be inactive). Jacking sites would be at least 30 feet wide (to accommodate a pit with a minimum dimension of 20 feet and room for equipment movement) and an area of 10,000–12,000 square feet. Receiving sites would be at least 25 feet wide (to accommodate a pit with a minimum dimension of 15 feet and room for equipment movement) and an area of 5,000 square feet. At any given time, two jacking sites and one receiving site would be used simultaneously. The phases that have been assumed are depicted in Figure 7.

Open-Trench Construction Method Assumptions

The development of traffic generation estimates for the proposed project involves the use of a three-step process similar to that discussed above for the cumulative projects, including traffic generation, trip distribution, and traffic assignment. It was assumed that approximately 40 to 50 feet of cut-and-cover section would be excavated per day with a maximum depth of 12 feet and a maximum width of eight feet. The City's Wastewater Master Specifications (Section 02200 Earthwork, 3.3.C) states "the maximum amount of open trench permitted in any one location shall be 500 feet or the length necessary to accommodate the amount of pipe installed in a single day, whichever is greater." The construction zone for the proposed project would include approximately 1,000 feet of roadway during the three-week cycle, as it is more feasible and cost effective to schedule asphalt paving every three weeks rather than every week. The construction zone would also be fully backfilled at the end of each day or be covered by heavy steel plates adequately braced and capable of supporting vehicular traffic in those locations, as required by the Waste Water Specifications.

Traffic impacts associated with the three alignments and the two methods of construction were evaluated.

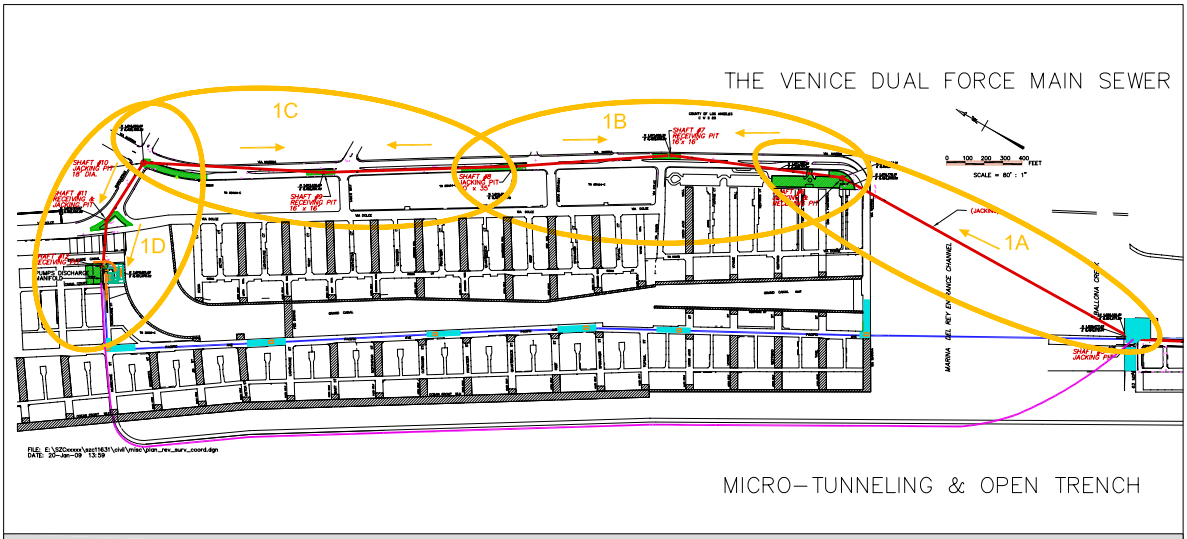
Project Trip Generation

As shown in Table 9, the total number of construction workers required for both techniques during each construction section was derived based information provided by the City of Los Angeles in the TOS.

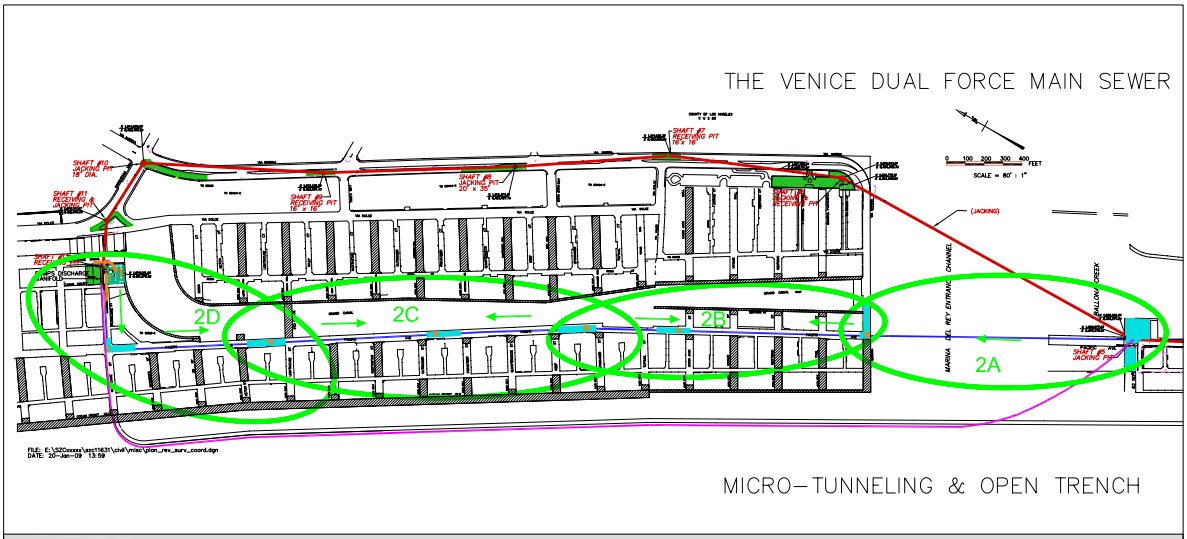
Micro-Tunneling Construction Method

As indicated, the peak estimate for daily commute workers due to the proposed project is approximately 67 construction workers for the micro-tunneling method. With the moderate construction progress of 40 feet per day, the required number of truckloads (for delivery of materials and supplies and for much removal) was estimated at 38 truckloads per day. The 76 daily one-way truck trips were then converted with a passenger car equivalent (PCE) of 2.5 to 190 vehicle trips since trucks create a greater impact on the traffic operations than typical automobiles.

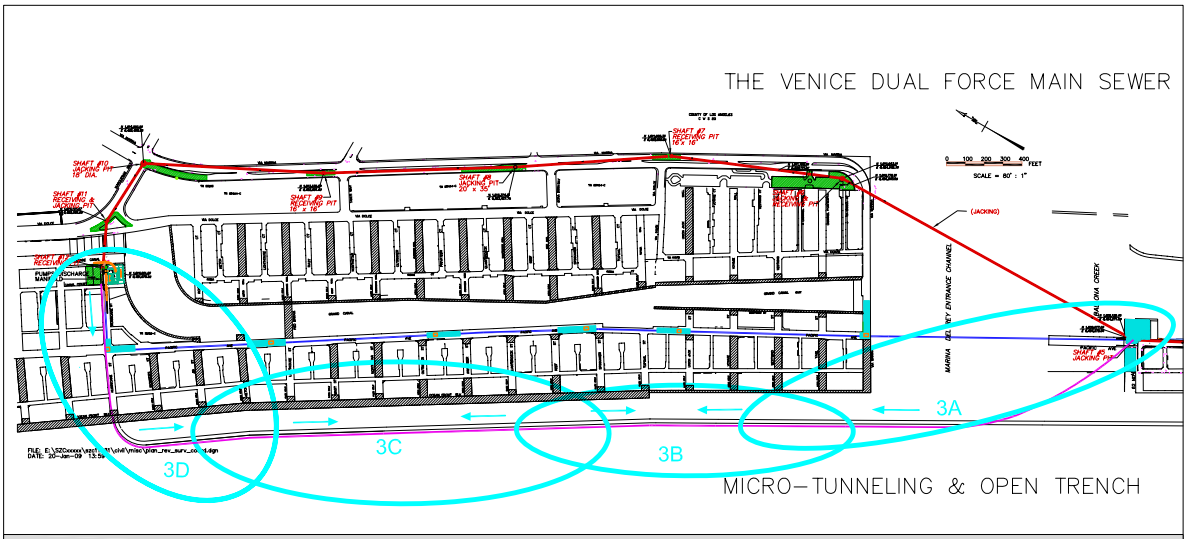
All of the truck trips related to the project are expected to occur from 9:00 AM to 3:30 PM Therefore, none of the estimated 190 PCE daily truck trips would occur during the morning and afternoon peak hours. It was also assumed that since a typical work day shift would occur between 7:00 AM and 5:00 PM, all workers would arrive at the construction site before the AM peak hour. However, to remain consistent with the draft EIR, all 67 construction workers would arrive during the morning peak hour and leave during the afternoon peak hour. It is also assumed that while no construction would take place during the



VIA MARINA ALIGNMENT



PACIFIC AVENUE ALIGNMENT



DOCKWEILER BEACH ALIGNMENT

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MICRO-TUNNELING CONSTRUCTION PHASES

FIGURE 7

TABLE 9
PROJECT TRIP GENERATION ESTIMATES
MICRO-TUNNELING AND CUT-AND-COVER CONSTRUCTION METHODS

	Required Quantity [a]	TRIP GENERATION ESTIMATES [b]										
		Daily	Daily	AM Peak Hour [d]			PM Peak Hour [d]			Weekend Peak Hour [c]		
		Weekday Trips	Weekend Trips [c]	In	Out	Total	In	Out	Total	In	Out	Total
Micro-Tunneling Construction Method [e]												
Jacking Site												
Muck and Materials Transfer	15 truckloads per day	75	0	0	0	0	0	0	0	0	0	0
Construction Workers	25 workers on site per day	50	0	25	0	25	0	25	25	0	0	0
	Subtotal	*125*	*0*	*25*	*0*	*25*	*0*	*25*	*25*	*0*	*0*	*0*
Jacking Site												
Muck and Materials Transfer	15 truckloads per day	75	0	0	0	0	0	0	0	0	0	0
Construction Workers	25 workers on site per day	50	0	25	0	25	0	25	25	0	0	0
	Subtotal	*125*	*0*	*25*	*0*	*25*	*0*	*25*	*25*	*0*	*0*	*0*
Receiving Site [d]												
Muck and Materials Transfer	8 truckloads per day	40	0	0	0	0	0	0	0	0	0	0
Construction Workers	17 workers on site per day	34	0	17	0	17	0	17	17	0	0	0
	Subtotal	*74*	*0*	*17*	*0*	*17*	*0*	*17*	*17*	*0*	*0*	*0*
	Total	**324**	**0**	**67**	**0**	**67**	**0**	**67**	**67**	**0**	**0**	**0**
Cut-and-Cover Construction Method												
Truck Deliveries	15 truckloads per day	75	0	0	0	0	0	0	0	0	0	0
Construction Workers	28 workers on site per day [f]	56	0	28	0	28	0	28	28	0	0	0
	Total	**131**	**0**	**28**	**0**	**28**	**0**	**28**	**28**	**0**	**0**	**0**

Note:
[a] Estimates taken from Task Order Solicitation (TOS080423) from the City of Los Angeles Department of Public Works for the Venice Dual Force Main (W.O. SZC11631), December 19, 2008
[b] Truck trip assumes 2.5 passenger car equivalent (PCE). Daily truck trips = (Required Daily truckloads x 2 trips per truckload).
[c] Zero weekend trips were assumed because all construction is planned to take place during weekdays only.
[d] Zero AM and PM peak hour truck trips were assumed to arrive or leave construction work zones during the peak periods from 7:00 to 9:00 AM and 4:00 to 6:00 PM.
[e] For each phase of construction, two jacking sites and one receiving sites were used simultaneously.
[f] Table reflects number of worker trips estimated for most intensive period of construction. Actual range of workers is estimated to vary between 17 - 28 people, or 34 - 56 worker trips.

weekend, any temporary lane closures would be in place for the duration of construction at each location and the analysis of weekend conditions included an estimate of traffic shifts during that time period.

Open-Trench Construction Method

The peak estimate for daily commute workers due to the proposed project is approximately 28 construction workers for the open-trench method. The required number of truckloads (for delivery of materials and supplies and for much removal) was estimated at 15 truckloads per day.

Using open-trench construction, approximately 30 one-way truck trips would be generated for each construction section if 15 truckloads would be needed daily. Using the same trip generation methodology described above, approximately 75 total daily truck trips (in PCE) would occur, none of which would arrive and leave during the morning or afternoon peak hour. In addition, 28 construction workers were estimated to be on the site for the same section, which would generate a total of 56 daily trips (28 inbound trips during the morning and 28 outbound trips during the afternoon peak hour).

Project Traffic Distribution

The geographic distribution of the traffic generated by each of the project build alignments depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the construction workers are drawn, the locations of the construction material suppliers and soil dump sites, and the locations of the shaft sites in relation to their surrounding street systems and available access to the regional freeway system.

The generalized regional trip distribution applied in the analysis for construction workers is approximately:

- 35% to and from the north
- 35% to and from the south
- 30% to and from the east

The generalized trip distribution applied in the analysis for construction truck trips is approximately:

- 35% to and from the north
- 65% to and from the southeast

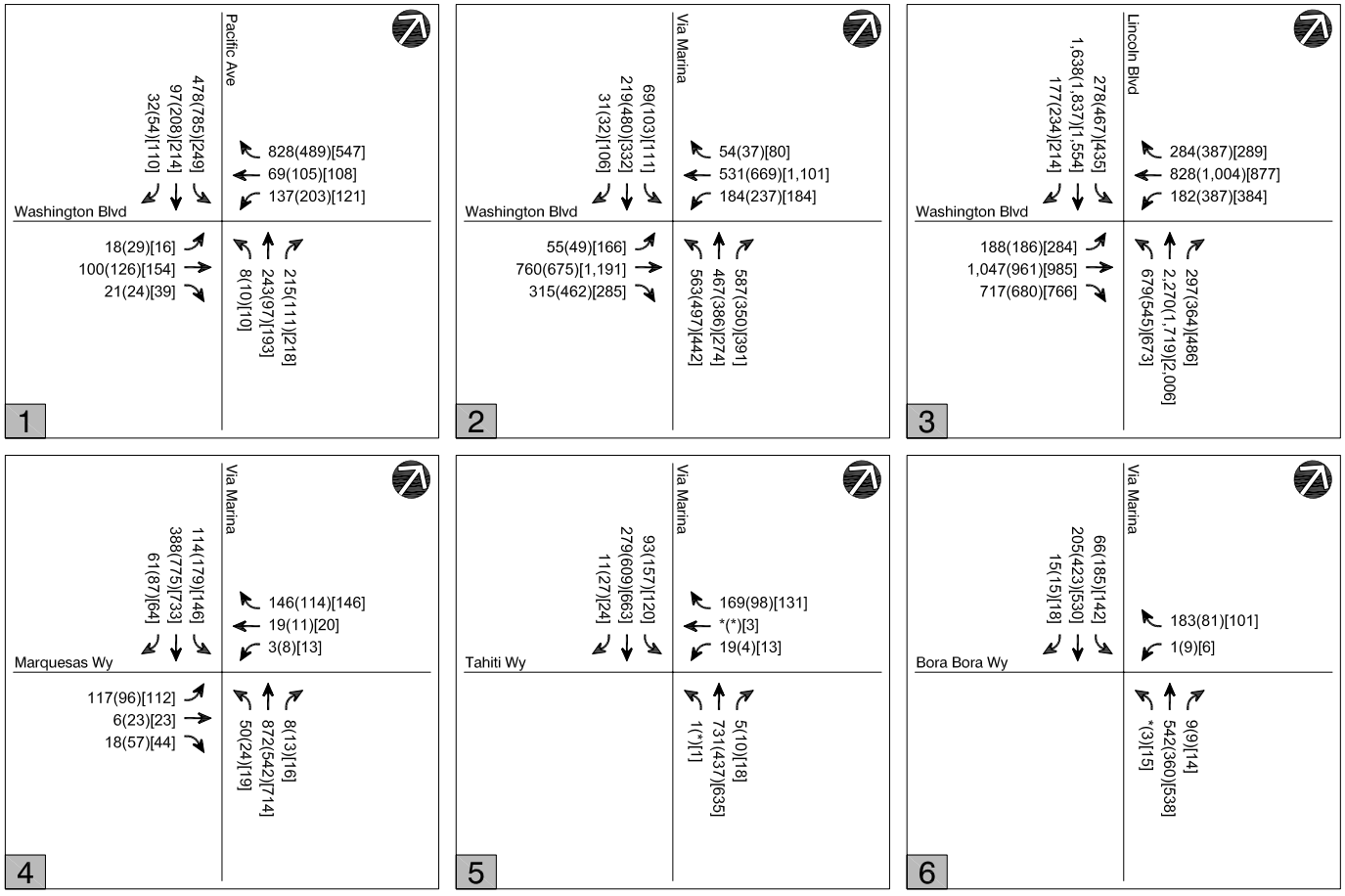
As the construction material suppliers of concrete and gravel and soil dump sites are located through Los Angeles and Orange Counties, all truck deliveries would be expected to travel on the regional freeway networks and connect to the construction sites from the adjacent freeway ramps. Most of the construction workers would travel on the regional freeway network, while some portion of them would arrive from the local street network. The traffic expected to be generated by each of the project alignment alternatives given concurrent construction activities as shown in Table 9 was assigned to the street network based on the application of the generalized trip distribution.

Project Traffic Assignment

For the Via Marina Alignment, it was assumed that all workers would park in the two public parking lots along Via Marina. Worker trips were split evenly between these two parking lots. For the Pacific Avenue and Venice Beach Alignments, it was assumed that workers would park in the public parking lot at the west end of Washington Boulevard. Construction truck trips for all alternatives were routed directly to the construction sites.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

The net change in traffic that would occur with the development of the project was assigned to the street system and added to the cumulative base traffic projections shown in Figure 6. The resulting traffic volumes represent the projected cumulative plus project weekday peak hour traffic volumes and are shown in Figures 8 through 12. They include the projected incremental traffic from the development of the proposed project and are the basis of the analysis of the project's traffic-related impacts described in the following chapter.



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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES ALTERNATIVE 1A

FIGURE 8

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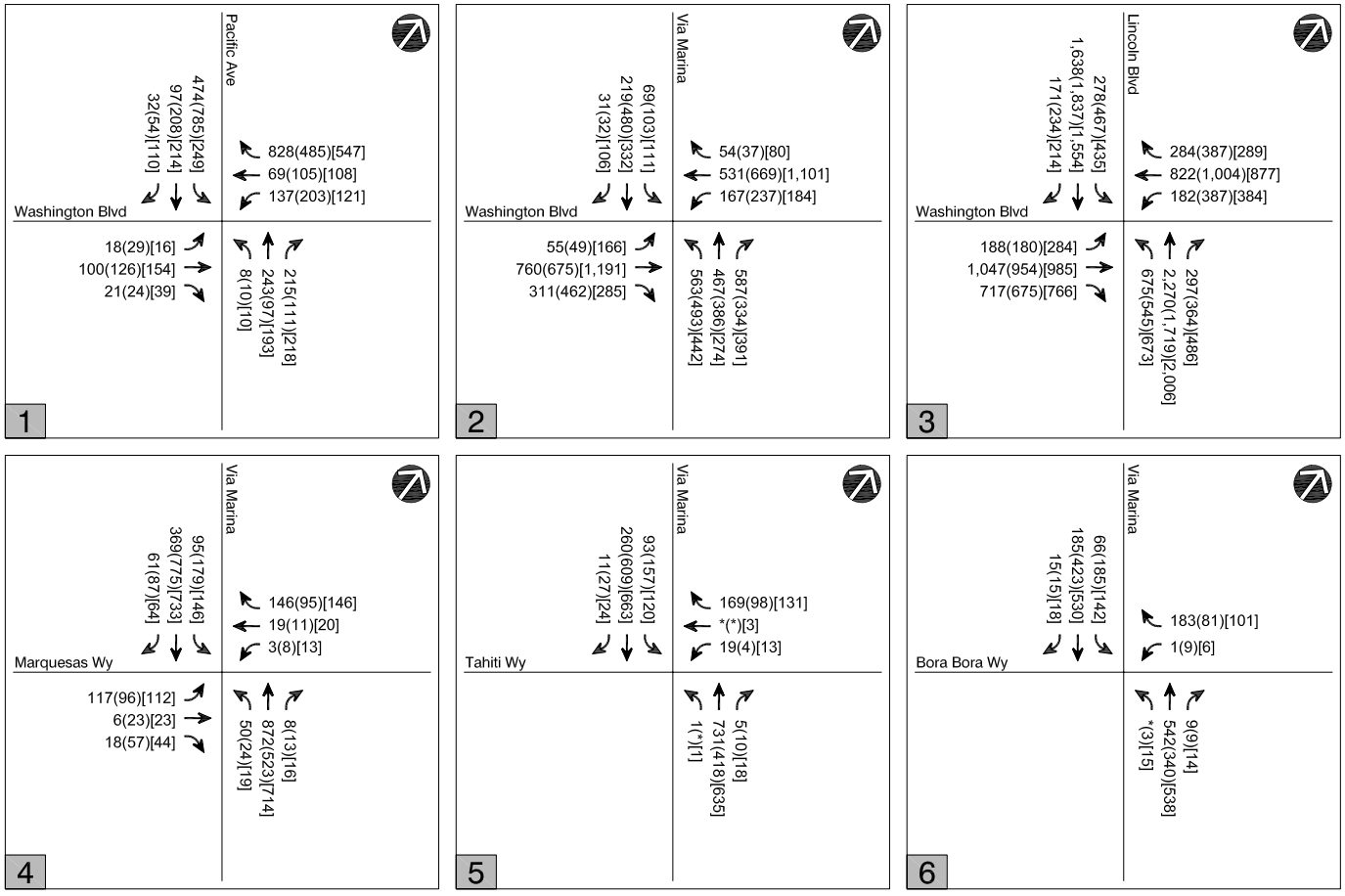

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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES ALTERNATIVE 1B

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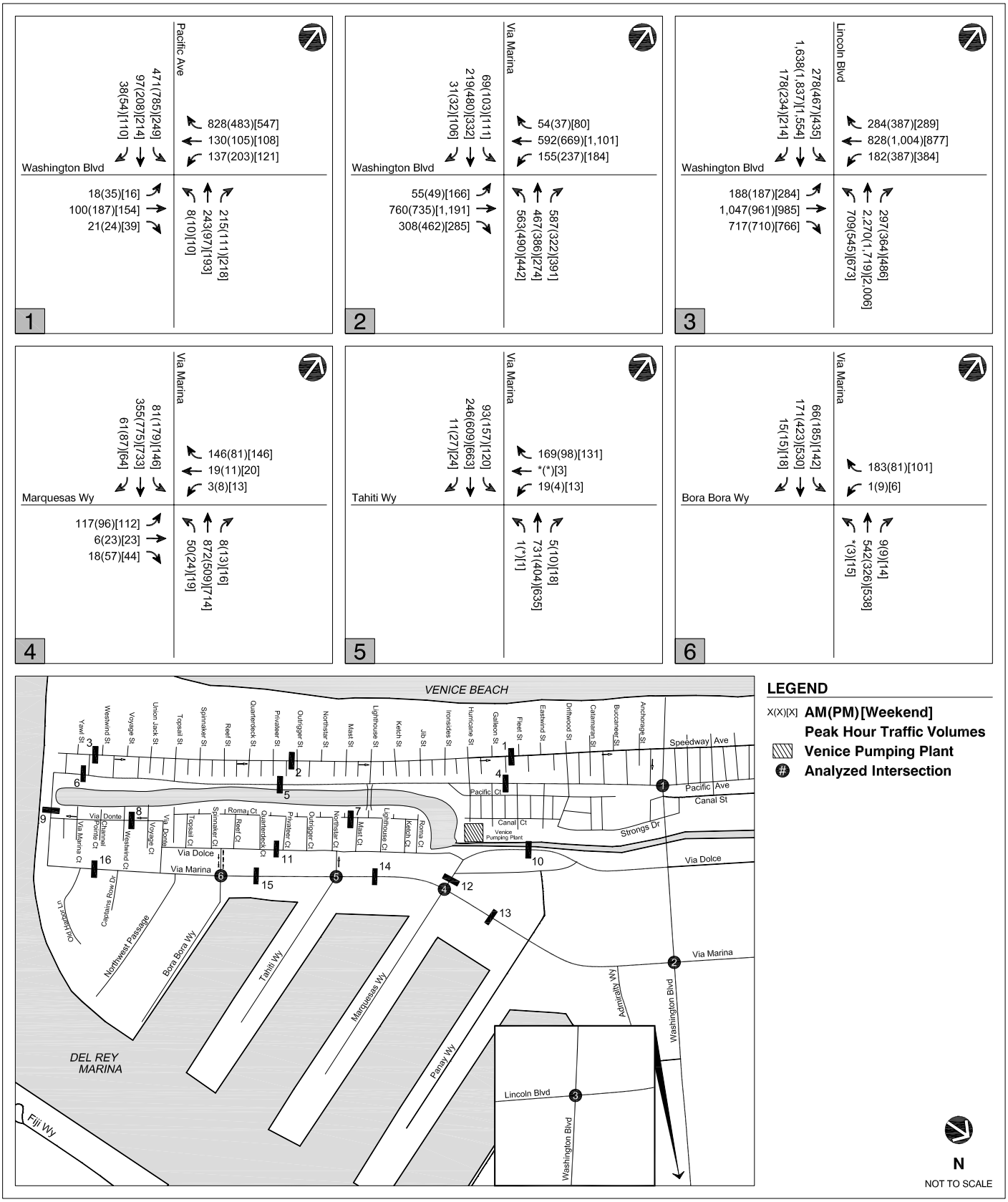
FIGURE 9



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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES ALTERNATIVES 2A & 3A

FIGURE 10

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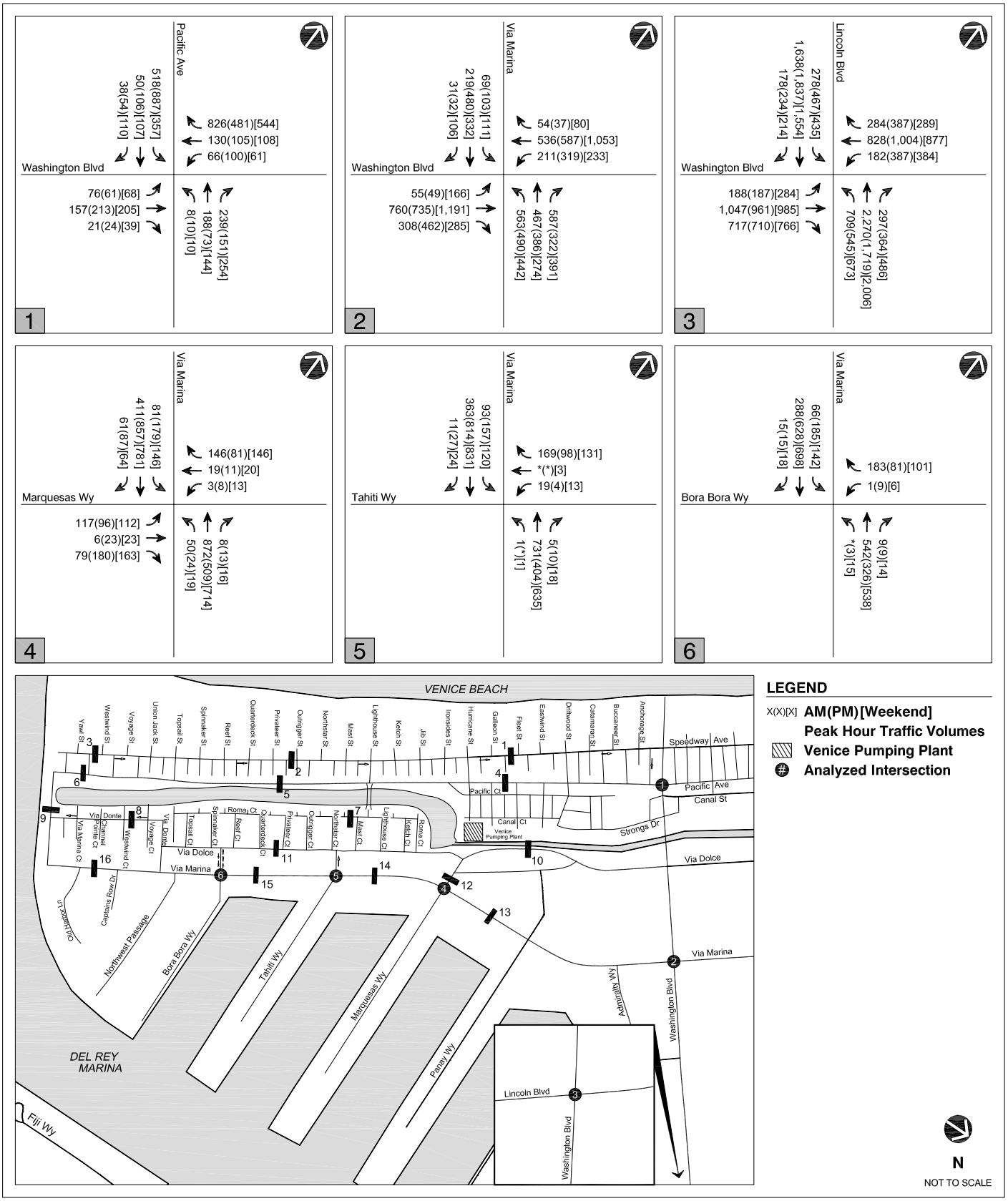

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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES ALTERNATIVES 2A(FC) & 3A(FC)

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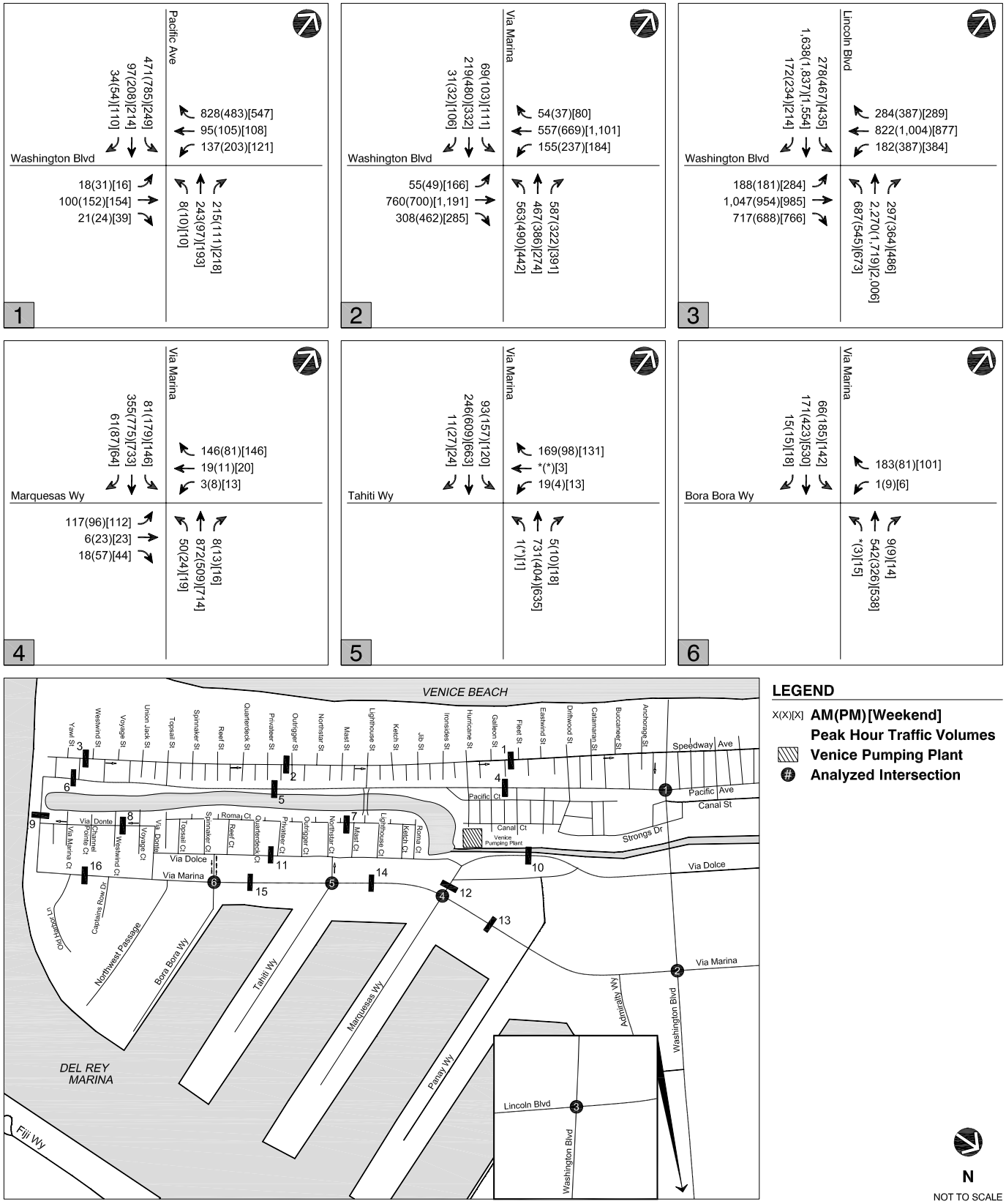
FIGURE 11



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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES ALTERNATIVES 2B & 3B

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FIGURE 12

4. TRAFFIC IMPACT ANALYSIS

The projected year 2011 cumulative base and cumulative plus project traffic volume forecasts, as projected in the previous chapter, were analyzed both to determine the forecast baseline operating conditions of the study intersections and to identify the potential impacts of the proposed project on the surrounding street system. This chapter provides a discussion of the criteria and methodology used and summarizes the results of the analysis.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

The *Draft Los Angeles CEQA Thresholds Guide* presents traffic impact significance thresholds applicable to projects in the City's jurisdiction. Relevant thresholds are discussed below. The impact analysis discussion will address each pipeline alignment alternative's effects with respect to each of these thresholds.

