Appendix E
Traffic Impact Study

TRANSPORTATION IMPACT STUDY FOR THE CENTURY TRUNK LINE PROJECT

LOS ANGELES, CALIFORNIA

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PREPARED FOR

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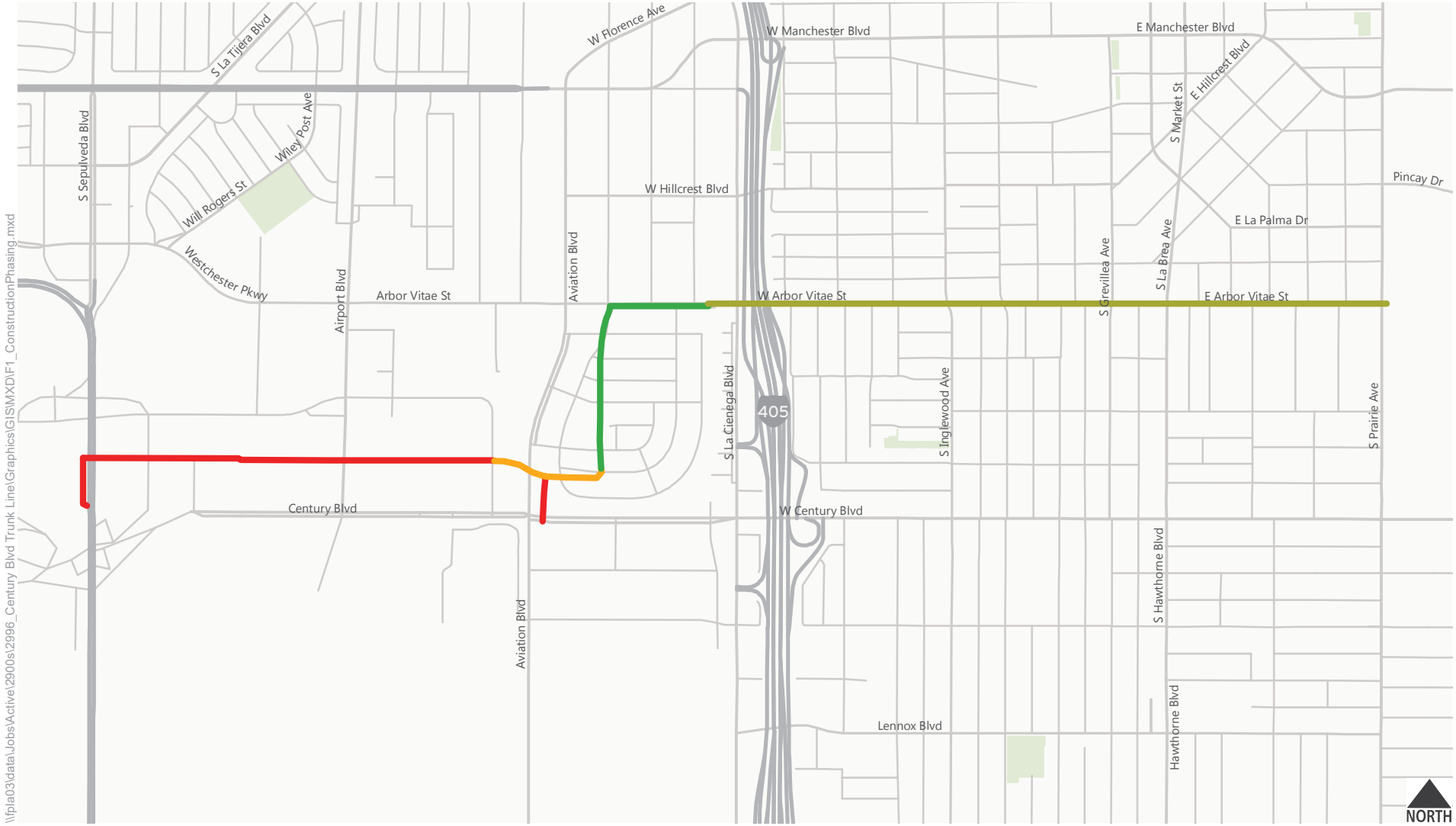
1. INTRODUCTION

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers to evaluate transportation impacts during construction of the proposed Los Angeles Department of Water and Power (LADWP) Century Trunk Line (CTL) Project, located in City of Los Angeles and the City of Inglewood. This study was conducted as part of an environmental document being prepared for the proposed project.

PROJECT DESCRIPTION

LADWP is proposing the Century Trunk Line Project (proposed project) that will replace approximately 15,900 feet of existing 36-inch Stone Canyon Outlet Line located on Century Boulevard between Sepulveda Boulevard and Prairie Avenue. The replacement is required due to the deteriorated condition of the existing water line. The proposed project will install approximately 18,000 feet of 48-inch diameter pipe on an alignment with in 98th Street, Concourse Way (a future street), and Arbor Vitae Street and will be divided into two units. Additionally, two 24-inch pipes will connect the proposed trunk line to two existing regulator stations: Sepulveda & Century Regulator Station and Century & Alley east of Aviation Regulator Station. The existing Sepulveda & Century Regulator Station is currently located in the middle of the street and will be relocated off of Sepulveda Boulevard, between 98th Street and the existing regulator station.

The proposed project will be divided into two units: Unit 1 will be located in the City of Los Angeles and Unit 2 will be located in the City of Inglewood. **Figure 1** illustrates the location of the proposed project. Unit 1 will replace approximately 7,600 feet of existing pipe on Century Boulevard between Sepulveda Boulevard and La Cienega Boulevard. A new 9,700 foot long pipe will be installed along 98th Street from Sepulveda Boulevard to Concourse Way (a new street being built to serve the future Consolidated Rent-A-Car (ConRAC) facility), on Concourse Way from 98th Street to Arbor Vitae Street, and on Arbor Vitae Street from Concourse Way to La Cienega Boulevard. Unit 2 will replace approximately 8,300 feet of existing pipe on Century Boulevard from La Cienega Boulevard to Prairie Avenue with 8,300 feet of new pipe on Arbor Vitae Street from La Cienega Boulevard to Prairie Avenue. Upon completion the existing trunk line beneath Century Boulevard will be abandoned in place.



Trunk Line

Phase

- Unit 1, Phase 1 (LADWP)
- Unit 1, Phase 2 (LAWA)
- Unit 1, Phase 3 (LAWA)
- Unit 2

Figure 1

Century Trunk Line Location and Phasing

UNIT 1

The construction of Unit 1 will be conducted in three phases. Due to their proximity to the ongoing construction of LAX Landside improvements, Los Angeles World Airports (LAWA) will construct Phases 2 and 3 of Unit 1 for LADWP. During construction of Unit 1 and 2 laydown areas will be located near each worksite and also on LAWA-owned land in the vicinity.

Phase 1 will include installation of a 48-inch pipeline beneath 98th Street from Sepulveda Boulevard to Bellanca Avenue. The pipeline will be installed entirely within the roadway right-of-way (ROW) of 98th Street. Phase 1 also includes the installation of two 24-inch pipelines to connect the new facility to the existing line on Century Boulevard. The western of these connections would be located underneath Sepulveda Boulevard. The eastern of these connections would be located east of Aviation Boulevard.

Phase 2 includes the installation of a 48-inch pipe that would connect the eastern portion of the main trunk line from Phase 1 starting at Bellanca Avenue and will be installed beneath the future eastward extension of 98th Street to Concourse Way (a future street). 98th Street will be extended as part of LAWA's Landside Access Modernization Program (LAMP).

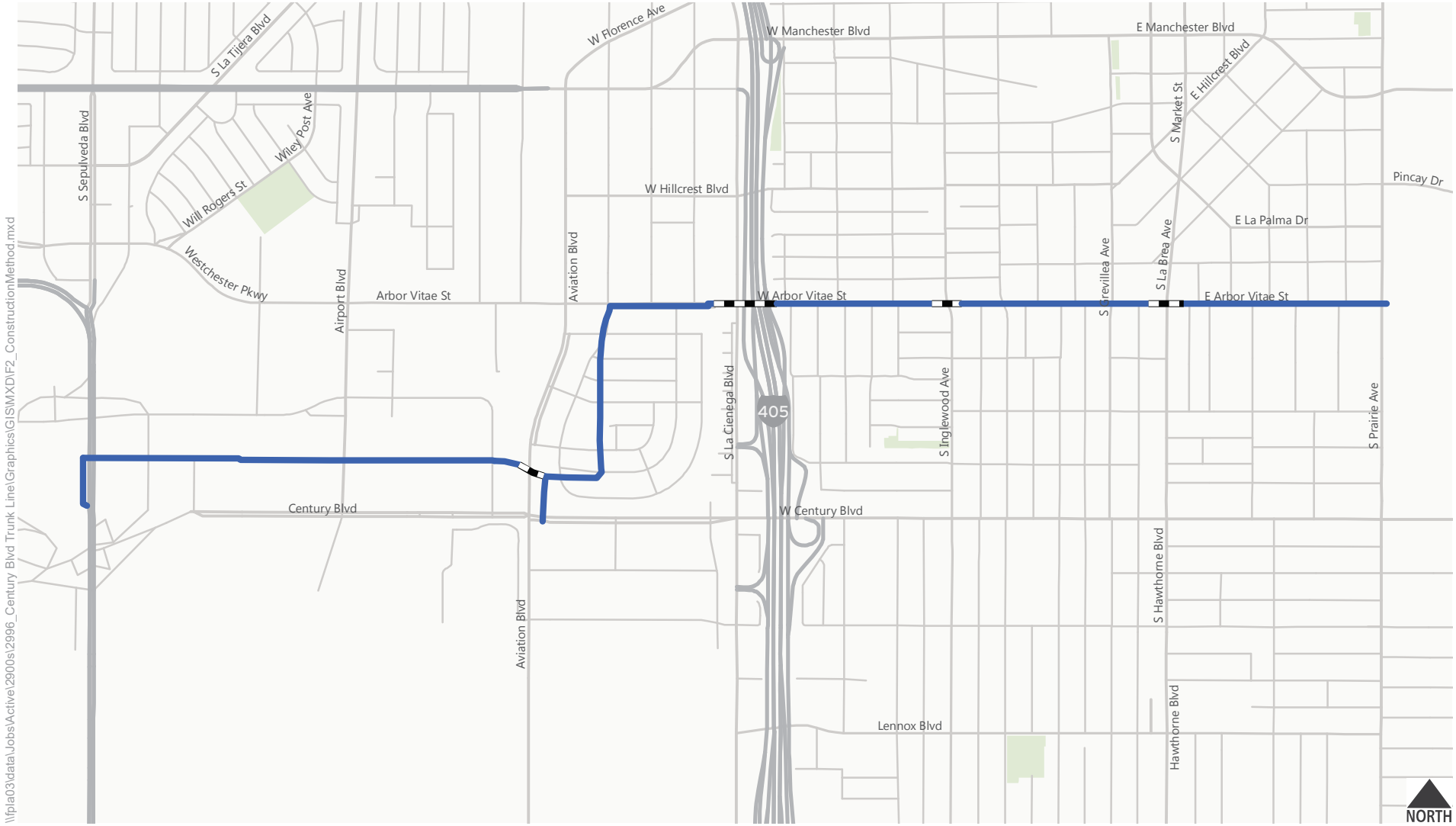
Phase 3 will construct a 48-inch pipe that will connect the eastern portion of the pipeline from Phase 2 and be installed north along Concourse Way, a new street being built as part of the LAMP project to serve the planned consolidated Rent-A-Car (ConRAC) facility, to Arbor Vitae Street. The pipeline will extend eastward within the Arbor Vitae Street right-of-way and will terminate near Hindry Avenue, west of La Cienega Boulevard. This segment of Arbor Vitae Street has a frontage road south of the main roadway, which will be incorporated into a widened main roadway as part of the LAMP project.

UNIT 2

Unit 2 will install approximately 8,300 feet of new pipe on Arbor Vitae Street, connecting the eastern end of the Unit 1 pipeline and travel east along Arbor Vitae Street to Prairie Avenue where it connects with the Baldwin Outlet Line.

PROJECT CONSTRUCTION

Construction of the proposed project will occur along existing street rights-of-way primarily using a conventional cut-and-cover method, but a jacking and boring (pipe jacking) method will be used at four locations. **Figure 2** shows the planned construction methods along the proposed trunk line. Conceptual plans for Unit 1 of the project have been prepared and are shown in **Appendix C**. Detailed project plans for Unit 2 have not yet been prepared. Throughout the entire length of the project alignment, the specific location of the new pipeline within the 98th Street and Arbor Vitae Street rights-of-way will be determined during final design and its location will be chosen to avoid conflict with existing underground utilities. Complete, full-width, road closures are not anticipated. However, partial closures would be necessary.



Trunk Line

Construction Method

- Cut and Cover
- Jack and Bore

Figure 2

Century Trunk Line Construction Methods

CUT-AND-COVER

The cut-and-cover construction method involves excavation, installation of shoring, pipeline installation, backfill and compaction, restoration of curbs and utilities, and repaving the affected road. The trench would be approximately seven feet wide and eight to 24 feet deep, depending on the location of existing utilities. The total open trench length for Unit 1 would be approximately 9,275 feet. The total open trench length for Unit 2 would be approximately 6,800 feet. Trenching would be done in segments of no more than 500 feet, within work areas of up to approximately 1,200 feet. The work area would include a clear zone for workers and equipment, and laydown areas for materials and spoils, as needed.

PIPE JACKING

For Unit 1, a total pipe jacking length of 325 feet would occur along the future 98th Street in the vicinity of Aviation Boulevard. The typical jacking pit width would be approximately 14 feet wide and 44 feet long while the receiving pit would be approximately 14 feet wide and 20 feet long. Both pits would reach excavation depths of approximately 40 feet each.

For Unit 2, a total pipe jacking length of 1,600 feet would occur along Arbor Vitae Street at three different locations. The proposed pipeline would travel below La Cienega Boulevard and Interstate 405, Inglewood Avenue, and La Brea Avenue. The typical jacking pit width would be approximately 14 feet wide and 44 feet long while the receiving pit would be approximately 14 feet wide and 20 feet long. Both pits would reach excavation depths of approximately 40 feet beneath major intersections and would be up to 100 feet deep when crossing I-405.

CONSTRUCTION SCHEDULE

Based on the schedule provided by LADWP, construction of the project is planned to begin in September 2018 and expected to be completed by June 2022, for a total of approximately three to four years. The breakdown of the construction schedule is listed below:

- Unit 1, Phase 1: September 2018 – June 2020
- Unit 1, Phase 2: September 2018 – June 2022
- Unit 1, Phase 3: September 2018 – June 2022
- Unit 2: January 2020 – June 2022

Construction for both Units 1 and 2 would occur Monday through Friday, within the hours of 7:00 AM and 6:00 PM. If needed, construction may be extended to 9:00 PM for Unit 1, as allowed by the City of Los Angeles noise ordinance, and 8:00 PM for Unit 2, as allowed by the City of Inglewood. Nighttime construction outside of the allowable City of Los Angeles and City of Inglewood noise ordinances is not anticipated over most of the alignment. Where in-street construction is required within Sepulveda Boulevard and Century Boulevard (Phase 1) and Aviation Boulevard (Phase 2), evening or overnight construction may occur.

Each 1,200-foot work area for pipeline cut and cover activities would last approximately three months. Jack and bore activities at each sending/receiving pit, including excavation, shoring, pipeline installation, and backfill would last approximately six months. Extended work timelines and road closures could be required if unanticipated utilities are encountered during excavation. Upon completion, the project would require no more routine maintenance than the existing water line in the area, and no impact on traffic operations would be expected.

STUDY SCOPE

The scope of this traffic impact analysis of construction conditions in this report was discussed with the Los Angeles Department of Transportation (LADOT) and the City of Inglewood. Because this is an infrastructure project, with no long-term operational traffic effects, this study is being prepared voluntarily and LADOT does not require preparation of a Memorandum of Understanding (MOU). The overall approach is consistent with the procedures defined in the L.A. CEQA Thresholds Guide (2006) for analyzing in-street construction impacts. The traffic analysis includes a description of the project area and existing conditions, presents project trip generation estimates, and provides a qualitative assessment of the project's construction-period impacts relative to the City of Los Angeles's adopted thresholds for evaluating in-street construction impacts.

TRAFFIC SCENARIOS

Project-related construction is to take place over the course of several years and this study is directed at analyzing the project impacts on the local street system when construction would take place (future year traffic conditions). The following traffic scenarios have been developed and analyzed as part of this study:

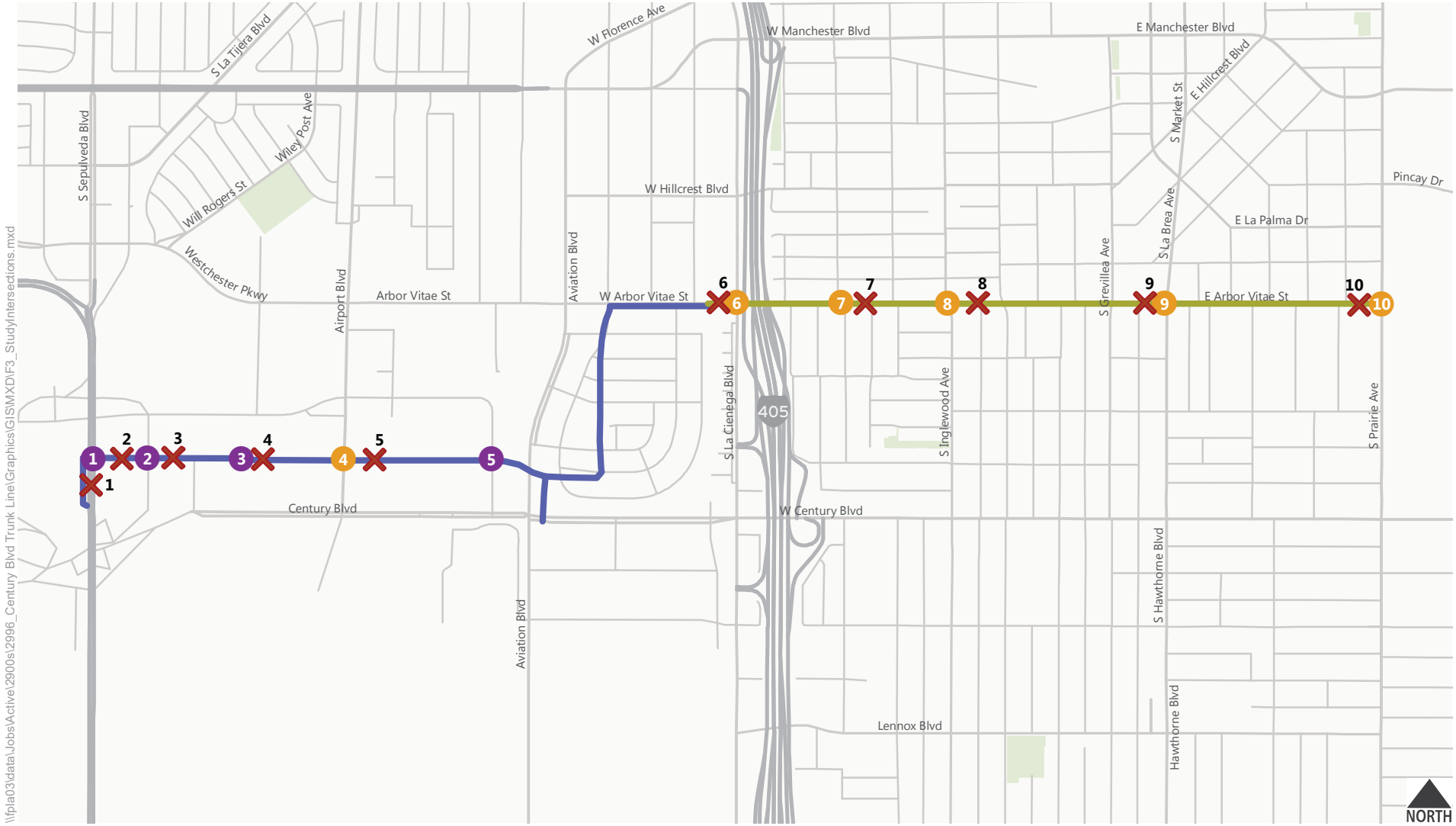
- Existing Conditions – The information on existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis included a description of key area streets and highways, traffic volumes, current intersection and roadway operating conditions, and local transit service in the area.

- Future Base Year 2020 Conditions, Unit 1 – 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 2020, when the majority of construction of Phase 1 of Unit 1 would take place on 98th Street. These analyses provided the future setting in which impacts of this element of the project would occur.

- Future Base Year 2022 Conditions, Unit 2 – 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 2022, the last year when construction for Unit 2 would take place. These analyses provided the "baseline" conditions by which project impacts were evaluated. These analyses provided the future setting in which impacts of this element of the project would occur.

STUDY LOCATIONS

The study examined 10 intersections and 10 street segments in the vicinity of the project site for each of the above traffic scenarios. The study locations are listed below and illustrated in **Figure 3**.



Study Segment

Study Intersections

Unsignalized

Signalized

Trunk Line

Unit 1

Unit 2

Figure 3

Study Intersections and Street Segments

Intersections:

1. 98th Street & Sepulveda Boulevard
2. Vicksburg Avenue & 98th Street
3. Avion Drive & 98th Street
4. Airport Drive & 98th Street
5. Bellanca Avenue & 98th Street
6. La Cienega Boulevard & Arbor Vitae Street
7. Oak Street & Arbor Vitae Street
8. Inglewood Avenue & Arbor Vitae Street
9. La Brea Avenue & Arbor Vitae Street
10. Prairie Avenue & Arbor Vitae Street

Street Segments:

1. Sepulveda Boulevard north of Century Boulevard
2. 98th Street east of Sepulveda Boulevard
3. 98th Street east of Vicksburg Avenue
4. 98th Street east of Avion Drive
5. 98th Street east of Airport Boulevard
6. Arbor Vitae Street west of La Cienega Boulevard
7. Arbor Vitae Street east of Oak Street
8. Arbor Vitae Street east of Inglewood Avenue
9. Arbor Vitae Street west of La Brea Avenue
10. Arbor Vitae Street west of Prairie Avenue

ORGANIZATION OF REPORT

This report is divided into five chapters, including this introduction. Chapter 2 describes the existing conditions including an inventory of the streets, highways, and transit service in the study area, a summary of existing traffic volumes, and an assessment of existing operating conditions. Chapter 3 describes the methodologies used to develop future cumulative traffic forecasts and project traffic volumes. Chapter 4 presents an assessment of potential temporary traffic impacts on intersection and street segment operations in the vicinity of the project site. Chapter 5 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 description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resulting operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The project site is within the Westchester-Playa Del Rey Community Plan area of the City of Los Angeles and within the City of Inglewood. The study area selected for analysis extends to include Sepulveda Boulevard to the west and Prairie Street to the east. The surface streets in the study area are under the jurisdiction of the City of Los Angeles or the City of Inglewood.

EXISTING STREET SYSTEM

Arterials serving the study area include Sepulveda Boulevard, La Cienega Boulevard, La Brea Avenue and Prairie Avenue in the north/south direction and Century Boulevard and Arbor Vitae Street in the east/west direction. The alignment of the proposed project crosses the San Diego freeway (I-405). The Glenn Anderson Freeway (I-105, Century Freeway) lies approximately one mile south of the project site on 98th Street. Both freeways provide regional access to and from the project site. 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** and **Table 3**.

The characteristics of the major roadways serving the study area are described below. The street descriptions include the designation of the roadway under the *Mobility Plan 2035* (Los Angeles Department of Planning, General Plan Mobility Element, 2016) and the City of Inglewood General Plan.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

Segment	From	To	Functional Classification	No. of Lanes		Median Type	Parking Restrictions		Speed Limit
				NB/EB	SB/WB		NB/EB	SB/WB	
98th Street	Sepulveda Boulevard	Vicksburg Avenue	Collector	1	1	SDY	2HR	2HR	30
	Vicksburg Avenue	Avion Drive	Collector	1	1	2LT	2HR	2HR	30
	Avion Drive	Airport Boulevard	Collector	1	1	2LT	NPAT	2HR	30
	Airport Boulevard	Bellanca Avenue	Collector	1	1	2LT	2HR	NPAT	30
Arbor Vitae Street	Aviation Boulevard	Isis Avenue	Class II	2	2	2LT	NSAT	NSAT	35
	Isis Avenue	Hindry Avenue	Class II	2	2	2LT	NSAT	NSAT	35
	Hindry Avenue	Glasgow Avenue	Class II	2	2	2LT	PA	NSAT	35
	Glasgow Avenue	La Cienega Boulevard	Class II	2	2	2LT	NSAT	NSAT	35
	La Cienega Boulevard	Ash Avenue	Secondary	2	2	DY	PA	NSAT	35
	Ash Avenue	Oak Street	Secondary	1	1	2LT	PA	PA	35
	Oak Street	Cedar Avenue	Secondary	1	1	2LT	PA	PA	35
	Cedar Avenue	Inglewood Avenue	Secondary	1	1	2LT	PA	PA	35
	Inglewood Avenue	Eucaplyptus Avenue	Secondary	1	1	2LT	PA	PA	35
	Eucaplyptus Avenue	Fir Avenue	Secondary	1	1	2LT	PA	PA	35
	Fir Avenue	Walnut Street	Secondary	1	1	2LT	PA	PA	35
	Walnut Street	Grevillea Avenue	Secondary	1	1	2LT	PA	PA	35
	Grevillea Avenue	La Brea Avenue	Secondary	1	1	2LT	PA	PA	35
	La Brea Avenue	Larch Street	Collector	1	1	SDY	PA	PA	35
	Larch Street	Myrtle Avenue	Collector	1	1	SDY	PA	PA	35
	Myrtle Avenue	Flower Street	Collector	1	1	SDY	PA	PA	35
	Flower Street	Osage Avenue	Collector	1	1	SDY	PA	PA	35
	Osage Avenue	Prairie Avenue	Collector	1	1	SDY	PA	PA	35

Notes:

Median Type: DY = Double Yellow Centerline
SDY = Single Dashed Yellow Centerline
2LT = Dual Left Turn Centerline

Parking: PA = Parking Allowed
2HR = 2 Hour Parking
NPAT = No Parking Anytime
NSAT = No Stopping Anytime

Speed Limit: miles per hour

TABLE 2
EXISTING ON-STREET PARKING SUPPLY IN STUDY AREA
ON 98TH STREET

From	To	Number of Parking Spaces			
		North Side		South Side	
		Metered	Taxi	Metered	Taxi
Sepulveda Boulevard	Vicksburg Avenue	15	0	12	0
Vicksburg Avenue	Avion Drive	24	0	25	0
Avion Drive	Airport Boulevard	39	0	0	5
Airport Boulevard	Bellanca Avenue	0	0	8	0

TABLE 3
EXISTING ON-STREET PARKING SUPPLY IN STUDY AREA
ON ARBOR VITAE STREET

From	To	Number of Parking Spaces [a]							
		North Side				South Side			
		Regular	20 Min	Loading	Handicap	Regular	20 Min	Loading	Handicap
Aviation Boulevard	Isis	0	0	0	0	0	0	0	0
Isis Avenue	Hindry Place	6	0	0	0	68 [b]	0	0	0
Hindry Place	La Cienega	4	0	0	0	35 [b]	0	0	0
La Cienega Boulevard	Ash Avenue	4	0	0	0	0	0	0	0
Ash Avenue	Oak Street	18	4	0	0	11	1	0	0
Oak Street	Cedar Avenue	17	0	0	0	15	1	0	0
Cedar Avenue	Inglewood Avenue	15	3	1	0	13	2	0	0
Inglewood Avenue	Eucaplyptus Avenue	13	1	0	1	7	0	0	0
Eucaplyptus Avenue	Fir Avenue	7	0	0	0	17	0	0	0
Fir Avenue	Walnut Street	16	0	0	0	9	0	0	0
Walnut Street	Grevillea Avenue	10	0	1	0	6	0	0	0
Grevillea Avenue	La Brea Avenue	15	2	0	0	16	0	0	0
La Brea Avenue	Larch Street	14	0	0	0	12	0	0	0
Larch Street	Myrtle Avenue	13	0	0	0	16	0	0	0
Myrtle Avenue	Flower Street	15	0	0	0	14	0	0	0
Flower Street	Osage Avenue	10	0	0	0	14	0	0	0
Osage Avenue	Prairie Avenue	10	0	0	0	12	0	0	0

Note:
[a] Where parking stalls were not marked, the number of parking spaces was estimated by measuring the distance and dividing by 22.5 feet/space.
[b] Total number of parking spaces includes both sides of the frontage road, south of the main roadway.

FREEWAYS

- **I-405** is a north/south freeway that connects the San Fernando Valley and points north to the west side of Los Angeles and south to Long Beach and Orange County. The I-405 freeway travels in a northwest/southeast direction and varies between four and five lanes in each direction with several sections having auxiliary lanes between successive on- and off-ramps.

- **I-105** is an east/west freeway that runs between the area around Los Angeles International Airport and Norwalk. It consists of one HOV lane and three general purpose traffic lanes in each direction.

EAST/WEST STREETS

- **98th Street** is designated as a Collector in the City of Los Angeles' *Mobility Plan 2035* with one travel lane in each direction and a center turn lane east of Vicksburg Avenue. Parking is permitted on both sides of the street. Left-turn pockets are present at all intersections along the project alignment.

- **Arbor Vitae Street** is designated as a Major Arterial in the City of Inglewood General Plan, Circulation Element. Arbor Vitae has two travel lanes in each direction west of La Cienega Boulevard and one travel lane in each direction west of La Cienega Boulevard. Parking is generally available on both sides of the street.

- **Century Boulevard** is designated as a Boulevard I Modified in the City of Los Angeles' *Mobility Plan 2035* with three to four travel lanes in each direction and left-turn pockets at most intersections. On-street parking is not permitted on Century Boulevard.

NORTH/SOUTH STREETS

- **Sepulveda Boulevard** is designated as a Boulevard I with five travel lanes in each direction in the project vicinity. Parking is prohibited along both sides of the street.

- **Vicksburg Avenue** is designated as a Local Street with one travel lane in each direction. Parking is permitted on both sides of the street within the study area.

- **Avion Drive** is designated as a local street with one to two travel lanes in each direction. Parking is prohibited on both sides of the street, north of 98th Street.

- **Airport Boulevard** is designated as a Boulevard II with three southbound travel lanes and two northbound travel lanes. Parking is prohibited south of 98th Street along both sides of the street.

- **Bellanca Avenue** is designated as an Avenue III with one travel lane in both directions. Parking is prohibited along both sides of the street within the study area.

- **La Cienega Boulevard** is designated as a Boulevard II with two travel lanes in each direction. Parking is prohibited along both sides of the street within the study area.

- **Oak Street** is designated as a Collector Street according to the Inglewood General Plan and has one travel lane in each direction. Parking is permitted along both sides of the street within the study area.

- **Inglewood Avenue** is designated as a Minor Arterial with one travel lane in each direction. Parking is permitted along both sides of the street within the study area.
- **La Brea Avenue** is designated as a Major Arterial with three travel lanes in each direction. Parking is permitted along both sides of the street within the study area.
- **Prairie Avenue** is designated as a Major Arterial with three travel lanes in each direction. Parking is prohibited along both sides of the street within the study area.

Lane configurations of the study intersections are provided in **Figure 4**.

EXISTING PUBLIC TRANSIT SERVICE

Six bus lines currently serve the study area. These transit lines are described below:

Big Blue Bus Route 3 – Route 3 is a north/south local line that runs from Downtown Santa Monica to the Metro Green Line Aviation/LAX Station. The line has 10-minute headways during the AM and PM peak periods. In the vicinity of the project alignment, service has been moved from Bellanca Avenue to Airport Boulevard as a long-term detour while the Metro Crenshaw/LAX Line is built. While there are stops located on Bellanca Avenue near 98th Street which are not in use currently, service will be restored to Bellanca Avenue in the future.

Metro Line 111 – Line 111 is an east/west local line that runs from the LAX City Bus Center to Norwalk Station. The line has 9- to 20-minute headways during the AM and PM peak periods. The line runs on Arbor Vitae Street within the study area.

Metro Line 211/215 – Line 211/215 is a north/south local line that runs from Redondo Beach to Inglewood. The line has 30- to 60-minute headways during the AM and PM peak periods. The Line 211 runs on Prairie Street and Line 215 runs on Inglewood Avenue within the study area.

Metro Line 40 – Line 40 is a north/south local line that runs from South Bay Galleria to Union Station. The line has 7- to 12-minute headways during the AM and PM peak periods. The line runs on La Brea Avenue within the study area.

Metro Line 442 – Line 442 is an east/west express line that runs from Hawthorne/Lennox Station to Union Station. The line has 25- to 55-minute headways during the AM and PM peak periods. The line runs on La Brea Avenue within the study area.

Metro Line 212/312 – Line 212/312 is an east/west local line that runs from Hawthorne/Lennox Station to Hollywood/Vine Station. The line has 10- to 12-minute headways during the AM and PM peak periods. The line runs on Prairie Avenue within the study area.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

There are no existing bicycle facilities in the vicinity of the project, including on the streets where the proposed project would be constructed.

The study area has a mature network of pedestrian facilities including sidewalks, crosswalks and pedestrian safety features. Sidewalks are provided on most streets in the study area on both sides of the street, including on the streets where the proposed project would be constructed.

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

This section presents existing peak hour traffic volumes, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and levels of service (LOS).

EXISTING TRAFFIC VOLUMES

New weekday AM and PM peak period turning movement counts were collected at the study intersections in February 2018. The existing weekday morning and afternoon peak hour volumes and lane configurations at the study intersections are shown in **Figure 4**. Count sheets for these intersections are contained in **Appendix A**.