A significant impact would occur if the project would permanently increase the V/C ratio of applicable intersections or street segments beyond the limits established by the City of Los Angeles, including the V/C ratio along Congestion Management Program (CMP) designated roads. The City has established operational traffic impact criteria for the assessment of potential impacts of a project on the local street system after completion and during operation. Those operational standards indicate that a project is considered to have a significant traffic impact if the increase in V/C ratio attributed to the project exceeds a specific threshold for each level of service.

A sliding scale has been established under which the maximum allowable increase in the V/C ratio decreases as the V/C ratio increases using the following scale:

Intersection Conditions with Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 - 0.800	Equal to or greater than 0.040
D	0.801 - 0.900	Equal to or greater than 0.020
E, F	> 0.901	Equal to or greater than 0.010

Using these criteria, a project would not have a significant impact at an analyzed intersection if it were operating at LOS A or B after the addition of project operational traffic. Also, a project would not have a significant impact on an analyzed intersection if it were operating at LOS C and the incremental change in the V/C ratio were less than 0.04, or if it were operating at LOS D and the incremental change in the V/C ratio were less than 0.02. If the location were operating at LOS E or F after the addition of project operational traffic and the incremental change in the V/C ratio were greater than or equal to 0.01, a project would be considered to have a significant impact.

In addition, based on discussions with the City staff, the following threshold criteria, set forth in the *Draft L.A. CEQA Threshold Guide* (City of Los Angeles, 1998) are used to determine if a project has an impact at a specific roadway segment for the roadway link-level analysis:

A proposed project would normally have a significant street segment capacity impact if proposed traffic causes an increase in the V/C ratio on the street segment operating conditions after the addition of project traffic equal or greater than the following:

Street Segment Conditions with Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 - 0.800	Equal to or greater than 0.080
D	0.801 - 0.900	Equal to or greater than 0.040
E, F	> 0.901	Equal to or greater than 0.020

Final LOS is defined as projected future conditions including project, ambient, and related project growth but without project traffic mitigation.

Although the methodologies and the criteria to calculate V/C ratios for intersections and segments are intended by LADOT to identify potential traffic impacts during operation, they can also be applied to construction. During project construction, however, LADOT considers such impacts as adverse but not significant since, while they introduce inconvenience for vehicular traffic, those impacts are only temporary. Where determinations of adverse impacts are made, motorists would experience inconveniences that range in intensity from slight to substantial.

CUMULATIVE BASE OPERATING CONDITIONS

The year 2011 cumulative base (without project) peak hour traffic volumes shown in Figure 6 were analyzed using the LOS methodologies described in Chapter II to project future LOS at the study intersections during the analyzed peak hours. The results of this analysis are summarized in Table 10 for the analyzed peak hours. The table provides a summary of the cumulative base scenario. Detailed LOS calculations are provided in Appendix C.

As shown in Table 10, four of the six study intersections are projected to operate at LOS D or better during all analyzed peak hours, using CMA methodology. The intersection of Via Marina & Washington Boulevard is projected to operate at LOS E in the PM peak hour and LOS F in the Sunday midday peak hour. The intersection of Lincoln Boulevard & Washington Boulevard is projected to operate at LOS F during the all three peak hours.

The year 2011 cumulative base (without project) peak hour street segment volumes were analyzed using the LOS methodologies described in Chapter II to project future segment LOS at the 16 segments during the analyzed peak hours. The results of this analysis are summarized in Table 11 for the analyzed peak hours. Detailed LOS calculations are provided in Appendix C.

TABLE 10
FUTURE (YEAR 2011) CUMULATIVE BASE INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Future (2011) V/C or Delay	Future (2011) LOS
*1. Pacific Avenue & Washington Boulevard	**AM**	0.657	B
	PM	0.797	C
	WKND	0.512	A
*2. Via Marina & Washington Boulevard	**AM**	0.863	D
	PM	0.934	E
	WKND	1.029	F
*3. Lincoln Boulevard & Washington Boulevard	**AM**	1.088	F
	PM	1.120	F
	WKND	1.190	F
*4. Via Marina & Marquesas Way	**AM**	0.325	A
	PM	0.253	A
	WKND	0.331	A
*5. Via Marina & Tahiti Way	**AM**	0.321	A
	PM	0.208	A
	WKND	0.287	A
6. Via Marina & Bora Bora Way [a]	**AM**	2.8	A
	PM	2.5	A
	WKND	2.0	A
[worst approach only]	**AM**	11.7	B
[worst approach only]	**PM**	11.1	B
[worst approach only]	**WKND**	12.0	B
If signalized	**AM**	0.438	A
If signalized	**PM**	0.372	A
If signalized	**WKND**	0.450	A

Notes:

* Intersection is currently operating under ATSAC & ATCS control

[a] Intersection is minor approach stop-controlled. Average vehicular delay in seconds per vehicle is reported for the intersection on a whole and for the minor approach and as if it were signalized (for the purposes of impact determination).

TABLE 11
FUTURE (YEAR 2011) CUMULATIVE BASE STUDY ROADWAY SEGMENT VOLUMES AND LEVELS OF SERVICE

				FUTURE CUMULATIVE BASE PEAK HOUR TRAFFIC VOLUMES						FUTURE CUMULATIVE BASE ROADWAY CAPACITY					DIRECTION											
				NB/WB			SB/EB				NB/WB		SB/EB		NB/EB						SB/EB					
															AM		PM		WKND		AM		PM		WKND	
Segment #	Location	From	To	AM	PM	WKND	AM	PM	WKND	Roadway Class.	No. of Lanes	Capacity	No. of Lanes	Capacity	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
1	Speedway Av	Fleet St	Galleon St	41	54	149	--	--	--	L	1	600	-	-	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	27	37	70	--	--	--	L	1	600	-	-	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	23	32	60	--	--	--	L	1	600	-	-	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	300	182	251	173	316	412	S	1	750	1	750	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A
5	Pacific Av	Privateer St	Quarterdeck St	183	138	265	126	195	336	S	1	750	1	750	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A
6	Pacific Av	Westwind St	Yawl St	142	166	294	105	177	304	S	1	750	1	750	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A
7	Roma Court	Lighthouse Mall	Outrigger Mall	21	31	32	16	24	46	L	1	600	1	600	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A
8	Via Donte	Voyage Mall	Westwind Mall	19	11	39	45	35	40	L	1	600	1	600	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A
9	Via Marina	East of Pacific Av		157	134	224	92	143	235	C	1	650	1	650	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A
10	Via Dolce	North of Marquesas Wy		238	144	116	92	230	149	S	2	1,500	2	1,500	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A
11	Via Dolce	Privateer St	Quarterdeck St	96	65	77	50	80	56	C	1	650	1	650	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A
12	Marquesas Way	Via Dolce	Via Marina	128	123	132	136	152	138	S	2	1,500	2	1,500	0.085	A	0.082	A	0.088	A	0.091	A	0.101	A	0.092	A
13	Via Marina	North of Marquesas Wy		1066	626	805	483	999	889	S	3	2,250	3	2,250	0.474	A	0.278	A	0.358	A	0.215	A	0.444	A	0.395	A
14	Via Marina	South of Marquesas Wy		919	559	672	472	783	775	S	2	1,500	2	1,500	0.613	B	0.373	A	0.448	A	0.315	A	0.522	A	0.517	A
15	Via Marina	South of Tahiti Wy		748	404	546	253	603	585	S	2	1,500	2	1,500	0.499	A	0.269	A	0.364	A	0.169	A	0.402	A	0.390	A
16	Via Marina	North of Harbor Ln		220	214	315	101	204	235	S	2	1,500	2	1,500	0.147	A	0.143	A	0.210	A	0.067	A	0.136	A	0.157	A

Note:
S = Secondary
C = Collector
L = Local

PROJECT TRAFFIC IMPACT ANALYSIS

The year 2011 cumulative plus project peak hour traffic volumes shown in Figures 8 through 12 were analyzed to project future operating conditions at the study intersections and to identify specific traffic impacts resulting from the addition of project-generated traffic. Future LOS calculations include both the additional project-generated trips and any reductions in roadway capacity that would be necessary during the construction period. Because the proposed project would only affect traffic operations in the vicinity during the period when it is under construction, the impacts are considered to be adverse but not significant. The overall construction schedule is approximately one year. The project would be constructed in phases, rather than all at once, and the duration of the impacts identified would be less than the duration of the entire project. The results of the intersection analysis are summarized in Table 12 and compared with the cumulative base intersection conditions. The forecasted daily street segment traffic levels of service for the various project alternatives are presented in Tables 13 through 19. Secondary impacts as a result of project construction, such as the reduction of parking and driveway access restrictions, were evaluated and have been included for the various alternatives.

Alternative 1A

Using the City of Los Angeles' intersection traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at three of the six study intersections during at least one of the analyzed peak hours:

- Via Marina & Washington Boulevard (AM peak hour)
- Via Marina & Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina & Tahiti Way (AM, PM, Sunday midday peak hours)

Using the City of Los Angeles' street segment traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at three of the 16 street segments during at least one of the analyzed peak hours:

- Via Marina north of Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina south of Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina south of Tahiti Way (AM, PM, Sunday midday peak hours)

Under the micro-tunneling construction method along the Via Marina Alignment (Alternative 1A), no access or turning movement restrictions would be needed at intersections or at private driveways. LADOT has determined that existing or temporarily created gaps in the raised medians within the construction area would allow drivers to turn left onto Northwest Passage, Captain's Row and Old Harbor Lane. The roadway and medians would be returned to their existing conditions upon project completion.

Since the southernmost pit along Via Marina would be located within the public parking lot at the south end of Via Marina, this lot would be reduced from 136 to 73 parking spaces. A loss of approximately eight parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant.

Alternative 1B

Using the City of Los Angeles' intersection traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the six study intersections during at least one of the analyzed peak hours:

TABLE 12
FUTURE (2011) CUMULATIVE PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Cumulative Base V/C or Delay	Cumulative Base LOS	CP [1A] V/C or Delay	CP [1A] LOS	Project Increase in V/C	Adverse Project Impact?	CP [1B] V/C or Delay	CP [1B] LOS	Project Increase in V/C	Adverse Project Impact?	CP [2A&3A] V/C or Delay	CP [2A&3A] LOS	Project Increase in V/C	Adverse Project Impact?	CP [2A(FC) & 3A(FC)] V/C or Delay	CP [2A(FC) & 3A(FC)] LOS	Project Increase in V/C	Adverse Project Impact?	CP [2B&3B] V/C or Delay	CP [2B&3B] LOS	Project Increase in V/C	Adverse Project Impact?
*1. Pacific Avenue &	**AM**	0.657	B	0.657	B	0.000	NO	0.657	B	0.000	NO	0.657	B	0.000	NO	0.701	C	0.044	**YES**	0.657	B	0.000	NO
Washington Boulevard	**PM**	0.797	C	0.797	C	0.000	NO	0.797	C	0.000	NO	0.844	D	0.047	**YES**	0.889	D	0.092	**YES**	0.816	D	0.019	NO
	WKND	0.512	A	0.512	A	0.000	NO	0.512	A	0.000	NO	0.512	A	0.000	NO	0.565	A	0.053	NO	0.512	A	0.000	NO
*2. Via Marina &	**AM**	0.863	D	0.883	D	0.020	**YES**	0.871	D	0.008	NO	0.863	D	0.000	NO	0.902	E	0.039	**YES**	0.863	D	0.000	NO
Washington Boulevard	**PM**	0.934	E	0.934	E	0.000	NO	0.934	E	0.000	NO	0.955	E	0.021	**YES**	1.012	F	0.078	**YES**	0.942	E	0.008	NO
	WKND	1.029	F	1.029	F	0.000	NO	1.029	F	0.000	NO	1.029	F	0.000	NO	1.064	F	0.035	**YES**	1.029	F	0.000	NO
*3. Lincoln Boulevard &	**AM**	1.088	F	1.088	F	0.000	NO	1.088	F	0.000	NO	1.088	F	0.000	NO	1.088	F	0.000	NO	1.088	F	0.000	NO
Washington Boulevard	**PM**	1.120	F	1.125	F	0.005	NO	1.122	F	0.002	NO	1.125	F	0.005	NO	1.125	F	0.005	NO	1.122	F	0.002	NO
	WKND	1.190	F	1.190	F	0.000	NO	1.190	F	0.000	NO	1.190	F	0.000	NO	1.190	F	0.000	NO	1.190	F	0.000	NO
*4. Via Marina &	**AM**	0.325	A	1.089	F	0.764	**YES**	1.063	F	0.738	**YES**	0.325	A	0.000	NO	0.325	A	0.000	NO	0.325	A	0.000	NO
Marquesas Way	**PM**	0.253	A	1.123	F	0.870	**YES**	1.096	F	0.843	**YES**	0.253	A	0.000	NO	0.261	A	0.008	NO	0.253	A	0.000	NO
	WKND	0.331	A	1.224	F	0.893	**YES**	1.224	F	0.893	**YES**	0.331	A	0.000	NO	0.331	A	0.000	NO	0.331	A	0.000	NO
*5. Via Marina &	**AM**	0.321	A	0.772	C	0.451	**YES**	0.758	C	0.437	**YES**	0.321	A	0.000	NO	0.321	A	0.000	NO	0.321	A	0.000	NO
Tahiti Way	**PM**	0.208	A	0.784	C	0.576	**YES**	0.770	C	0.562	**YES**	0.208	A	0.000	NO	0.246	A	0.038	NO	0.208	A	0.000	NO
	WKND	0.287	A	0.975	E	0.688	**YES**	0.975	E	0.688	**YES**	0.287	A	0.000	NO	0.287	A	0.000	NO	0.287	A	0.000	NO
6. Via Marina &	**AM**	2.8	A	3.3	A	0.5		3.4	A	0.6		2.8	A	0.0		2.5	A	-0.3		2.8	A	0.0	
Bora Bora Way [a]	**PM**	2.5	A	2.6	A	0.1		2.6	A	0.1		2.5	A	0.0		2.1	A	-0.4		2.5	A	0.0	
	WKND	2.0	A	2.2	A	0.2		2.2	A	0.2		2.0	A	0.0		1.8	A	-0.2		2.0	A	0.0	
[worst approach only]	**AM**	11.7	B	15.1	C	3.4		15.1	C	3.4		11.7	B	0.0		11.7	B	0.0		11.7	B	0.0	
[worst approach only]	**PM**	11.1	B	13.0	B	1.9		12.7	B	1.6		11.1	B	0.0		11.4	B	0.3		11.1	B	0.0	
[worst approach only]	**WKND**	12.0	B	15.0	C	3.0		15.0	C	3.0		12.0	B	0.0		12.2	B	0.2		12.0	B	0.0	
If signalized	**AM**	0.438	A	0.668	B	0.230	NO	0.668	B	0.230	NO	0.438	A	0.000	NO	0.438	A	0.000	NO	0.438	A	0.000	NO
If signalized	**PM**	0.372	A	0.597	A	0.225	NO	0.597	A	0.225	NO	0.372	A	0.000	NO	0.374	A	0.002	NO	0.372	A	0.000	NO
If signalized	**WKND**	0.450	A	0.680	B	0.230	NO	0.680	B	0.230	NO	0.450	A	0.000	NO	0.463	A	0.013	NO	0.450	A	0.000	NO

* Intersection is currently operating under ATSAC & ATCS control

TABLE 13
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 1A: VIA MARINA ALIGNMENT MICRO-TUNNELING METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
6	Pacific Av	Westwind St	Yawl St	S	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.171	A	0.164	A	0.176	A	0.181	A	0.203	A	0.184	A	0.086	NO	0.082	NO	0.088	NO	0.090	NO	0.102	NO	0.092	NO
13	Via Marina	North of Marquesas Wy		S	1.421	F	0.925	E	1.073	F	0.735	C	1.332	F	1.185	F	0.947	**YES**	0.647	**YES**	0.715	**YES**	0.520	**YES**	0.888	**YES**	0.790	**YES**
14	Via Marina	South of Marquesas Wy		S	1.225	F	0.791	C	0.896	D	0.675	B	1.044	F	1.033	F	0.612	**YES**	0.418	**YES**	0.448	**YES**	0.360	NO	0.522	**YES**	0.516	**YES**
15	Via Marina	South of Tahiti Wy		S	0.997	E	0.584	A	0.728	C	0.383	A	0.804	D	0.780	C	0.498	**YES**	0.315	NO	0.364	**YES**	0.214	NO	0.402	**YES**	0.390	**YES**
16	Via Marina	North of Harbor Ln		S	0.293	A	0.331	A	0.420	A	0.180	A	0.272	A	0.313	A	0.146	NO	0.188	NO	0.210	NO	0.113	NO	0.136	NO	0.156	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

[a] Analysis assumed temporary lane configuration of one lane in each direction on Marquesas Way between Via Dolce and Via Marina.
[b] Analysis assumed temporary lane configuration of one lane in each direction on Via Marina south of Marquesas Way.

TABLE 14
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 1B: VIA MARINA ALIGNMENT OPEN-TRENCH METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
6	Pacific Av	Westwind St	Yawl St	S	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.171	A	0.164	A	0.176	A	0.181	A	0.203	A	0.184	A	0.086	NO	0.082	NO	0.088	NO	0.090	NO	0.102	NO	0.092	NO
13	Via Marina	North of Marquesas Wy		S	1.421	F	0.872	D	1.073	F	0.681	B	1.332	F	1.185	F	0.947	**YES**	0.594	**YES**	0.715	**YES**	0.466	NO	0.888	**YES**	0.790	**YES**
14	Via Marina	South of Marquesas Wy		S	1.225	F	0.764	C	0.896	D	0.648	B	1.044	F	1.033	F	0.612	**YES**	0.391	**YES**	0.448	**YES**	0.333	NO	0.522	**YES**	0.516	**YES**
15	Via Marina	South of Tahiti Wy		S	0.997	E	0.557	A	0.728	C	0.356	A	0.804	D	0.780	C	0.498	**YES**	0.288	NO	0.364	**YES**	0.187	NO	0.402	**YES**	0.390	**YES**
16	Via Marina	North of Harbor Ln		S	0.293	A	0.304	A	0.420	A	0.153	A	0.272	A	0.313	A	0.146	NO	0.161	NO	0.210	NO	0.086	NO	0.136	NO	0.156	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

[a] Analysis assumed temporary lane configuration of one lane EB on Marquesas Way between Via Dolce and Via Marina.
[b] Analysis assumed temporary lane configuration of one lane SB on Via Marina south of Marquesas Way.

TABLE 15
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 2A: PACIFIC AVENUE ALIGNMENT MICRO-TUNNELING METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A	0.000	NO	0.000	NO	0.000	**YES***	0.000	NO	0.000	NO	0.000	**YES***
6	Pacific Av	Westwind St	Yawl St	S	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A	0.000	NO	0.000	NO	0.000	**YES***	0.000	NO	0.000	NO	0.000	**YES***
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.085	A	0.082	A	0.088	A	0.091	A	0.101	A	0.092	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
13	Via Marina	North of Marquesas Wy		S	0.474	A	0.278	A	0.358	A	0.215	A	0.444	A	0.395	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
14	Via Marina	South of Marquesas Wy		S	0.613	B	0.373	A	0.448	A	0.315	A	0.522	A	0.517	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
15	Via Marina	South of Tahiti Wy		S	0.499	A	0.269	A	0.364	A	0.169	A	0.402	A	0.390	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
16	Via Marina	North of Harbor Ln		S	0.147	A	0.143	A	0.210	A	0.067	A	0.136	A	0.157	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

* Although no impacts would be found along Pacific Ave specifically between Privateer St and Quarterdeck St nor between Westwind St and Yawl St, adverse impacts would be expected on each of the segments of Pacific Avenue drirectly adjacent to a construction pit.

TABLE 16
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVES 2A (FC) & 3A (FC): PACIFIC AVENUE & VENICE BEACH ALIGNMENTS MICRO-TUNNELING METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.450	A	0.263	A	0.590	A	--	--	--	--	--	--	0.382	NO	0.173	NO	0.342	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.095	A	0.104	A	0.061	A	0.075	A	0.148	A	0.325	A	-0.305	NO	-0.139	NO	-0.274	NO	-0.156	NO	-0.273	NO	-0.224	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.400	A	0.457	A	0.577	A	0.168	A	0.260	A	0.448	A	0.156	**YES***	0.273	**YES***	0.224	**YES***	0.000	NO	0.000	NO	0.000	**YES***
6	Pacific Av	Westwind St	Yawl St	S	0.345	A	0.495	A	0.616	B	0.140	A	0.236	A	0.405	A	0.156	NO	0.274	**YES***	0.224	**YES***	0.000	NO	0.000	NO	0.000	**YES***
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.422	A	0.522	A	0.603	B	0.142	A	0.220	A	0.362	A	0.180	NO	0.316	NO	0.258	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.102	A	0.236	A	0.179	A	0.000	NO	0.000	NO	0.000	NO	0.041	NO	0.083	NO	0.080	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.085	A	0.082	A	0.088	A	0.131	A	0.183	A	0.171	A	0.000	NO	0.000	NO	0.000	NO	0.040	NO	0.082	NO	0.079	NO
13	Via Marina	North of Marquesas Wy		S	0.474	A	0.278	A	0.358	A	0.240	A	0.480	A	0.417	A	0.000	NO	0.000	NO	0.000	NO	0.025	NO	0.036	NO	0.022	NO
14	Via Marina	South of Marquesas Wy		S	0.613	B	0.373	A	0.448	A	0.393	A	0.659	B	0.629	B	0.000	NO	0.000	NO	0.000	NO	0.078	NO	0.137	NO	0.112	NO
15	Via Marina	South of Tahiti Wy		S	0.499	A	0.269	A	0.364	A	0.247	A	0.539	A	0.502	A	0.000	NO	0.000	NO	0.000	NO	0.078	NO	0.137	NO	0.112	NO
16	Via Marina	North of Harbor Ln		S	0.147	A	0.143	A	0.210	A	0.145	A	0.273	A	0.269	A	0.000	NO	0.000	NO	0.000	NO	0.078	NO	0.137	NO	0.112	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

[a] Analysis assumed full closure of Pacific Avenue at Hurricane Street and the rerouting of traffic as a result of the closure

* Although no impacts would be found along Pacific Ave specifically between Privateer St and Quarterdeck St nor between Westwind St and Yawl St, adverse impacts would be expected on each of the segments of Pacific Avenue drirectly adjacent to a construction pit.

TABLE 17
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 2B: PACIFIC AVENUE ALIGNMENT OPEN-TRENCH METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.488	A	0.368	A	0.707	C	0.336	A	0.520	A	0.896	D	0.244	NO	0.184	NO	0.354	**YES**	0.168	NO	0.260	NO	0.448	**YES**
6	Pacific Av	Westwind St	Yawl St	S	0.379	A	0.443	A	0.784	C	0.280	A	0.472	A	0.811	D	0.190	NO	0.222	NO	0.392	**YES**	0.140	NO	0.236	NO	0.406	**YES**
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.085	A	0.082	A	0.088	A	0.091	A	0.101	A	0.092	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
13	Via Marina	North of Marquesas Wy		S	0.474	A	0.278	A	0.358	A	0.215	A	0.444	A	0.395	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
14	Via Marina	South of Marquesas Wy		S	0.613	B	0.373	A	0.448	A	0.315	A	0.522	A	0.517	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
15	Via Marina	South of Tahiti Wy		S	0.499	A	0.269	A	0.364	A	0.169	A	0.402	A	0.390	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
16	Via Marina	North of Harbor Ln		S	0.147	A	0.143	A	0.210	A	0.067	A	0.136	A	0.157	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO

NOTE:

CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

[a] Analysis assumed temporary closure of one lane along Pacific Avenue south of Hurricane Street, including the segments between Privateer Street and Quarterdeck Street and between Westwind Street and Yawl Street.

TABLE 18
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 3A: VENICE BEACH ALIGNMENT MICRO-TUNNELING METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
6	Pacific Av	Westwind St	Yawl St	S	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.085	A	0.082	A	0.088	A	0.091	A	0.101	A	0.092	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
13	Via Marina	North of Marquesas Wy		S	0.474	A	0.278	A	0.358	A	0.215	A	0.444	A	0.395	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
14	Via Marina	South of Marquesas Wy		S	0.613	B	0.373	A	0.448	A	0.315	A	0.522	A	0.517	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
15	Via Marina	South of Tahiti Wy		S	0.499	A	0.269	A	0.364	A	0.169	A	0.402	A	0.390	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
16	Via Marina	North of Harbor Ln		S	0.147	A	0.143	A	0.210	A	0.067	A	0.136	A	0.157	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

TABLE 19
FUTURE (2011) CUMULATIVE ROADWAY PEAK HOUR LEVELS OF SERVICE
ALTERNATIVE 3B: VENICE BEACH ALIGNMENT OPEN-TRENCH METHOD

					CUMULATIVE PLUS PROJECT CONSTRUCTION												DIFFERENCE IN V/C											
					DIRECTION												DIRECTION											
					NB/WB						SB/EB						NB/WB						SB/EB					
					AM		PM		WKND		AM		PM		WKND		AM		PM		WKND		AM		PM		WKND	
SEGMENT#	LOCATION	FROM	TO	CLASS.	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?	V/C	Adverse Impact?
1	Speedway Av	Fleet St	Galleon St	L	0.068	A	0.090	A	0.248	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
2	Speedway Av	Privateer St	Quarterdeck St	L	0.045	A	0.062	A	0.117	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
3	Speedway Av	Westwind St	Yawl St	L	0.038	A	0.053	A	0.100	A	--	--	--	--	--	--	0.000	NO	0.000	NO	0.000	NO	--	--	--	--	--	--
4	Pacific Av	Fleet St	Galleon St	S	0.400	A	0.243	A	0.335	A	0.231	A	0.421	A	0.549	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
5	Pacific Av	Privateer St	Quarterdeck St	S	0.244	A	0.184	A	0.353	A	0.168	A	0.260	A	0.448	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
6	Pacific Av	Westwind St	Yawl St	S	0.189	A	0.221	A	0.392	A	0.140	A	0.236	A	0.405	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
7	Roma Court	Lighthouse Mall	Outrigger Mall	L	0.035	A	0.052	A	0.053	A	0.027	A	0.040	A	0.077	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
8	Via Donte	Voyage Mall	Westwind Mall	L	0.032	A	0.018	A	0.065	A	0.075	A	0.058	A	0.067	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
9	Via Marina	East of Pacific Av		C	0.242	A	0.206	A	0.345	A	0.142	A	0.220	A	0.362	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
10	Via Dolce	North of Marquesas Wy		S	0.159	A	0.096	A	0.077	A	0.061	A	0.153	A	0.099	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
11	Via Dolce	Privateer St	Quarterdeck St	C	0.148	A	0.100	A	0.118	A	0.077	A	0.123	A	0.086	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
12	Marquesas Way	Via Dolce	Via Marina	S	0.085	A	0.082	A	0.088	A	0.091	A	0.101	A	0.092	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
13	Via Marina	North of Marquesas Wy		S	0.474	A	0.278	A	0.358	A	0.215	A	0.444	A	0.395	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
14	Via Marina	South of Marquesas Wy		S	0.613	B	0.373	A	0.448	A	0.315	A	0.522	A	0.517	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
15	Via Marina	South of Tahiti Wy		S	0.499	A	0.269	A	0.364	A	0.169	A	0.402	A	0.390	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO
16	Via Marina	North of Harbor Ln		S	0.147	A	0.143	A	0.210	A	0.067	A	0.136	A	0.157	A	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO	0.000	NO

NOTE:
CLASS: Roadway Classification
S = Secondary
C = Collector
L = Local

- Via Marina & Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina & Tahiti Way (AM, PM, Sunday midday peak hours)

Using the City of Los Angeles' street segment traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at three of the 16 street segments during at least one of the analyzed peak hours:

- Via Marina north of Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina south of Marquesas Way (AM, PM, Sunday midday peak hours)
- Via Marina south of Tahiti Way (AM, PM, Sunday midday peak hours)

Under the open-trench construction method along the Via Marina Alignment (Alternative 1B), drivers may not be permitted turn left into or out of Northwest Passage, Captain's Row or Old Harbor Lane when trench construction occurs at those intersections. Once trench construction has progressed (three weeks or less), left turns would once again be permitted at the three intersections. Given the nature of this construction technique, such short-term restrictions could also be required at approximately six private driveways along this alignment.

Since the southernmost pit along Via Marina would be located within the public parking lot at the south end of Via Marina, this lot would be reduced from 136 to 73 parking spaces. A loss of approximately eight parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant.

<u>Alternative 2A</u>

Using the City of Los Angeles' intersection traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the six study intersections during at least one of the analyzed peak hours:

- Pacific Avenue & Washington Boulevard (PM peak hour)
- Via Marina & Washington Boulevard (PM peak hour)

Using the City of Los Angeles' street segment traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the 16 street segments during at least one of the analyzed peak hours:

- Pacific Avenue between Privateer Street & Quarterdeck Street (Sunday midday peak hour)
- Pacific Avenue between Westwind Street & Yawl Street (Sunday midday peak hour)

Although no impacts would be found along Pacific Avenue specifically between Privateer Street and Quarterdeck Street or between Westwind Street and Yawl Street, adverse impacts would be expected on each of the segments of Pacific Avenue directly adjacent to a micro-tunneling construction pit for the peak hour listed above.

Under the micro-tunneling construction method along the Pacific Alignment (Alternative 2A), access or turning movement restrictions would be needed at the intersection of Hurricane Street & Pacific Avenue, as the east leg of the intersection (Hurricane Street) would be temporarily closed. Under this alternative, approximately four residential driveways would be blocked during an entire phase of the construction period. One of the four driveways serves a multi-family residential building south of Hurricane Street and

would be blocked during Phase 2D, as shown in Figure 7. Two single-family residential driveways north of Union Jack Street and one single-family residential driveway north of Via Marina would be blocked during one or more construction phases (Phases 2A and 2B). Based on the information available at this time, pending preparation of final worksite traffic control plans, it appears that existing turning movements could be maintained at the other intersections and driveways along Pacific Avenue.

On-street parking along Pacific Avenue would be removed in the vicinity of each pit. A loss of approximately 30 parking spaces along Pacific Avenue could occur during a given construction phase. The southernmost pit along the Pacific Alignment would be located along the metered public parking area along the east/west segment of Via Marina. While this pit is in operation, approximately 20 metered parking spaces would be temporarily unavailable. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Pacific Avenue.

Alternative 2B

Using the City of Los Angeles' intersection traffic impact significance criteria, the results indicate that the proposed project would have no significant impact at any of the study intersections during any of the analyzed peak hours.

Using the City of Los Angeles' street segment traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the 16 street segments during at least one of the analyzed peak hours:

- Pacific Avenue between Privateer Street & Quarterdeck Street (Sunday midday peak hour)
- Pacific Avenue between Westwind Street & Yawl Street (Sunday midday peak hour)

Under the open-trench construction method along the Pacific Alignment (Alternative 2B), short-term access restrictions may be necessary at Hurricane Street east of Pacific Avenue, Lighthouse Street, Topsail Street, and alleys and driveways directly along this alignment during the time that active trench construction is occurring at each location. Once trench construction has progressed past each location (three weeks or less), local access would be restored.

The loss of up to 30 parking spaces along Pacific Avenue could occur during each segment of trench construction. The southernmost pit along the Pacific Alignment would be located along the public parking meter area along the east/west segment of Via Marina. While this pit is in operation, a loss of approximately 20 metered parking spaces would occur. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Pacific Avenue.

Alternative 2A (Full Closure) & 3A (Full Closure)

Using the City of Los Angeles' intersection traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the six study intersections during at least one of the analyzed peak hours:

- Pacific Avenue & Washington Boulevard (AM, PM peak hours)
- Via Marina & Washington Boulevard (AM, PM, Sunday midday peak hours)

Using the City of Los Angeles' street segment traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the 16 street segments during at least one of the analyzed peak hours:

- Pacific Avenue between Privateer Street & Quarterdeck Street (AM, PM, Sunday midday peak hours)
- Pacific Avenue between Westwind Street & Yawl Street (PM, Sunday midday peak hours)

Although no impacts would be found along Pacific Avenue specifically between Privateer Street and Quarterdeck Street or between Westwind Street and Yawl Street, adverse impacts would be expected on each of the segments of Pacific Avenue directly adjacent to a micro-tunneling construction pit for the peak hour listed above.

Under the micro-tunneling construction method along the Pacific Alignment or the Beach Alignment with full closure of Pacific (Alternatives 2A and 3A), access or turning movement restrictions would be needed at the intersection of Hurricane Street & Pacific Avenue, as the east and south legs of the intersection would be temporarily closed. Under this alternative, approximately four residential driveways would be blocked during an entire phase of the construction period. One of the four driveways serves a multi-family residential building south of Hurricane Street and would be blocked during Phase 2D in Figure 7. Two single-family residential driveways north of Union Jack Street and one single-family residential driveway north of Via Marina would be blocked during one or more construction phases (Phases 2A and 2B). Based on the information available at this time, pending preparation of final worksite traffic control plans, it appears that existing turning movements could be maintained at the other intersections and driveways along Pacific Avenue.

On-street parking along Pacific Avenue would be removed in the vicinity of each pit. A loss of approximately 30 parking spaces along Pacific Avenue could occur during a given construction phase. The southernmost pit along the Pacific Alignment would be located along the metered public parking area along the east/west segment of Via Marina. While this pit is in operation, approximately 20 metered parking spaces would be temporarily unavailable. A loss of approximately eight parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant. Under the full closure scenarios, school buses serving the Westside Leadership Magnet School would not be able to drive northbound along Pacific Avenue to reach the school bus zone one block south of Washington Boulevard. A temporary alternative school bus access route would involve the reconfiguration of Strongs Drive for one-way (southbound) travel during the construction period. This conversion would require changes to the striping signing of Strongs Drive between Washington Boulevard and Driftwood Street and the removal of approximately 20 on-street parking spaces to accommodate school bus traffic on Strongs Drive. A loss of approximately 16 parking spaces would also occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Pacific Avenue.

<u>Alternative 3A</u>

Using the City of Los Angeles' intersection traffic impact significance criteria described above, the proposed project would have a temporary adverse impact at two of the six study intersections during at least one of the analyzed peak hours:

- Pacific Avenue & Washington Boulevard (PM peak hour)
- Via Marina & Washington Boulevard (PM peak hour)

Using the City of Los Angeles' street segment traffic impact significance criteria, the results indicate that the proposed project would not significantly impact any of the analyzed 16 street segments during any of the analyzed peak hours.

Under the micro-tunneling construction method along the Beach Alignment (Alternative 3A), short-term access restrictions may be necessary on Hurricane Street east of Pacific Avenue during the construction

Phase 3D, as shown in Figure 7. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately next to the Venice Pumping Plant, and east of Pacific Avenue.

Under the micro-tunneling construction method along the Beach Alignment (Alternative 3A), access or turning movement restrictions would be needed at the intersection of Hurricane Street & Pacific Avenue, as the east leg of the intersection (Hurricane Street) would be temporarily closed. Under this alternative, however, no residential driveways would be blocked by in-street construction.

On-street parking along Pacific Avenue would be removed in the vicinity of each pit. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Hurricane Street.

Alternative 3B

Using the City of Los Angeles' intersection traffic impact significance criteria, the results indicate that the proposed project would have no significant impact at any of the study intersections during any of the analyzed peak hours.

Using the City of Los Angeles' street segment traffic impact significance criteria, the results indicate that the proposed project would have no significant impact at any of the 16 street segments during any of the analyzed peak hours.

Under the open-trench construction method along the Beach Alignment (Alternative 3B), short-term access restrictions may be necessary on Hurricane Street and alleys and driveways directly along this alignment during the time that active trench construction is occurring at each location. Once trench construction has progressed (three weeks or less), access would be restored once these short-term restrictions are not required. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately next to the Venice Pumping Plant, and east of Pacific Avenue.

PROPOSED MITIGATION PROGRAM

Proposed mitigation consists of the following measures to reduce the temporary adverse impacts associated with construction-period activity in the vicinity of each construction shaft site or construction zone. The implementation of the following mitigation measures would reduce the project traffic/transportation impacts for all project alignment alternatives to a less than significant level.

For each construction site, a construction traffic management plan shall be prepared and submitted to LADOT and, if appropriate to, LADPW for review and approval prior to the start of any construction work. This plan shall include such elements as the designation of haul routes for construction-related trucks, the location of access to the construction site, any driveway turning movement restrictions, temporary traffic control devices or flagmen, travel time restrictions for construction-related traffic to avoid peak travel periods on selected roadways, and designated staging and parking areas for workers and equipment. Where construction would occur within a public street right-of-way (ROW) the following mitigation measures would also apply:

- A site-specific construction work site traffic control plan shall be prepared for each construction site and submitted to LADOT and, if appropriate, to LADPW for review and approval prior to the start of any construction work. This plan shall include such elements as the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas.

- Fully utilize available street space to minimize lane reductions on affected streets, including elimination of on-street parking where necessary. Implement left-turn restrictions as appropriate on restriped street segments to facilitate the movement of through traffic. Only eliminate travel lanes when absolutely necessary.

- Provide signage indicating alternative pedestrian and bicycle access routes where existing facilities would be affected. Consideration will be given to maintaining pedestrian access to the Westside Leadership Magnet School; the identified pedestrian routes to which are shown in Appendix D.

- Provide advance notice to any affected residents, businesses, schools and property owners in the vicinity of each construction site and, where existing property access will be reduced, identify alternative means of access.

- Coordinate with emergency service providers (police, fire, ambulance and paramedic services) to provide advance notice of any lane closures, construction hours and changes to local access and to identify alternative routes where appropriate.

- Coordinate with pubic transit providers (Metro, LADOT Commuter Express, Culver City Bus) to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporary bus stops within a reasonable walking distance of any displaced bus stops. If found to be necessary, a temporary shuttle bus could be provided to transit patrons to maintain service in the area south of Washington Boulevard. Under Alternatives 2A, 2B, 2A (FC) and 3A (FC), school bus service to the school on Pacific Avenue south of Washington Boulevard could be retained by routing buses from westbound Washington Boulevard to southbound Strongs Drive to westbound Driftwood Street to northbound Pacific Avenue to reach the existing student loading zone.

Unavoidable Adverse Impacts

In-street construction associated with each of the project alternatives could result in adverse traffic and parking impacts in the immediate vicinity of each active construction site, leading to localized congestion and increased competition for available parking. Because these impacts would be of limited duration, however, they are considered to be less than significant. Feasible mitigation measures have been identified to minimize these temporary impacts.

5. SUMMARY AND CONCLUSIONS

In 2006, Kaku Associates, Inc. (now Fehr & Peers) completed the traffic impact analysis included in the draft environmental impact report (EIR) for the proposed Venice Pumping Plant Dual Force Main project. The project would construct a second sewer main line to provide redundancy for an existing line and would extend from 140 Hurricane Street in the Venice community to Vista del Mar near Waterview Street in the Playa del Rey community. In response to comments received on the draft EIR and minor changes in the project description, Fehr & Peers has updated the traffic impact analysis conducted for the draft EIR that assumes potential impacts in the area north of the Ballona Creek/Marina del Rey Channel. The key findings and conclusions of the study are summarized below:

- The proposed project was analyzed for the following potential alternatives:
    - Alternative 1A: Alternative 1A analyzes project impacts along the Via Marina Alignment using the Micro-Tunneling Method.
    - Alternative 1B: Alternative 1B analyzes project impacts along the Via Marina Alignment using the Open-Trench Method.
    - Alternative 2A: Alternative 2A analyzes project impacts along the Pacific Avenue Alignment using the Micro-Tunneling Method.
        - Alternative 2A (FC) analyzes project impacts if Pacific Avenue were to be closed completely at Pacific Avenue & Hurricane Street and Pacific Avenue & Via Marina.
    - Alternative 2B: Alternative 2B analyzes project impacts along the Pacific Avenue Alignment using the Open-Trench Method.
    - Alternative 3A: Alternative 3A analyzes project impacts along the Venice Beach Alignment using the Micro-Tunneling Method.
        - Alternative 3A (FC) analyzes impacts if Pacific Avenue were to be closed completely at Pacific Avenue & Hurricane Street.
    - Alternative 3B: Alternative 3B analyzes project impacts along the Venice Beach Alignment using the Open-Trench Method.
- New baseline traffic data was collected early in 2009 for use in this study and based on available historic volume data, was adjusted to represent typical summer conditions. Detailed level of service analysis was conducted at six intersections and 16 street segments in the vicinity of the project site for weekday AM, PM, and Sunday midday peak hours (between 7:00 and 9:00 AM, 4:00 and 6:00 PM, and 1:00 and 5:00 PM, respectively). Two (Lincoln Boulevard & Washington Boulevard and Via Marina & Washington) of the six analyzed intersections are not currently operating at acceptable levels of service (LOS D or better) during all three peak periods.
- Future traffic conditions in the study area were forecast for the year 2011 based on cumulative development projects in formation and ambient traffic. The cumulative base analyses (prior to construction of the proposed project) indicate that Lincoln Boulevard & Washington Boulevard and Via Marina & Washington Boulevard are projected to operate at unacceptable levels (i.e., LOS E or F conditions) during one or more analyzed peak hours.

- For the micro-tunneling method, the proposed project is expected to generate approximately 76 daily construction truck trips and daily 134 worker trips. No construction truck trips are expected to occur during the peak hours. For the open-trench method, the proposed project is expected to generate approximately 30 daily construction truck trips and daily 56 worker trips. No construction truck trips are expected to occur during the peak hours. Planned construction hours are from 7:00 AM to 5:00 PM on weekdays. To provide a conservative analysis, however, it was assumed that both arriving and departing construction worker trips would occur during the peak hours.

- According to City significance criteria, the proposed project would adversely impact the following number of intersections and street segments under each alternative:

    - Alternative 1A: three study intersections, three street segments
    - Alternative 1B: two study intersections, three street segments
    - Alternative 2A: two study intersections, two street segments
    - Alternative 2B: no study intersections, two street segments
    - Alternatives 2A (FC) & 3A (FC): two study intersections, two street segments
    - Alternative 3A: two study intersections, no street segments
    - Alternative 3B: no study intersections, no street segments

  A mitigation program was developed to address the identified temporary adverse impacts. By its nature, the proposed project would result in only temporary traffic impacts. The overall construction schedule is approximately one year, with impacts at each location occurring for less than the full construction period.

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Attachment 2

Addendum to the Mitigation Monitoring Program. June 2009

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Addendum to the
MITIGATION MONITORING PROGRAM

FOR THE

Venice Pumping Plant Dual Force Main

W.O. SZC11631 (formerly W.O. E1700500)

SCH #2003031001

Prepared By

CITY OF LOS ANGELES
BUREAU OF ENGINEERING

September 2009

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Introduction

The California Environmental Quality Act (CEQA) requires public agencies to adopt a reporting or monitoring program for the changes to the project that have been adopted to mitigate or avoid significant effects on the environment. The program must be adopted by the public agency at the time findings are made regarding the project (Public Resources Code Section 21081.6). The State CEQA Guidelines allow public agencies to choose whether its program will monitor mitigation, report on mitigation, or both (California Code of Regulations Title 14, Chapter 3, Section 15097(c)).

In September of 2007, the City prepared a mitigation monitoring program for the Venice Pumping Plant Dual Force Main Sewer Project. Subsequently, the city re-evaluated the traffic impacts of the proposed project and its alternatives ("Traffic Study for the Venice dual Force Main, Los Angeles, California" by Fehr & Peers, 2009). This addendum is intended to incorporate the recommendations of the 2009 traffic study into the mitigation monitoring program. The text contained herein replaces the sections pertaining to circulation, traffic and parking previously described in the 2007 document.

In addition, this addendum is intended to clarify that these measures pertaining to circulation, traffic and parking are voluntary measures to reduce the adverse affects of the proposed project to the greatest extent possible. Inclusion of these measures in the mitigation monitoring program is not intended to indicate or imply that the proposed project would result in a significant impact if these measures were not taken.

Revised Mitigation Measures

The measures listed according to the stages of the project at which each mitigation measure must be implemented: design, construction, and operation.

Within each project phase, the following are identified for each mitigation measure:

(1) An "identifier" providing a nexus between the listed mitigation measure and the source document. The source documents should be consulted whenever there is any question regarding the intent or implementation of the mitigation measure. In this case the source documents are the Draft Environmental Impact Report dated December 20, 2005 and the 2009 Traffic Study for the Venice dual Force Main, Los Angeles, California by Fehr & Peers.

(2) description of the mitigation measure,

(3) the party who is responsible for the necessary implementing actions,

(4) the necessary implementing vehicle,

(5) the party who is responsible for verifying that the necessary implementing action is taken, and

(6) the primary record documenting the necessary implementing action.

The mechanisms for verifying that mitigation measures have been implemented include design drawings, construction documents intended for use by construction contractors and construction managers, field inspections, field reports, and other periodic or special reports. All records pertaining to this mitigation program will be maintained and made available for inspection by the public in accordance with the City's records management systems and policies.

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DESIGN PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
Circulation, Traffic and Parking					
	Incorporate all Construction Phase mitigation measures into the project plans and specifications	Project Engineer	Plans and Specifications	Project Manager	Plans and Specifications

CONSTRUCTION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
Circulation, Traffic and Parking					
TRA 1	To ensure adequate traffic signals and controls are in place prior to and during times of construction, a construction traffic management plan shall be prepared for each construction site and submitted to the City (for sites within the City) and County (for sites not within the City) for review and approval prior to the start of any construction work.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 2	To adequately control traffic to ensure compliance with all local and state safety standards and specifications, a site-specific construction worksite traffic control plan shall be prepared for each construction site and submitted to LADOT (for sites within the City) and County (for sites not within the City) for review and approval prior to the start of any construction work. This plan shall include such elements as the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 3	To reduce traffic congestion, fully utilize available street space to minimize lane reductions on affected streets, including elimination of on-street parking where necessary. Implement left-turn restrictions as appropriate on re-striped street segments to facilitate the movement of through traffic. Only eliminate travel lanes when	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report

CCC = California Coastal Commission; DFG = California Dept. of Fish and Game; LADOT = City of Los Angeles Department of Transportation; LARWQCB = California Regional Water Quality Control Board Los Angeles Region; PW-Eng = Dept. of Public Works Bureau of Engineering ; PW-San = Dept. of Public Works Bureau of Sanitation; RAP-Op.s = Dept. of Recreation & Parks Operations; SCAQMD = South Coast Air Quality Management District;

CONSTRUCTION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	absolutely necessary.				
TRA 4	To protect pedestrian and recreational traffic, provide signage indicating alternative pedestrian and bicycle access routes where existing facilities would be affected.	Constructor	Project Plans & Specifications	Construction Inspector	Project Acceptance or Closeout Report
TRA 5	To ensure ingress/egress to all properties adjacent to the project and surrounding areas, provide advance notice to any affected residents, businesses and property owners in the vicinity of each construction site and, where existing property access will be reduced, identify alternative means of access.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
TRA 6	To avoid impacts to public transportation, coordinate with pubic transit providers (MTA, LADOT Commuter Express, Culver City Bus) to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporary bus stops within a reasonable walking distance of any displaced bus stops.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
TRA 7	Coordinate with emergency service providers (police, fire, ambulance and paramedic services) to provide advance notice of any lane closures, construction hours and changes to local access and to identify alternative routes where appropriate.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
TRA 8	If found to be necessary, a temporary shuttle bus could be provided to transit patrons to maintain service in the area south of Washington Boulevard. Under Alternatives 2A, 2B, 2A (FC) and 3A (FC), school bus service to the charter school on Pacific Avenue south of Washington Boulevard could be retained by routing buses from westbound Washington Boulevard to southbound Strongs Drive to westbound Driftwood Street to northbound Pacific Avenue to reach the existing student loading zone.	Constructor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report

CCC = California Coastal Commission; DFG = California Dept. of Fish and Game; LADOT = City of Los Angeles Department of Transportation; LARWQCB = California Regional Water Quality Control Board Los Angeles Region; PW-Eng = Dept. of Public Works Bureau of Engineering ; PW-San = Dept. of Public Works Bureau of Sanitation; RAP-Op.s = Dept. of Recreation & Parks Operations; SCAQMD = South Coast Air Quality Management District;

OPERATION PHASE

Identifier	Mitigation Measures	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	There are no mitigation measures to be implemented during operation.				

CCC = California Coastal Commission; DFG = California Dept. of Fish and Game; LADOT = City of Los Angeles Department of Transportation; LARWQCB = California Regional Water Quality Control Board Los Angeles Region; PW-Eng = Dept. of Public Works Bureau of Engineering ; PW-San = Dept. of Public Works Bureau of Sanitation; RAP-Op.s = Dept. of Recreation & Parks Operations; SCAQMD = South Coast Air Quality Management District;

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Attachment 3

Bureau of Engineering Wastewater Conveyance Engineering Division. "Technical Memorandum Addressing Shaft and Work Area Dimensions for Micro-Tunneling Operations." March 23, 2009.

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CITY OF LOS ANGELES

Bureau of Engineering

Wastewater Conveyance Engineering Division

TECHNICAL MEMORANDUM

March 23, 2009

TECHNICAL MEMORANDUM ADDRESSING SHAFT AND WORK AREA DIMENSIONS FOR MICRO-TUNNELING OPERATIONS

The City of Los Angeles, Department of Public Works, Wastewater Conveyance Engineering Division (WCED), has prepared this technical memorandum to describe the general space requirements for microtunneling shafts and work areas based on historical data and industry standards; and to describe the shaft size and work area requirements for the construction of the Venice Dual Force Main Sewer (VDFM), Figure 1, based on general requirements and project-specific parameters.

General Micro-tunneling Shaft Size Requirements:

The minimum shaft dimensions must allow for the placement of necessary equipment and also provide enough space to safely perform all microtunneling activities. Typical microtunneling operations require jacking and receiving shafts.

The jacking shaft length is dictated by the length of pipe segments, jacking rig, thrust block, and shoring requirements.

The jacking shaft width will be impacted by the width of jacking rig, thrust block, slurry pump, bypass unit, tool storage, and shoring requirements. The most significant factor impacting the shaft width is the jacking rig whose size is proportional to the size of pipe being installed.

Both the shaft width and length may be impacted when considering adequate equipment separation, operator work area requirements, and the establishment of ingress and egress into and out of the shaft.

Receiving shaft size will be determined by shoring requirements and the size of the machine to be retrieved. The space required for the installation of any

permanent structure must also be taken into account when sizing both the jacking and receiving shafts.

Table 1 shows shaft dimensions from previous microtunneling projects of various diameters done by the City. Please note that the information shown on Table 1 was gathered from Reference Documents No.1 – 20. Table 2 provides a list of reference documents appended to this report. The data on Table 1 can help establish a range of reasonable shaft dimensions for different diameter microtunneling operations. The minimum jacking shaft dimensions of a 14' diameter circle and 13'x18', 12'x18', 12'x28', 15'-8"x25' rectangles have been used for 24", 30", 42", 45", and 49" diameter pipe jacking operations respectively. Table 1 also shows the minimum receiving shaft dimensions of 13'x18', 14'x18', and 12'x19' for 30", 42", and 45" diameter pipe jacking operations respectively.

Reference Document No. 2 shows a typical footprint of a jacking operation for a 49"OD pipe. The dimensions of this shaft are further detailed in reference document no.1. It can be seen how a 15'-8" x 25'-0" shaft can adequately enclose required shoring, jacking rig, thrust block, slurry pump, bypass unit and tool storage. Reference Document No. 2 also shows a reasonable separation between equipment, an open work area for operators and an established ingress and egress facility.

General Work Area Requirements:

The minimum work area dimensions must allow for the placement of necessary equipment and also provide enough space to safely perform all microtunneling activities. The jacking work area dimensions are determined by the dimensions of the shaft, control room, power source, lubrication system, lifting equipment, pipe storage area, slurry separation system, traffic barriers and required fencing. The most significant factor impacting the jacking work area width is the lifting equipment width and slurry separation system width which are proportional to microtunneling equipment weight and slurry circulation rate respectively. The receiving work area dimensions are determined by the shaft dimensions, lifting equipment dimensions, traffic barriers, and required fencing.

Table 1 shows work area dimensions from previous microtunneling projects of various diameters. Table 1 can help establish a range of reasonable work area dimensions for different diameter microtunneling operations. The minimum comparable jacking shaft work area dimensions of 43'x 800', 26'x290', 50'x134', 26'x140' have been used for 24", 30", 42", and 45" diameter pipe jacking operations respectively.

Table 1 also shows the minimum receiving shaft work area dimensions of 26'x400', 26'x147', 20'x275' for 30", 42", 45" diameter pipe jacking operations respectively.

VDFM Shaft Size Requirements:

Two alignments, one on Via Marina and one on Pacific Avenue, have been considered for the portion of this project north of the Marina del Rey Channel as shown on Figure 1. As for the portion south of the channel, Pacific Avenue offers the only viable route outside of the beach. The dimensions considered for the shafts and work areas are consistent for both routes. However, this and the next section discuss in detail the Pacific Avenue route as Pacific Avenue is the narrower of the two streets and as such, the impacts of a micro-tunneling operation of this size will be more significant on Pacific when compared to Via Marina.

The Pacific Avenue alignment would begin at the Venice Pump Plant on Hurricane Street and travel westerly along Hurricane Street, southerly along Pacific Avenue, southerly under Marina del Rey Channel and Ballona Creek (the channel), continuing southerly along Pacific to the existing Coastal Interceptor Sewer (CIS) junction structure on Vista Del Mar near Waterview Street.

The proposed shaft footprint dimensions considered for the VDFM Pacific Avenue alignment south of Hurricane are 16’x24’ and 16’x20’ for the jacking shafts and receiving shafts respectively. It must be noted that the 16’ dimension is to run along the width of the street. Additionally, a 20’x24’ jacking shaft is considered at the intersection of Pacific Avenue and Via Marina to be used for the channel crossing operations. There is also a shaft at the intersection of Pacific Avenue and Hurricane Street whose dimensions are 23’x20’. Please refer to plan and profile sheets C-15, C-16, C-17 and C-18 depicting typical shaft placement. Also note that shaft footprint dimensions include shoring requirements so the actual usable surface area of the shafts would be slightly reduced.

Shoring requirements were included during the initial design to better visualize the impact of shaft construction on existing utilities. A 14” deep I-beam was assumed for shoring purposes which reduces the above mentioned dimensions by 2’-4”. The surface dimensions of above mentioned pits would be 13’-8”x21’-8”, 13’-8”x17’-8”, 17’-8”x21’-8” and 20’-8”x17’-8” respectively. Please see Table 3 for shaft site information summary.

The above dimensions were determined by using the criteria outlined in the General Shaft Size Requirements section. The VDFM shaft dimensions summarized in Table 3 are consistent with the comparable historical data outlined in Table 1.

At the intersection of Hurricane-Pacific the shaft size was increased in order to address challenges created by utility conflicts. The most significant of these conflicts is the existing 48” force main which will have to be supported during microtunneling operations.

At the intersection of Via Marina-Pacific the shaft size was also increased to facilitate the installation of a larger 72” casing required for crossing the channel. Also, due to the challenges involved in jacking a large diameter casing under a waterway for a distance of over 1700’, a more powerful jacking rig is assumed which would also require a larger shaft.