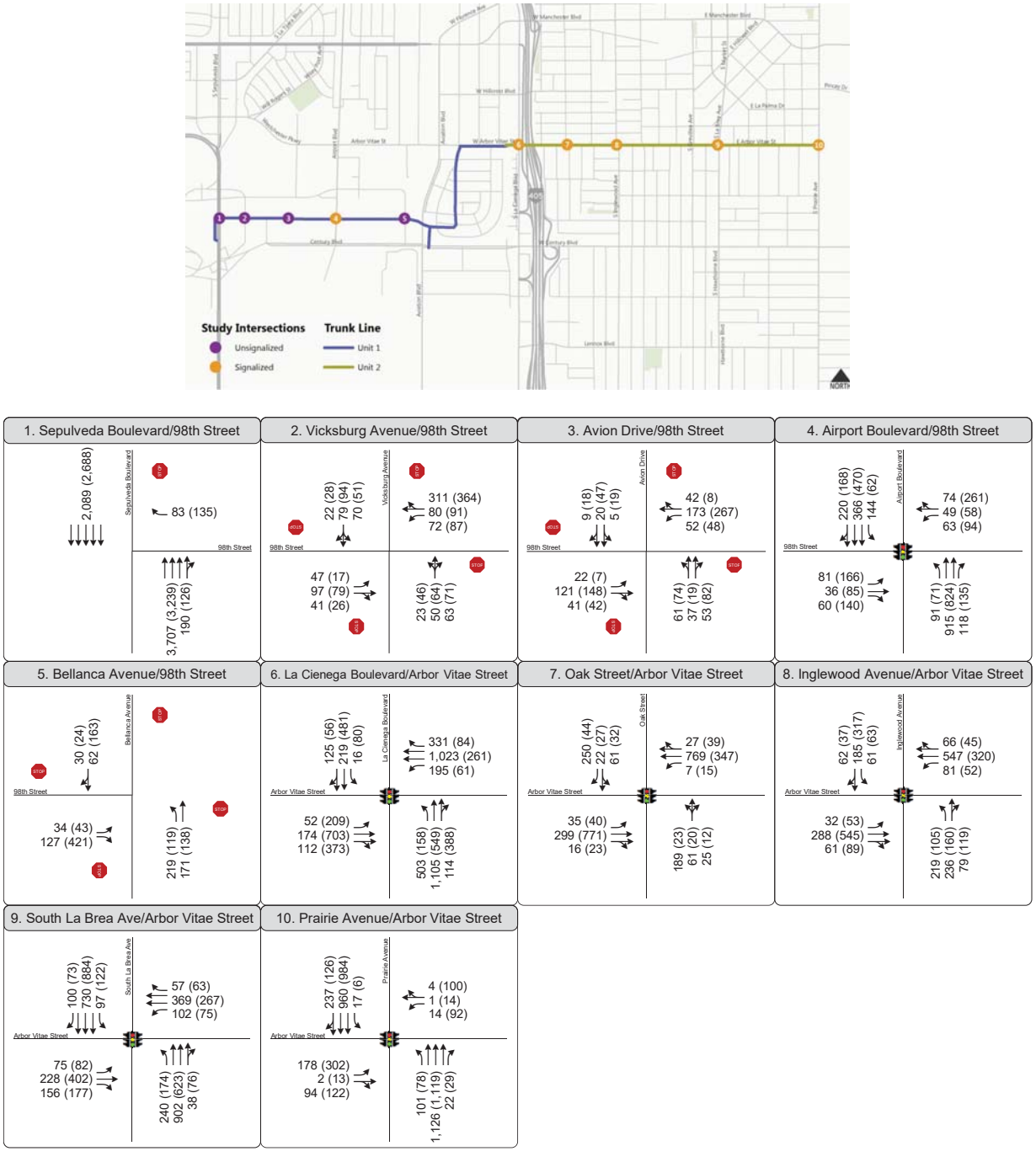


Figure 4

Peak Hour Traffic Volumes and Lane Configurations
Existing (2018) Conditions

INTERSECTION LEVEL OF SERVICE METHODOLOGY

A variety of standard methodologies are available to analyze LOS. According to *Traffic Study Policies and Procedures* (LADOT, December 2016), this study is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation (Transportation Research Board, 1980) to analyze the signalized intersections in the City of Los Angeles. The V/C ratio is then used to find the corresponding LOS based on the definitions in **Table 4**. Under the CMA methodology, a V/C ratio is generated for the one signalized study intersection in Los Angeles based on factors such as the volume of traffic and the number of lanes providing for such vehicle movement and an LOS grade. While the City does not have a specific target LOS, LOS D or better is generally considered to be desirable in an urban context.

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC-operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. The one signalized study intersection in the City of Los Angeles is currently operating under the City's ATSAC system and ATCS control. ATSAC and ATCS provide improved operating conditions. Therefore, in accordance with City of Los Angeles procedures, a credit of 0.07 V/C reduction was applied at each intersection where ATSAC is implemented and an additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

TABLE 4
LEVEL OF SERVICE DEFINITIONS FOR
SIGNALIZED INTERSECTIONS
CMA AND ICU METHODOLOGY

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 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 - 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 Circular No. 212, Interim Materials on Highway Capacity* , Transportation Research Board, 1980.

The City of Los Angeles does not require LOS analysis for unsignalized intersections. Rather, the *Transportation Impact Study Guidelines* states that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device." Because the alignment of Phase 1 of Unit 1 of the proposed project includes four unsignalized intersections that would be affected during early stages of project construction, this study presents existing and projected traffic volumes and LOS for each. This is intended to provide information for the public and decision-makers to consider during the project approval process and for agency staff as the plans for the proposed project are finalized and traffic management plans are developed. The 2010 Highway Capacity Manual (HCM) was used to determine the average vehicle delay (in seconds) and the corresponding LOS for selected stop-controlled study intersections. The LOS definitions for the stop-controlled intersections are included in **Table 5**.

Signalized intersections in the City of Inglewood were analyzed using Intersection Capacity Utilization (ICU) method, consistent with that City's practices. The ICU method estimates the V/C ratio for an intersection based on the individual V/C ratios for the conflicting traffic movements. The ICU value represents the percent signal green time of capacity of the intersection movements. The overall intersection V/C ratio is subsequently assigned an LOS value to describe intersection operations in **Table 4**. LOS ranges from LOS A (free flow) to LOS F (jammed condition).

EXISTING INTERSECTION LEVELS OF SERVICE

Existing traffic volumes presented in **Figure 4** were analyzed using the intersection capacity analysis methodology described above to determine the existing operating conditions at the study intersections. **Table 6** summarizes the results of the analysis of the existing weekday morning and afternoon peak hour V/C ratio and corresponding LOS at each of the analyzed intersections. As indicated, all 10 intersections analyzed for impacts operate at LOS D or better during both peak periods. Analysis sheets are provided in **Appendix B**.

TABLE 5
HCM LEVEL OF SERVICE DEFINITIONS FOR STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Control Delay (seconds/vehicle)
A	$\leq$ 10.0
B	> 10.0 and $\leq$ 15.0
C	> 15.0 and $\leq$ 25.0
D	> 25.0 and $\leq$ 35.0
E	> 35.0 and $\leq$ 50.0
F	> 50.0

Source: *Highway Capacity Manual,* Transportation Research Board, 2010.

TABLE 6
EXISTING (2018) INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	PEAK HOUR	EXISTING (2018)	
			V/C or Delay	LOS
1	Sepulveda Blvd &	AM	9.0	A
	98th Street	PM	9.4	A
2	Vicksburg Avenue &	AM	13.0	B
	98th Street	PM	15.1	C
3	Avion Drive &	AM	9.8	A
	98th Street	PM	11.9	B
4	Airport Boulevard &	AM	0.437	A
	98th Street	PM	0.539	A
5	Bellanca Avenue &	AM	10.5	B
	98th Street	PM	13.9	B
6	La Cienega Boulevard &	AM	0.875	D
	Arbor Vitae Street	PM	0.817	D
7	Oak Street &	AM	0.688	B
	Arbor Vitae Street	PM	0.428	A
8	Inglewood Avenue &	AM	0.663	B
	Arbor Vitae Street	PM	0.726	C
9	South La Brea Avenue &	AM	0.609	B
	Arbor Vitae Street	PM	0.691	B
10	Prairie Avenue &	AM	0.526	A
	Arbor Vitae Street	PM	0.640	B

STREET SEGMENT LEVEL OF SERVICE METHODOLOGY

The V/C ratio and corresponding LOS of each segment was calculated. 98th Street is classified as a Collector Street and Arbor Vitae Street is classified as a Major Highway. In order to provide a conservative analysis, however, and to reflect the current characteristics of the street, Arbor Vitae was treated as a Class II Highway west of La Cienega Boulevard, as a Secondary Highway from La Cienega Boulevard to La Brea Avenue, and as a collector east of La Brea Avenue.

A capacity of 1,000 vehicles per lane per hour (vplph) for Class I arterials, 800 vplph for Class II arterials, 700 vplph for Secondary streets, and 600 vplph for Collector streets were used in this analysis. These segment capacities have been used in studies for projects in the City of Los Angeles. Detailed assessment of the existing operating conditions at these 10 roadway segments and the LOS definitions for roadway segments are included in **Table 7**.

EXISTING STREET SEGMENT LEVELS OF SERVICE

Existing year street segment volumes for the highest hour in the 12-hour AM period, in the 12-hour PM period on a daily basis are presented in **Table 8**. The one-hour volumes shown in this table may differ from what is shown in the intersection turning movement figures because the intersection analysis is based on the highest total intersection volumes during the defined AM and PM peak periods. The highest hourly volumes on 98th Street occur westbound approaching Vicksburg Avenue, which aligns with the grade-separated access road that leads directly to the Central Terminal Area. Hourly volumes on Arbor Vitae Street are consistently higher westbound in the AM period and eastbound in the PM period. Applying the functional classifications and segment capacities shown, congested conditions are shown to occur during the busiest hours of a typical weekday at these locations.

TABLE 7
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 8
EXISTING STUDY ROADWAY SEGMENT VOLUMES AND LEVELS OF SERVICE

Location	EXISTING (2018) TRAFFIC VOLUMES [a]						EXISTING ROADWAY CAPACITY [b]				EXISTING ROADWAY LEVEL OF SERVICE							
	NB/EB			SB/WB			Roadway Classification	NB/EB		SB/WB		NB/EB				SB/WB			
												Highest AM Hr		Highest PM Hr		Highest AM Hr		Highest PM Hr	
	Daily	Highest AM Hour	Highest PM Hour	Daily	Highest AM Hour	Highest PM Hour		Lanes	Capacity	Lanes	Capacity	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Unit 1																			
1 Sepulveda Boulevard b/w World Way and 98th Street	55,079	4,233	3,402	30,546	2,111	2,688	Class I	4	4,000	5	5,000	1.058	F	0.851	D	0.422	A	0.538	A
2 98th Street east of Sepulveda Boulevard	2,968	219	187	1,601	142	138	Collector	1	600	1	600	0.365	A	0.312	A	0.237	A	0.230	A
3 98th Street east of Vicksburg Avenue	3,332	230	212	7,895	549	565	Collector	1	600	1	600	0.383	A	0.353	A	0.915	E	0.942	E
4 98th Street east of Avion Drive	3,533	218	282	4,750	276	317	Collector	1	600	1	600	0.363	A	0.470	A	0.460	A	0.528	A
5 98th Street east of Airport Boulevard	3,239	195	306	3,183	258	207	Collector	1	600	1	600	0.325	A	0.510	A	0.430	A	0.345	A
Unit 2																			
6 Arbor Vitae Street west of La Cienega Boulevard	13,034	791	1,360	12,612	1,687	680	Class II	2	1,600	2	1,600	0.494	A	0.850	D	1.054	F	0.425	A
7 Arbor Vitae Street east of Oak Street	9,322	514	799	8,948	927	519	Secondary	1	700	1	700	0.734	C	1.141	F	1.324	F	0.741	C
8 Arbor Vitae Street east of Inglewood Avenue	9,337	490	762	8,007	726	487	Secondary	1	700	1	700	0.700	B	1.089	F	1.037	F	0.696	B
9 Arbor Vitae Street west of La Brea Avenue	8,138	451	662	8,113	708	495	Secondary	1	700	1	700	0.644	B	0.946	E	1.011	F	0.707	C
10 Arbor Vitae Street west of Prairie Avenue	5,317	288	462	4,003	358	254	Collector	1	600	1	600	0.480	A	0.770	C	0.597	A	0.423	A

Notes:

[a] AM and PM volumes are the highest one-hour volumes over each 12-hour period. Therefore these segment volumes may differ from the AM/PM peak hour volumes at analyzed intersections, which are the highest one-hour volumes during the defined peak periods.

[b] Although Arbor Vitae Street is functionally classified as a Major Arterial, this analysis conservatively treats it as a collector street (segment 10), as a Secondary Arterial (segments 7, 8 and 9) and as a Major Highway Class II (segment 6) to reflect its current characteristics.

Class I = 1000 vehicles per lane per hour
Class II = 800 vehicles per lane per hour
Secondary = 700 vehicles per lane per hour
Collector = 600 vehicles per lane per hour

3. TRAFFIC PROJECTIONS

CONSTRUCTION TRAFFIC

The development of trip generation estimates for the proposed project were based on information provided by LADWP.

CONSTRUCTION PERIOD TRIP GENERATION

Haul Activity

LADWP estimates that approximately 800,000 cubic feet of soils and materials are expected to be exported from the site during excavation for Unit 1. Approximately 581,000 cubic feet of soils and materials are expected to be exported from the site during excavation for Unit 2. The proposed project would require up to approximately 12 truckloads per day (up to approximately 24 1-way truck trips per day per site) during the construction period to haul off excavated soil not needed for backfill, and to import clean backfill material.

Equipment and Delivery Trucks

In addition to haul trucks, the project is also expected to generate equipment and delivery trucks during construction. Approximately two truckloads per day (up to approximately four 1-way truck trips per day per site) would be required for the delivery of construction materials such as piping, asphalt, and equipment associated with the pipelines.

Construction Employees

Approximately 12 workers per day (approximately 24 1-way commute trips per day per site) would be required for open excavation and for pipe jacking construction and pipeline installation. Several work crews could be working simultaneously, with a worst case scenario having five crews: four crews at Unit 1 (two work crews at Phase 1, one crew at Phase 2, and one crew at Phase 3) and one crew at Unit 2.

Trip Generation Analysis

Based on the aforementioned information, a construction period trip generation analysis was conducted. **Table 9** shows a summary of the worst case scenario construction period trip generation estimates under each phase and activity of construction. As shown, each work site is estimated to generate up to 24 employee trips per day and up to 28 truck trips per day. Thus, with five work sites in active construction, the project is estimated to generate up to approximately 260 daily trips. During the periods that four or fewer work sites are in active construction, fewer daily trips would occur. Because planned work hours are between 7:00 AM and 6:00 PM, and relatively few commute trips are anticipated during the morning and evening peak periods. Truck trips would be distributed throughout the day.

TABLE 9
CONSTRUCTION PERIOD DAILY TRIP GENERATION

Activity	Unit/Phase	Construction Workers	Truck Loads [a]	Construction Worker Trips	Truck Trips	Estimated Daily Trip Generation [b]
Sending Pit [c]	1/2 or Unit 2	12	14	24	28	52
Receiving Pit [c]	1/2 or Unit 2	12	14	24	28	52
Open Trench	1/1 or 1/2 or 1/3	12	14	24	28	52
Open Trench	1/1 or 1/2 or 1/3	12	14	24	28	52
Connection	1 & 2/Connection	12	14 [d]	24	28	52
TOTAL CONSTRUCTION VEHICLE TRIPS [e]						260

Notes:

[a] Estimated that up to 14 truck loads per day could occur with each activity, being a combination of export soil and material deliveries.

[b] Standard construction hours are from 7 AM to 6 PM, Monday-Friday. All construction workers were assumed to travel by single-occupancy vehicle to and from the vicinity of the construction sites.

[c] Sending and Receiving would occur during pipe jacking activies on the future 98th Street extension in Unit 1 before June 2020 and on Arbor Vitae Street in Unit 2 after June 2020.

[d] Up to five truckloads per date are estimated to normally occur during this phase of construction. However, to allow for a worst-case analysis, the project was assumed to generate up to 14 truckloads per day.

[e] Total daily construction vehicle trips represent the maximum number of trips estimated to occur during the construction period.

FUTURE YEAR 2020 AND 2022 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 when the construction would occur for Unit 1 and Unit 2. Estimates of traffic growth were developed for the study area to forecast future conditions. 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 future base 2020 conditions and future base 2022 conditions, represent the future study year conditions when construction for Unit 1 and Unit 2 would occur, respectively.

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. Because the project would occur in several stages over a multi-year period, all roadway segments and intersections in the vicinity of the project were evaluated for the future year 2020 and 2022, the latest years that Phase 1 of Unit 1 and all of Unit 2 are planned to be completed, respectively.

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

BACKGROUND OR AMBIENT GROWTH

Based on historic trends, it was established that an ambient growth factor of 2% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2020 and 2022.

RELATED PROJECT TRAFFIC GENERATION AND ASSIGNMENT

Future Base traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the vicinity of the project site prior to the buildout date of the project. The list of related projects was prepared based on data from LADOT and the City of Inglewood, and from a review of recent environmental studies for projects in the area. A total of 16 cumulative projects were identified in the study area. These projects are listed in **Table 10** and illustrated in **Figure 5.**

TABLE 10
RELATED LAND DEVELOPMENT PROJECTS

No.	Project Location [a]	Land Use	Size		Trip Generation [b]						
					Daily	AM			PM		
						IN	OUT	TOTAL	IN	OUT	TOTAL
1	11604 Aviation Blvd	Condominiums	281	du	3,491	118	233	352	185	114	299
		Apartments	112	du							
		Retail	26.500	ksf							
2	7407 S La Tijera Blvd	Apartments	140	du	799	10	55	65	57	26	83
		Retail	2.600	ksf							
3	8740 S La Tijera Blvd	Apartments	137	du	508	-60	-4	-64	42	14	56
4	6733 Sepulveda Blvd	Apartments	176	du	628	-31	55	24	52	-40	12
5	8540 S La Tijera Blvd	Middle School	350	students	868	173	142	315	99	111	210
6	8521 S Sepulveda Blvd	Apartments	86	du	1259	23	69	92	84	50	134
7	6711 S Sepulveda Blvd	Apartments	180	du	1063	17	70	87	73	37	110
8	6855 S La Cienega Blvd	Grocery Store	22.590	ksf	1520	25	17	42	74	74	148
9	Los Angeles World Airports LAMP [c]	Construction Project				1,203	361	1,564	268	1,216	1,484
10	240 W Lime St	Senior Housing	40	du	138	3	5	8	5	5	10
11	10001 Hawthorne Blvd	Restaurant	4.900	ksf	1,003	33	23	56	37	35	72
12	Inglewood NFL Stadium Hollywood Park [d]	Retail	620.000	ksf	37,158	860	1,777	2,073	1,958	1,990	3,948
		Casino	120.000	ksf							
		Apartments	2995	du							
		Civic Use	800	students							
		Hotel	300	rooms							
		Office	75.000	ksf							
		Stadium									
13	333 N Prairie Ave	Condominiums	228	du	2,171	43	128	171	144	84	228
14	125 East Spruce Avenue	Apartments	7	du	47	1	3	4	3	2	4
15	11111 S Prairie Ave	Hotel	120	rooms	1,003	33	23	56	37	35	72
16	204 N La Brea Ave	Apartments	235	du	6,381	258	255	513	339	287	626
		Restaurant	7.440	ksf							
		Retail	7.625	ksf							
		Grocery Store	28.000	ksf							
		Coffee Shop	2.120	ksf							
				Total	58,036	2,709	3,213	5,357	3,457	4,039	7,496

Notes:

du = dwelling unit

ksf = one thousand square feet

[a] Related projects list is based on information provided from LADOT in March 2018 and independent research.

[b] Assumed rates from ITE Trip Generation Manual, 9th Edition (2012), in the absence of information.

[c] Los Angeles International Airport Landside Access Modernization Program peak year construction trips are included in this related projects list as construction for the project would occur while the Century Trunk Line is being built. Trip generation rates based on information provided in the *Los Angeles International Airport Landside Access Modernization Program Draft Environmental Impact Report (2016).*

[d] Trip generation rates based on information provided in the *Hollywood Park Redevelopment Project Draft Traffic Impact Study (2008).* Gross trip generation rates were used for this analysis as existing uses in the study are no longer in use. The Hollywood Park Plan has changed since it was originally approved, replacing some of the planned development with a stadium. However, updated trip generation estimates are not available for the revised project at this time.

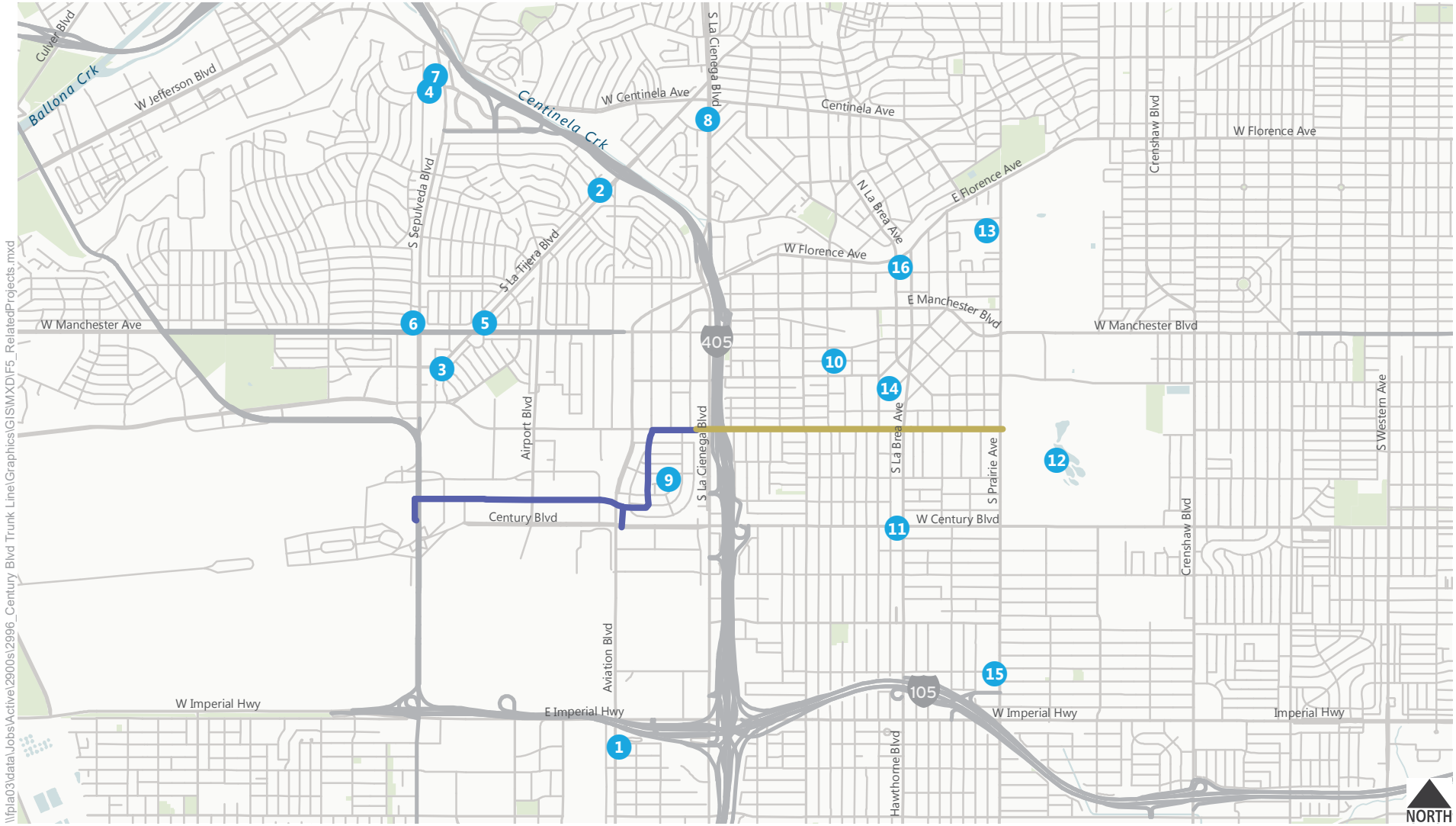


Figure 5

Related Land Development Projects

Trip Generation

Trip generation estimates for the related projects were calculated using a combination of previous study findings, publicly available environmental documentation, and trip generation rates contained in *Trip Generation, 9th Edition*. **Table 10** presents the resulting trip generation estimates for these related projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.). Traffic mitigation measures associated with the related projects, if any, are also not accounted for in the analysis.

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. In cases where the traffic study or environmental document for a related project was available, the trip distribution from that study was used.

Traffic Assignment

Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

TRANSPORTATION INFRASTRUCTURE PROJECTS

Arbor Vitae Street between Aviation Boulevard and La Cienega would be widened to accommodate an additional travel lane in each direction as part of LAWA LAMP. The widening is part of major roadway improvements in Phase 1 of construction, which is scheduled to be finished in approximately 2023. Because it is planned for completion after the construction of the proposed CTL Project, the future year capacity calculations in this study do not include the widening.

The Crenshaw/LAX Transit project will extend light rail transit (LRT) service approximately 8.5 miles south, Metro Expo Line to the Metro Green Line. It will include eight new stations and is planned for completion in 2019. The CTL project alignment would be located below-grade near the Aviation/Century Station. As a separate and subsequent project, LAWA will construct the Airport Metro Connector to link this line with the Central Terminal Area and certain LAWA landside facilities.

FUTURE (2020 AND 2022) TRAFFIC VOLUMES

Future 2020 weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in **Figure 6**. Future 2022 weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in **Figure 7**. The future year traffic conditions represent an estimate of future conditions without the proposed project inclusive of the ambient background growth and related projects traffic.

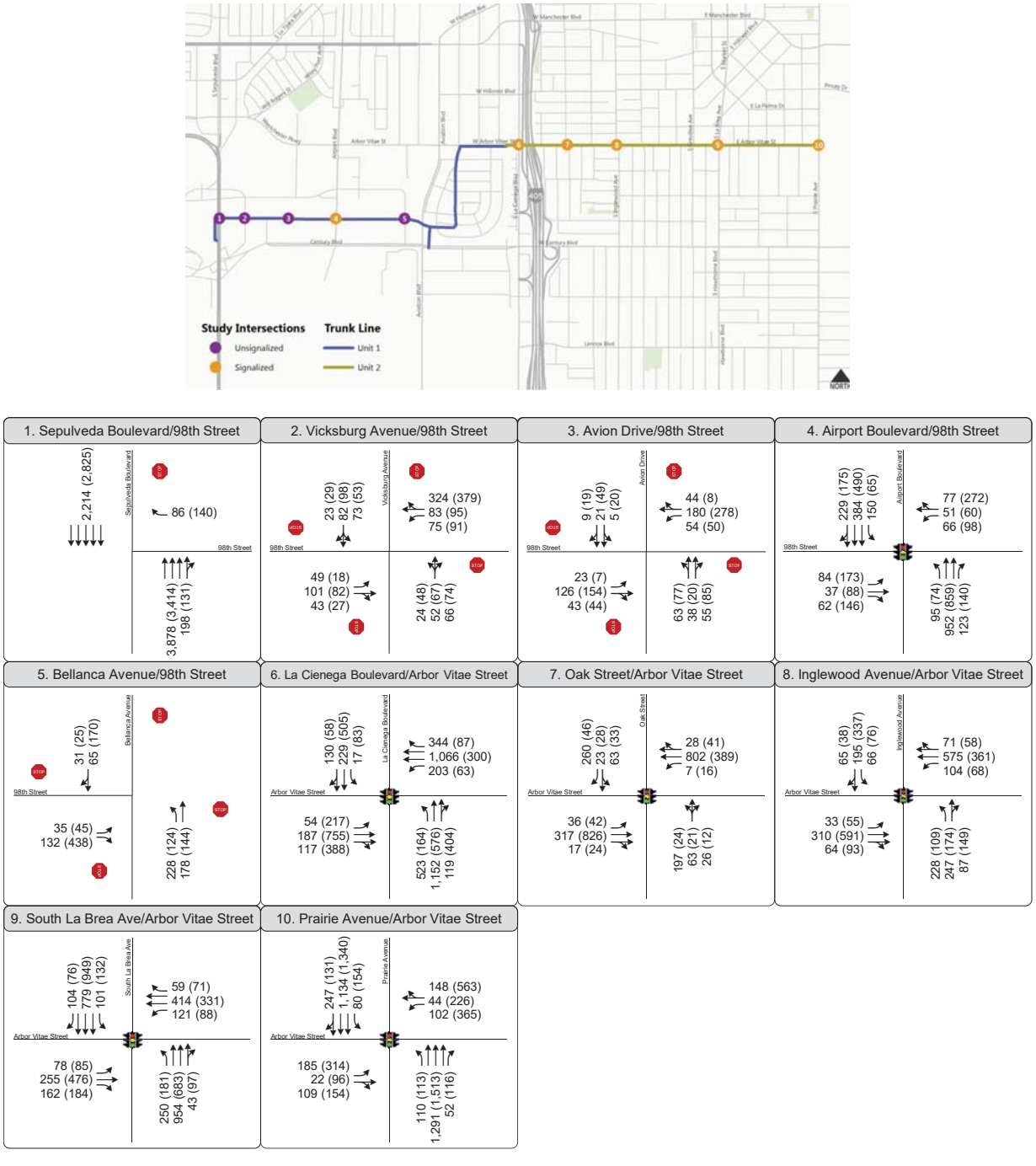


Figure 6

Peak Hour Traffic Volumes and Lane Configurations
Future (2020) Conditions

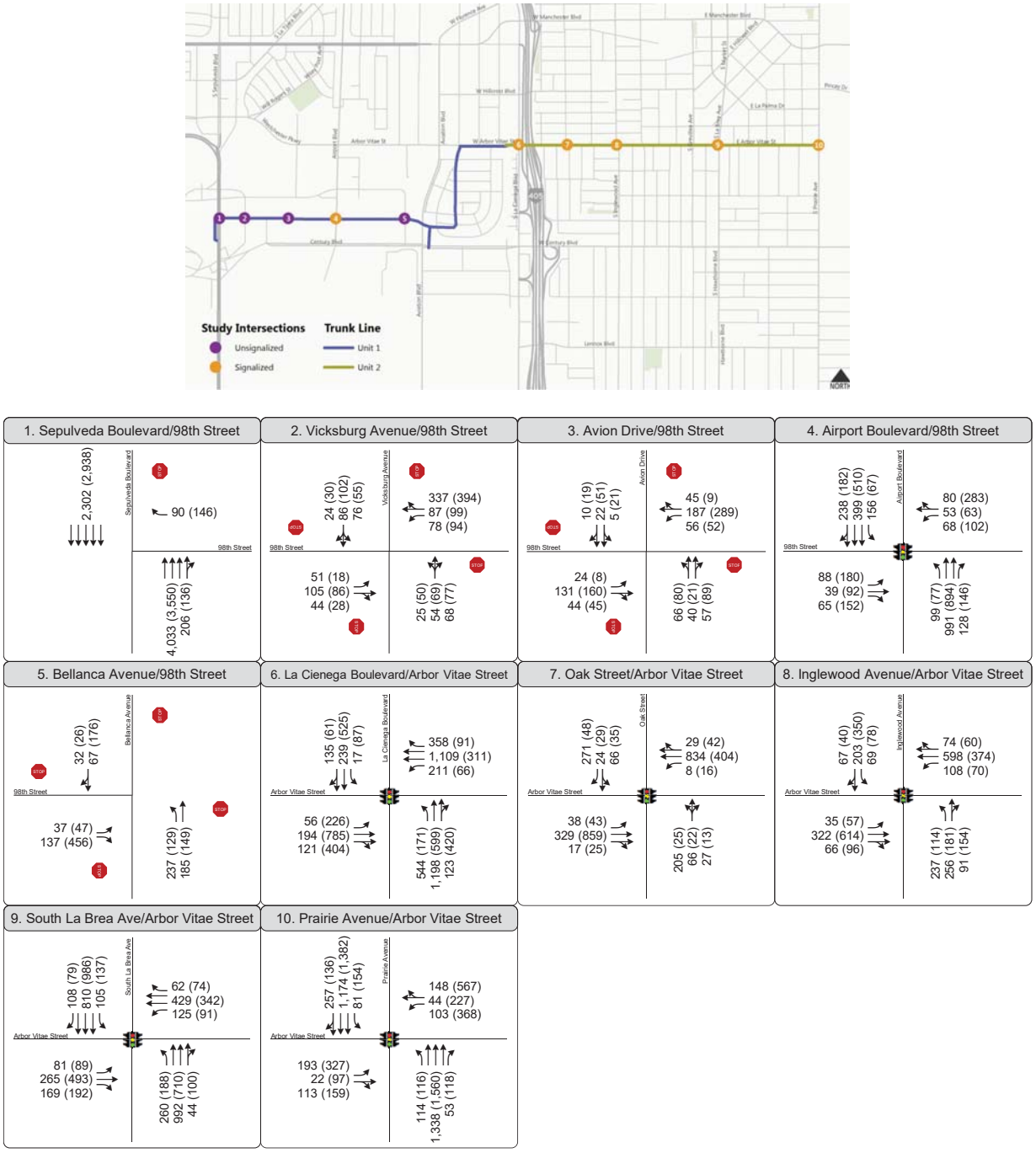


Figure 7

Peak Hour Traffic Volumes and Lane Configurations
Future (2022) Conditions

FUTURE (2020 AND 2022) TRAFFIC CONDITIONS

The 2020 and 2022 peak hour traffic volumes shown in **Figure 6** and **Figure 7** were analyzed using the LOS methodologies described in Chapter 2 to project future LOS at the study intersections during the analyzed peak hours. The results of this analysis are summarized in **Table 11** and **Table 12** for the analyzed peak hours. Four of the six signalized intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours under Future 2020 and 2022 conditions. The intersection at La Cienega Boulevard & Arbor Vitae Street is projected to operate at LOS E during the AM peak period. The intersection at Prairie Avenue & Arbor Vitae Street is projected to operate at LOS F during the PM peak period. All of the unsignalized intersections are projected to operate at LOS C or better during both peak hours under Future 2020 and 2022 conditions. Detailed LOS calculations are provided in **Appendix B**.

The 2020 and 2022 peak hour street segment volumes were analyzed using the LOS methodologies described in Chapter 2 to project future segment LOS at the 10 segments during the analyzed peak hours. The results of this analysis are summarized in **Table 13** and **Table 14** for the analyzed peak hours. The peaking and directional trends of the projected traffic volumes on 98th Street and on Arbor Vitae Street are similar to what is found under existing conditions.

TABLE 11
FUTURE (2020) INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	PEAK HOUR	FUTURE (2020)	
			V/C or Delay	LOS
1	Sepulveda Blvd &	AM	10.7	B
	98th Street	PM	10.8	B
2	Vicksburg Avenue &	AM	13.8	B
	98th Street	PM	17.3	C
3	Avion Drive &	AM	9.9	A
	98th Street	PM	11.8	B
4	Airport Boulevard &	AM	0.459	A
	98th Street	PM	0.567	A
5	Bellanca Avenue &	AM	10.6	B
	98th Street	PM	18.5	C
6	La Cienega Boulevard &	AM	0.906	E
	Arbor Vitae Street	PM	0.854	D
7	Oak Street &	AM	0.712	C
	Arbor Vitae Street	PM	0.450	A
8	Inglewood Avenue &	AM	0.695	B
	Arbor Vitae Street	PM	0.793	C
9	South La Brea Avenue &	AM	0.653	B
	Arbor Vitae Street	PM	0.764	C
10	Prairie Avenue &	AM	0.693	B
	Arbor Vitae Street	PM	1.200	F

TABLE 12
FUTURE (2022) INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	PEAK HOUR	FUTURE (2022)	
			V/C or Delay	LOS
1	Sepulveda Blvd &	AM	11.4	B
	98th Street	PM	11.5	B
2	Vicksburg Avenue &	AM	14.8	B
	98th Street	PM	19.2	C
3	Avion Drive &	AM	10.1	B
	98th Street	PM	12.2	B
4	Airport Boulevard &	AM	0.482	A
	98th Street	PM	0.593	A
5	Bellanca Avenue &	AM	10.9	B
	98th Street	PM	20.5	C
6	La Cienega Boulevard &	AM	0.939	E
	Arbor Vitae Street	PM	0.885	D
7	Oak Street &	AM	0.738	C
	Arbor Vitae Street	PM	0.464	A
8	Inglewood Avenue &	AM	0.718	C
	Arbor Vitae Street	PM	0.819	D
9	South La Brea Avenue &	AM	0.676	B
	Arbor Vitae Street	PM	0.788	C
10	Prairie Avenue &	AM	0.710	C
	Arbor Vitae Street	PM	1.221	F