It is reasonable to compare a typical VDFM Pacific avenue jacking shaft of 13’-8” x 21’-8” with the shaft depicted in Reference Document No.1 and 2, Table 2, as both involve similar diameter tunneling. Reference Document No.2 shows a typical footprint of a jacking operation for a 49”OD pipe. The dimensions of this shaft are further detailed in Reference Document No.1. It can be seen how a 15'-8" x 25'-0" shaft can adequately enclose required shoring, jacking rig, thrust block, slurry pump, bypass unit and tool storage. Reference Document No. 2 also shows a reasonable separation between equipment, an open work area for operators and an established ingress and egress facility.

Please note that Reference Document No.1 and 2 both depict a jacking operation for a 49” (outer diameter) pipe and the proposed VDFM pipe diameter has an inner diameter of 54”. Depending on the final pipe material, the resulting outer diameters might affect the equipment dimensions, equipment separation and available work area. The combination of a larger pipe diameter and a smaller shaft dimensions would result is a more compact and restrictive working environment than is depicted in Reference Document No. 2.

All proposed shafts in the VDFM project, both north and south of the channel, were determined using the same criteria.

These consistencies can be seen when comparing the VDFM shaft data on Table 1. The VDFM shaft information on Table 3 is also consistent with the historical information on Table 1.

VDFM Work Area Requirements:

The proposed work area dimensions for the Pacific Avenue alignment south of Hurricane are 30’ x 220’ and 24’ x 175’ for the jacking shafts and receiving shafts respectively. These dimensions were determined by using the criteria outlined in the General Work Area Requirements section. Please refer to plan and profile sheets C-15, C-16, C-17 and C-18 depicting typical work area configurations. The VDFM work area dimensions summarized in Table 3 are, for the most part, consistent with the historical data which is outlined in Table 1.

There exists some variance in regards to required work area length and width. The variance in length is most likely due to opportunistic conditions resulting in a longer then required work area and the availability of off site storage resulting in a shorter work area length.

The variance in width of the comparable work area supports our proposed work area dimensions. Considering that all smaller diameter comparable microtunneling operations have required a minimum work area width of at least 26'; it is reasonable to affirm the validity of considering the 24' receiving work area width and the 30' jacking work area width as minimum values for a 54" ID microtunneling operation. Please note that the work area at several locations may be widened to the full width of Pacific and further lengthened along Pacific without creating additional impacts.

A typical equipment set up for a 49-inch microtunneling operation is shown on Reference Document No. 5. Due to the relatively large footprint made by the microtunneling equipment, a reduction of the proposed Pacific Avenue work areas would be unrealistic. The most critical work area dimension is the width which can not be reduced in order to allow for necessary equipment width. The Reference Documents No. 6 and 7 respectively show the width of both a slurry separation unit and crane which were employed during a 29-inch microtunneling operation. Both the slurry separation unit and the crane share a width of 23' and after considering the width of required K-rail and fencing, a width of 30' is required for the work area.

All proposed work areas in the VDFM project, both north and south of the channel, were determined using the same criteria. The consistencies of the proposed work areas can be seen when comparing the VDFM data on Table 3. The VDFM work area information on Table 1 is also consistent with the historical information on Table 1.

A traffic study is currently underway to analyze the traffic impacts of shaft and work area placement on Pacific Avenue and Via Marina, north of Marina del Rey channel.

The preceding sections have illustrated WCED's rationale for the shaft and work area dimensions for a micro-tunneling operation to accommodate the jacking of a 54" inner diameter pipe. The proposed dimensions are consistent with established historical data and take into account current industry standards. Regardless of the alignment route selected, these dimensions are the minimum required in order to construct the Venice Dual Force Main project.

Attachments:
Figure 1
Table-1
Table-2
Reference Documents 1–20
Table -3
Street Plan and Profile sheets: C-15, C-16, C-17 and C-18

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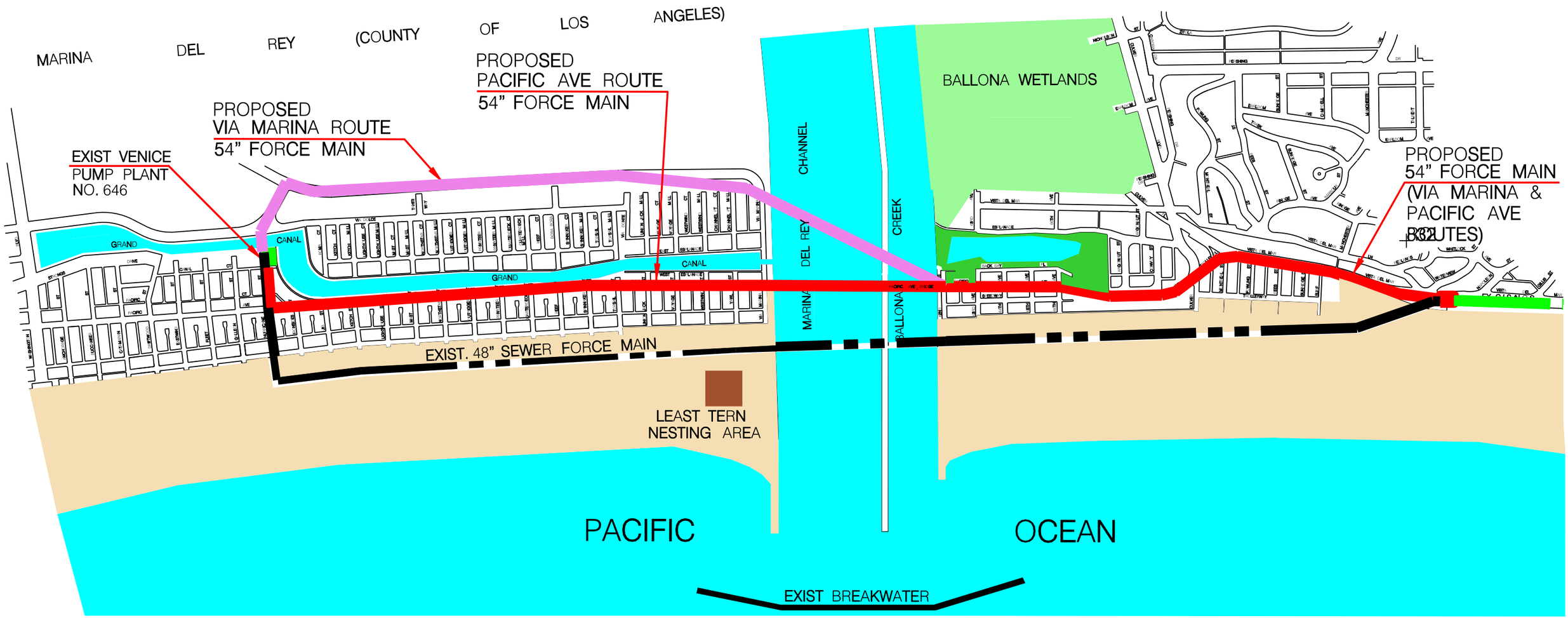
Figure 1



VENICE DUAL FORCE MAIN

DEPT. OF PUBLIC WORKS
BUREAU OF ENGINEERING
W.O. SZC11631

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TABLE 1								
Item No.	Reference Document No.	Project	Pipe Dia.	Shaft Type	Shaft Location	Shaft Dimensions	Work Area Dimmensions	Notes
1	1,2	NOS Rehab.	49" OD Casing	Jacking	La Cienega / Jefferson	15'-8" x 25'-0"	NA	Please refer to Table 2 for reference document description. Please note that the pit dimensions shown on the shoring plans do not take into account pile width. The actual area of concern would be grater then the 15'-8" x 25'-0" that is shown. Work area was located within private lot and no information was found on Microtunneling work area detentions. The receiving shaft information for this project was not shown because, due to other activities at the shaft, the dimensions were unreasonably large.
2	3	Alvarado - Crandal Relief Sewer	30" OD Casing	Jacking	Alvarado S/O 101 FWY	13' x 18'	29' x 290'	Please refer to Table 2 for reference document description. Please note that shaft and work area dimensions were field measured. Also note that the 30" OD pipe diameter is significantly smaller then the 54" ID Venice Dual Force Main and so it is reasonable to assume a larger shaft will be required.
3	4,5,6,7,8	Alvarado - Crandal Relief Sewer	24" ID Pipe	Jacking	Beverly Bl. E/O Carondelet	14' DIA.	43' x (over 800')	Please refer to Table 2 for reference document description. Please note that shaft and work area dimensions were field measured.
4	9	Alvarado - Crandal Relief Sewer	30" OD Casing	Receiving	Alvarado N/O 101 FWY	13' x 18'	26' x (over 400')	Please refer to Table 2 for reference document description. Please note that shaft and work area dimensions were field measured. Due to HDPE installation, the work area is longer that if it were just a Microtunneling operation. The critical 26' width is still needed for crane setup during boring machine retrieval.
5	10	Rosewood Willoughby Relief Sewer	45"	Receiving	Rosewood E/O Martel	14'x34'	30x146 13'x200(b)	
6	11	Rosewood Willoughby Relief Sewer	45"	Receiving / Jacking	Waring W/O La Brea	12'x28'	35'x263'	
7	12	Rosewood Willoughby Relief Sewer	45"	Jacking	La Brea N/O Waring	11'x36'	26'x280'	
8	13	Rosewood Willoughby Relief Sewer	45"	Receiving / Jacking	La Brea S/O Willoughby	12'x28'	26'x280'	
9	14	Rosewood Willoughby Relief Sewer	45"	Receiving	Willoughby E/O La Brea	12'x19'	20'x133'	No equipment was mobilized at this receiving shaft site when aerial photograph was taken. This work area is not comparable because a work area increase is expected one crane is mobilized
10	15	Rosewood Willoughby Relief Sewer	45"	Jacking	Willoughby W/O Mansfield	18'x44'	25'x300'	Work area appears to extend into parking lot located at the North West corner of Mansfield Ave and Willoughby Ave. Equipment mobilization is expected to have taken place in parking lot
11	16	Rosewood Willoughby Relief Sewer	45"	Receiving	Willoughby W/O Highland	13'x21'	14'x60'	No equipment was mobilized at this receiving shaft site when aerial photograph was taken. This work area is not comparable because a work area increase is expected one crane is mobilized
12	17	Rosewood Willoughby Relief Sewer	45"	Jacking	Willoughby W/O Las Palmas	12'x36'	28'x228'	
13	18	Rosewood Willoughby Relief Sewer	45"/ 42"	Receiving	Willoughby at Seward	14'x18'	26'x147' 13'x111'(b)	The 45" pipe runs W/O Seward and the 42" runs E/O Seward
14	19	Rosewood Willoughby Relief Sewer	42"	Jacking	Willoughby at Cahuenga	12'x18'	50'x244' 20'x460'(b)	
15	20	Rosewood Willoughby Relief Sewer	42"	Receiving	Willoughby W/O Vine	10'x25'	40'x267'	

(a) Rosewood Willoughby Relief Sewer shaft and work area dimensions were measured from 200 aerial photograph on NavigateLA.
(b) Additional Work Areas Dimensions located in close proximity to primary work area are shown separately

TABLE 2	
Reference Document	Description
1	Shoring plan for a jacking shaft for a 49” microtunneling operation.
2	49" pipe jacking set up
3	30" pipe jacking shaft and work area widths
4	24" pipe
5	24" pipe jacking set up
6	Separator unit used in 24" microtunneling operation
7	Crane used in 24" microtunneling operation
8	Work area width for 24" microtunneling operation
9	30" receiving shaft and work area widths
10	Aerial Photo of shaft and work area for a 45” microtunneling operation
11	Aerial Photo of shaft and work area for a 45” microtunneling operation
12	Aerial Photo of shaft and work area for a 45” microtunneling operation
13	Aerial Photo of shaft and work area for a 45” microtunneling operation
14	Aerial Photo of shaft and work area for a 45” microtunneling operation
15	Aerial Photo of shaft and work area for a 45” microtunneling operation
16	Aerial Photo of shaft and work area for a 45” microtunneling operation
17	Aerial Photo of shaft and work area for a 45” microtunneling operation
18	Aerial Photo of shaft and work area for a 45”/42" microtunneling operation
19	Aerial Photo of shaft and work area for a 42” microtunneling operation
20	Aerial Photo of shaft and work area for a 42” microtunneling operation

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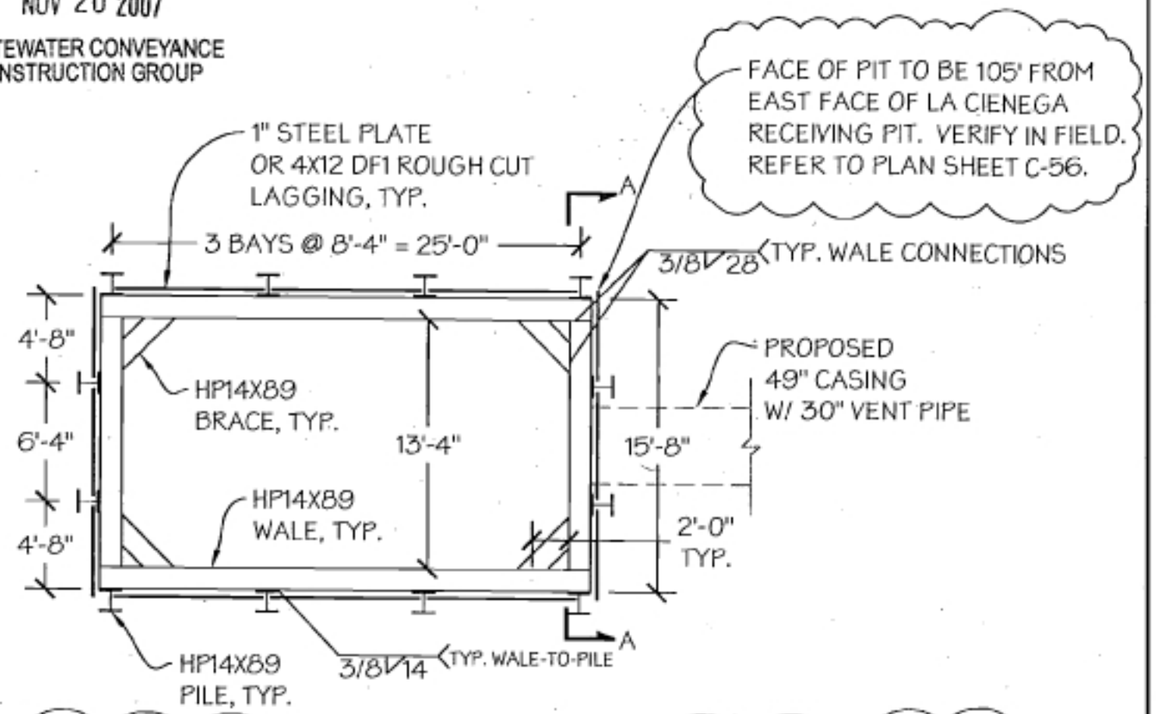
Reference Document No. 1

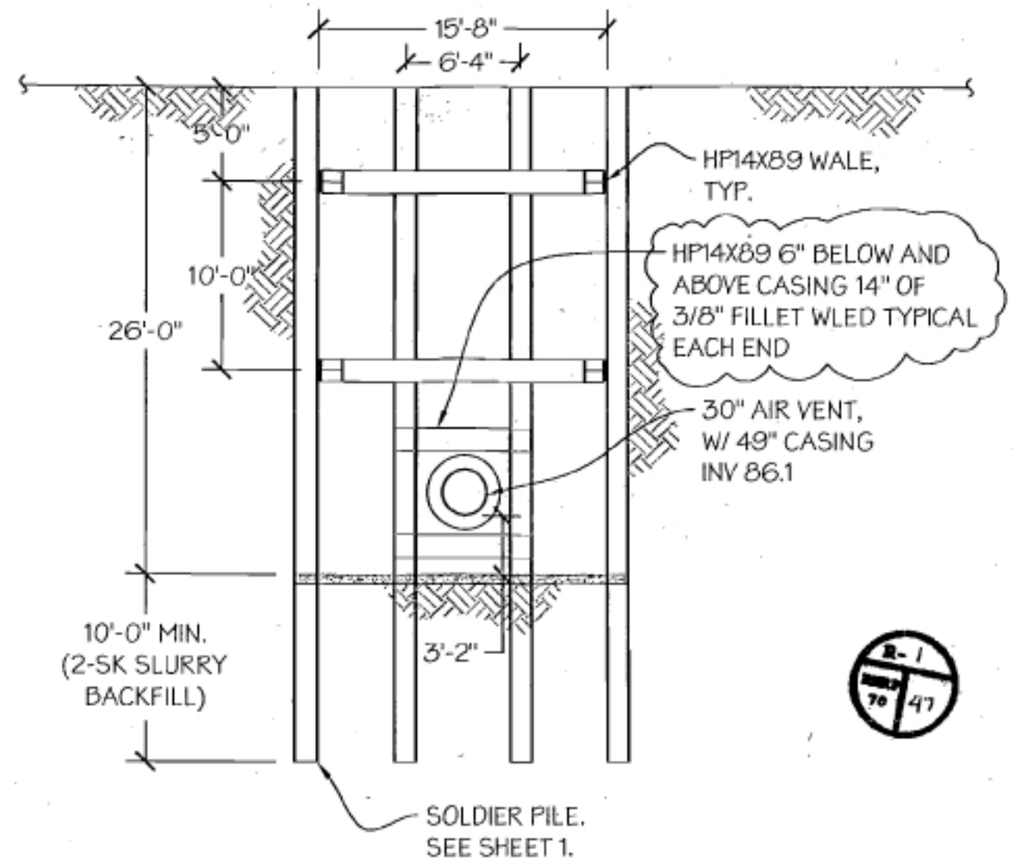
RECEIVED
NOV 20 2007
WASTEWATER CONVEYANCE
CONSTRUCTION GROUP



re-certification of the submitted shoring drawing excavation pit is required every 90 days when the pit is open

PLAN VIEW

SCALE: 1/8" = 1'-0"



SECTION A-A

SCALE: 1/8" = 1'-0"

NOTES:

1) THIS SHORING PLAN HAS BEEN PREPARED IN ACCORDANCE WITH TITLE 8, CHAP. 4, SECT. 1541.1(C)(4) OF THE STATE OF CALIFORNIA SAFETY ORDERS (SAFETY ORDERS).
2) ALL MATERIALS USED IN THIS DESIGN SHALL CONFORM TO TITLE 8, CHAP. 4, SECT. 1541.1(d).
3) THIS SHORING PLAN SHALL BE IMPLEMENTED BY THE CONTRACTORS COMPETENT PERSON AS DEFINED BY TITLE 8, CHAP. 4, SECT. 1504(a) OF THE SAFETY ORDERS, AND INSTALLED PER SECT. 1541.1(e).
4) REACHES SHOWN ARE APPROXIMATE. IF A SOIL TYPE IS ENCOUNTERED WHICH REQUIRES A DIFFERENT SHORING METHOD, THEN SHORING PLANS SHALL BE REVISED AND RESUBMITTED FOR APPROVAL.
5) CALCULATIONS NOT SHOWN HEREON ARE ON FILE AT THE ACCEPTING AGENCY AND/OR THE OFFICE OF THE CONTRACTOR.
6) NO ONE SHALL BE EXPOSED WHERE SHORING IS REMOVED OR IS INEFFECTIVE.
7) THE WATER TABLE MUST BE KEPT BELOW SUBGRADE. NO WATER SHALL BE ALLOWED TO COLLECT IN PIT. PUMP AS NECESSARY.
8) WELDS: USE E70XX ELECTRODES.
9) THE CONTRACTORS COMPETENT PERSON HAS REVIEWED THIS SHORING PLAN AND FOUND IT COMPATIBLE WITH THE PROPOSED CONSTRUCTION METHODS.
10) ALL STOCKPILES, AND SPOIL MATERIAL, SHALL BE KEPT AT LEAST 26' AWAY FROM THE EDGE OF EXCAVATION (EXCLUDES EXCAVATOR).
11) PILES AND WALES: ASTM GRADE A992 (GRADE 50), PLATES A36 STEEL.
12) TIMBER LAGGING TO BE DF#1 ROUGH CUT, AND SHALL BE REMOVED AT PROJECT COMPLETION.
13) SHORING TO BE REMOVED AS BACKFILL IS PLACED.
14) PILES TO BE DRILLED AND BACKFILLED WITH 2-SK SLURRY FOR THE EMBEDMENT.

LOG#: 238 CODE: RMP-70-8-7
TITLE: SUB

REGISTERED PROFESSIONAL ENGINEER
BRADLEY A. SIAS
058238
EXP. 6/30/10
CIVIL
STATE OF CALIFORNIA
11/19/07

COLICH & SONS, JR PIPELINE J.V.
GENERAL ENGINEERING CONTRACTORS
(310) 397-9990 FX (310) 397-9997

PROJECT: NOS REHAB - SIPHON TO LCIS J.S.
CITY OF LOS ANGELES, W.O. SZC11307

SHORING CASE #5 - AIR VENT JACKING PIT

DWG. #: 4002-47R1 SCALE: AS NOTED
DATE: 11/19/7 BY: BAS SHEET 1 OF 1

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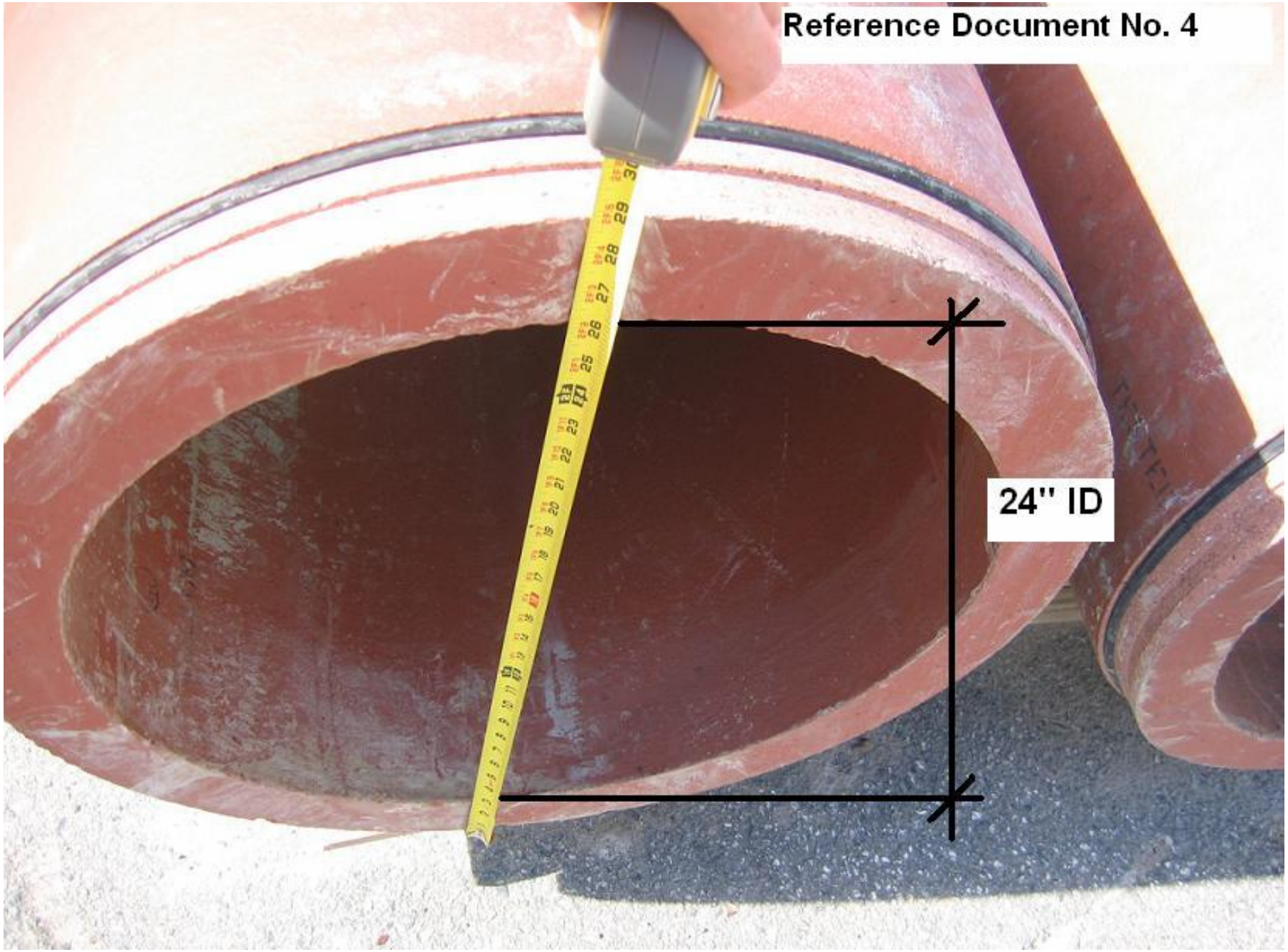
Reference Document No.2
15'-8" x 25' jacking shaft for 49" pipe

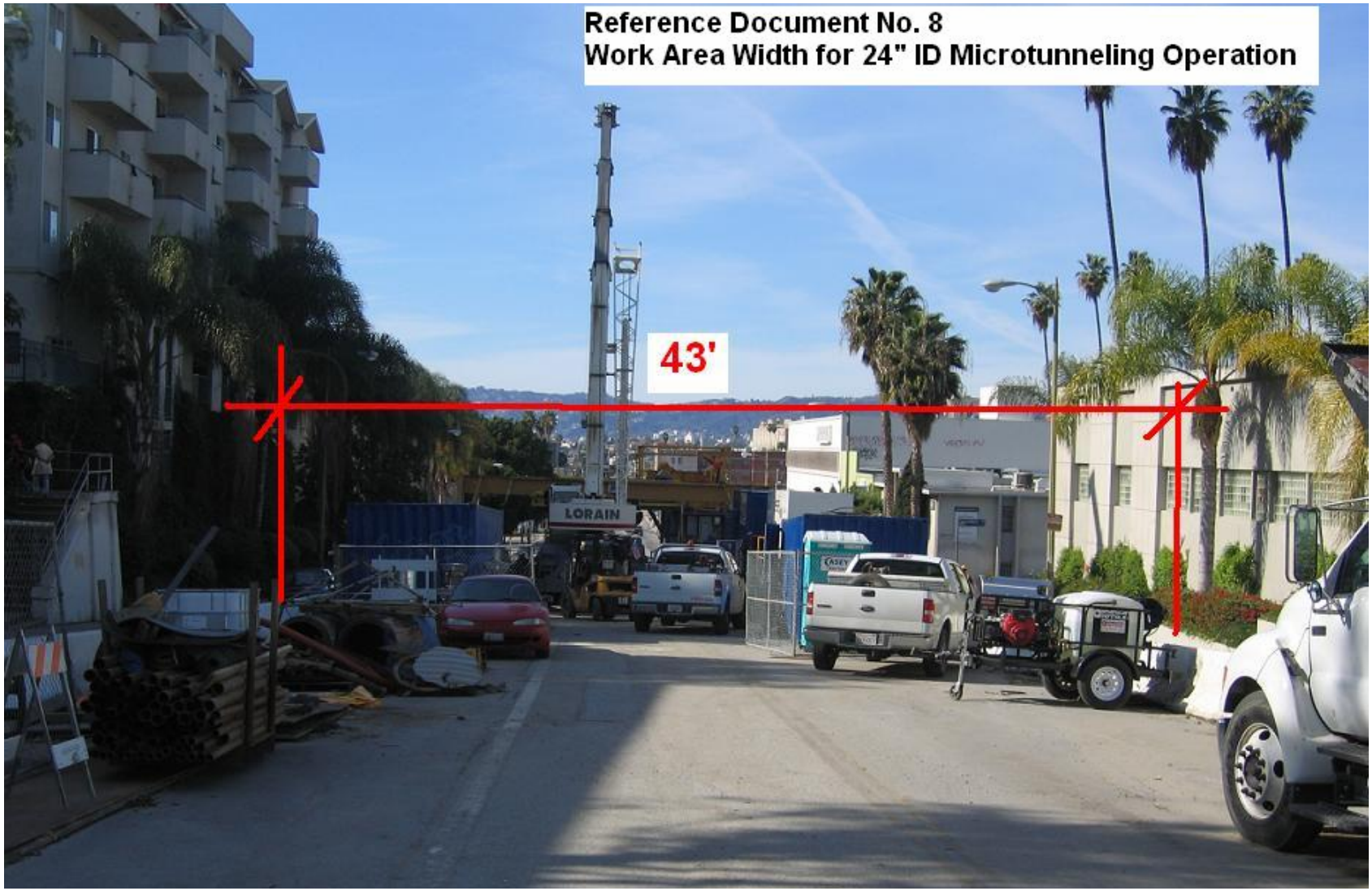
Reference Document No. 3
Jacking Site
Shaft and Work Area Widths
29'
13'