TABLE 13
FUTURE (2020) STUDY ROADWAY SEGMENT VOLUMES AND LEVELS OF SERVICE

Location	FUTURE (2020) TRAFFIC VOLUMES [a]						EXISTING ROADWAY CAPACITY [b]					FUTURE (2020) ROADWAY LEVEL OF SERVICE							
	NB/EB			SB/WB			Roadway Classification	NB/EB		SB/WB		NB/EB				SB/WB			
												Highest AM Hr		Highest PM Hr		Highest AM Hr		Highest PM Hr	
	Daily	Highest AM Hour	Highest PM Hour	Daily	Highest AM Hour	Highest PM Hour		Lanes	Capacity	Lanes	Capacity	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Unit 1																			
1 Sepulveda Boulevard b/w World Way and 98th Street	57,847	4,425	3,583	32,323	2,237	2,826	Class I	4	4,000	5	5,000	1.106	F	0.896	D	0.447	A	0.565	A
2 98th Street east of Sepulveda Boulevard	3,088	228	195	1,666	148	144	Collector	1	600	1	600	0.380	A	0.324	A	0.246	A	0.239	A
3 98th Street east of Vicksburg Avenue	3,467	239	221	8,214	571	588	Collector	1	600	1	600	0.399	A	0.368	A	0.952	E	0.980	E
4 98th Street east of Avion Drive	3,676	227	293	4,942	287	330	Collector	1	600	1	600	0.378	A	0.489	A	0.479	A	0.550	A
5 98th Street east of Airport Boulevard	3,370	203	318	3,312	268	215	Collector	1	600	1	600	0.338	A	0.531	A	0.447	A	0.359	A
Unit 2																			
6 Arbor Vitae Street west of La Cienega Boulevard	13,724	825	1,443	13,272	1,761	731	Class II	2	1,600	2	1,600	0.516	A	0.902	E	1.101	F	0.457	A
7 Arbor Vitae Street east of Oak Street	9,862	537	859	9,459	970	564	Secondary	1	700	1	700	0.767	C	1.228	F	1.386	F	0.806	D
8 Arbor Vitae Street east of Inglewood Avenue	10,154	539	846	8,836	773	566	Secondary	1	700	1	700	0.770	C	1.208	F	1.105	F	0.808	D
9 Arbor Vitae Street west of La Brea Avenue	8,902	499	742	8,956	755	573	Secondary	1	700	1	700	0.713	C	1.060	F	1.078	F	0.819	D
10 Arbor Vitae Street west of Prairie Avenue	6,328	348	724	5,736	403	374	Collector	1	600	1	600	0.579	A	1.206	F	0.672	B	0.624	B

Notes:
[a] AM and PM volumes are the highest one-hour volumes over each 12-hour period. Therefore these segment volumes may differ from the AM/PM peak hour volumes at analyzed intersections, which are the highest one-hour volumes during the defined peak periods.
[b] Although Arbor Vitae Street is functionally classified as a Major Arterial, this analysis conservatively treats it as a collector street (segment 10), as a Secondary Arterial (segments 7, 8 and 9) and as a Major Highway Class II (segment 6) to reflect its current characteristics.
Class I = 1000 vehicles per lane per hour
Class II = 800 vehicles per lane per hour
Secondary = 700 vehicles per lane per hour
Collector = 600 vehicles per lane per hour

TABLE 14
FUTURE (2022) STUDY ROADWAY SEGMENT VOLUMES AND LEVELS OF SERVICE

Location	FUTURE (2022) TRAFFIC VOLUMES [a]						EXISTING ROADWAY CAPACITY [b]					FUTURE (2022) ROADWAY LEVEL OF SERVICE							
	NB/EB			SB/WB				NB/EB		SB/WB		NB/EB				SB/WB			
												Highest AM Hr		Highest PM Hr		Highest AM Hr		Highest PM Hr	
	Daily	Highest AM Hour	Highest PM Hour	Daily	Highest AM Hour	Highest PM Hour	Roadway Classification	Lanes	Capacity	Lanes	Capacity	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Unit 1																			
1 Sepulveda Boulevard b/w World Way and 98th Street	60,162	4,603	3,726	33,607	2,326	2,939	Class I	4	4,000	5	5,000	1.151	F	0.932	E	0.465	A	0.588	A
2 98th Street east of Sepulveda Boulevard	3,213	237	202	1,733	154	149	Collector	1	600	1	600	0.395	A	0.337	A	0.256	A	0.249	A
3 98th Street east of Vicksburg Avenue	3,607	249	229	8,546	594	612	Collector	1	600	1	600	0.415	A	0.382	A	0.990	E	1.019	F
4 98th Street east of Avion Drive	3,824	236	305	5,142	299	343	Collector	1	600	1	600	0.393	A	0.509	A	0.498	A	0.572	A
5 98th Street east of Airport Boulevard	3,506	211	331	3,445	279	224	Collector	1	600	1	600	0.352	A	0.552	A	0.465	A	0.373	A
Unit 2																			
6 Arbor Vitae Street west of La Cienega Boulevard	14,271	862	1,496	13,802	1,828	764	Class II	2	1,600	2	1,600	0.539	A	0.935	E	1.143	F	0.478	A
7 Arbor Vitae Street east of Oak Street	10,253	562	889	9,836	1,005	590	Secondary	1	700	1	700	0.803	D	1.270	F	1.436	F	0.843	D
8 Arbor Vitae Street east of Inglewood Avenue	10,547	548	884	9,173	815	580	Secondary	1	700	1	700	0.783	C	1.263	F	1.164	F	0.829	D
9 Arbor Vitae Street west of La Brea Avenue	9,244	506	775	9,297	796	589	Secondary	1	700	1	700	0.723	C	1.107	F	1.138	F	0.841	D
10 Arbor Vitae Street west of Prairie Avenue	6,551	343	610	5,904	436	518	Collector	1	600	1	600	0.571	A	1.017	F	0.726	C	0.863	D

Notes:
[a] AM and PM volumes are the highest one-hour volumes over each 12-hour period. Therefore these segment volumes may differ from the AM/PM peak hour volumes at analyzed intersections, which are the highest one-hour volumes during the defined peak periods.
[b] Although Arbor Vitae Street is functionally classified as a Major Arterial, this analysis conservatively treats it as a collector street (segment 10), as a Secondary Arterial (segments 7, 8 and 9) and as a Major Highway Class II (segment 6) to reflect its current characteristics.
Class I = 1000 vehicles per lane per hour
Class II = 800 vehicles per lane per hour
Secondary = 700 vehicles per lane per hour
Collector = 600 vehicles per lane per hour

4. CONSTRUCTION PERIOD IMPACT ANALYSIS

IN-STREET CONSTRUCTION IMPACT CRITERIA

LADOT generally considers construction-related traffic to cause adverse but less than significant impacts because, while sometimes inconvenient, construction-related traffic effects are temporary. LADOT requires implementation of worksite traffic control plans to ensure that any construction-related effects are minimized to the greatest extent possible.

The LA CEQA Thresholds Guide provides four categories to be considered in regards to in-street construction impacts: temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines, and temporary loss of on-street parking (*LA CEQA Threshold Guide,* pages L.8-2 through L.8-4). The factors to be considered in each of these categories, as established in the *LA CEQA Threshold Guide*, are as follows:

- Temporary Traffic Impacts:
  - 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 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;
  - The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.
- Temporary Loss of Access:
  - 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;
  - The type of land uses affected, and related safety, convenience, and/or economic issues.
- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
  - 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;
  - 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:
  - 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;
  - The length of time that existing parking spaces would be unavailable.

Per the guide, determination of significance is made on a case-by-case basis. The factors should be evaluated to determine if construction activities could create a potential inconvenience in the performance of one's daily activities (e.g., an impact on traffic operations) and/or a concern to public safety. Recent environmental studies prepared for projects in the City of Inglewood were reviewed to determine how temporary construction-period impacts are assessed and were found to be similar to those of the City of Los Angeles.

Section 41.40 of the Los Angeles Municipal Code (LAMC) limits construction activities for Unit 1 (in the City of Los Angeles) to the hours from 7:00 AM to 9:00 PM on weekdays and from 8:00 AM to 6:00 PM on Saturdays, with no construction permitted on Sundays or holidays. The City of Inglewood allows construction activities to occur between 7:00 AM and 8:00 PM, which would apply to Unit 2.

CONSTRUCTION IMPACT ASSESSMENT

The *LA CEQA Thresholds Guide* provides four categories to be considered in regards to in-street construction impacts: temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines, and temporary loss of on-street parking (*LA CEQA Threshold Guide*, pages L.8-2 through L.8-4). The factors to be considered in each of these categories, and the assessment of the project against these factors, is discussed below and summarized in **Table 15**. 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 project would be constructed in phases over a period of three to four years, rather than all at once, and the duration of the impacts discussed below at any given location would be up to three to six months.

TEMPORARY TRAFFIC IMPACTS

As described earlier, final plans for the proposed project have not yet been prepared and it is not known with certainty where the new water pipeline would be located within the rights-of-way of 98th Street and Arbor Vitae Street. Conceptual plans that have been developed for Unit 1 are presented in **Appendix C**. These plans indicate that the pipeline would be located near the center of 98th Street between Sepulveda Boulevard and Vicksburg Avenue, and close to the southern edge of the roadway east of Vicksburg Avenue. The location of the pipeline within Arbor Vitae Street is not yet known.

Construction of nearly all of Phases 2 and 3 of Unit 1 would occur off-street on land owned by the City of Los Angeles (LAWA) and would not be expected to result in substantial changes to traffic conditions on the surrounding street network. Where the alignment of Phase 3, Unit 1 lies within Arbor Vitae Street, it is anticipated that most of it would be located within the existing south frontage road. The easternmost segment of Phase 3, Unit 1 will be closer to center of Arbor Vitae Street, where the connection with Unit 2 would be located. As part of the Landside Access Modernization Program, LAWA will widen and improve the segment of Arbor Vitae Street where the proposed project lies (west of La Cienega Boulevard) and the final roadway improvements will be made after the pipeline has been constructed.

TABLE 15
CONSTRUCTION IMPACT SIGNIFICANCE FACTORS

Significance Factor	Assessment	Conclusion
Per the *LA CEQA Thresholds Guide* , the determination of significance shall be made on a case-by-case basis, considering the following factors:		
Temporary Traffic Impacts:		
• The length of time of temporary street closures or closures of two or more traffic lanes;	• Temporary street closures or closures of two or more traffic lanes are not anticipated on 98th Street or on the majority of Arbor Vitae Street. Each street has one travel lane in each direction, except Arbor Vitae Street west of I-405 where there are two lanes in each direction. If it necessary to close two lanes of Arbor Vitae Street near the connection between Unit 1 and Unit 2, one lane would be maintained in each direction. On-street parking will be removed and travel lanes will be narrowed to maintain one travel lane each direction, where possible. One-way traffic operation will be required where roadway width is limited.	• Less than Significant with Mitigation.
• The classification of the street (major arterial, state highway) affected;	• The streets affected are classified as a Collector Street, an Avenue I, an Avenue I Modified and a Major Arterial.	
• The existing traffic levels and level of service (LOS) on the affected street segments and intersections;	• All study intersections on 98th Street and Arbor Vitae Street operate at LOS D or better. Forecast LOS is E or F at 2 intersections.	
• Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;	• None of the affected streets directly lead to a freeway on- or off-ramp or other state highways.	
• Potential safety issues involved with street or lane closures;	• Worksite traffic control plans would be prepared in accordance with applicable City and MUTCD guidelines.	
• The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.	• Emergency services are located within the immediate vicinity of the affected streets.	
Temporary Loss of Access:		
• The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;	• Blockage of vehicular access to parcels fronting the construction area is anticipated. Vehicular access may be restricted to right-in/right-out or left-in/left-out, depending on the direction of one-way that is established where necessary. Work would occur during weekdays for three to four months at any given location. • Pedestrian access will be maintained on both sides of each street to the greatest extent possible. Temporary closures of portions of the sidewalk will be made only where necessary to maintain pedestrian safety and with the concurrence of LADOT or the City of Inglewood.	• Less than Significant with Mitigation.
• The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access;	• Most businesses along 98th Street and Arbor Vitae Street have multiple driveways and/or additional access on adjacent streets or through adjacent properties. Access may be restricted to right-in/right-out or left-in/left-out, resulting in around-the-block travel. For businesses and residents with only one driveway onto the street where construction is planned, vehicular access may be unavailable during the day for periods within the 3-4 months of construction on each segment.	
• The type of land uses affected, and related safety, convenience, and/or economic issues.	• Land uses on 98th Street are exclusively commercial (offices, hotels, retail and public parking lots). Land uses on Arbor Vitae are a mix of commercial, residential, educational and religious. All rely heavily on vehicular access. Maintaining access will be very important.	
Temporary Loss of Bus Stops or Rerouting of Bus Lines:		
• 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 ¼mile radius of the affected stops or routes; • Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).	• Bus stops on Metro Line 111 on Arbor Vitae Street at Hindry, La Cienega, Oak, Inglewood, Eucalyptus, Grevillea, La Brea, and Prairie would need to be relocated or consolidated as construction proceeds through Unit 2.	• Less than Significant with Mitigation.
Temporary Loss of On-Street Parking:		
• The current utilization of existing on-street parking;	• 98th Street and Arbor Vitae Street currently have existing on-street parking on both sides of the street, utilized throughout the day. • Paid parking lots are available along 98th Street. On-street parking is available on cross streets along Arbor Vitae Street.	• Less than Significant.
• The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site;	• Public transit options are available within 1/4 mile of 98th Street on Century Boulevard. Public transit options are available within 1/4 mile of Arbor Vitae Street on Inglewood Avenue, La Brea Avenue and Prairie Avenue.	
• The length of time that existing parking spaces would be unavailable.	• Project construction will temporarily remove existing on-street parking to maximize the portion of the streets available to traffic. Because the project would be constructed in phases, duration of the loss of parking at any given location would be up to three to six months.	

Construction of Phase 1 of Unit 1 would occur within 98th Street, a Collector street that provides one lane in each direction. Construction of Phase 3 would occur within Arbor Vitae Street, a Major Arterial street that provides one lane in each direction east of I-405 and two lanes in each direction west of I-405. Complete road closures are not anticipated on 98th Street or Arbor Vitae. Closures of two or more traffic lanes are not anticipated on Arbor Vitae Street and 98th Street, although one-way traffic along 98th street may be required if there is not sufficient width to accommodate two-way traffic. Open trenches would be approximately 500 feet long within work areas of approximately 1,200 feet. Given the volume of traffic carried by Sepulveda Boulevard, Century Boulevard, and Prairie Avenue, Caltrans, LADOT, and City of Inglewood Public Works may not allow construction on these streets during peak periods and may require closures on these streets occur at night.

Three system connections are planned as part of Phase 1 of Unit 1, and Unit 2. These connections would cross Sepulveda Boulevard (a state highway, classified by the City of Los Angeles as a Boulevard I) at 98th Street, the westbound (northern) side of Century Boulevard (Boulevard I Modified) east of Aviation Boulevard and Prairie Avenue (Major Arterial) at Arbor Vitae Street. When these system connections are constructed to tie into other existing trunk lines in the area, closure of more than one traffic lane may be required to implement the project. Given the volume of traffic carried by Sepulveda Boulevard, Century Boulevard and Prairie Avenue, Caltrans, LADOT and Inglewood Public Works may not allow construction within these streets during peak periods.

If insufficient street width is available to safely maintain one travel lane in both directions on 98th Street (Unit 1, Phase 1) and on Arbor Vitae Street (Unit 2), it will be necessary to restrict traffic flow to one-way operation. To the extent feasible, 2-way traffic would be maintained by temporarily restricting on-street parking, and using the smallest equipment feasible to minimize the width of the work area within the street. If it becomes necessary to limit travel on these streets to 1-way operation, formal detour plans will be developed to accommodate diverted traffic. Even with the maintenance of the existing travel lane in each direction on these streets, some traffic can be expected to divert to nearby parallel routes resulting in increased congestion and delay there during the construction period. While it would be speculative to estimate the specific volume of traffic that would shift to each parallel street, potentially affected routes can be identified. In the vicinity of 98th Street, potentially affected streets are Century Boulevard and 96th Street. In the vicinity of Arbor Vitae Street, potentially affected streets to the north are Manchester Boulevard, Hillcrest Boulevard, Buckthorn Street, La Palma Drive, and Kelso Street. Potentially affected streets to the south of Arbor Vitae Street are Century Boulevard, Hardy Street, 95th Street and 94th Street. **Table 13** and **Table 14** and **Figure 6** and **Figure 7** show estimates of the future 2020 and 2022 volumes that would be affected.

There are no emergency service providers located adjacent to Unit 1 in Los Angeles. Centinela Hospital is located south of Arbor Vitae Street near the eastern end of Unit 2. This major hospital provides inpatient and outpatient services, including emergency services. While the hospital is oriented toward Hardy Street (its southern boundary), given its proximity to Arbor Vitae Street, construction of Unit 2 of the project can be expected to affect emergency service vehicles that use Arbor Vitae Street.

The proposed project would be conducted in accordance with the Standard Specifications for Public Works Construction (Greenbook), the City of Los Angeles Work Area Traffic Control Handbook (WATCH), and the California Manual on Uniform Traffic Control Devices (CAMUTCD) to maintain acceptable traffic flows, safety, local access and emergency access during construction. The Traffic Control Plans for the project would require approval by LADOT, the City of Inglewood Public Works and Caltrans.

TEMPORARY LOSS OF ACCESS

Vehicular access to adjacent properties will be maintained where possible. Vehicular access to the businesses and residences along the affected segments of 98th Street and Arbor Vitae Street will still be maintained but may be reduced to right-turn in/right-turn out or left-turn in/left-turn out (depending on direction of traffic) for up to three to four months while construction occurs directly adjacent to driveways. Most businesses with driveways located on 98th Street or on Arbor Vitae Street have more than one driveway on that street or on an adjoining street, or can be accessed through an adjoining parcel. Field observations indicate that some businesses and most residences on these streets, however, have only one driveway on 98th Street. The placement of the pipeline within the street rights-of-way and the size of the construction work site itself will be known once the project plans are finalized. This will allow for a final determination of specific impacts to local access. Construction techniques, such as covering of trenches with steel plates, should be used to minimize the time when any driveways are unusable. Where a property has more than one driveway on 98th Street or on Arbor Vitae Street, at least one driveway should be unobstructed and usable at all times.

Pedestrian access to properties located near the project site will be open for the duration of construction to the greatest extent possible. Depending on the final placement of the pipeline within the street rights-of-way, protective fencing or K-rail may be placed at the edge of a sidewalk, and it would narrowed while work occurs within the adjacent street segment. In order to maintain pedestrian safety, temporary closure of portions of the sidewalk may be necessary. All worksite traffic control plans will be subject to approval by LADOT and the City of Inglewood. In-street construction will be done in work segments of approximately 1,200 feet, which would restrict the ability of pedestrians to cross 98th Street or Arbor Vitae Street. Pedestrians will be able to walk to the end of a given work area and cross the street there. Crossing guards may be necessary before and after school hours to assist children in crossing Arbor Vitae Street in the vicinity of local schools such as Payne Elementary School and Century Community Charter School.

TEMPORARY LOSS OF BUS STOPS OR REROUTING OF BUS LINES

There are no active bus stops directly on 98th Street in the vicinity of Unit 1. There are inactive bus stops on Bellanca Avenue near 98th Street for the Big Blue Bus Line 3/Rapid 3 where service may be resumed after a long-term service adjustment during construction of the Metro Crenshaw/LAX Line. There are no stops for north-south bus lines located adjacent to 98th Street in the vicinity of Unit 1.

Bus stops for Metro Line 111 are located on Arbor Vitae Street in the vicinity of Unit 2 at Hindry Avenue/Place, La Cienega Boulevard, Oak Street, Inglewood Avenue, Eucalyptus Avenue, Grevillea Avenue, La Brea Avenue, and Prairie Avenue. Bus stops for north-south bus lines are located adjacent to Arbor Vitae Street at Inglewood Avenue, La Brea Avenue and Prairie Avenue.

During construction of Unit 2, slower travel times for bus operations on Arbor Vitae would be expected and, as construction on each segment progresses, bus stops would need to be relocated. Because the project will be constructed in sections of approximately 1,200 feet, bus stops would have to be relocated less than one-quarter mile east or west to the nearest appropriate location. Each work segment would be under construction for approximately three to four months, which is the expected duration of temporary relocation of any particular bus stop. Metro and other transit operators have developed standard practices for temporarily adjusting bus stop locations and informing riders of these changes.

TEMPORARY LOSS OF ON-STREET PARKING

It is expected that on-street parking along 98th Street and Arbor Vitae Street would be removed temporarily to maintain traffic flow in the areas adjoining active work sites. Observations show that on-street parking on 98th Street is well-used and that on-street parking on Arbor Vitae Street is moderately used. **Table 2** and **Table 3** shows the approximate number of on-street parking spaces that would be removed during construction. The project would be constructed in phases over a period of three to four years, rather than all at once, and the duration of the impacts discussed below at any given location would be up to three to four months. Much of the land in the immediate vicinity of Phase 1, Unit 1 is devoted to paid public parking, given its proximity to Los Angeles International Airport. Unit 2 is located in a mixed-use corridor, with commercial, educational religious and residential uses, and on-street parking is allowed on nearly all streets in the surrounding area. As such, temporary parking impacts would be less than significant.

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Proposed mitigation consists of the following measures to reduce the temporary adverse impacts associated with construction-period activity. The implementation of the following mitigation measures would reduce the project traffic/transportation impacts to a less than significant level.

An overall construction traffic management plan (TMP) shall be prepared and submitted to LADOT and the City of Inglewood Department of Public Works for review and approval prior to the start of any construction work. It may be appropriate to develop separate TMPs for Unit 1 and Unit 2, as the sites lie in different jurisdictions. The plan should be regularly reviewed to ensure that all recommendations are implemented, as appropriate, and that it is updated with new information if any should become available.

As design plans for the project are finalized, LADWP should coordinate with LAWA, LADOT's Western District Office, the local City Council Office and the City of Inglewood Department of Public Works to present the plans and a draft TMP, obtain input on preferred traffic management techniques (in instances where options are available), and obtain input on the planned methods of distributing information to the affected communities. The TMP shall meet the requirements of each jurisdiction and include such elements as those listed below.

- Work site traffic control plans for all in-street construction sites to the satisfaction of LADOT and City of Inglewood Public Works, as appropriate prior to the start of any construction work. The 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 pavement markings, barricades, cones, flagmen, lights, warning beacons, temporary traffic signals, turning movement restrictions, warning signs), access to abutting properties, and provisions to maintain emergency access through construction work areas.

- All plans should conform to the Standard Specifications for Public Works Construction (Greenbook), the latest edition of the Work Area Traffic Control Handbook (WATCH), the California Manual on Uniform Traffic Control Devices (CAMUTCD), and any other requirements of LADOT and City of Inglewood Public Works.

- The dates and locations where in-street and off-street construction activities are planned.

- Time of day restrictions for all construction activities.
- Any travel time limitations for construction traffic, including trucks.
- Prepare detour plans over parallel routes (if any street segments will be limited to one-way traffic).
- Ensure that minimum requirements of each city for emergency access are met.
- Signage indicating alternative routes to those where construction will occur.
- Consolidate truck trips, such that multiple worksites can be served, as feasible.
- Identify and consolidate staging areas for equipment and materials as feasible.
- Use the smallest equipment as feasible to minimize the width of the in-street work area in order to maximize the roadway available for motorists.
- Fully utilize available street space to minimize lane reductions on affected streets, including elimination of on-street parking where necessary. Only eliminate travel lanes when absolutely necessary.
- Promote carpooling among workers.
- Coordinate with public transit providers to provide advance notice of any lane closures, construction hours and, where necessary, to identify sites for temporarily relocated or consolidated bus stops within a reasonable walking distance of any displaced bus stops.
- Contact emergency service providers in the vicinity (Los Angeles Police Department, Los Angeles Fire Department, Inglewood Police Department, Inglewood Fire Department, private ambulance services) of the location, hours and duration of in-street construction. Provide advance notice of any lane closures and changes to local access and identify alternative routes where appropriate.
- Prepare a public information plan to provide advance notice of the planned construction activities to affected residents, businesses, schools, and property owners in the vicinity of each construction site. Where existing property access will be reduced, identify alternative means of access.
- Provide signage indicating alternative pedestrian routes where existing facilities that cross 98th Street or Arbor Vitae Street would be affected. Maintain pedestrian access to Payne Elementary School and Century Community Charter School on Arbor Vitae Street.

5. SUMMARY AND CONCLUSIONS

Fehr & Peers conducted a transportation impact analysis for the proposed Century Trunk Line to assess potential transportation-related impacts that could result from construction of a replacement water line in portions of Los Angeles and Inglewood. The key findings and conclusions are summarized below:

- The proposed project is the replacement of an aging, failing 36-inch water main line that runs beneath Century Boulevard between Sepulveda Boulevard and Prairie Avenue with a new 48-inch water line on a parallel route. The existing line would be abandoned in place upon completion of the replacement, which would run beneath the existing 98th Street, a future eastward extension of 98th Street and the future Concourse Way, and Arbor Vitae Street. Three new 24-inch system connections are included as part of the project. The overall length of the proposed facility would be approximately 19,180 feet. The project is composed of two units. Unit 1 lies in Los Angeles and is planned for construction between September 2018 and June 2020. Unit 2 lies in Inglewood and is planned for construction between June 2020 and June 2022. Construction would occur on weekdays between 7:00 AM and 6:00 PM, and may occur at night or overnight if necessary.

- The project would be constructed with a combination of cut-and-cover and pipe jacking techniques. Work sites would be up to approximately 1,200 feet long with approximately 500 feet of open trench at one time. Each site would require up to 12 construction workers each day and as many as 14 truck one-way trips each day, This will result in the temporary addition of up to 52 trips per day (a combination of workers and trucks) for each active work site. It is anticipated that up to five work sites would be in active construction at the peak time, in 2020. Relatively few peak period trips are expected, as most employees would travel before or after the peak periods and truck trips can be assumed to be spread through the day.

- Detailed AM and PM peak hour level of service analysis was conducted for 10 intersections along the project alignment. All are currently operating at LOS D or better. Future traffic projections were made for Year 2020 and Year 2022, the farthest horizon year for work in Unit 1 and Unit 2 respectively. With the overlap of work on each unit in 2020, that is expected to be the peak year for construction of this project. In the future, two of the 10 analyzed intersections are projected to operate at poor LOS (LOS E or F).

- By its nature, the proposed project would result in only temporary traffic impacts. Upon completion, the project will generate few or no trips on a routine basis, relative to the facility that would be replaced. Temporary traffic impacts, and impacts related to loss of access, impacts to transit and impacts to parking were assessed relative to the LA CEQA Thresholds Guide and found to be less than significant following mitigation. Traffic management plans were identified as appropriate to mitigate the identified temporary impacts, and substantial detail was given on elements that these plans should contain.

REFERENCES

The Circulation Element of the Inglewood General Plan, City of Inglewood, 1992.

Draft Environmental Impact Report for Los Angeles International Airport (LAX) Landside Access Modernization Program, Los Angeles World Airports, September 2016.

Draft Traffic Impact Study for the Hollywood Park Redevelopment Project, Linscott, Law & Greenspan, Engineers, August 2008.

Initial Study and Mitigated Negative Declaration for the Century Boulevard Mobility Improvement Project, AECOM October 2013.

Initial Study and Mitigated Negative Declaration for the Hilton TRU Hotel, Terry A. Hayes Associates, February 2018.

LA CEQA Thresholds Guide, City of Los Angeles, 2006.

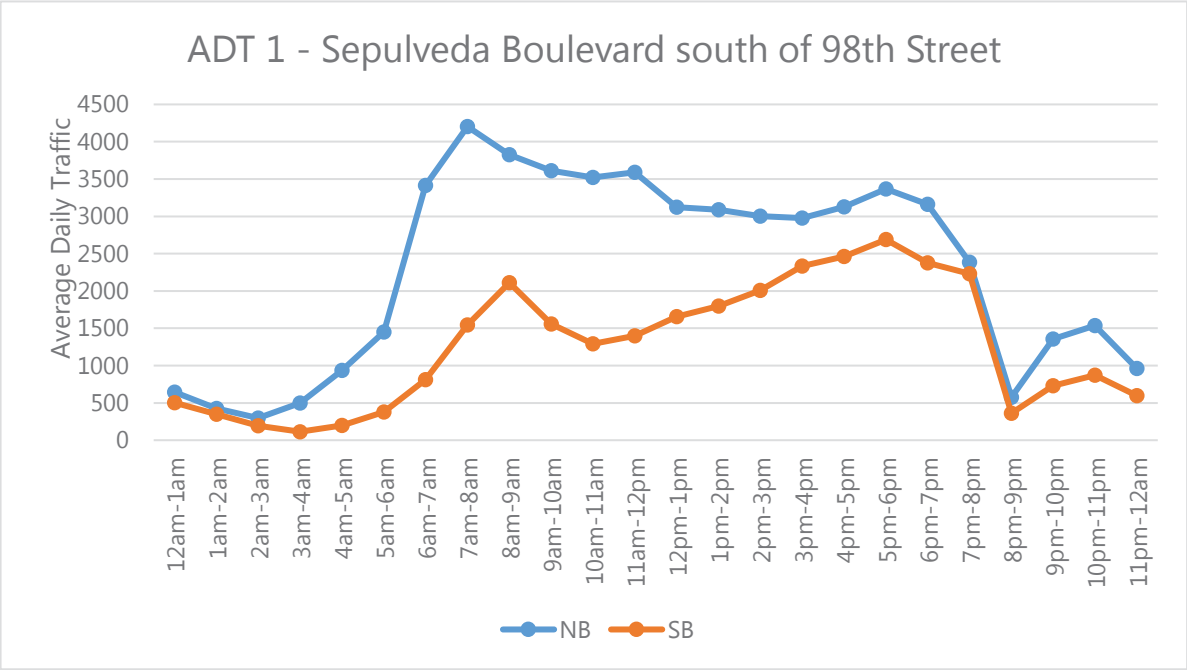
Mobility Plan 2035, Los Angeles Department of Planning, January 2016.

Transportation Impact Study Guidelines, Los Angeles Department of Transportation, December 2016.

APPENDIX A:

TRAFFIC COUNT DATA (DAILY AND PEAK PERIOD)

AVERAGE DAILY TRAFFIC COUNTS


ADT 1 - Sepulveda Boulevard south of 98th Street
Average Daily Traffic
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4000
3500
3000
2500
2000
1500
1000
500
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
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2pm-3pm
3pm-4pm
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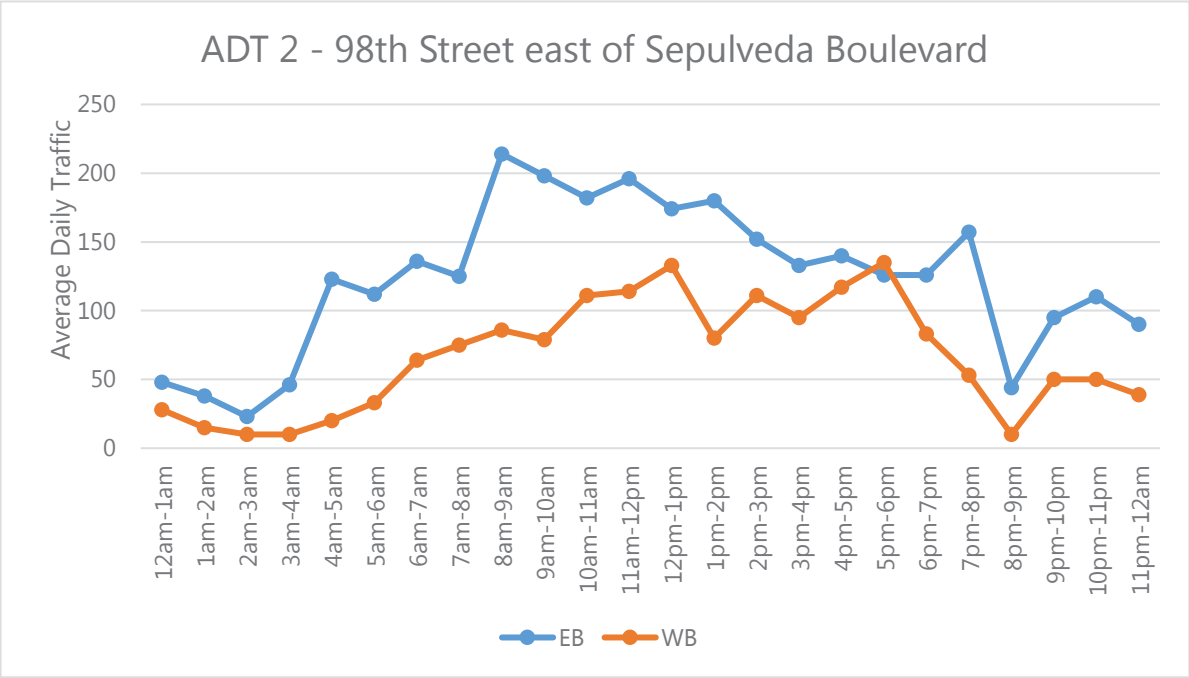
10pm-11pm
11pm-12am
NB
SB