Reference Document No. 4
24" ID

Reference Document No. 5
24" Microtunneling Operation

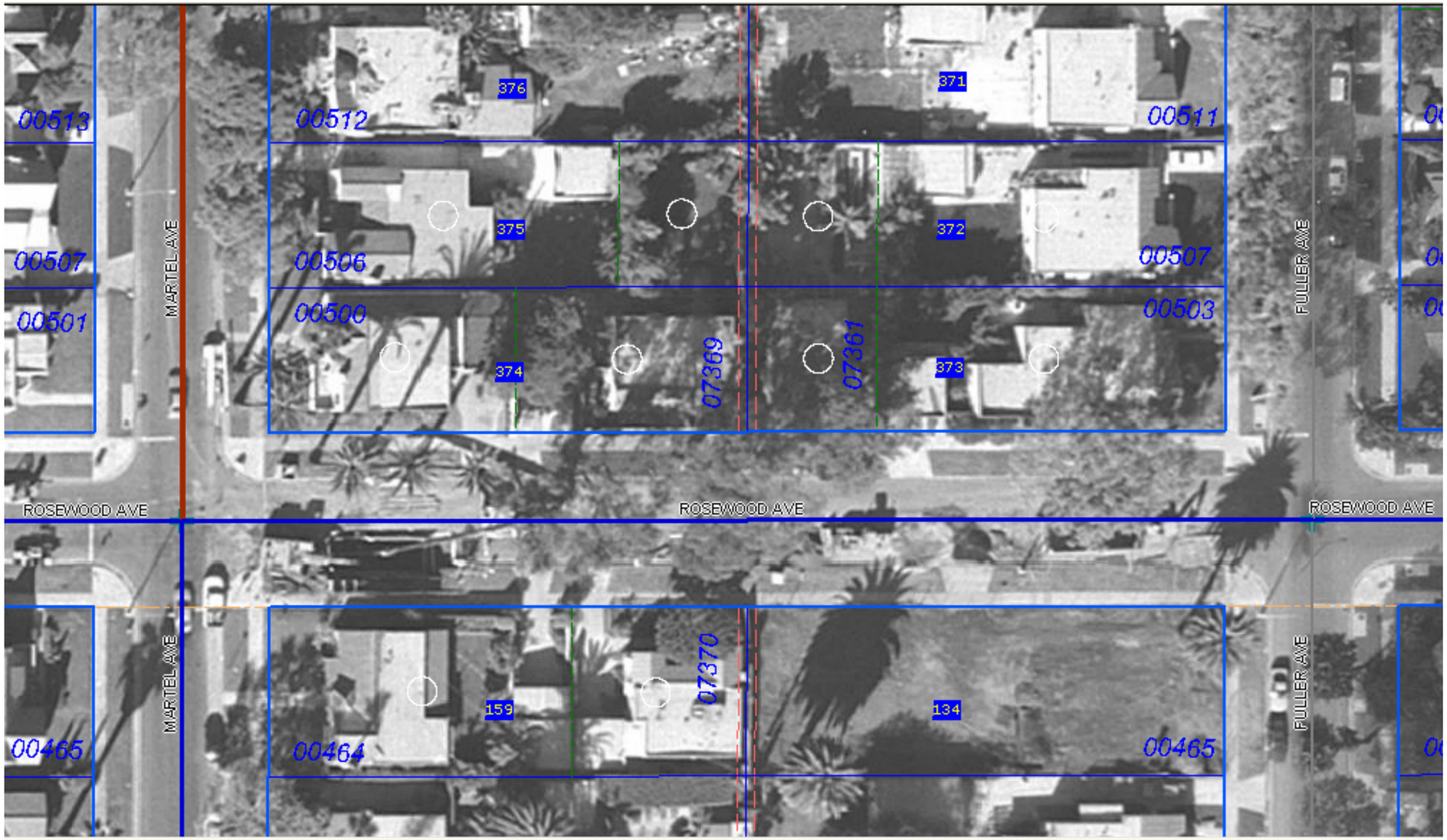
Reference Document No. 6
Separator Unit for a 24" ID Microtunneling Operation

Reference Document No. 7
Crane for a 24" ID Microtunneling Operation


Reference Document No. 8
Work Area Width for 24" ID Microtunneling Operation
43'
LORAIN

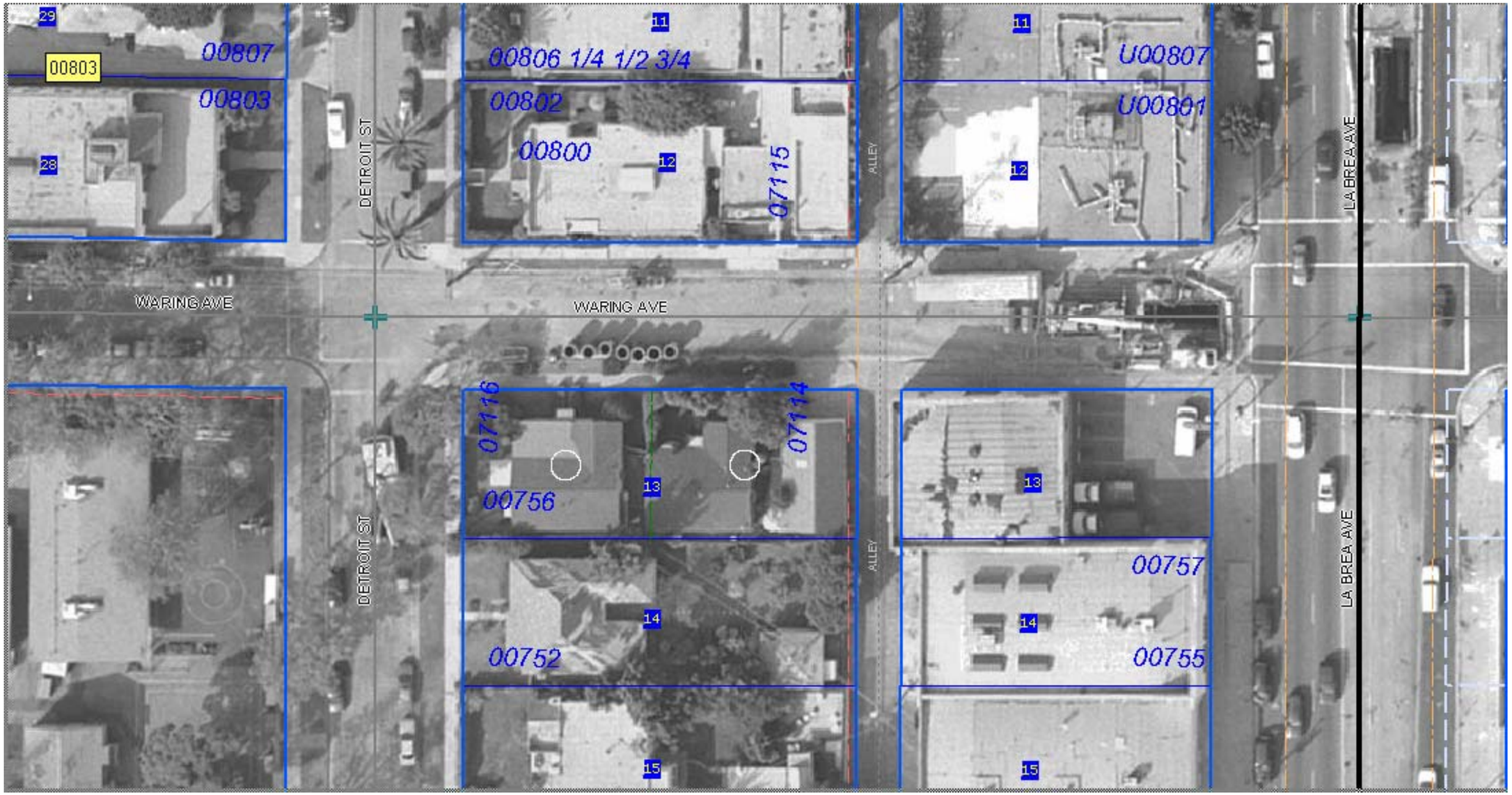
Reference Document No. 9
Receiving Site
Shaft and Work Area Width for 30" OD Microtunneling Operation

Reference Document No.10
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.11
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

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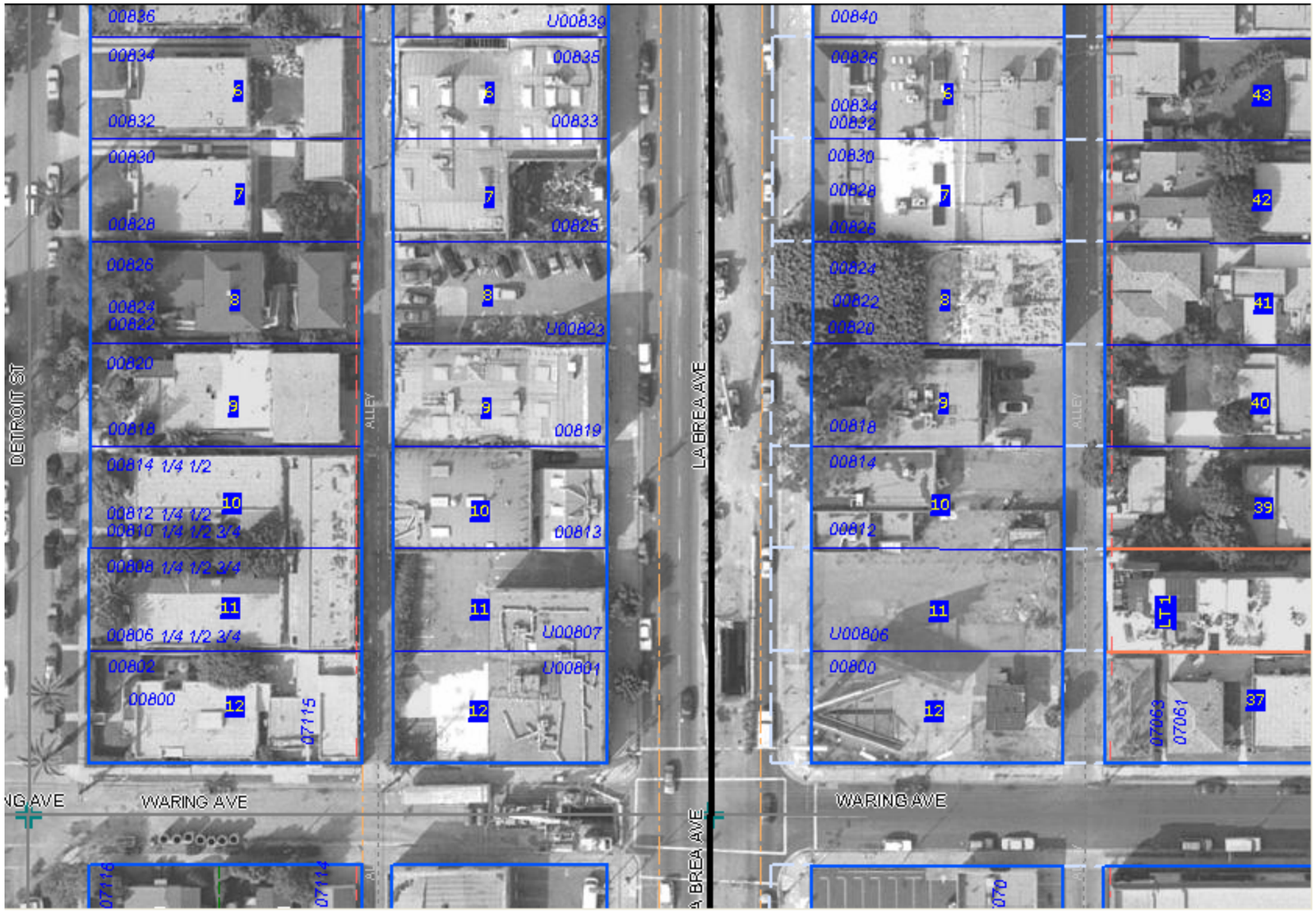
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

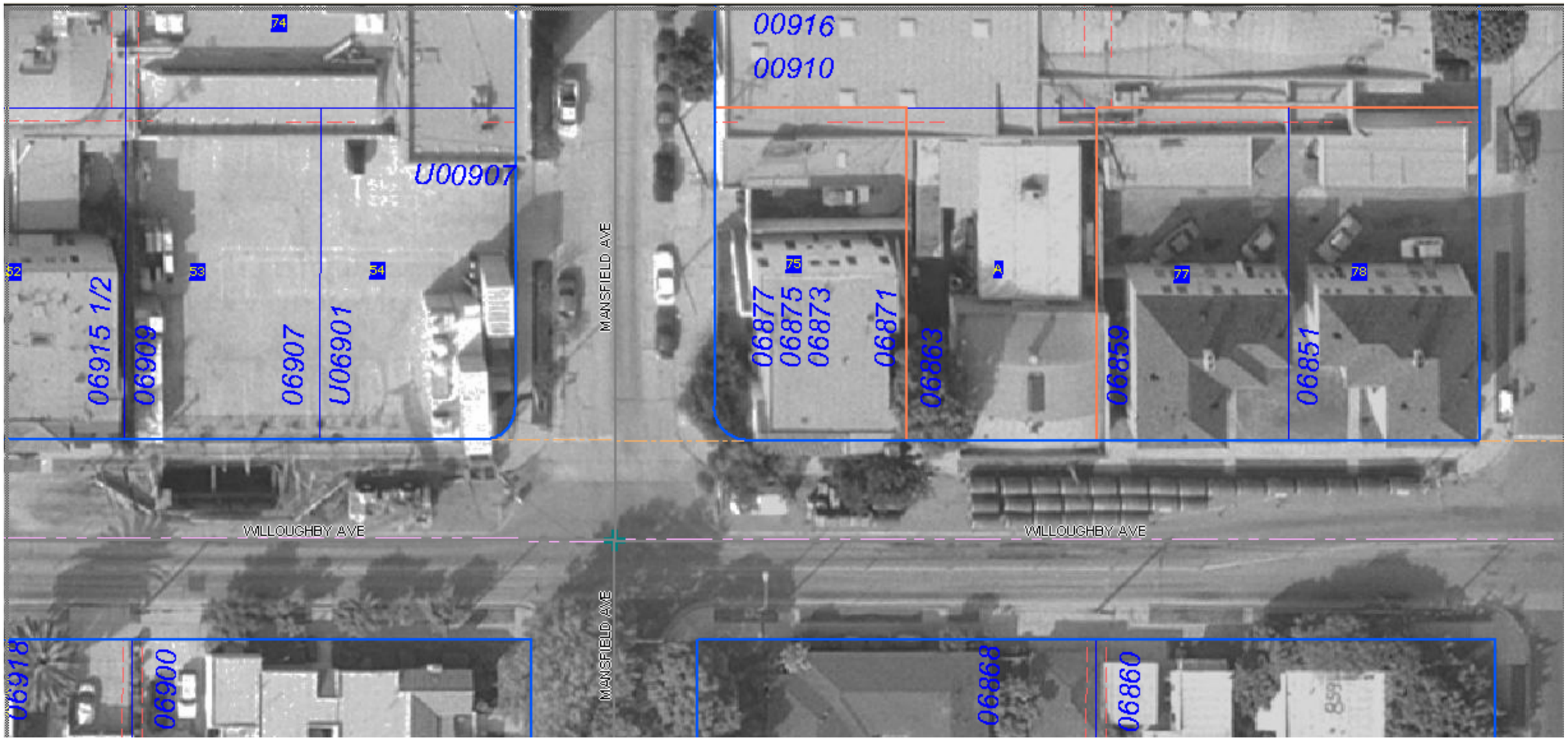
Reference Document No.13
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation

NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.14
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation

NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.15
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

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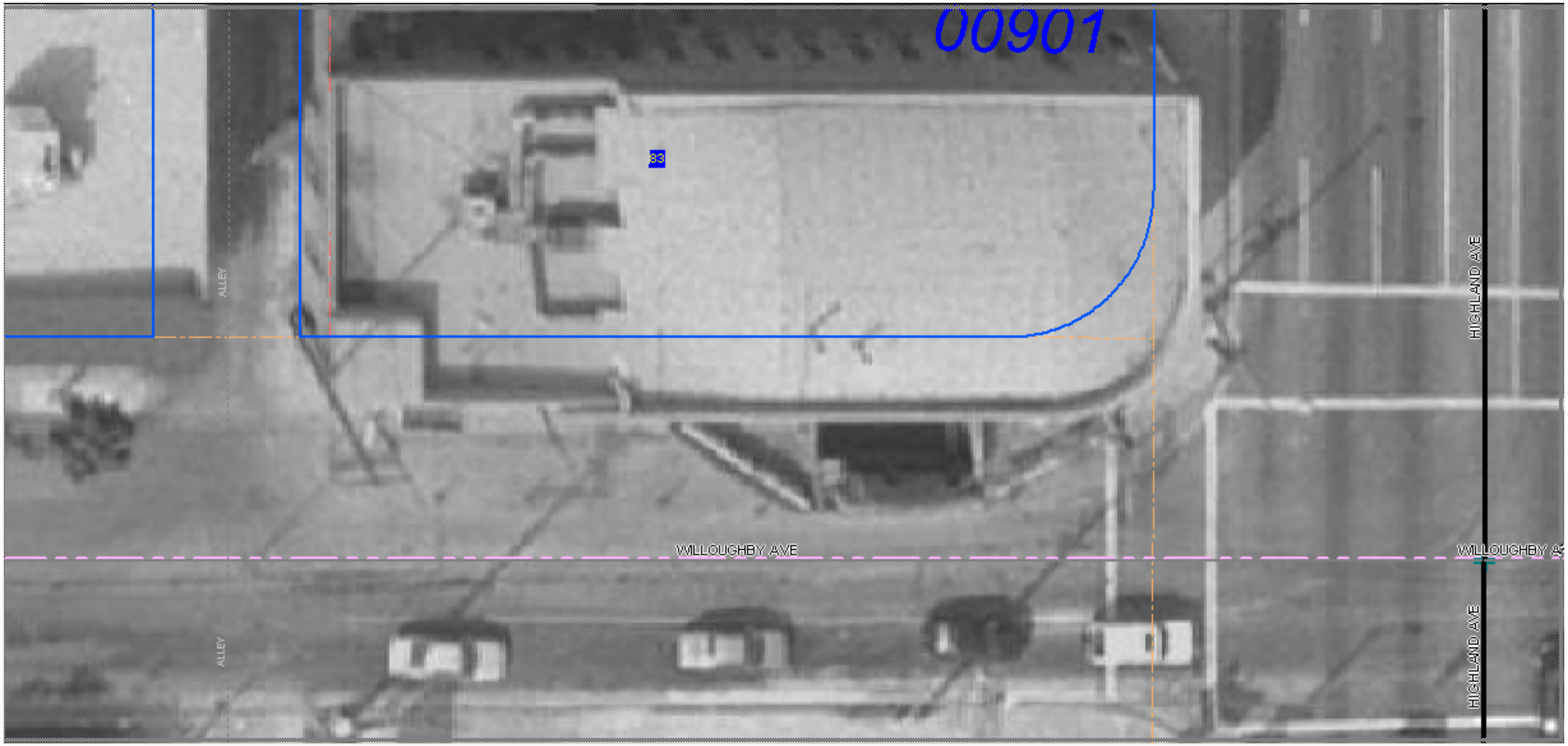
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation

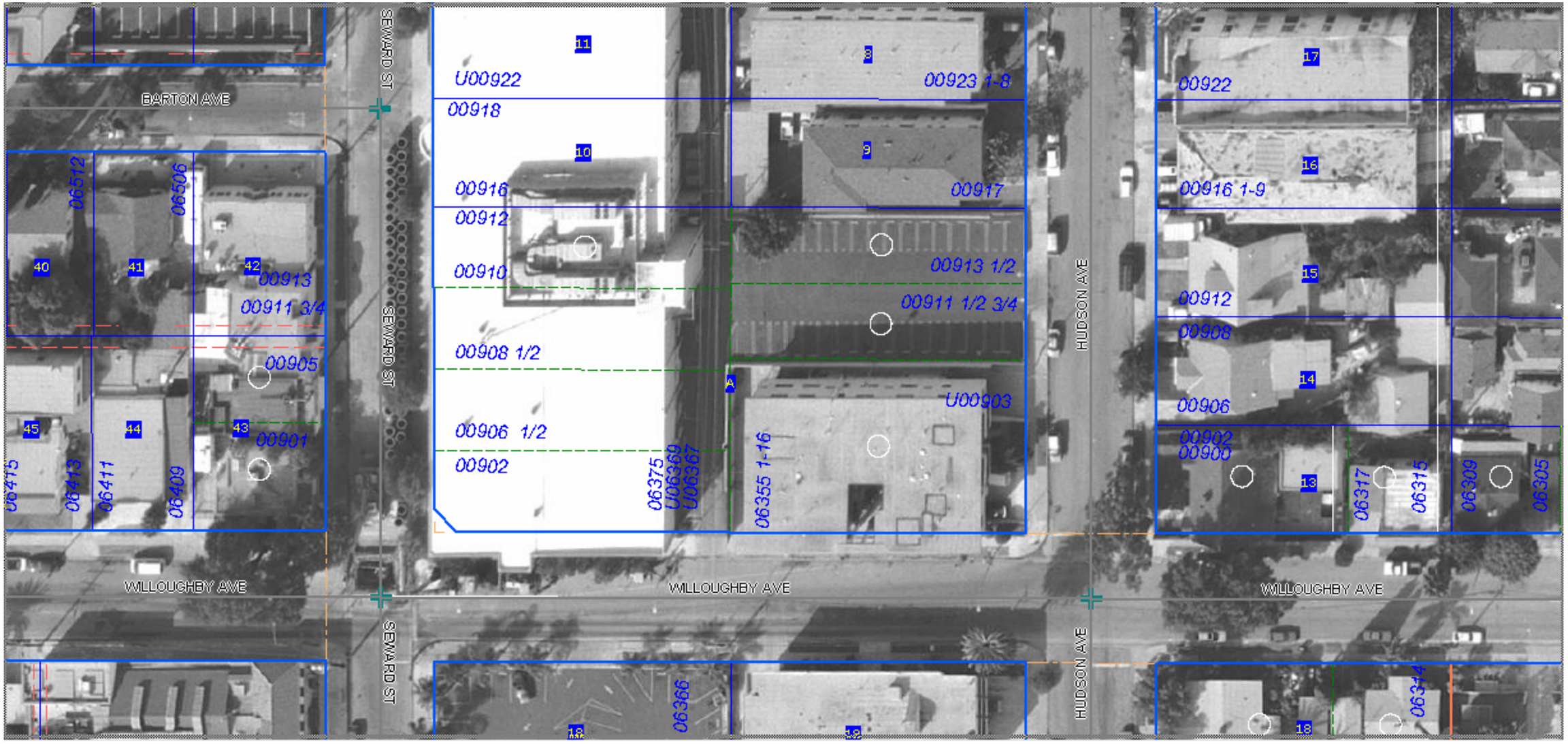


NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.17
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation

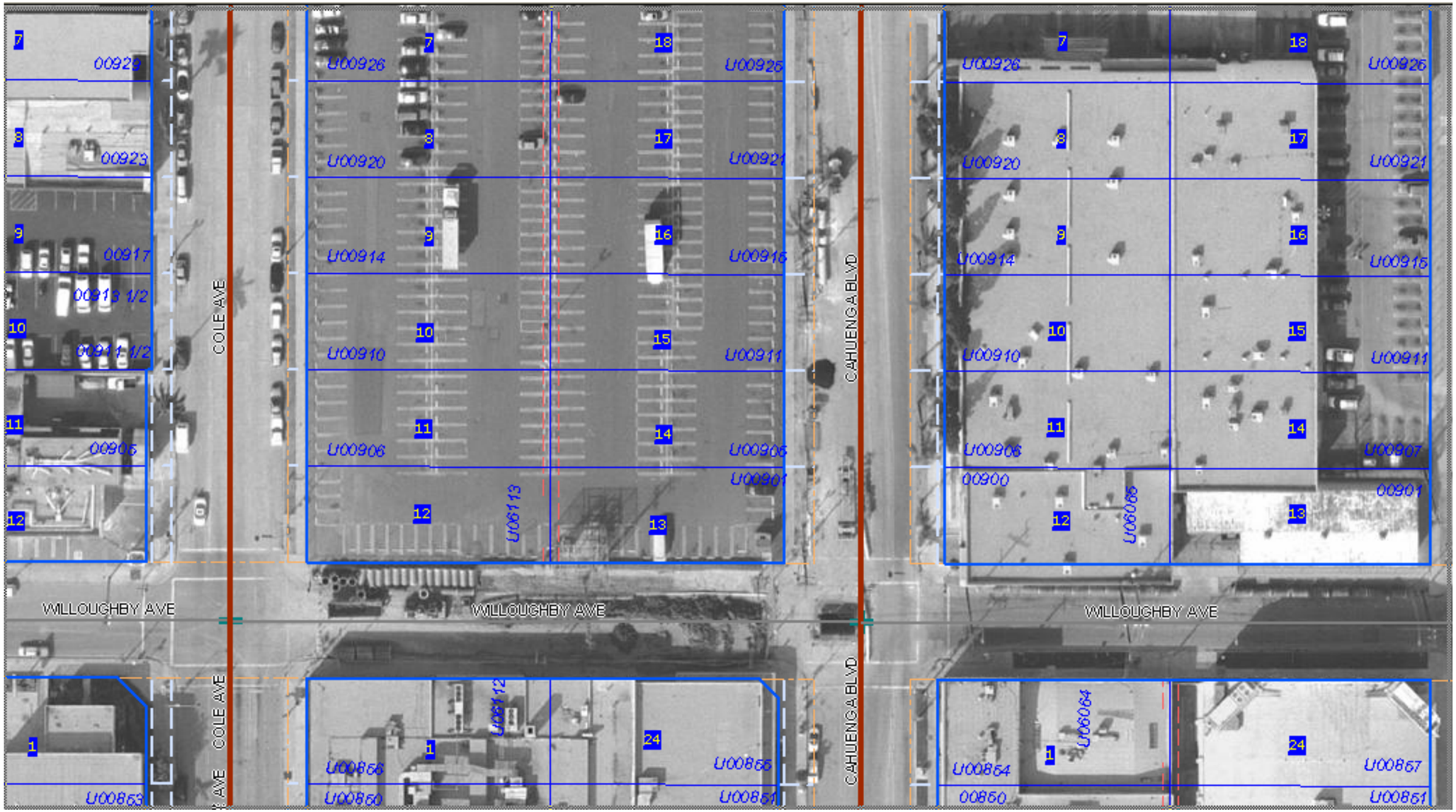
NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.18
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



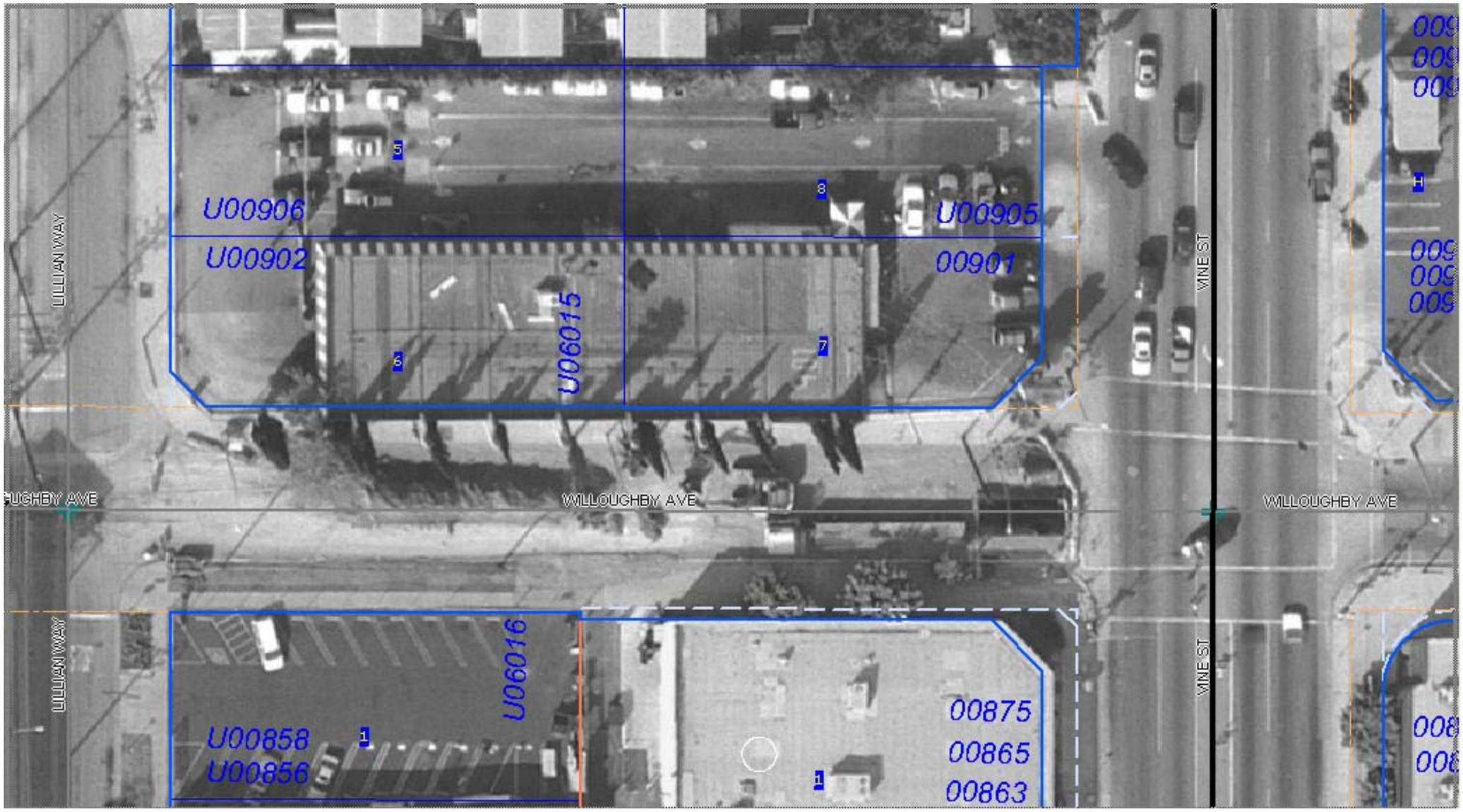
NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.19
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

Reference Document No.20
Shaft and Work Area Aerial Photo of a 45” Microtunneling Operation



NavigateLA-Aerial Ortho Photo (12/2000)

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TABLE 3					
VDFM PIT INFORMATION					
	Pit Location	Pit Type	Pit Shape	Pit Dim.	Work Area
VIA MARINA / NORTH REACH	Pumping Plant	Receving	Circular	13'	110' x 100'
	Marquesas - Via Dolce	Jacking and Receving	almost rec.	about 15' x 20'	(20'-51') x 255'
	Marquesas - Via Marina	Jacking	Circular	18' dia	30' x 341'
	Via Marina - Tahiti Way	Receving	Square	16' x 16'	24' x 148'
	Via Marina-N/O Bora Bora	Jacking	Circular	18' dia	(21' - 32')x 236'
	Via Marina-Via Dolce	Receving	Square	16' x 16'	29' x 204'
	Via Marina Park	Jacking and Receving	Circular	24' dia	60' x 423'
PACIFIC / SOUTH REACH	Pacific Ave – 62nd Ave	Jacking	Circular	24' dia	93' x 125'
	Pacific Ave – 65th Ave	Receving	Square	16' x 16'	29' x 138'
	Pacific Ave (Park Parking Lot)	Jacking	Rectangular	35' x 20'	32' x 320'
	Pacific Ave – Culver Blvd	Receving	Circular	18' dia	31' x 124'
	Trolley Pl. – Vista Del Mar	Jacking	Circular	18' dia	(38' -43') x 225'
ALTERNATE VDFM PIT INFORMATION					
	Pit Location	Pit Type	Pit Shape	Pit Dim.	Work Area
PACIFIC / NORTH REACH	Pacific Ave – Hurricane	Receving / Jacking	Rectangular	20'-8" x 17'-8"	30' x 220'
	Pacific Ave – N/O Light House	Jacking	Rectangular	13'-8" x 21'-8"	30' x 220'
	Pacific Ave - S/O Outrigger	Receving	Rectangular	13'-8" x 17'-8"	24' x 175'
	Pacific Ave – N/O Spinnaker	Jacking	Rectangular	13'-8" x 21'-8"	30' x 220'
	Pacific Ave – N/O Union Jack	Receving	Rectangular	13'-8" x 17'-8"	24' x 175'
	Pacific Ave – Via Marina	Jacking	Rectangular	21'-8" x 21'-8"	30' x 220'

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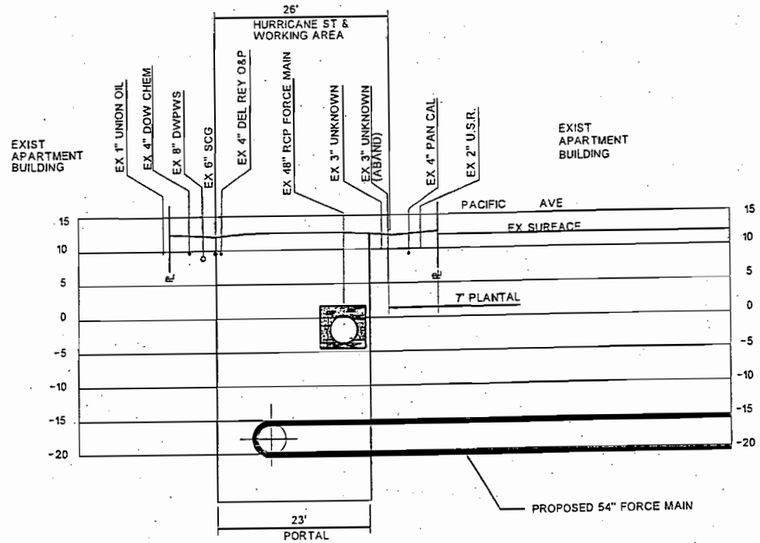

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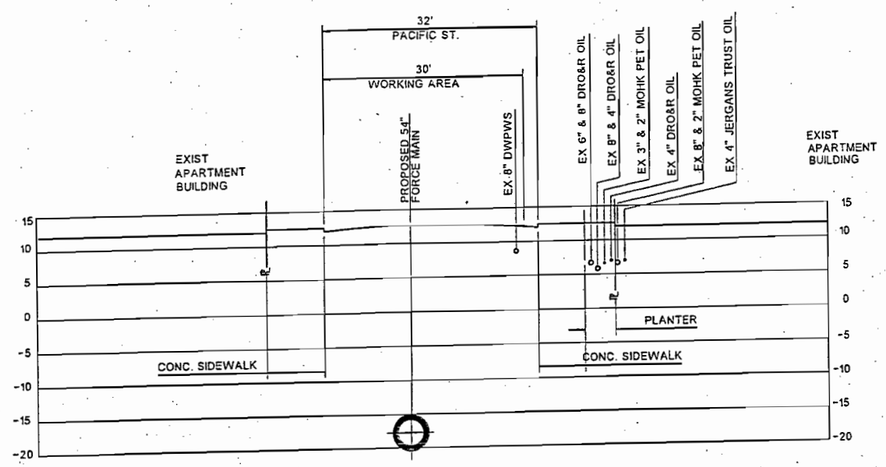

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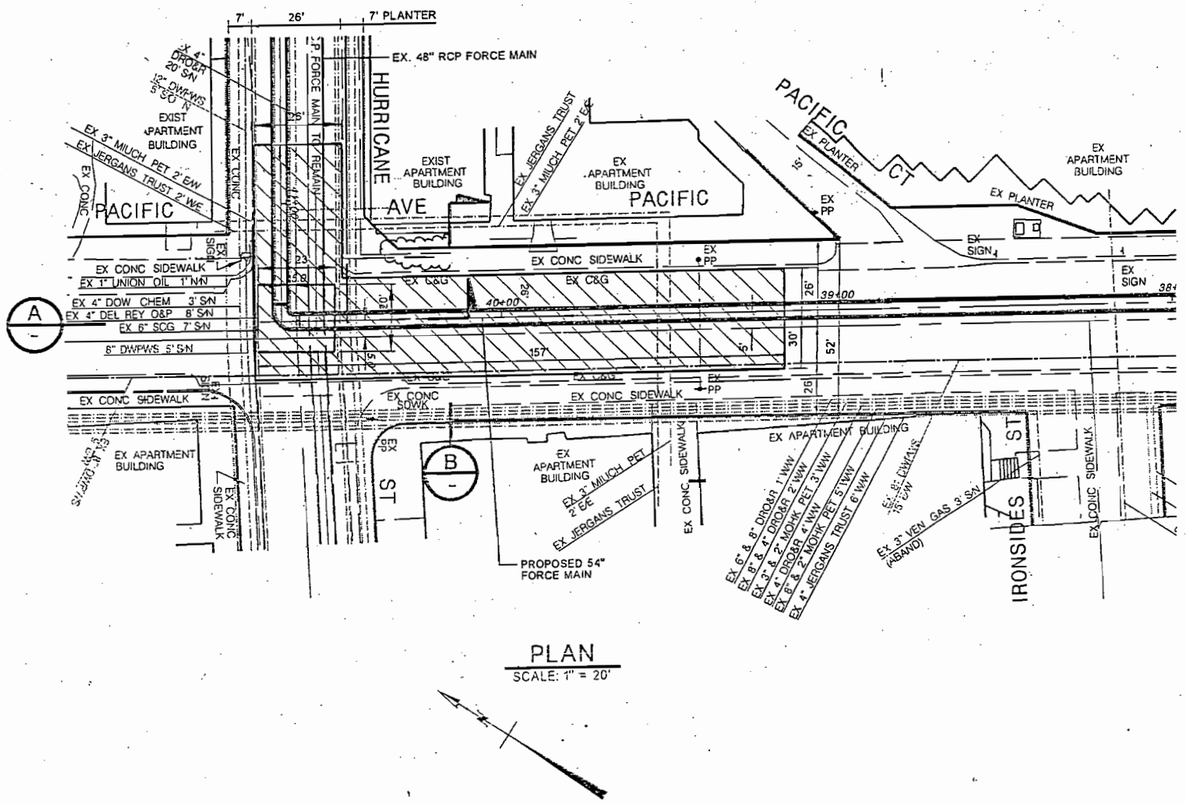


PLAN
SCALE: 1" = 20'

REVISION DATES (INSERT STAGE, DATE)

CITY OF LOS ANGELES • DEPARTMENT OF PUBLIC WORKS • BUREAU OF ENGINEERING

LA DPW ENGINEERING

REVISIONS			
NO.	DATE	BY:	

CP NO. AS-BID

ENGINEER:	GARY LEE MOORE, P.E.	CITY ENGINEER LIC. NO. C046372	DATE 10-08
DESIGNED BY:	SEAN ZAHEDI	DESIGN GROUP	10-08
DRAWN BY:	SEAN ZAHEDI, CAN CHOW		10-08
CHECKED BY:	CAN CHOW, HIEP LAM		10-08
APPROVED BY:	SEAN ZAHEDI, P.E.		10-08
	WAYNE A. LAWSON, P.E.		

HORIZONTAL CONTROL: NAD1983, 2011 EPOCH
VERTICAL CONTROL: NAVD88, 2011 EPOCH
HORIZ. CONTROL: NAD83, EPOCH 1991.5

SHEET TITLE: SECTIONS AT HURRICANE ST & PACIFIC ST

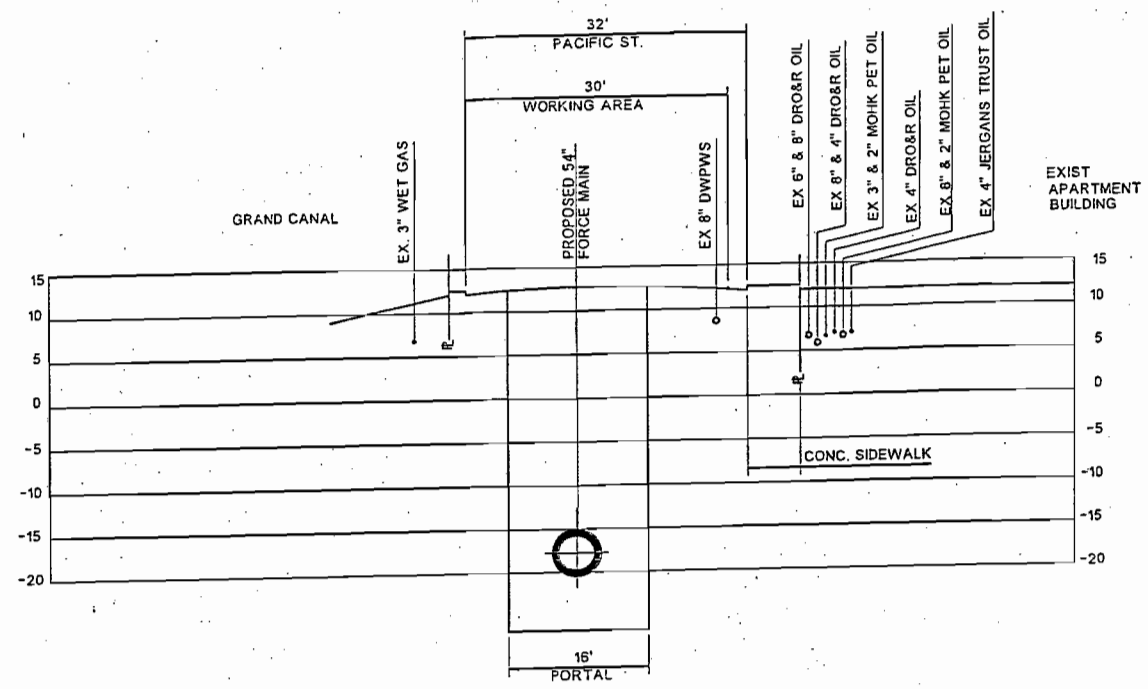
PROJECT: VENICE DUAL FORCE MAIN

ADDRESS: MARINA DEL REY, CALIFORNIA

WORK ORDER NO. SZC11631

DRAWING NO. C-15

SHEET



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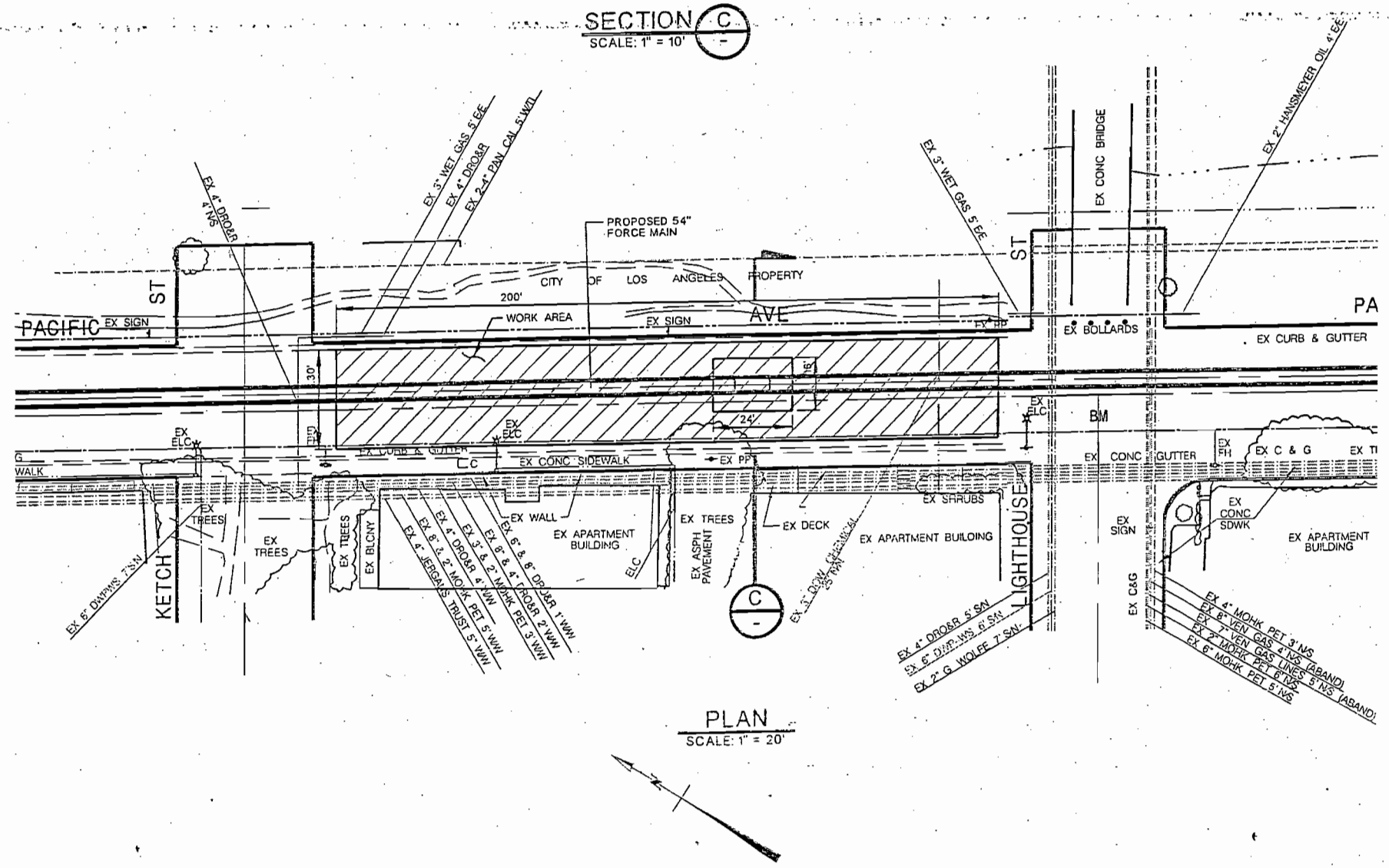


PLAN
SCALE: 1" = 20'

CITY OF LOS ANGELES • DEPARTMENT OF PUBLIC WORKS • BUREAU OF ENGINEERING

LA DPW ENGINEERING

CIP NO. A58BIDT

VR NO.	REVISIONS	DATE	BY

ENGINEER:	SEAN ZAHEDI	LIC. NO. C046372	DATE 10-08
DESIGNED BY:	SEAN ZAHEDI, CAN CHOW		10-08
DRAWN BY:	CAN CHOW, HEP LAM		10-08
CHECKED BY:	SEAN ZAHEDI, P.E.		10-08
APPROVED BY:	WAYNE A. LAWSON, P.E.		10-08

DESIGN GROUP
CITY ENGINEER
GARY LEE MOORE, P.E.

VERTICAL CONTROL: NGVD29, 1985 ADJ
HORIZONTAL CONTROL: NAD83, EPOCH 1991.35

SHEET TITLE: SECTION ON PACIFIC ST. BETWEEN KETCH ST AND LIGHTHOUSE ST.

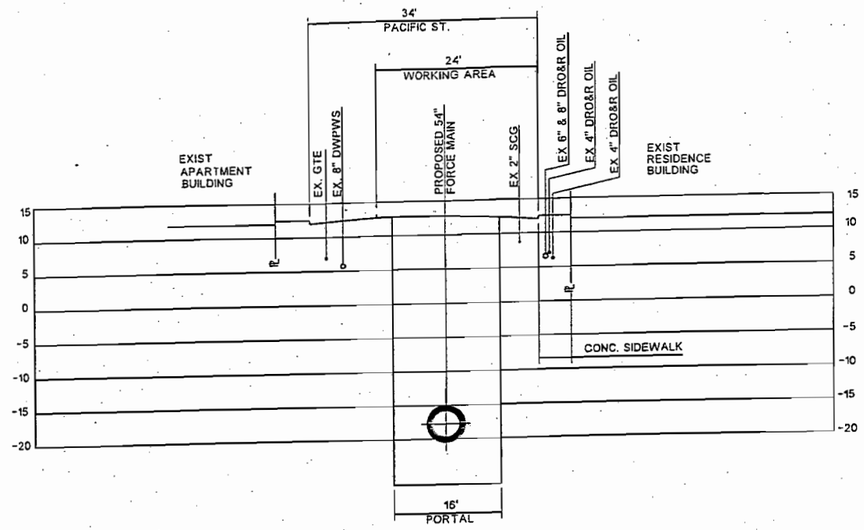
PROJECT: VENICE DUAL FORCE MAIN

ADDRESS: MARINA DEL REY, CALIFORNIA

WORK ORDER NO. SZC11631

DRAWING NO. C-16

SHEET



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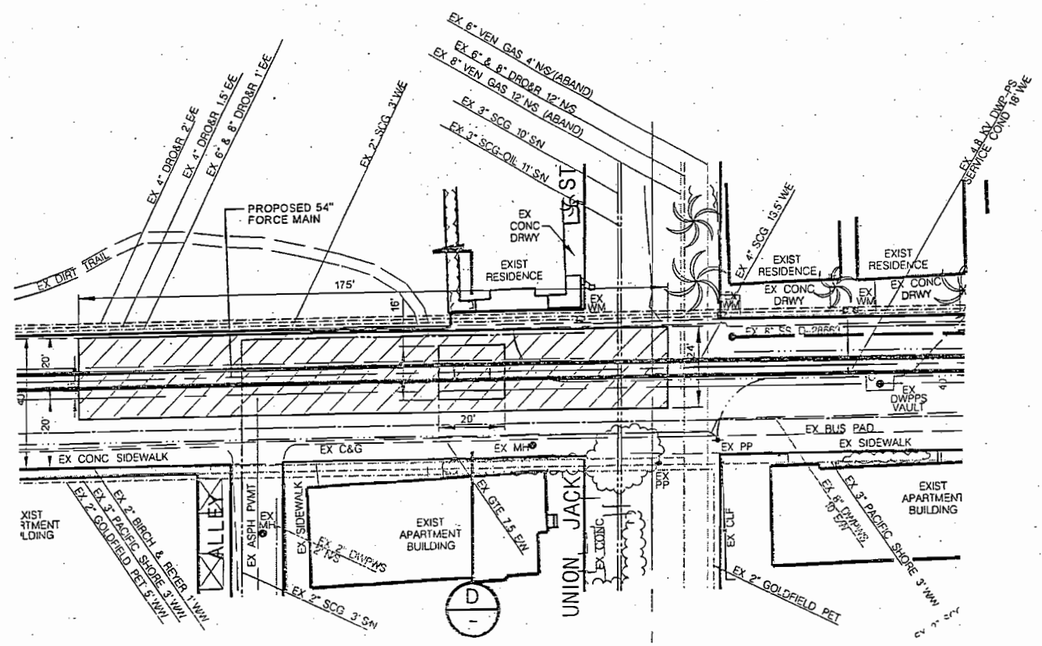

PLAN
SCALE: 1" = 20'

CITY OF LOS ANGELES • DEPARTMENT OF PUBLIC WORKS • BUREAU OF ENGINEERING

GARY LEE MOORE, P.E.
CITY ENGINEER

ENGINEER:	SEAN ZAHEDI	LIC. NO. C046372	DATE 10-08
DESIGNED BY:	SEAN ZAHEDI, CAN CHOW		10-08
DRAWN BY:	CAN CHOW, HIEP LAM		10-08
CHECKED BY:	SEAN ZAHEDI, P.E.		10-08
APPROVED BY:	WAYNE A. LAWSON, P.E.		10-08

DESIGN GROUP

VERTICAL CONTROL: NGVD29 1955 ADJ.
HORIZONTAL CONTROL: NAD83 (EPOCH 1991.8)
COORDINATES SHOWN ARE GRID COORDINATES

SHEET TITLE: SECTION ON PACIFIC ST NEAR UNION JACK ST

PROJECT: VENICE DUAL FORCE MAIN

ADDRESS: MARINA DEL REY, CALIFORNIA

LA DPW ENGINEERING

REVISIONS

NO.	DATE	BY

CIP NO. AS6BIDT

WORK ORDER NO. SZC11631

DRAWING NO. C-17

SHEET

REVISION DATES (DESIGN STAGE ON Y)

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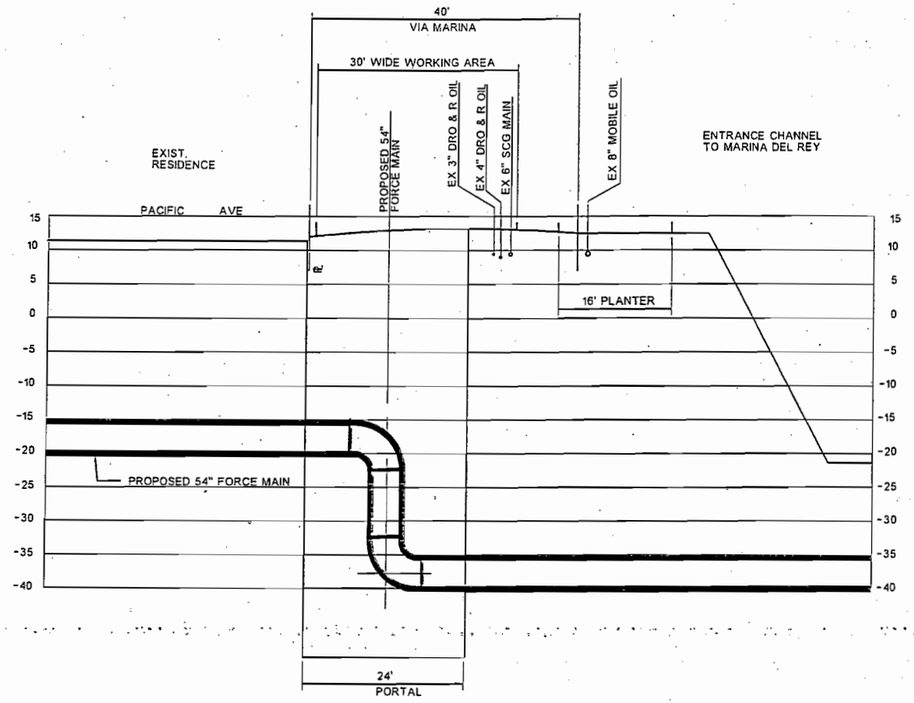

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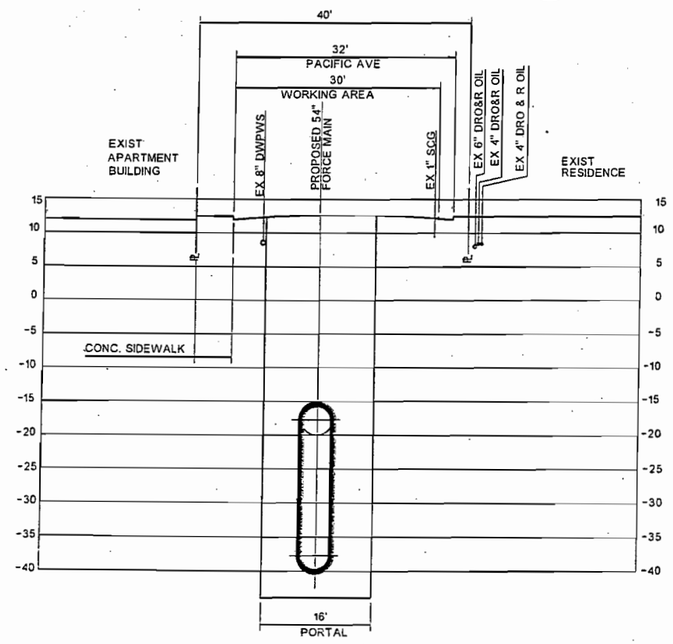

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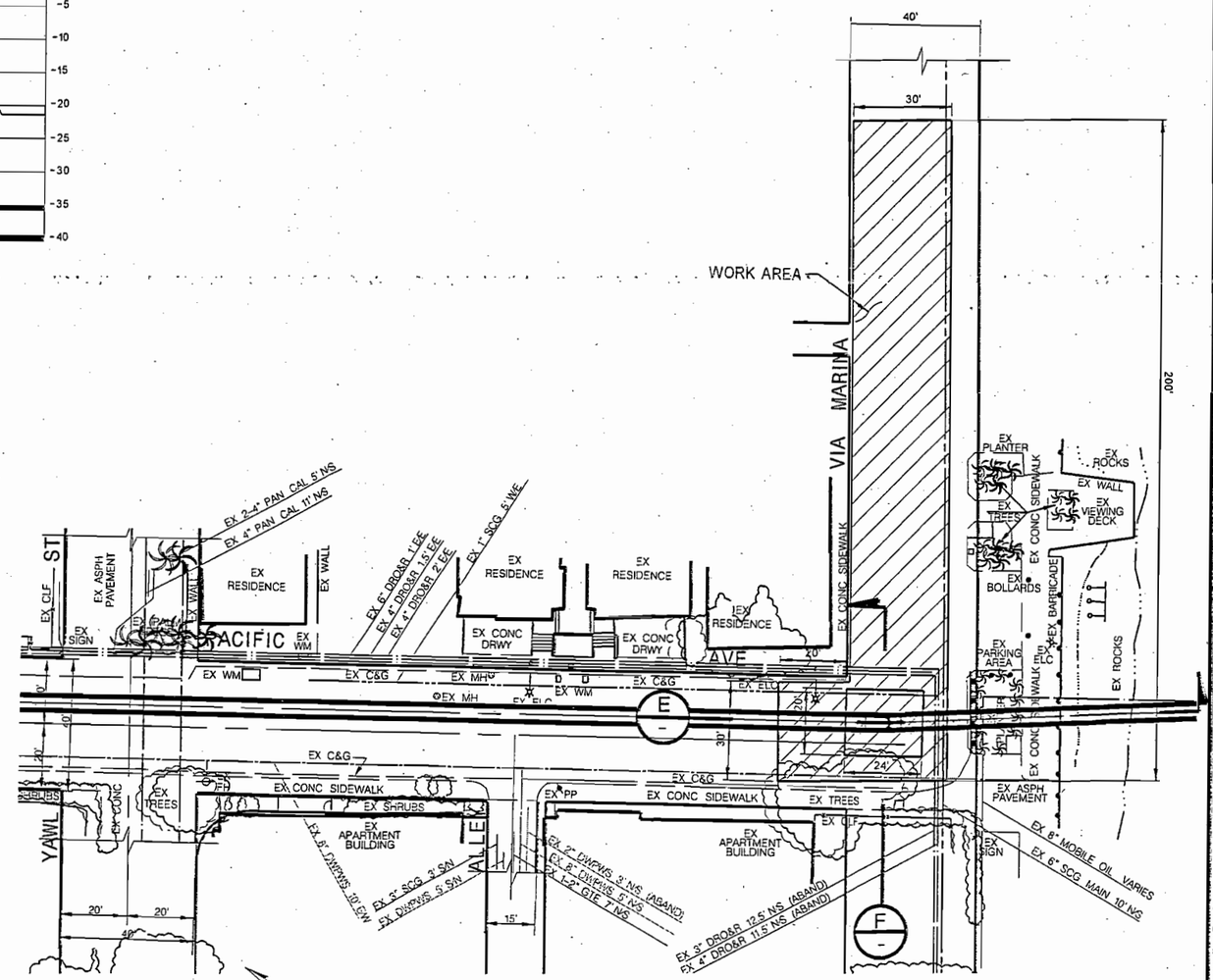

PLAN AT
VIA MARINA & PACIFIC AVE
SCALE: 1" = 20'

REVISION DATES (DESIGN STAGE ONLY)

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DATE: 12-Mar-09 13:44

CITY OF LOS ANGELES • DEPARTMENT OF PUBLIC WORKS • BUREAU OF ENGINEERING

GARY LEE MOORE, P.E.
CITY ENGINEER

			DATE
ENGINEER:	SEAN ZAHEDI	LIC. NO. C046372	10-08
DESIGNED BY:	SEAN ZAHEDI, CAN CHOW		10-08
DRAWN BY:	CAN CHOW, HIEP LAM		10-08
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SHEET TITLE: SECTIONS AT VIA MARINA & PACIFIC AVE
PROJECT: VENICE DUAL FORCE MAIN
ADDRESS: MARINA DEL REY, CALIFORNIA

REVISIONS

NO	DATE	BY

CIP NO. AS-BID

WORK ORDER NO. SZC11631

DRAWING NO. C-18

SHEET

Attachment 4

Bureau of Engineering Environmental Management Group. "Additional Information re Significance of Impacts to Traffic & Circulation from In-Street Construction for Venice Dual Force Main." November 9, 2009

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CITY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING

TECHNICAL MEMORANDUM

DATE: November 9, 2009

PREPARED BY: Jim Doty, Environmental Supervisor II
Environmental Management Group

SUBJECT: **ADDITIONAL INFORMATION RE SIGNIFICANCE OF IMPACTS TO TRAFFIC & CIRCULATION FROM IN-STREET CONSTRUCTION FOR VENICE DUAL FORCE MAIN**

EXECUTIVE SUMMARY

The Bureau of Engineering published a draft environmental impact report (DEIR) for the Venice Pumping Plant Dual Force Main Sewer. The traffic analysis in the published DEIR and a subsequent, updated traffic analysis were prepared following the requirements of the Department of Transportation and the City CEQA Thresholds Guide. Both traffic analyses found that in-street construction would adversely affect traffic and parking, but because these impacts would be of limited duration, the impacts are less than significant. However, neither the DEIR nor the subsequent traffic report specifically detail how the general guidance of the City Thresholds Guide has been specifically applied in the case of the sewer project. This technical memorandum provides additional information regarding the significance of the temporary impacts of in-street construction activities for the Via Marina alternative of the Venice Dual Force Main project. This technical memorandum applies to the Venice Dual Force Main project alone and does not apply to any other project.

GENERAL PRACTICE

The long standing practice of transportation authorities in Southern California has been to consider temporary transportation impacts due to in-street construction to be adverse but less-than-significant because these impacts would be of limited duration.

As a point of comparison, permanent traffic impacts associated with project operations must be evaluated (via traffic studies) because these trips will be present over the long-term. The evaluation of permanent traffic impacts usually uses a long-term horizon year of 2030 or 2035 (20 years after opening year), which generally corresponds with the planning horizons in transportation plans such as the Regional Transportation Plan. For example, a one-month lane closure may affect 10,000 vehicles per day for 30 days (300,000 vehicle-days). A permanent impact to the same road has a nearly infinite impact period, but even considering a 20 year horizon (standard for traffic engineering analysis), the impact would be 73 million vehicle-days (over 200 times as great). Since the impacts are so different, it is necessary to have more specific means of assessing temporary construction impacts.

It should be noted that, as mandated by Section 21084, the state Secretary for Resources has listed in the state CEQA Guidelines classes of projects that do not have a significant effect on the environment, ("Categorical Exemptions"). The state CEQA Guidelines

(Section 15300.4) further mandate that each public agency shall, in the course of establishing its own procedures, list those specific activities which fall within each of the exempt classes. The City of Los Angeles lists the following specific activities (among others) which fall within exempt class 1.

> "Class 1 includes modernization of an existing highway, street, alley, walk, mall or minor drainage channel by construction of improvements, resurfacing, reconstruction, eliminating jut-outs, widening less than a single lane width, adding shoulders or parking lanes, adding auxiliary lanes for localized purposes (turning, passing, and speed change), correcting substandard curves and intersections, bottleneck bridge widenings not to exceed the width of the adjacent existing roadway approaches, and other bridge widenings less than an additional lane on the bridge." [City CEQA Guidelines. Article III, Section 1, Class 1(20).]

The City of Los Angeles routinely resurfaces or reconstructs up to 200 miles of street each year. A typical street reconstruction project falling within categorical exemption Class 1 takes several weeks to several months during which there are temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines and temporary loss of on-street parking. Therefore we infer that in-street construction lasting up to several months clearly could not have a significant impact on transportation or circulation except under extraordinary and unique conditions.

GUIDANCE FOR IN-STREET CONSTRUCTION IMPACTS

The City CEQA Thresholds Guide (Page L.8-1 *ff*) recommends that the significance of in-street construction impacts be determined on a case-by-case basis considering impacts to traffic, access, public transit, and parking.

Temporary traffic impacts should be evaluated considering the following factors:

- The length of time of temporary street closures or closures of two or more traffic lanes;
- The classification of the street (major arterial, state highway) affected;
- The existing traffic levels and level of service (LOS) on the affected street segments and intersections;
- Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
- Potential safety issues involved with street or lane closures; and
- The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.

Temporary loss of access should be evaluated considering the following factors:

- The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;
- The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access; and
- The type of land uses affected, and related safety, convenience, and/or economic

issues.

Temporary loss of bus stops or rerouting of bus lines should be evaluated considering the following factors:

- The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
- The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;
- The existence of other bus stops or routes with similar routes/destinations within a ¼ mile radius of the affected stops or routes; and
- Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).

Temporary loss of on-street parking should be evaluated considering the following factors:

- The current utilization of existing on-street parking;
- The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site; and
- The length of time that existing parking spaces would be unavailable.

ADDITIONAL INFORMATION FOR THE VENICE DUAL FORCE MAIN PROJECT

Following the general guidance for in-street construction impacts, the Bureau of Engineering, in consultation with the Department of Transportation, presents the following additional information regarding in-street construction of the Via Marina alternative of the Venice Dual Force Main project.

1. Traffic Impacts:

Following the City CEQA Thresholds Guide, temporary traffic impacts should be evaluated considering the following factors:

- The length of time of temporary street closures or closures of two or more traffic lanes.

  Construction impacts from the project are not expected to take more than one year in any specific location. Impacts lasting less than one year tend to indicate an impact would be less than significant. This is based on the time scales commonly used in transportation planning and impact analysis, which are usually expressed in years. The Department of Transportation requires traffic impact analyses to consider conditions expected in the “base year” and “projected buildout year” (Traffic Study Policies and Procedures Manual). Capital Improvement Programs commonly have a five-year horizon. Transportation and congestion management plans generally consider conditions over spans in excess of ten years (e.g. SCAG’s Destination 2030: 2004 Regional Transportation Plan). Because of these longer time horizons in which traffic impacts are measured, it would not be expected that

impacts lasting less than one year to be significant.

- The classification of the street (major arterial, state highway) affected.

  Alleys and local streets. The proposed project would require the full closure of minor portions of Hurricane Street (local street), Canal Court (alley). In addition partial closures will be required in segments of Pacific Avenue south of Ballona Creek, where Pacific Avenue serves as a local street. Alternate vehicular and pedestrian access to abutting properties would be maintained at all times. Because alleys and local streets are intended to provide local access only, even a full closure would not be significant if alternate access to abutting properties is maintained. Therefore we conclude that the closures on Hurricane Street and Canal Court are not significant.

  Collector streets and secondary highways. The proposed project would require the partial closures of the intersection of Marquesas Way (a secondary highway) and Via Dolce (secondary), the intersection of Via Marina (secondary) & Marquesas Way and Via Marina south of Marquesas Way. In-street construction would not result in less than one traveled lane in each direction on a collector street or secondary highway. Furthermore, the proportion of through traffic to traffic originating or ending locally is believed to be relatively low due to the isolating effect of Marina del Rey and Ballona Creek. Temporary lane closures on these streets would not be significant, because the streets' basic function is maintained – i.e., providing at least one traveled lane in each direction.

  Major highways and state highways. The proposed project would require temporary lane closures in Vista del Mar, a major highway providing two traveled lanes in each direction. In-street construction would reduce the number of traveled lanes to one in each direction – half the pre-existing number of lanes. Because half the number of traveled lanes will be maintained and impacts will temporary, the impacts to traffic would not be significant.

- The existing traffic levels and level of service (LOS) on the affected street segments and intersections.

  In-street construction impacts would exceed the volume/capacity ratio thresholds applicable to permanent effects (described on pages 5-31 of the Venice Pumping Plant Dual Force Main Sewer DEIR and elsewhere). Construction impacts from the project are not expected to take more than one year in any specific location. Impacts lasting less than one year tend to indicate an impact would be less than significant.

- Whether the affected street directly leads to a freeway on- or off-ramp or other state highway.

  No state highway nor any street leading directly to a freeway or state highway will be

affected. In this context, "directly" means a connection that does not afford any opportunity for traffic to bypass the affected street segment and still reach the same point of access to the freeway or state highway.

- Potential safety issues involved with street or lane closures.

  In-street construction impacts would not result in potential safety issues arising from a unique site-specific condition such as insufficient visibility and distance to allow approaching drivers to safely merge or change lanes to avoid the in-street construction. An example would be in-street activities where there is insufficient visibility and distance to allow approaching drivers to safely merge or change lanes to avoid the in-street construction. However, none of these conditions would occur.

- The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.

  The nearest emergency services (fire, hospital, etc.) are:

  Los Angeles City Fire Station 63, 1930 Shell Ave, Venice
  Los Angeles City Fire Station 67, 5451 Playa Vista Dr, Playa Vista
  Los Angeles County Fire Dept. Life Guards, 13837 Fiji Way, Marina Del Rey
  Los Angeles Fire Department, 10435 S Sepulveda Blvd, Los Angeles
  Los Angeles Fire Department, 6911 World Way W, Los Angeles
  Marina del Rey Hospital, 4644 Lincoln Blvd, Marina Del Rey
  Playa Vista Urgent Care Center, 6020 S Seabluff Dr, Playa Vista
  St. Joseph Hospital, 5777 W Century Blvd, Los Angeles

  These services are over a mile away from the route of the proposed project and do not depend upon regular use of any one of the affected streets.

2. Access:

Following the City CEQA Thresholds Guide, temporary loss of access should be evaluated considering the following factors:

- The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area.

  In-street construction impacts of the proposed project are not expected to block pedestrian or vehicular access to any abutting property for more than one day if at all. The screening criteria in the Thresholds Guide (e.g., "Would in-street construction activities result in the loss of regular vehicular of pedestrian access to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units?") suggest that effects lasting no more than one day are not significant.

- The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access.

  Alternative vehicular or pedestrian access to the properties on the east side of Via Marina and (Pacific Avenue south of Ballona Creek) may not be available. However, loss of access is not expected.

- The type of land uses affected, and related safety, convenience, and/or economic issues.

  The abutting land uses are chiefly residential, but also include recreation and commercial. Because access to abutting properties will be maintained, we conclude there would be no significant safety, convenience or economic issues.

3. Public Transit:

Following the Thresholds Guide, temporary loss of bus stops or rerouting of bus lines should be evaluated considering the following factors:

- The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;

  Five bus stops for public transit lines currently operating on Via Marina would be temporarily closed, although probably no more than three at a time and probably no longer than 6 months for any given bus stop. Patrons will have to walk as much as 0.4 mile further to access these transit lines. These impacts are not significant given the temporary nature of the closures and the availability of alternative stops.

- The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated.

  While the Via Marina segment of the project is in construction, transit patrons will have to walk as much as 0.4 mile further to access transit lines. These impacts are not significant given the temporary nature of the closures and the availability of alternative stops.

- The existence of other bus stops or routes with similar routes/destinations within a ¼ mile radius of the affected stops or routes.

  See above.

- Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).

Temporary closure of bus stops are expected to be continuous for the length of time that there are construction activities in Via Marina and therefore will affect weekday, weekend and holiday transit service. However, because the limited length of time and availability of alternate stops, the interruption will not be significant.

4. On-Street Parking:

Following the Thresholds Guide, temporary loss of on-street parking should be evaluated considering the following factors:

- The current utilization of existing on-street parking.

  On-street parking is allowed on Hurricane Street, Marquesas Way and most of Pacific Avenue in Playa del Rey. Utilization of these spaces is high. The actual number of spaces that would be unavailable is uncertain, pending final design and approval of work areas and construction traffic management plans, but the number of affected parking spaces in any one area is expected to be low – varying from about eight on Hurricane Street and on Marquesas Way to as many as 18 on Pacific Avenue.

- The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site.

  Alternative parking is available within ¼ mile. Bus stops generally are available within ¼ mile. The bus stop nearest to the intersection of Pacific Avenue and 62nd Avenue is about 0.4 miles away.

- The length of time that existing parking spaces would be unavailable.

  In most cases the affected parking would be unavailable for a few months. A loss of approximately eight parking spaces on Hurricane Street east of Canal Court (immediately adjacent to the Venice Pumping Plant) could occur for about a year.

Although there is a high demand for on-street parking in the project area, the impact of on-street construction activities for the proposed project would not be significant considering the fact that few spaces would be affected, the affect would be short-term, and alternative parking and transit are available nearby.

REFERENCES

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Los Angeles, City of, 1999. *Transportation Element of the General Plan*. Council File 97-1387. Available online at http://cityplanning.lacity.org/cwd/gnlpln/transelt/index.htm

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JED:Traffic Impacts Technical Memorandum

Attachment 5

Comments Received After December 3, 2008

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Venice Dual Force Main Environmental Impact Report
(W.O. SZC11631, CF 08-0504)
Comments Received After December 3, 2008

On December 4, 2008, the Public Works Committee of the City Council reported to the City Council its recommendations to certify the Venice Dual Force Main Environmental Impact Report (EIR) and take related actions approving the Venice Dual Force Main. Since then, the City has received additional comments on environmental issues relating to this project. The following evaluates and responds those comments in accordance with Section 15088 of the State CEQA Guidelines. Quoted material is presented in italics and the material in normal face is City staff's response. In accordance with Section 15088.5 of the Guidelines, we find that recirculation of the EIR prior to certification is not required.

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Letter from Hon. Don Knabe, Chairman, Board of Supervisors, County of Los Angeles, dated February 10, 2009.

On February 10, 2009, Los Angeles County Supervisor Don Knabe wrote to City Council President Eric Garcetti requesting that the City amend and recirculate the EIR and then select the Pacific Avenue alternative as the preferred alignment. The text of his letter is shown in italics in the following. The material in normal face is City staff's response.

> *The project description in the EIR is misleading and confusing in that the EIR does not identify or describe a "project" or preferred project, but rather presents only potential route alignment and construction alternatives which are not fully analyzed as a project under the requirements of CEQA. Without specifying a project with environmental effects that are thoroughly considered in the EIR, the EIR fails to adequately analyze the impacts of "the" project and provide a comparative analysis that those impacts would have against the impacts of feasible alternatives to the project. City staff and the Board of Public Works did not select a preferred project until after the completion of the draft EIR. This process has misled and confused the public and other stakeholders; and prevented meaningful public input during the CEQA process. The Board of Supervisors' action on November 18, 2008, specifically requested that the City order that the public comment period on the be reopened and extended to permit residents of Marina del Rey and other stakeholders the opportunity to provide meaningful input to the EIR document.*

The EIR identifies the project as, "a new 54-inch diameter force main sewer extending from the VPP to a junction structure at the North Outfall Sewer under Vista Del Mar, approximately 240 feet south of Waterview Street in Playa Del Rey." [DEIR page 2-5 and elsewhere] Section 5 of the EIR fully analyzes and compares the potential environmental impacts of alternative alignments and construction methods for the project [DEIR pages 5-1 through 5-181].

From the beginning of the EIR process, city staff have stated their intent to use the EIR to select the best alternative alignment and construction method for the project. Page 2-10 of the DEIR states, "A preferred alternative for the project has not been determined at this time. Equal analysis has been given to each alternative associated with the Project, allowing for a decision to be made in accordance with CEQA Guidelines, which states that sufficient information must be provided to allow meaningful evaluation, analysis, and comparison of the proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative are provided in Section 8.0 of this document, which may be used by decision-makers to make comparisons and ultimately choose a preferred alternative alignment for the VPP dual force main sewer." There is no evidence in the record to support the County's claim that the city's approach, "has misled and confused the public and other stakeholders; and prevented meaningful public input during the CEQA process."

> *The City staff and the Board of Public Works' recommendation of Via*

Marina using micro-tunneling as the preferred alignment and construction method respectively, is not supported when doing a comparison with the analysis for the Pacific Avenue alignment with micro-tunneling. Specifically, the Pacific Avenue construction related impacts would result in less noise/vibration impacts, as well as impact a fewer number of motorists, when compared to a Via Marina alignment.

The City's preference for the Via Marina alternative over the Pacific Avenue alternative is explained in the City's Findings and Statement of Overriding Conditions and is based on consideration of all potential environmental impacts, not just traffic and noise, along with economic, legal, social, technological benefits. For example, the Via Marina corridor contains the fewest soil contamination sites and oil/gas wells, therefore the Via Marina alternative has the lowest risk of accidental hazardous material spills.

> [The] *City's July 2008 Transportation Management Plan for a Via Marina alignment is not supported by the information in the EIR which indicates that only one lane on Via Marina would be impacted. Thus, if it is the City's intent to use a Via Marina alignment and implement the July 2008 Transportation Management Plan, which was not available at the time of EIR circulation, then the EIR fails to adequately analyze the impact of closing two lanes of Via Marina with loss of left-turn lanes at some locations during the Project construction, as would be required under the Traffic Management Plan. The County, in order to be able to meaningfully determine the adequacy of the July 2008 Transportation Management Plan for Via Marina, requested additional information in August 2008. To date, the information has not been provided. It is our current understanding that City staff has begun a new study that will reconcile these discrepancies and provide a more relevant comparison between the two alternative alignments, using two alternative construction methods. Without this information, the EIR fails to adequately address the requirements of 15126.6 of the CEQA Guidelines. Once the traffic study has been completed, this information should be recirculated as part of the amended EIR.*

An analysis of each alternative's impacts to traffic, circulation and transportation is presented in Section 5.4.3.3 of the EIR (pages 5-27 to 5-53). The analysis was predicated upon the assumption that construction zones in streets would require closure of only one travel lane. The EIR concludes that each alternative would have temporary traffic impacts, which while adverse, would not be considered significant. After publication of the EIR, City staff determined that construction zones in streets would require closure of more than one lane.

The City, in consultation with County staff, commissioned a new traffic study by the widely known and respected transportation consultant firm, Fehr & Peers. The Fehr & Peers report, "Traffic Study for the Venice dual Force Main, Los Angeles, California," dated June, 2009, re-examined the potential impacts of the alternatives in the Marina del Rey area in light of current information about the project "foot-print" and other,

related projects in the area. The 2009 traffic study reached the same conclusion as the EIR. Therefore, the new information is not "significant" within the meaning of the CEQA Guidelines and recirculation of the EIR is not required. The "2nd Addendum to the Council's Findings and Statement of Overriding Considerations" explains in greater detail the basis for the City's determination that recirculation is not mandated nor recommended.

> *The traffic impacts on Via Marina compared to those on Pacific Avenue are also disproportionate, given that there are 3,835 residential units that take access from Via Marina versus 726 residential units that take access from Pacific Avenue. This reduced impact was not addressed adequately in the EIR.*

The traffic impact analysis methodology used by the City and the County compares traffic volumes with street capacity to determine whether the project would cause an adverse change in the level of service provided by the street system. The absolute number of residences in the area is not, in itself, relevant to that determination. The 2009 report by Fehr & Peers does not support the County's allegation that the traffic impacts on Via Marina are disproportionate compared to those on Pacific Avenue.

> *Since City staff did not prepare a Transportation Management Plan for a Pacific Avenue alignment, County staff has made assumptions on work area dimensions and lane restrictions to create a proposal (Attachment III) that can be used as the basis for further refinement by the City. The County's proposal, which includes temporarily changing Pacific Avenue into a one way operation, was shared with City staff on December 11 and again on December 18. Under CEQA, a key question in reviewing alternative locations is whether any of the significant environmental effects would be lessened by putting the project in a different location. The County believes that at* [sic] *Pacific Avenue, alignment would result in less traffic impacts, and that it was not thoroughly analyzed, as required in the EIR. In addition, in response to recent discussions with City staff, it is important to point out that the EIR does not provide adequate information on why the assumption of being able to maintain one lane of travel on Pacific Avenue is now being described to County staff as potentially infeasible due to impact on an Environmentally Sensitive Habitat Area, access to the Leadership Magnate Elementary School, the impact on public transit bus routes and access for emergency vehicles. With respect to the Environmentally Sensitive Habitat Area, the EIR contains a mitigation measure, BIO-3, which appears to address this issue.*

The City and County staffs have met and discussed the County's proposal regarding the Pacific Avenue alternative. The draft EIR assumed that the Pacific Avenue alternative could be built without full closure of Pacific Avenue. The County's proposal is based on the same assumption. The Bureau of Engineering subsequently re-examined the space needed for microtunneling shafts and work areas. The Bureau's technical memorandum addressing shaft and work area dimensions for microtunneling operations

indicates that the Pacific Avenue alternative would require full closure of two intersections: Pacific/Hurricane and Pacific/Via Marina. The 2009 traffic study, prepared in consultation with County staff, found that the impacts of the Pacific Avenue alternative would be worse than previously thought: public transit would be affected, school buses would have to be re-routed through narrow residential streets, temporary parking losses would be greater, and private driveways would be blocked temporarily.

> *If the City has new information regarding potential impacts related to a Pacific Avenue alignment, the information should be added to the EIR and recirculated for public opportunity to comment.*

Recirculation of an EIR is required only when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review but before certification (CEQA Guidelines Section 15088.5(b). The "2nd Addendum to the Council's Findings and Statement of Overriding Considerations" explains in greater detail the basis for the City's determination that recirculation is not mandated nor recommended. It is our opinion that the EIR is not made inadequate, nor is recirculation required, when new information arises that indicates that a rejected alternative is less feasible or more impacting than previously known.

> *The Via Marina alignment construction could occur during the same time period that a County road construction project and several Marina del Rey development projects currently being processed by the County Department of Regional Planning are proposed to be scheduled (Attachment IV). The parallel construction time line will very significantly exacerbate traffic congestion conditions on Via Marina, should that Project alignment be approved by the City. The City failed to consider the cumulative impacts of these projects on the Via Marina alignment of the Project in the EIR as required by Section 15130 of the CEQA Guidelines.*

The draft EIR considers the cumulative impacts of the proposed project, the alternatives to the proposed project, and all other projects known at the time of the Notice of Preparation synoptically on pages 7-3 to 7-5, and within subject areas such as traffic on page 5-34). The 2009 traffic report by Fehr & Peers repeated the cumulative impact analysis in light of currently known projects, including those identified by the County, and confirms the finding in the draft EIR: that impacts would be adverse but temporary and therefore not significant.

> *To add to the concerns of the point above, the EIR provides an unspecified mitigation measure to address the cumulative traffic impacts on the Via Marina alignment of the Project. Specifically, the EIR states that "…special coordination efforts may be necessary to reduce the combined effects to an acceptable level." However, the EIR does not provide any description of the necessary "special coordination" and fails to include a measure aimed at reducing the impact in the list of mitigation measures or identify a responsible party for such coordination.*

Draft EIR states on page 7-4 (and again in the Final EIR on page 11-107 in response to comments), "VPP Dual Force Main Project would involve construction activities

occurring simultaneously at a number of surface sites along the Project alignment. Construction of the VPP Dual Force Main Project may be occurring in the same general time and space as other projects in the area. In these instances, surface construction activities from both sets of projects could produce cumulative traffic effects which may be significant, depending upon a range of factors including the specific location involved and the precise nature of the conditions created by the dual construction activity (see Traffic-Related Project Construction Schedule in Table 4.2-1). Special coordination efforts may be necessary to reduce the combined effects to an acceptable level. Overall, significant cumulative impacts are not anticipated."

City's customary practice in public works construction is to provide stakeholders with access to the construction process and to consult with all affected stakeholders when an unforeseen condition arises. "Special coordination efforts" is a catch-all phrase referring generically to measures to respond to indefinable future situations. As stated in the draft EIR, "Overall, significant cumulative impacts are not anticipated." To give any additional description of the "special coordination" necessary to coordinate unknown potential future simultaneous construction activities and "include a measure aimed at reducing the impact in the list of mitigation measures" would be pure speculation. Even so, the City intends to inform and coordinate with stakeholders throughout the project.

> *The EIR does not identify responsible agencies that will be using the document in subsequent consideration of permits/approvals for the Project. Therefore, the City's processing of the EIR has not provided appropriate recognition of the County of Los Angeles as a responsible agency. The County's approval will be required in the form of a coastal development permit for the Via Marina alignment.*

The EIR identifies the responsible agencies, including the County of Los Angeles, on page 1-3. That information meets the requirements of the CEQA Guidelines. The Notice of Preparation was sent to the Los Angeles County which responded to it and and to the Draft EIR.

> *The City does not provide adequate rationale for the rejection of the environmentally superior alternative. The EIR states that the alternative was not selected because of its significantly greater cost ($68 million) and the 28 month construction time. However, the EIR does not indicate that cost of the Pacific Avenue alternative would render this alternative infeasible. Furthermore, there is no discussion of why the estimated Construction time for the Via Marina alternative, 18-24 months versus 28 months for the Pacific Avenue alternative, is a significant factor in the City's recommendation of the Via Marina alternative over the environmentally superior alternative.*

The City's reasons for not selecting another alternative are set forth on pages 27-30 of the "Addendum to Findings and Statement of Overriding Considerations for Venice Pumping Plant Dual Force Main." The City's selection is not based simply on the least

expensive project nor the fastest project but is made in consideration of environmental issues, cost, delivery time, constructability and operation concerns.

> *The tunneling construction process to be used in each of the Project alignments could create turbidity which may affect least tern foraging habitat. Mitigation proposed in the EIR is completely inadequate, as once turbidity is detected, the impacts have already occurred. No tunneling operations should take place during the least tern nesting season: April 1 through August 31.*

The requirement to monitor for and respond to turbidity, mitigation measure BIO2, is intended to be the last in a series of protective measures. The project specifications cited on page 2-11 of the DEIR include specifications for microtunneling that minimize the risk of spills (Standard Specifications for Public Works Construction Section 306-8) and the requirement that, "The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution. . . ." (City of Los Angeles General Requirements Section 01571). In addition to these standard specifications, the City will require the contractor to submit a drilling mud management plan that includes methods for preventing spills ("frac-out") and contingencies for responding to spills. Lastly, the City's design, which would tunnel through uniform sediments deep below the Marina Channel bottom, further diminishes the risk of spills. However, mitigation measure BIO2 was included in the proposed mitigation program following the recommendation of MBC Applied Environmental Sciences, experts on marine resources, and Keane Biological Consulting, the leading expert on the California Least Tern. These experts did not recommend that construction be required to avoid the least tern nesting season.

Limiting the construction period for the channel crossing would increase risks associated with interruption of tunneling operations before completion and would extend the time over which construction impacts could occur. Considering all factors, City staff do not recommend restricting tunneling operations to avoid the least tern nesting season.

> *In conclusion, we appreciate Councilmember Rosendahl's action to delay the City Council's scheduled December 16 consideration of the Project, and request that the City Council order preparation and recirculation of an amended EIR document to address the issues the County has raised with outreach to the Marina del Rey community coordinated with the County of Los Angeles. The County Board of Supervisors understands the importance of the Venice Pumping Plant Dual Force Main Project and believes taking the steps we recommend provides the opportunity to cure the inaccuracies and inadequacies of the EIR document and the process followed by the City to date.*

Several parties, including the County of Los Angeles, have asked that the EIR be recirculated for public comment. Section 15088.5 of the State CEQA Guidelines specifies the circumstances that require recirculation of an EIR prior to certification.

"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.

"Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. . .

". . . A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

The CEQA Guidelines require recirculation if new information discloses that a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented. The draft EIR indicated that traffic on Via Marina south of Tahiti Way would be adversely affected (Table 5.4-3 on page 5-51). The 2009 traffic study examined additional street segments and intersections <u>in the area that the draft EIR had previously indicated would be adversely affected</u>. Consistent with the draft EIR's findings, the 2009 traffic study found an adverse effect on traffic at these additional sampling/modeling points. Considering each sampling/modeling point to be a separate impact is unreasonable in view of the size of the affected areas: Via Marina between Bora Bora Way and Panay Way (about 0.6 mile) and Pacific Avenue between Via Marina and Hurricane Street (about 0.8 mile). No information has come to light indicating a new significant environmental impact would result from the preferred project (the Via Marina alternative) or from a new mitigation measure.

Both the draft EIR and the 2009 traffic study found that the traffic impacts would be adverse but not significant. In spite of that finding, both documents recommended "mitigation measures" to minimize the adverse effects of the preferred project. These measures are largely standard measures taken by public works agencies when working in and around streets and are arguably a part of the proposed project (for example, use of the *Work Area Traffic Control Handbook* is cited on Page 2-11 of the draft EIR as part of the project description). Furthermore these measures are not "mitigation" in the strict sense of the term, because they are not employed to lessen or avoid a significant impact. However, they are identified and will be added to the City's mitigation program to demonstrate the City's commitment to minimize the adverse effects of the project to the maximum extent feasible.

The CEQA Guidelines require recirculation if new information discloses that a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

Both the draft EIR and the 2009 traffic study indicated that traffic on Via Marina would be adversely affected (Table 5.4-3 on page 5-51). The 2009 traffic study examined additional street segments and intersections in the area that the draft EIR had previously indicated would be adversely affected. The "new" findings merely corroborate and refine our original finding that the Via Marina alternative would adversely affect traffic on Via Marina and the Pacific Avenue alignment would adversely affect traffic on Pacific Avenue. Therefore, no information has come to light that indicates a substantial increase in the severity of an environmental impact from the preferred project.

We note, however, that new information has come to light (in the Bureau of Engineering's technical memorandum and the 2009 traffic study) indicating that the adverse effects of the Pacific Avenue alignment (a project alternative that City staff does not recommend) would be more extensive than described in the draft EIR.

The CEQA Guidelines require recirculation if new information discloses that a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it. Communicants have suggested various alternatives, including:

- Cut-and-cover along the beach
- Microtunneling along the west bank of Ballona Lagoon
- Microtunneling along Via Dolce

None of these alternatives is "considerably different" from the others previously analyzed. Furthermore, no substantial evidence has been offered, nor is it reasonable to assert, that these "new" alternatives could have less impact overall than the proposed project. Cut and cover along the beach would have the greatest risk of upset because of exposure to coastal erosion and because it would co-locate the new sewer alongside the old sewer (thus, a failure of one sewer would threaten both). Microtunneling along the west bank of Ballona Lagoon would merely trade traffic impacts for biological impacts. Microtunneling along Via Dolce would have traffic/circulation impacts similar to the Pacific Avenue alignment combined with noise/vibration disturbance similar to the Via Marina alternative.

The CEQA Guidelines require recirculation if the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. Communicants have complained that meaningful public input was prevented because, "The project description in the EIR is misleading and confusing in that the EIR does not identify or describe a 'project' or preferred project, but rather presents only potential route alignment and construction alternatives which are not fully analyzed as a project under the requirements of CEQA."

We disagree. On page 2-5 and elsewhere, the draft EIR identifies the project as, "a new 54-inch diameter force main sewer extending from the VPP to a junction structure at the North Outfall Sewer under Vista Del Mar, approximately 240 feet south of Waterview Street in Playa Del Rey." Section 5 of the draft EIR (pages 5-1 through 5-181) fully analyzes and compares the potential environmental impacts of alternative alignments and construction methods for the project.

From the beginning of the EIR process, City staff have stated their intent to use the EIR to select the best alternative alignment and construction method for the project. Page 2-10 of the draft EIR states, “A preferred alternative for the project has not been determined at this time. Equal analysis has been given to each alternative associated with the Project, allowing for a decision to be made in accordance with CEQA Guidelines, which states that sufficient information must be provided to allow meaningful evaluation, analysis, and comparison of the proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative are provided in Section 8.0 of this document, which may be used by decision-makers to make comparisons and ultimately choose a preferred alternative alignment for the VPP dual force main sewer.” There is no evidence in the record to support the County’s claim that the city’s approach, “has misled and confused the public and other stakeholders; and prevented meaningful public input during the CEQA process.”

In conclusion, the City has considered the concerns and the comments received to date (supporting documents in CF 08-0504) and has found no significant new information that would <u>require</u> recirculation. The new information received to date does not reveal any heretofore undisclosed significant impact or mitigation measure pertaining to the proposed Via Marina alternative, nor any feasible project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the proposed Via Marina alternative. Therefore recirculation of the EIR is not required.

In addition, the City has considered and rejected <u>voluntarily</u> recirculating the EIR because of the urgency of this project, which has been underscored by comments from the Los Angeles Regional Water Quality Control Board, U.S. Environmental Protection Agency and environmental stakeholder groups such as Heal the Bay.

Letter from William T Fujioka, Chief Executive Officer, Santos Kreiman, Director, Department of Beaches and Harbors, Gail Farber, Director, Department of Public Works, and Jon Sanabria, Acting Director, Department of Regional Planning, County of Los Angeles, dated July 9, 2009.

On July 9, 2009, four County department heads sent a joint letter to City Engineer Gary Lee Moore repeating Supervisor Knabe's request based on their interpretation of the findings a traffic study done in June of 2009. The text of their letter is shown in italics in the following. The material in normal face is City staff's response.

> *County Supervisor Don Knabe sent a February 10, 2009 letter to Mr. Eric Garcetti, President of the Los Angeles City Council, requesting that the Los Angeles City Council take immediate steps to rectify significant flaws in the Draft Environmental Impact Report (DEJR) for the Venice Pumping Plant Dual Force Main Project (Attachment I). To date, the City has not responded to that letter.*
>
> *While we appreciate the effort the City has made in conducting the new, June 2009 analysis of the construction-related traffic impacts associated with the open trench and micro-tunneling options for the portion of the project north of the Marina del Rey Channel, we believe that this analysis &hould be subject to public review through a recirculated DEIR so that the decision makers have complete information when they are asked to certify the EIR.*
>
> *The Board of Supervisors urged the City Council to take the following actions regarding the project:*
>
> > *(1) The preparation of a document to accompany the DEIR, which fully analyzes the reduced environmental impacts associated with the Pacific Avenue alignment (including feasible mitigation measures);*
> >
> > *(2) Consideration of the Pacific Avenue alternative alignment as the preferred alignment for the proposed project due to the reduced environmental impacts associated with this alternative; and*
> >
> > *(3) Recirculation of the DEIR and additional traffic analysis to allow adequate opportunity for Marina residents and other stakeholders to review and provide meaningful input to the DEIR that accurately and adequately complies with State law, and fully discloses the environmental impacts of the preferred alignment and the alternatives.*
>
> *It is the County's position that the above-stated modifications to the DEIR constitute "significant new information" under the California Environmental Quality Act (CEQA) Guidelines and therefore require a recirculation of the DEIR.*

We have prepared a separate response to Supervisor Knabe's February 10, 2009 letter in the preceding section.

> *The Final Environmental Impact Report (FEIR) attempted to compare the impact areas of each of the project alternatives in Table 3.3-1 which concluded that the environmentally superior alternative would be the large-diameter (mined) tunnel along Pacific Avenue. However, due to the erroneous assumption of lane restrictions along Via Marina, the new traffic study was prepared with a focused analysis on the cut and cover and micro-tunneling alternatives for the Pacific and Via Marina alignments north of the Marina del Rey Channel entrance. On June 22, 2009, City staff provided the new traffic study to the County, and it confirmed that the previous information in the DEIR and FEIR regarding traffic was flawed. Specifically, Table 3.3-1 in the FEIR incorrectly stated the number of impacted highway segments as three for the Via Marina micro-tunneling alternative while the new study indicates that the number is actually five. Additionally, the duration of the impact (a.m., p.m. Sunday peak hours) is much greater for the Via Marina alignment as shown on the enclosed table (Attachment II).*
>
> *The June 2009 traffic study differs from the original study and contains potentially conflicting information compared to the staff report dated December 9, 2008 which stated, "Traffic volumes south of Marquesas Way are within the capacity of a single lane and temporary closure of half the 4-lane roadway during construction would not cause a significant impact." In contrast, the June 2009 study found that significant impacts would occur south of Marquesas Way and south of Tahiti Way. In addition, the June 2009 traffic study identified more impacts to intersections would occur if the Via Marina alignment were used, which differs significantly from the results that were reported in the DEIR. The June 2009 traffic study indicated the following intersection impacts for each alternative:*
>
> *<u>Via Marina alignment using micro-tunneling</u>*
>
> *. Via Marina/Marquesas Way (during a.m., p.m. and Sunday midday peak hours)*
>
> *. Via Marina/Tahiti Way (a.m., p.m. and Sunday midday peak hour)*
>
> *. Via Marina/Washington (a.m. peak hour)*
>
> *<u>Pacific alignment (for portion north of channel entrance only) using microtunneling or open trench with lane restrictions</u>*
>
> *. Pacific Avenue/Washington Boulevard (p.m. peak hour)*
>
> *. Via Marina/Washington (p.m. peak hour)*
>
> *CEQA Guidelines Section 15088.5 provides that a lead agency is required to recirculate a DEIR when significant new information is added to a DEIR after circulation but prior to certification, including a new significant impact*

which would result from the project. The new traffic information should be circulated for review so that the public has an opportunity to comment on the impacts and/or feasible alternatives that may mitigate the impacts.

The traffic impact finding cited from the staff report dated December 9, 2008, was a screening-level analysis to determine whether additional lane closures would cause a new significant effect. That analysis is entirely superseded by the more detailed analysis and findings of the 2009 traffic study, which analyses the additional lane closures, provides additional measurement points (see following), and updates the analysis of cumulative traffic impacts from development in the Marina del Rey area.

The draft EIR indicated that traffic on Via Marina south of Tahiti Way would be adversely affected (Table 5.4-3 on page 5-51). The difference between the findings of the draft EIR and the 2009 traffic study is due to the fact that the 2009 traffic study examined additional street segments and intersections <u>within the area that the draft EIR had previously indicated would be adversely affected</u>. The "new" findings merely corroborate and refine our original finding that the Via Marina alternative would adversely affect traffic on Via Marina and the Pacific Avenue alignment would adversely affect traffic on Pacific Avenue. Considering each sampling/modeling point to be a separate impact is unreasonable in view of the size of the affected areas, Via Marina between Bora Bora Way and Panay Way (about 0.6 mile) or Pacific Avenue between Via Marina and Hurricane Street (about 0.8 mile).

Neither the DEIR nor the Statement of Overriding Considerations prepared by the City staff identify construction-related impacts to traffic as significant impacts despite the fact that the new traffic study concludes that the proposed project would adversely affect traffic under each alternative. Additionally, Section 5.4.5 of the DEIR notes that there is no mitigation available to reduce the traffic impacts to a less than significant level. Although the traffic related impacts will be temporary, it is not legally sufficient for the City to dismiss the impacts as insignificant due to their relatively short term duration. Section 15162 of the State CEQA Guidelines requires that an EIR consider "both short term and long term effects".

The County does not dispute the city's findings regarding the effects of construction activities on traffic. The disagreement lies in whether the described adverse effects are significant. The EIR repeatedly states that the traffic impacts are temporary and therefore not significant.

Fujioka, et al., misstates the finding of the EIR by taking quoted sentence out of context. Section 5.4.5 of the DEIR states, "In-street construction associated with each of the Project alternatives could result in adverse traffic and parking impacts in the immediate vicinity of each active construction site leading to localized congestion and increased competition for available parking. Because these impacts would be of limited duration, however, they are considered to be less than significant. No feasible mitigation measures have been identified to reduce these temporary impacts to a less than significant level." Admittedly, the sentence cited by Fujioka, et al., may be confusing, but it is not reasonable to interpret this sentence as over-riding the immediately-

preceding sentence, which repeats the finding made throughout the traffic analysis, that the traffic impacts are considered to be less than significant.

Fujioka, et al., are also incorrect in stating that the City's determination (that the traffic impacts are not significant) conflicts with the CEQA Guidelines. CEQA Guidelines Section 15126.2 (incorrectly cited as Section 15162) requires that, "Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects." The traffic analysis in the published DEIR and a subsequent, updated traffic analysis were prepared following the requirements of the Department of Transportation and the City CEQA Thresholds Guide. Both traffic analyses found that in-street construction would adversely affect traffic and parking, but because these impacts would be of limited duration, the impacts are less than significant.

The City CEQA Thresholds Guide (Page L.8-1 *ff*) recommends that the significance of in-street construction impacts be determined on a case-by-case basis considering impacts to traffic, access, public transit, and parking. The length of time temporary impacts would occur is one of several factors to be considered. The Bureau of Engineering has issued a technical memorandum to provide additional information regarding the significance of the temporary impacts of in-street construction activities for the Via Marina alternative of the Venice Dual Force Main project. The adverse effects are limited in duration and extent and there is no unique circumstance (such as the presence of emergency services nearby that regularly use the affected streets) that would cause the affected area to be unusually sensitive. Therefore, the city finds that the impacts of the proposed project are less than significant.

The City and County differ only in whether the stated adverse effects are significant. Unfortunately, the County did not state their disagreement until well after the Final EIR was published. Changing the thresholds of significance at this point and recirculating the EIR at this time will not provide greater understanding of the environmental consequences of the alternative environmental protection, because the City has incorporated all available measures to avoid or reduce the traffic impacts even though technically not required to avoid a significant impact.

Finally, it is incorrect to assume that changing the threshold of significance would result in finding that Pacific Avenue alternative is environmentally superior to the Via Marina alternative. Both alternatives would adversely affect traffic. However, unlike the Via Marina Alternative, the Pacific Avenue alternative also would affect adversely: on-street parking, driveways, school buses, local streets, and access by utility vehicles such as trash trucks.

> *The project recommended by City staff necessitates the issuance of a Coastal Development Permit (CDP) by the Los Angeles County Regional Planning Commission (Commission), following a public hearing. As a responsible agency, the Commission, in reviewing and considering the CDP, is required to make independent findings regarding the significant effects of the project. However, as lead agency, the City has failed to select the alignment which has the least identified environmental impacts, including the significant traffic-related impacts, for the project. Section*

15096(g)(2) of the CEQA Guidelines requires that a responsible agency shall not approve the project as proposed "if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." The Commission will be subject to this Guideline in considering whether, and under what conditions, to grant the CDP for this project.

Comment noted.

In conclusion, the June 2009 traffic study indicates the Pacific Avenue alignment north of the Marina del Rey channel entrance would result in far fewer significant traffic impacts, especially when you factor into the comparison the number of peak hours each week that congestion would occur. The June 2009 traffic study has also provided additional information that is not reflected in Table 3.3-1 of the FEIR, which still shows three segments rather than five segments of Via Marina impacted. Table 3.3-1 must contain accurate information in order for a decision maker to be able to compare impacts when ultimately selecting an alignment. We understand the City staff may be readying its recommendation to Council to act on this matter shortly. The County remains concerned that the residents of Marina del Rey community were not afforded an opportunity to provide meaningful public comment on the project. Additionally, the County believes that the DEIR does not provide adequate supporting information on why the Via Marina alignment is considered by your staff to be the preferred alignment. It is the County's opinion, as expressed in the February 10, 2009, letter that the Via Marina alignment would impact a far greater number of people than the other alternatives. Consequently, a DEIR which includes the additional traffic information should be recirculated.

It is not necessary to revise Table 3.3-1 of the FEIR in order for a decision-maker to be able to compare impacts when ultimately selecting an alignment. Table 3.3-1 summarizes the findings of the EIR. CEQA requires decision-makers to consider the whole of the record – not just the contents of the FEIR. In this case, the information developed after completion of the FEIR, including the 2009 traffic study, adds to the whole of the record to be considered by decision-makers but does not require revision of the FEIR.

The City's efforts to inform the public has included thousands of mailed notices, several newspaper articles and ads, many public meetings (including every meeting body the County has asked us to address) and meetings with community groups. The community has, and will continue to have, ample opportunity for meaningful comment. All of the community's concerns received to date have been addressed. However, it should be noted that the County does not merely govern Marina del Rey. The County owns all of the land underlying Marina del Rey, and all of the businesses and residents of Marina del Rey are the County's tenants. The County is in a superior position to inform the Marina del Rey community and to assure that the community's concerns are addressed as the project moves forward.

Attachment 6

2nd Addendum to Findings and Statement of Overriding Considerations

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2nd Addendum to
Findings and Statement of Overriding Considerations for Venice Pumping Plant Dual Force Main
November 2009

CF 08-0504
W.O. SZC11631
SCH #2003031001

On December 3, 2008 the Public Works Committee adopted as the Findings of the Council the findings of the Board of Public Works dated February 25, 2008 and amended by the May 8, 2008 Bureau of Engineering report, as attached to the Council file. This second Addendum to the Findings and Statement of Overriding Considerations for the Venice Pumping Plant Dual Force Main project reflects additional information that has become available since the action of the Public Works Committee.

THE PROPOSED PROJECT

The draft EIR assumed that construction of the proposed Via Marina alternative would require the temporary closure of one traffic lane in Marquesas Way and Via Marina. Subsequent to circulation of the draft EIR, the City determined that construction of this alternative would require wider work areas, temporarily closing half the width of these streets at each shaft site. The significance of this change was analyzed the new traffic analysis (see below).

TRAFFIC AND CIRCULATION

The City elected to commission a new study to update the traffic analysis in the EIR. The City worked with Los Angeles County staff and accommodated their requests in the defining the scope of the updated traffic study and in selecting the firm that did the study: Fehr & Peers. The Fehr & Peers report, "Traffic Study for the Venice dual Force Main, Los Angeles, California," dated June, 2009, re-examined the potential impacts of the alternatives north of the Marina Entrance Channel. Being more recent, the findings of the 2009 traffic study supercede any conflicting findings made previously if any such conflicts are found.

The proposed project would have a temporary adverse impact at three intersections:

- Via Marina & Washington Boulevard
- Via Marina & Marquesas Way
- Via Marina & Tahiti Way

The proposed project would have a temporary adverse impact at three street segments:

- Via Marina north of Marquesas Way
- Via Marina south of Marquesas Way
- Via Marina south of Tahiti Way

No access or turning movement restrictions would be needed at intersections or at private driveways. Access to Northwest Passage, Captain's Row and Old Harbor Lane can be maintained at all times either via a short detour or by creating temporary gaps in Via Marina's raised median. The roadway and medians would be returned to their existing conditions upon project completion. These measures are within the purview of Los Angeles County Department of Public Works; design and implementation of measures will be done to the satisfaction of the County.

Since the southernmost pit along Via Marina would be located within the public parking lot at the south end of Via Marina, this lot would be reduced from 136 to 73 parking spaces. A loss of approximately eight parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant.

School buses serving the Westside Leadership Magnet School would not have to be re-routed.

Five bus stops for public transit lines currently operating on Via Marina would be temporarily closed, although probably no more than three at a time and probably no longer than 6 months for any given bus stop. Patrons will have to walk as much as 0.4 mile further to access these transit lines.

The EIR evaluated the adverse effects of the proposed project in light of the factors in the City CEQA Thresholds Guide to determine the significance of impacts related to loss of capacity due to temporary lane or street closures associated with projects requiring construction activity within the street. The Thresholds Guide (Page L.8-1 *ff*) recommends that the significance of in-street construction impacts be determined on a case-by-case basis considering impacts to traffic, access, public transit, and parking. The Bureau of Engineering has provided additional information regarding the significance of the temporary impacts of in-street construction activities for the proposed project. The adverse effects are limited in duration and extent and there is no unique circumstance (such as the presence of emergency services nearby that regularly use the affected streets) that would cause the affected area to be unusually sensitive. Therefore, the city finds that the impacts of the proposed project are less than significant.

Even though the adverse impacts are not significant, the following voluntary measures will be undertaken to minimize the temporary adverse impacts associated with construction-period activity in the vicinity of each construction shaft site or construction zone.

- For each construction site, a construction traffic management plan shall be prepared and submitted to LADOT and, if appropriate, to the County for review and approval prior to the start of any construction work. This plan

shall include such elements as the designation of haul routes for construction-related trucks, the location of access to the construction site, any driveway turning movement restrictions, temporary traffic control devices or flagmen, travel time restrictions for construction-related traffic to avoid peak travel periods on selected roadways, and designated staging and parking areas for workers and equipment. Plans shall include such elements as the location of any lane closures, restricted hours during which lane closures would not be allowed, local traffic detours, protective devices and traffic controls (such as barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas.

- Only eliminate travel lanes when absolutely necessary. Fully utilize available street space to minimize lane reductions on affected streets, including elimination of on-street parking where necessary. Implement left-turn restrictions as appropriate on re-striped street segments to facilitate the movement of through traffic.
- Provide signage indicating alternative pedestrian and bicycle access routes where existing facilities would be affected. Pedestrian access to the Westside Leadership Magnet School will be maintained on student instruction days.
- Provide advance notice to any affected residents, businesses, schools and property owners in the vicinity of each construction site and, where existing property access will be reduced, identify alternative means of access.
- Coordinate with emergency service providers (police, fire, ambulance and paramedic services) to provide advance notice of any lane closures, construction hours and changes to local access and to identify alternative routes where appropriate.
- Coordinate with pubic transit providers (Metro, LADOT Commuter Express, Culver City Bus) to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporary bus stops within a reasonable walking distance of any displaced bus stops.

RELATED PROJECTS AND CUMULATIVE EFFECTS

The 2009 traffic study considered the potential cumulative effects of the proposed project with background growth expected to occur following the General Plan and updated information about projects proposed for the Marina del Rey area. The 2009 traffic study confirmed the finding on page 5-53 of the circulated draft EIR that the proposed project would not result in substantial contribution to cumulative traffic impacts since the traffic impacts would be during construction only and therefore would be temporary in nature and would cease

after the completion of the project. In addition, the preparation of traffic control plans would ensure that construction related traffic impacts would not represent a substantial contribution to cumulative traffic impacts.

ALTERNATIVES CONSIDERED

The following additional information has been received about the effects of project alternatives north of the Marina Entrance Channel.

Pacific Avenue Alignment Traffic Impacts

The Bureau of Engineering has provided additional information regarding the general space requirements for microtunneling shafts and work areas based on historical data, industry standards, and project-specific parameters (Bureau of Engineering Wastewater Conveyance Engineering Division. "Technical Memorandum Addressing Shaft and Work Area Dimensions for Micro-Tunneling Operations." March 23, 2009).

The proposed shaft dimensions considered for the Pacific Avenue alignment south of Hurricane are 16 feet by 24 feet and 16 feet by 20 feet for the jacking shafts and receiving shafts respectively (the longer dimension being parallel to the sewer alignment). Work areas with minimum dimensions of about 30 feet by 220 feet for jacking sites and 24 feet by 175 feet for receiving sites will be required to contain the shafts, associated equipment and sufficient space to safely perform all microtunneling activities.

Larger shafts and correspondingly larger work areas will be required at the Pacific and Via Marina intersection and the Hurricane and Pacific intersection. At Via Marina, a 20-foot by 24-foot jacking shaft is anticipated to facilitate the installation of a the 72-inch casing required for crossing the channel and to accommodate a more powerful jacking rig. A 23-foot by 20-foot shaft is required at the intersection of Hurricane and Pacific in order to address challenges created by utility conflicts. The most significant of these conflicts is the existing 48-inch force main which will have to be supported during microtunneling operations. Full street closures will be required at these two intersections.

The Pacific Avenue alignment would have a temporary adverse impact at two intersections:

- Pacific Avenue & Washington Boulevard
- Via Marina & Washington Boulevard

The Pacific Avenue alignment would have a temporary adverse impact at two street segments:

- Pacific Avenue between Privateer Street & Quarterdeck Street
- Pacific Avenue between Westwind Street & Yawl Street

Access or turning movement restrictions would be needed at the intersection of Hurricane Street & Pacific Avenue, as the east and south legs of the intersection would be temporarily closed.

Under this alternative, approximately four residential driveways would be blocked during an entire phase of the construction period. One of the four driveways serves a multi-family residential building south of Hurricane Street. Two single-family residential driveways north of Union Jack Street and one single-family residential driveway north of Via Marina would be blocked during one or more construction phases. Based on the information available at this time, pending preparation of final worksite traffic control plans, it appears that existing turning movements could be maintained at the other intersections and driveways along Pacific Avenue.

On-street parking along Pacific Avenue would be removed in the vicinity of each pit. A loss of approximately 30 parking spaces along Pacific Avenue could occur during a given construction phase. The southernmost pit along the Pacific Alignment would be located along the metered public parking area along the east/west segment of Via Marina. While this pit is in operation, approximately 20 metered parking spaces would be temporarily unavailable. A loss of approximately eight parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant.

School buses serving the Westside Leadership Magnet School would not be able to drive northbound along Pacific Avenue to reach the school bus zone one block south of Washington Boulevard. A temporary alternative school bus access route would involve the reconfiguration of Strongs Drive for one-way (southbound) travel during the construction period. This conversion would require changes to the striping signing of Strongs Drive between Washington Boulevard and Driftwood Street and the removal of approximately 20 on-street parking spaces to accommodate school bus traffic on Strongs Drive. A loss of approximately 16 parking spaces would also occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Pacific Avenue.

Public transit lines currently operating on Pacific Avenue would have to be relocated for approximately one year, requiring the temporary closure of up to 13 bus stops on Via Marina and Pacific Avenue or relocation of those bus stops as much as 0.9 mile away from their current locations. Patrons will have to walk further or be provided with smaller shuttle buses to access these transit lines.

City Sanitation Collection Activities would be adversely affected. Three to four collection trucks stop at each property to collect household waste, yard waste, recyclable material and bulky items. Each stop takes about two minutes when an automated arm attachment is used. Longer stops are needed when a truck operator must get out of the truck. Both sides of Pacific Avenue must be served.

Sanitation's rear-loading trucks must back up to serve the dead end streets off of Speedway. In addition, automated side-loading trucks must travel against the traffic in order to collect from both sides of Speedway (which is a one-way alley). Diverting traffic from Pacific Avenue to Speedway will increase the risk of accidents.

Beach Alignment Traffic Impacts

The beach alignment would have a temporary adverse impact at two intersections:

- Pacific Avenue & Washington Boulevard
- Via Marina & Washington Boulevard

The beach alignment would not significantly impact any of the analyzed 16 street segments during any of the analyzed peak hours.

Short-term access restrictions may be necessary on Hurricane Street east of Pacific Avenue during a phase of construction. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately next to the Venice Pumping Plant, and east of Pacific Avenue.

Access or turning movement restrictions would be needed at the intersection of Hurricane Street & Pacific Avenue, as the east leg of the intersection (Hurricane Street) would be temporarily closed. Under this alternative, however, no residential driveways would be blocked by in-street construction.

On-street parking along Pacific Avenue would be removed in the vicinity of each pit. A loss of approximately 16 parking spaces would occur on Hurricane Street east of Canal Court, immediately adjacent to the Venice Pumping Plant, and east of Hurricane Street.

School buses serving the Westside Leadership Magnet School and public transit lines would not have to be re-routed.

DECISION TO NOT RECIRCULATE THE EIR

Several parties, including the County of Los Angeles, have asked that the EIR be recirculated for public comment. Section 15088.5 of the State CEQA Guidelines specifies the circumstances that require recirculation of an EIR prior to certification.

> *"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.*
>
> *"Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. . .*

". . . A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

The CEQA Guidelines require recirculation if new information discloses that a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented. The draft EIR indicated that traffic on Via Marina south of Tahiti Way would be adversely affected (Table 5.4-3 on page 5-51). The 2009 traffic study examined additional street segments and intersections in the area that the draft EIR had previously indicated would be adversely affected. Consistent with the draft EIR's findings, the 2009 traffic study found an adverse effect on traffic at these additional sampling/modeling points. Considering each sampling/modeling point to be a separate impact is unreasonable in view of the size of the affected areas: Via Marina between Bora Bora Way and Panay Way (about 0.6 mile) and Pacific Avenue between Via Marina and Hurricane Street (about 0.8 mile). No information has come to light indicating a new significant environmental impact would result from the preferred project (the Via Marina alternative) or from a new mitigation measure.

Both the draft EIR and the 2009 traffic study found that the traffic impacts would be adverse but not significant. In spite of that finding, both documents recommended "mitigation measures" to minimize the adverse effects of the preferred project. These measures are largely standard measures taken by public works agencies when working in and around streets and are arguably a part of the proposed project (for example, use of the *Work Area Traffic Control Handbook* is cited on Page 2-11 of the draft EIR as part of the project description). Furthermore these measures are not "mitigation" in the strict sense of the term, because they are not employed to lessen or avoid a significant impact. However, they are identified and will be added to the City's mitigation program to demonstrate the City's commitment to minimize the adverse effects of the project to the maximum extent feasible.

The CEQA Guidelines require recirculation if new information discloses that a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance. Both the draft EIR and the 2009 traffic study indicated that traffic on Via Marina would be adversely affected (Table 5.4-3 on page 5-51). The 2009 traffic study examined additional street segments and intersections in the area that the draft EIR had previously indicated would be adversely affected. The "new" findings merely corroborate and refine our original finding that the Via Marina alternative would adversely affect traffic on Via Marina and the Pacific Avenue alignment would adversely affect traffic on Pacific Avenue. Therefore, no information has come to light that indicates a substantial increase in the severity of an environmental impact from the preferred project.

We note, however, that new information has come to light (in the Bureau of Engineering's technical memorandum and the 2009 traffic study) indicating that the adverse effects of the Pacific Avenue alignment (a project alternative that City staff does not recommend) would be more extensive than described in the draft EIR.

The CEQA Guidelines require recirculation if new information discloses that a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it. Communicants have suggested various alternatives, including:

- Cut-and-cover along the beach
- Microtunneling along the west bank of Ballona Lagoon
- Microtunneling along Via Dolce

None of these alternatives is "considerably different" from the others previously analyzed. Furthermore, no substantial evidence has been offered, nor is it reasonable to assert, that these "new" alternatives could have less impact overall than the proposed project. Cut and cover along the beach would have the greatest risk of upset because of exposure to coastal erosion and because it would co-locate the new sewer alongside the old sewer (thus, a failure of one sewer would threaten the other). Microtunneling along the west bank of Ballona Lagoon would merely trade traffic impacts for biological impacts. Microtunneling along Via Dolce would have traffic/circulation impacts similar to the Pacific Avenue alignment combined with noise/vibration disturbance similar to the Via Marina alternative.

The CEQA Guidelines require recirculation if the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. Communicants have complained that meaningful public input was prevented because, "The project description in the EIR is misleading and confusing in that the EIR does not identify or describe a 'project' or preferred project, but rather presents only potential route alignment and construction alternatives which are not fully analyzed as a project under the requirements of CEQA."

We disagree. On page 2-5 and elsewhere, the draft EIR identifies the project as, "a new 54-inch diameter force main sewer extending from the VPP to a junction structure at the North Outfall Sewer under Vista Del Mar, approximately 240 feet south of Waterview Street in Playa Del Rey." Section 5 of the draft EIR (pages 5-1 through 5-181) fully analyzes and compares the potential environmental impacts of alternative alignments and construction methods for the project.

From the beginning of the EIR process, City staff have stated their intent to use the EIR to select the best alternative alignment and construction method for the project. Page 2-10 of the draft EIR states, "A preferred alternative for the project has not been determined at this time. Equal analysis has been given to each alternative associated with the Project, allowing for a decision to be made in accordance with CEQA Guidelines, which states that sufficient information must be provided to allow meaningful evaluation, analysis, and comparison of the proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative are provided in Section 8.0 of this document, which may be used by decision-makers to make comparisons and ultimately choose a preferred alternative alignment for the VPP dual force main

sewer." There is no evidence in the record to support the claim that the city's approach, "has misled and confused the public and other stakeholders; and prevented meaningful public input during the CEQA process."

In conclusion, the City has considered the concerns and the comments received to date (supporting documents in CF 08-0504) and has found no significant new information that would require recirculation. The new information received to date does not reveal any heretofore undisclosed significant impact or mitigation measure pertaining to the proposed Via Marina alternative, nor any feasible project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the proposed Via Marina alternative. Therefore recirculation of the EIR is not required.

In addition, the City has considered and rejected voluntarily recirculating the EIR because of the urgency of this project, which has been underscored by comments from the Los Angeles Regional Water Quality Control Board, U.S. Environmental Protection Agency and environmental stakeholder groups such as Heal the Bay.

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