ADT 2 - 98th Street east of Sepulveda Boulevard
Average Daily Traffic
250
200
150
100
50
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
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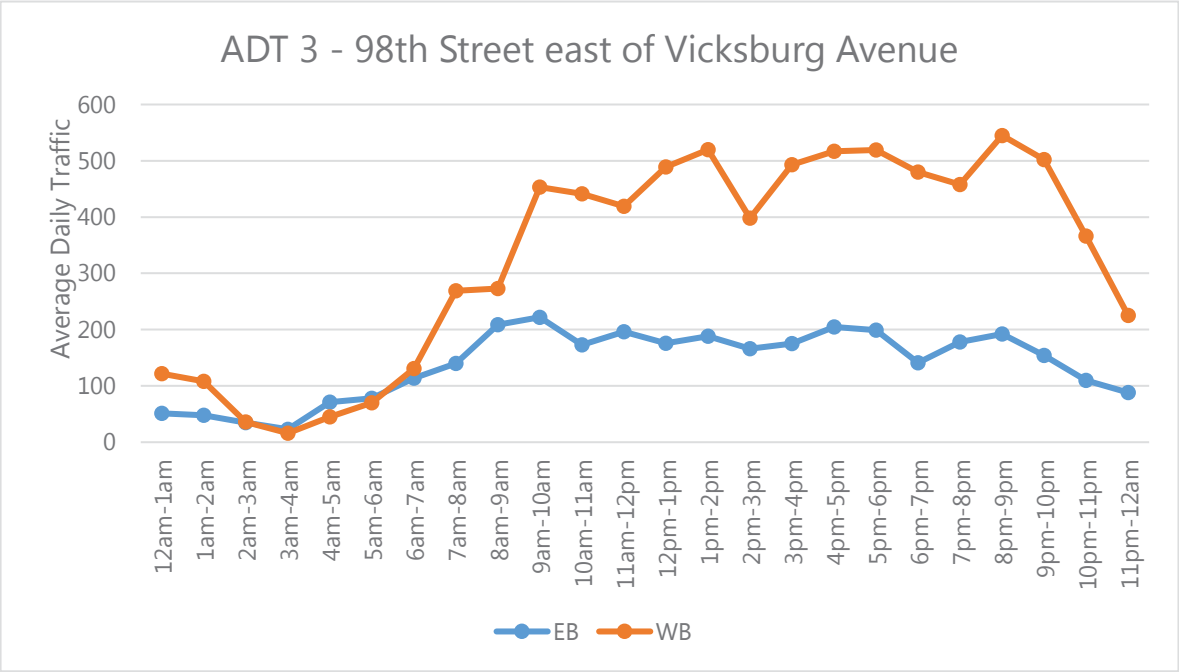
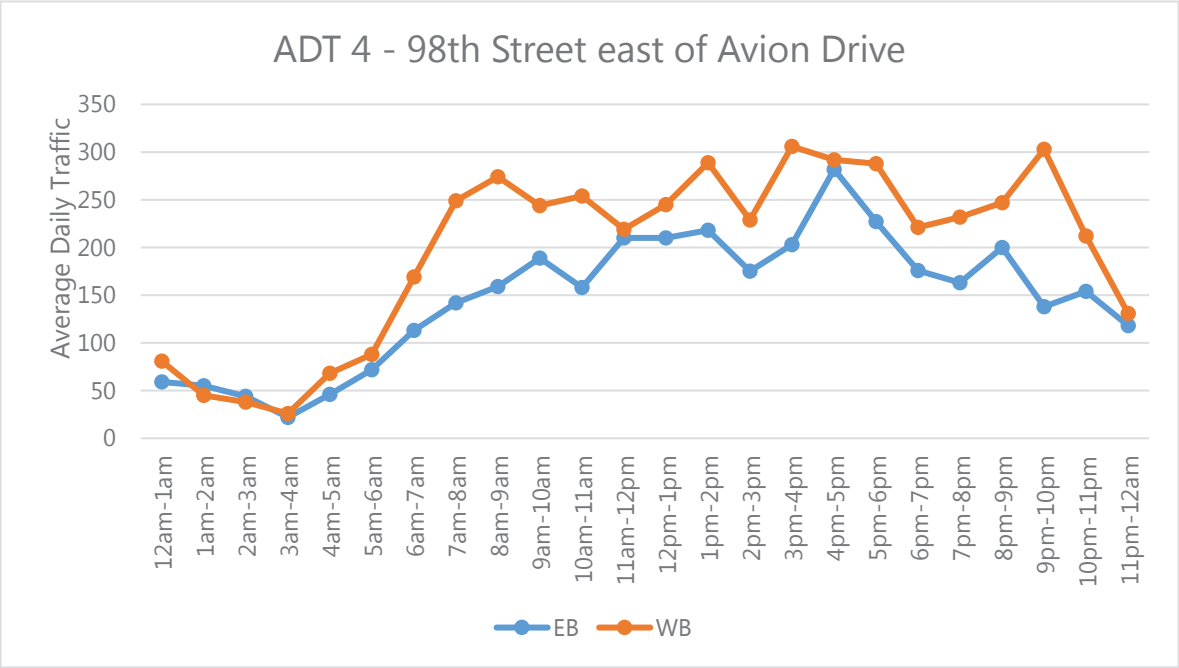
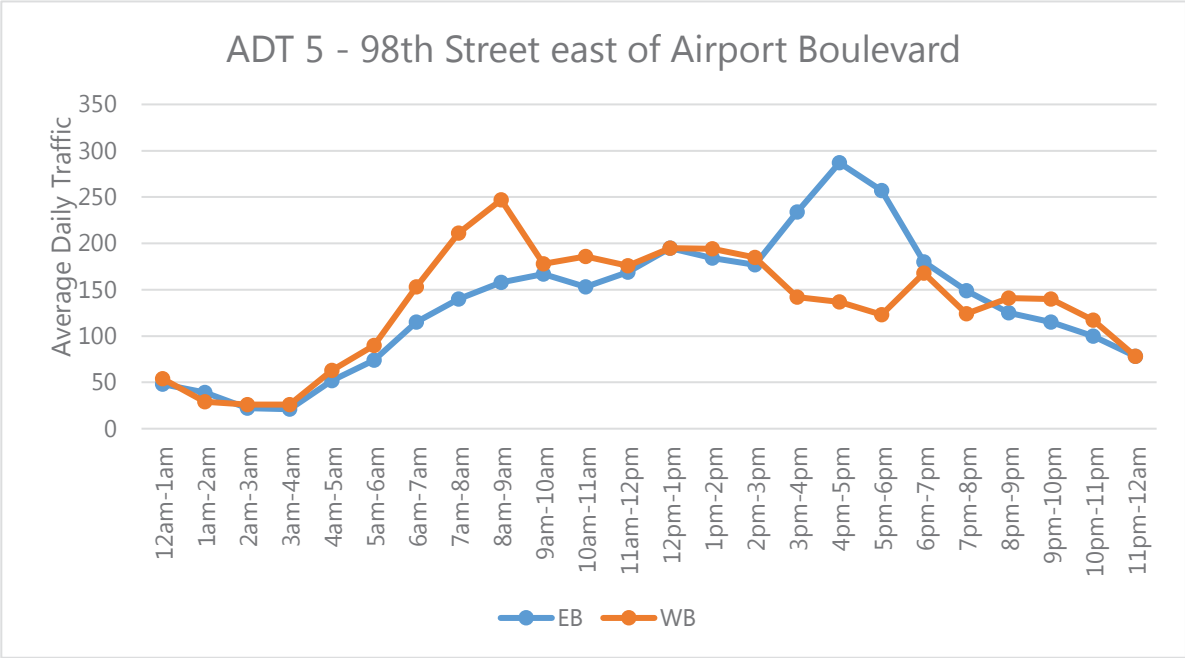
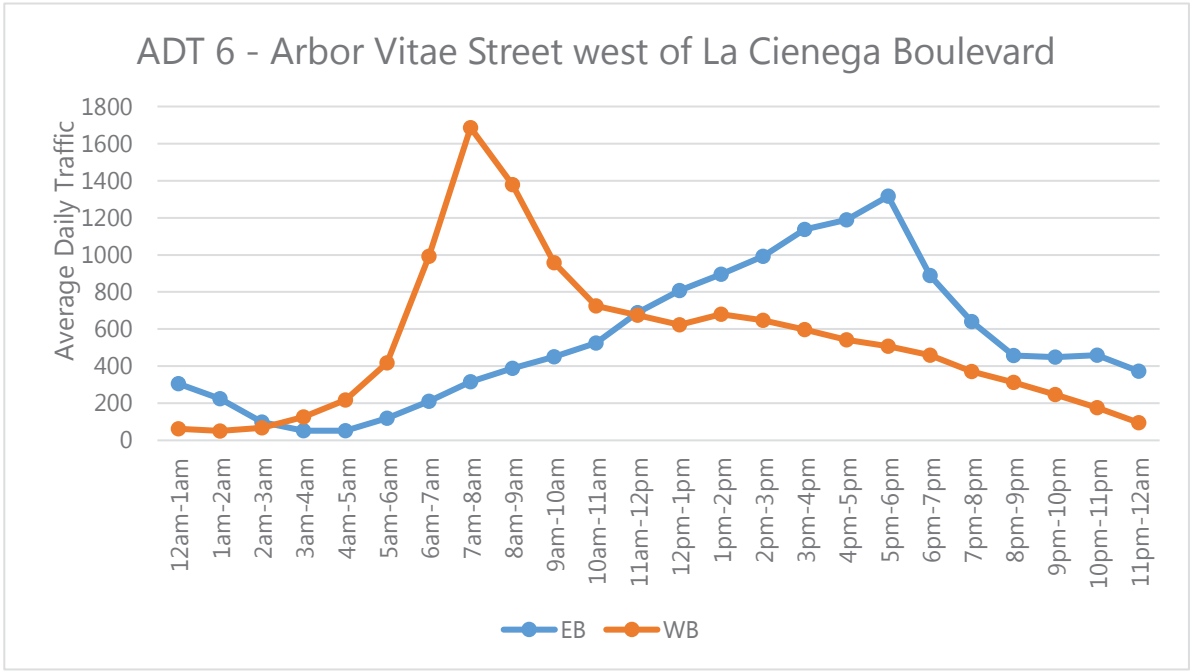
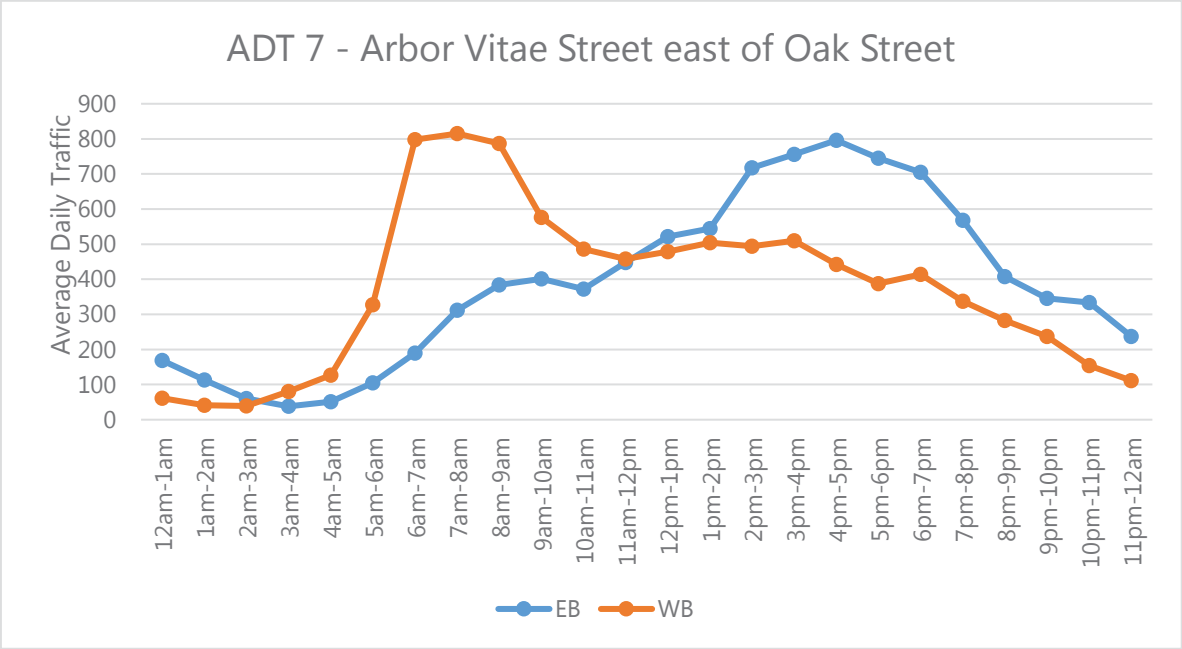
10pm-11pm
11pm-12am
EB
WB

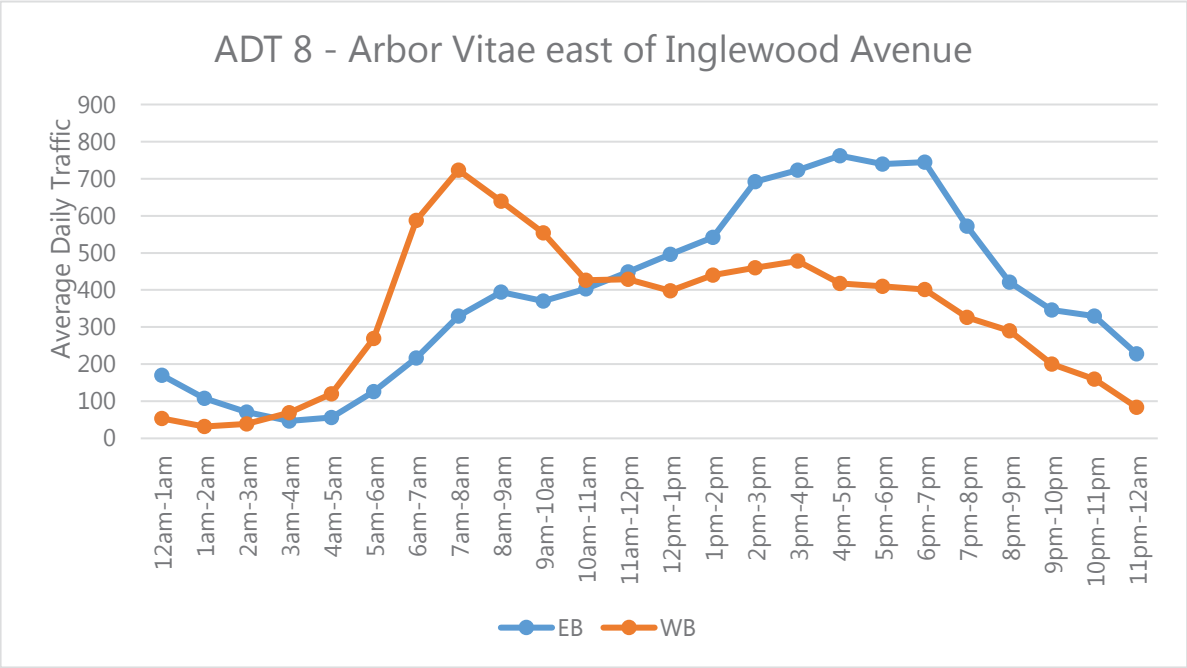

ADT 3 - 98th Street east of Vicksburg Avenue
Average Daily Traffic
600
500
400
300
200
100
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB

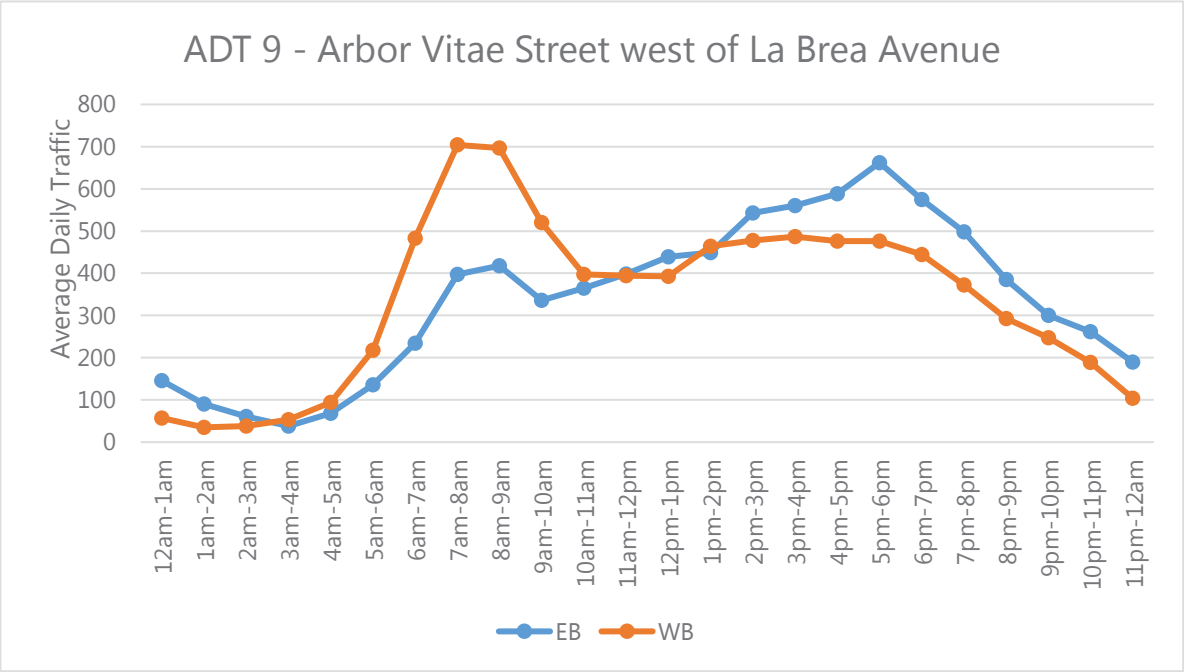

ADT 4 - 98th Street east of Avion Drive
Average Daily Traffic
350
300
250
200
150
100
50
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB

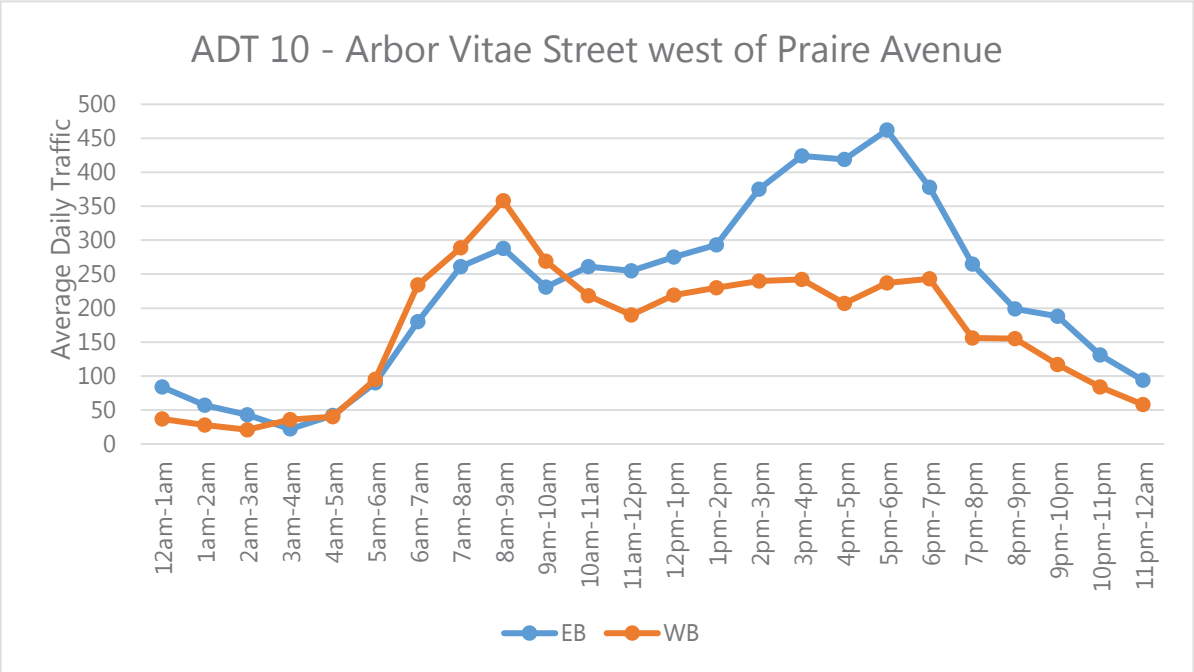

ADT 5 - 98th Street east of Airport Boulevard
Average Daily Traffic
350
300
250
200
150
100
50
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB


ADT 6 - Arbor Vitae Street west of La Cienega Boulevard
Average Daily Traffic
1800
1600
1400
1200
1000
800
600
400
200
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB


ADT 7 - Arbor Vitae Street east of Oak Street
Average Daily Traffic
900
800
700
600
500
400
300
200
100
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB


ADT 8 - Arbor Vitae east of Inglewood Avenue
Average Daily Traffic
900
800
700
600
500
400
300
200
100
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB


ADT 9 - Arbor Vitae Street west of La Brea Avenue
Average Daily Traffic
800
700
600
500
400
300
200
100
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB


ADT 10 - Arbor Vitae Street west of Praire Avenue
Average Daily Traffic
500
450
400
350
300
250
200
150
100
50
0
12am-1am
1am-2am
2am-3am
3am-4am
4am-5am
5am-6am
6am-7am
7am-8am
8am-9am
9am-10am
10am-11am
11am-12pm
12pm-1pm
1pm-2pm
2pm-3pm
3pm-4pm
4pm-5pm
5pm-6pm
6pm-7pm
7pm-8pm
8pm-9pm
9pm-10pm
10pm-11pm
11pm-12am
EB
WB

Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT1 Sepulveda between World Way and 98th. Prepared by: Field Data Services of Arizona **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
0:30	204		139					12:00	791		378				
0:15	158		158					12:15	806		434				
0:30	136		126					12:30	739		386				
0:45	146	644	78	501			1145	12:45	788	3124	457	1655			4779
1:00	117		115					13:00	748		436				
1:15	104		120					13:15	751		461				
1:30	111		55					13:30	768		441				
1:45	94	426	59	349			775	13:45	823	3090	458	1796			4886
2:00	74		61					14:00	760		452				
2:15	59		53					14:15	758		494				
2:30	87		39					14:30	719		543				
2:45	77	297	41	194			491	14:45	766	3003	518	2007			5010
3:00	95		32					15:00	702		539				
3:15	116		30					15:15	787		571				
3:30	161		32					15:30	731		598				
3:45	126	498	20	114			612	15:45	755	2975	624	2332			5307
4:00	150		40					16:00	752		621				
4:15	224		37					16:15	751		634				
4:30	262		55					16:30	766		598				
4:45	301	937	64	196			1133	16:45	859	3128	608	2461			5589
5:00	298		68					17:00	789		687				
5:15	357		67					17:15	869		669				
5:30	369		114					17:30	866		673				
5:45	426	1450	130	379			1829	17:45	841	3365	659	2688			6053
6:00	551		149					18:00	826		629				
6:15	799		182					18:15	787		607				
6:30	####		215					18:30	803		564				
6:45	####	3414	265	811			4225	18:45	745	3161	575	2375			5536
7:00	####		281					19:00	599		582				
7:15	####		337					19:15	598		612				
7:30	####		408					19:30	596		567				
7:45	####	4203	518	1544			5747	19:45	593	2386	469	2230			4616
8:00	944		509					20:00	179		117				
8:15	958		508					20:15	110		76				
8:30	973		554					20:30	110		76				
8:45	952	3827	540	2111			5938	20:45	175	574	91	360			934
9:00	868		428					21:00	159		71				
9:15	899		385					21:15	456		277				
9:30	894		382					21:30	395		218				
9:45	952	3613	362	1557			5170	21:45	347	1357	163	729			2086
10:00	861		336					22:00	418		241				
10:15	818		313					22:15	432		251				
10:30	879		327					22:30	369		200				
10:45	965	3523	314	1290			4813	22:45	316	1535	180	872			2407
11:00	980		339					23:00	270		175				
11:15	914		364					23:15	254		149				
11:30	835		359					23:30	222		135				
11:45	859	3588	338	1400			4988	23:45	215	961	136	595			1556
Total Vol.		26420		10446			**36866**			28659		20100			**48759**

Daily Totals

NB	SB	EB	WB	**Combined**
55079	30546			**85625**

	AM				**PM**		
Split %	71.7%	28.3%	**43.1%**		58.8%	41.2%	**56.9%**
Peak Hour	6:45	8:00	**7:45**		17:15	17:00	**17:00**
Volume	4233	2111	**5986**		3402	2688	**6053**
P.H.F.	0.97	0.95	**0.97**		0.98	0.98	**0.98**

cs@aimtd.com Tell. 714 253 7888

Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT2 98th between Sepulveda and Vicksburg. Prepared by: Field Data Services of Arizona **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			15		6			12:00			42		35		
0:15			13		7			12:15			39		32		
0:30			9		9			12:30			54		37		
0:45			11	48	6	28	76	12:45			39	174	29	133	307
1:00			12		6			13:00			41		21		
1:15			10		3			13:15			49		24		
1:30			7		4			13:30			47		21		
1:45			9	38	2	15	53	13:45			43	180	14	80	260
2:00			10		1			14:00			48		27		
2:15			0		1			14:15			37		28		
2:30			6		5			14:30			31		23		
2:45			7	23	3	10	33	14:45			36	152	33	111	263
3:00			10		3			15:00			28		19		
3:15			9		2			15:15			39		22		
3:30			14		2			15:30			34		24		
3:45			13	46	3	10	56	15:45			32	133	30	95	228
4:00			18		5			16:00			32		30		
4:15			34		6			16:15			41		22		
4:30			33		5			16:30			28		31		
4:45			38	123	4	20	143	16:45			39	140	34	117	257
5:00			34		8			17:00			34		34		
5:15			25		3			17:15			35		36		
5:30			26		11			17:30			29		34		
5:45			27	112	11	33	145	17:45			28	126	31	135	261
6:00			30		15			18:00			26		21		
6:15			39		14			18:15			34		19		
6:30			29		17			18:30			31		24		
6:45			38	136	18	64	200	18:45			35	126	19	83	209
7:00			24		18			19:00			36		8		
7:15			38		20			19:15			35		13		
7:30			27		19			19:30			37		12		
7:45			36	125	18	75	200	19:45			49	157	20	53	210
8:00			47		23			20:00			21		4		
8:15			57		21			20:15			6		0		
8:30			50		21			20:30			6		0		
8:45			60	214	21	86	300	20:45			11	44	6	10	54
9:00			42		15			21:00			10		7		
9:15			67		16			21:15			28		19		
9:30			42		20			21:30			34		15		
9:45			47	198	28	79	277	21:45			23	95	9	50	145
10:00			42		21			22:00			26		16		
10:15			48		29			22:15			31		14		
10:30			40		31			22:30			25		10		
10:45			52	182	30	111	293	22:45			28	110	10	50	160
11:00			43		25			23:00			25		15		
11:15			47		21			23:15			21		14		
11:30			52		30			23:30			29		5		
11:45			54	196	38	114	310	23:45			15	90	5	39	129
Total Vol.			1441		645		**2086**				1527		956		**2483**

	Daily Totals				
	NB	SB	EB	WB	**Combined**
			2968	1601	**4569**

	AM			**PM**		
Split %	69.1%	30.9%	**45.7%**	61.5%	38.5%	**54.3%**
Peak Hour	8:30	11:45	**11:45**	13:15	16:45	**12:00**
Volume	219	142	**331**	187	138	**307**
P.H.F.	0.82	0.93	**0.90**	0.95	0.96	**0.84**

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Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT3 98th east of Vicksburg. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			17		22			12:00			48		153		
0:15			13		18			12:15			35		135		
0:30			9		66			12:30			60		124		
0:45			12	51	16	122	173	12:45			33	176	77	489	665
1:00			8		14			13:00			52		95		
1:15			13		31			13:15			54		138		
1:30			9		42			13:30			38		168		
1:45			18	48	21	108	156	13:45			44	188	119	520	708
2:00			10		12			14:00			47		109		
2:15			8		9			14:15			43		106		
2:30			9		5			14:30			31		105		
2:45			8	35	10	36	71	14:45			45	166	78	398	564
3:00			6		4			15:00			47		131		
3:15			2		2			15:15			46		110		
3:30			10		2			15:30			42		113		
3:45			5	23	8	16	39	15:45			40	175	139	493	668
4:00			16		4			16:00			50		123		
4:15			22		8			16:15			63		110		
4:30			14		12			16:30			47		153		
4:45			19	71	21	45	116	16:45			45	205	131	517	722
5:00			31		15			17:00			53		142		
5:15			12		8			17:15			57		112		
5:30			17		31			17:30			41		136		
5:45			18	78	16	70	148	17:45			48	199	129	519	718
6:00			14		28			18:00			33		137		
6:15			37		22			18:15			29		100		
6:30			25		49			18:30			42		121		
6:45			38	114	32	131	245	18:45			37	141	122	480	621
7:00			33		73			19:00			37		129		
7:15			34		42			19:15			39		113		
7:30			38		94			19:30			55		126		
7:45			35	140	60	269	409	19:45			47	178	90	458	636
8:00			45		77			20:00			56		122		
8:15			57		75			20:15			54		141		
8:30			55		51			20:30			32		127		
8:45			52	209	70	273	482	20:45			50	192	155	545	737
9:00			62		98			21:00			51		142		
9:15			61		91			21:15			29		96		
9:30			46		145			21:30			29		110		
9:45			53	222	119	453	675	21:45			45	154	154	502	656
10:00			49		112			22:00			30		125		
10:15			31		111			22:15			28		127		
10:30			41		104			22:30			28		39		
10:45			52	173	114	441	614	22:45			24	110	75	366	476
11:00			45		106			23:00			24		87		
11:15			31		66			23:15			26		44		
11:30			57		110			23:30			22		53		
11:45			63	196	137	419	615	23:45			16	88	41	225	313
Total Vol.				1360		2383	**3743**					1972		5512	**7484**

			Daily Totals		
	NB	SB	EB	WB	**Combined**
			3332	7895	**11227**

			AM					**PM**		
Split %			36.3%	63.7%	**33.3%**			26.3%	73.7%	**66.7%**
Peak Hour	0:30	0:30	8:30	11:45	**11:45**			19:30	20:15	**20:15**
Volume			230	549	**755**			212	565	**752**
P.H.F.			0.93	0.90	**0.94**			0.95	0.91	**0.92**

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Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT4 98th east of Avion. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			18		27			12:00			58		61		
0:15			14		23			12:15			45		62		
0:30			13		14			12:30			60		57		
0:45			14	59	17	81	140	12:45			47	210	65	245	455
1:00			17		5			13:00			51		72		
1:15			14		11			13:15			50		55		
1:30			12		23			13:30			62		81		
1:45			12	55	6	45	100	13:45			55	218	81	289	507
2:00			10		13			14:00			46		57		
2:15			11		8			14:15			47		67		
2:30			11		10			14:30			38		54		
2:45			12	44	7	38	82	14:45			44	175	51	229	404
3:00			4		6			15:00			48		67		
3:15			5		5			15:15			43		71		
3:30			9		6			15:30			58		88		
3:45			4	22	9	26	48	15:45			54	203	80	306	509
4:00			11		12			16:00			80		66		
4:15			10		15			16:15			69		72		
4:30			7		15			16:30			66		71		
4:45			18	46	26	68	114	16:45			67	282	83	292	574
5:00			28		16			17:00			71		69		
5:15			14		15			17:15			61		73		
5:30			13		30			17:30			40		79		
5:45			17	72	27	88	160	17:45			55	227	67	288	515
6:00			21		30			18:00			45		53		
6:15			36		42			18:15			33		50		
6:30			26		54			18:30			47		64		
6:45			30	113	43	169	282	18:45			51	176	54	221	397
7:00			36		58			19:00			40		57		
7:15			31		59			19:15			36		54		
7:30			36		63			19:30			55		63		
7:45			39	142	69	249	391	19:45			32	163	58	232	395
8:00			41		73			20:00			67		59		
8:15			38		71			20:15			49		57		
8:30			42		61			20:30			31		56		
8:45			38	159	69	274	433	20:45			53	200	75	247	447
9:00			53		66			21:00			38		104		
9:15			56		65			21:15			30		56		
9:30			45		62			21:30			35		82		
9:45			35	189	51	244	433	21:45			35	138	61	303	441
10:00			41		64			22:00			47		60		
10:15			37		73			22:15			34		53		
10:30			41		68			22:30			34		52		
10:45			39	158	49	254	412	22:45			39	154	47	212	366
11:00			50		43			23:00			36		53		
11:15			46		52			23:15			38		38		
11:30			63		67			23:30			22		19		
11:45			51	210	57	219	429	23:45			22	118	21	131	249
Total Vol.				1269		1755	**3024**					2264		2995	**5259**

Daily Totals

NB	SB	EB	WB	Combined
		3533	4750	**8283**

			AM			PM		
Split %			42.0%	58.0%	**36.5%**	43.1%	56.9%	**63.5%**
Peak Hour	0:30	0:30	11:15	7:30	**11:30**	16:00	20:45	**16:00**
Volume			218	276	**464**	282	317	**574**
P.H.F.			0.87	0.95	**0.89**	0.88	0.76	**0.96**

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Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT5 98th east of Airport. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			8		18			12:00			45		44		
0:15			11		13			12:15			52		49		
0:30			17		10			12:30			54		52		
0:45			12	48	13	54	102	12:45			44	195	50	195	390
1:00			13		7			13:00			35		56		
1:15			8		9			13:15			58		43		
1:30			11		9			13:30			44		41		
1:45			7	39	4	29	68	13:45			47	184	54	194	378
2:00			8		8			14:00			52		61		
2:15			5		8			14:15			42		47		
2:30			5		5			14:30			43		43		
2:45			4	22	5	26	48	14:45			40	177	34	185	362
3:00			3		3			15:00			50		36		
3:15			3		4			15:15			48		37		
3:30			7		6			15:30			65		35		
3:45			8	21	13	26	47	15:45			71	234	34	142	376
4:00			9		10			16:00			70		31		
4:15			14		14			16:15			72		35		
4:30			14		18			16:30			83		34		
4:45			15	52	21	63	115	16:45			62	287	37	137	424
5:00			12		18			17:00			89		36		
5:15			22		19			17:15			62		34		
5:30			21		31			17:30			58		29		
5:45			19	74	22	90	164	17:45			48	257	24	123	380
6:00			28		38			18:00			55		35		
6:15			22		33			18:15			57		52		
6:30			35		37			18:30			33		39		
6:45			30	115	45	153	268	18:45			35	180	42	168	348
7:00			32		46			19:00			47		34		
7:15			38		42			19:15			37		32		
7:30			35		60			19:30			26		28		
7:45			35	140	63	211	351	19:45			39	149	30	124	273
8:00			44		62			20:00			23		31		
8:15			33		73			20:15			41		43		
8:30			28		52			20:30			26		29		
8:45			53	158	60	247	405	20:45			35	125	38	141	266
9:00			47		46			21:00			38		43		
9:15			41		43			21:15			25		33		
9:30			39		51			21:30			27		29		
9:45			40	167	38	178	345	21:45			25	115	35	140	255
10:00			43		55			22:00			29		29		
10:15			32		48			22:15			27		39		
10:30			38		44			22:30			26		30		
10:45			40	153	39	186	339	22:45			18	100	19	117	217
11:00			42		36			23:00			24		25		
11:15			42		40			23:15			19		18		
11:30			41		45			23:30			17		14		
11:45			44	169	55	176	345	23:45			18	78	21	78	156
Total Vol.				1158		1439	**2597**					2081		1744	**3825**

Daily Totals

NB	SB	EB	WB	Combined
		3239	3183	**6422**

			AM			PM		
Split %			44.6%	55.4%	**40.4%**	54.4%	45.6%	**59.6%**
Peak Hour	0:30	0:30	11:45	7:30	**7:30**	16:15	12:15	**16:15**
Volume			195	258	**405**	306	207	**448**
P.H.F.			0.90	0.88	**0.96**	0.86	0.92	**0.90**

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Thursday, February 15, 2018 Location: LA PROJECT: SC1625

ADT6 Arbor Vitae west of La Cienega. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			77		15			12:00			182		173		
0:15			91		19			12:15			198		139		
0:30			69		15			12:30			205		160		
0:45			69	306	13	62	368	12:45			222	807	151	623	1430
1:00			65		10			13:00			174		170		
1:15			60		12			13:15			210		166		
1:30			52		13			13:30			267		165		
1:45			48	225	16	51	276	13:45			244	895	179	680	1575
2:00			32		11			14:00			237		150		
2:15			33		10			14:15			225		183		
2:30			21		21			14:30			264		140		
2:45			12	98	25	67	165	14:45			267	993	174	647	1640
3:00			10		23			15:00			282		132		
3:15			19		24			15:15			278		150		
3:30			10		39			15:30			302		172		
3:45			13	52	40	126	178	15:45			275	1137	144	598	1735
4:00			10		41			16:00			284		146		
4:15			9		45			16:15			272		132		
4:30			20		56			16:30			300		136		
4:45			13	52	76	218	270	16:45			333	1189	128	542	1731
5:00			24		83			17:00			361		123		
5:15			24		101			17:15			345		130		
5:30			34		100			17:30			321		132		
5:45			37	119	133	417	536	17:45			289	1316	122	507	1823
6:00			38		124			18:00			222		110		
6:15			44		214			18:15			246		116		
6:30			57		264			18:30			210		111		
6:45			71	210	390	992	1202	18:45			210	888	122	459	1347
7:00			74		407			19:00			172		94		
7:15			71		439			19:15			157		98		
7:30			84		451			19:30			168		83		
7:45			87	316	389	1686	2002	19:45			144	641	96	371	1012
8:00			96		341			20:00			124		81		
8:15			102		357			20:15			114		77		
8:30			103		336			20:30			100		81		
8:45			87	388	344	1378	1766	20:45			119	457	74	313	770
9:00			104		267			21:00			119		75		
9:15			119		280			21:15			124		62		
9:30			114		213			21:30			112		57		
9:45			114	451	197	957	1408	21:45			94	449	53	247	696
10:00			110		206			22:00			121		51		
10:15			136		159			22:15			101		53		
10:30			120		192			22:30			115		40		
10:45			158	524	167	724	1248	22:45			122	459	33	177	636
11:00			129		188			23:00			85		21		
11:15			169		164			23:15			100		19		
11:30			185		170			23:30			102		30		
11:45			206	689	153	675	1364	23:45			86	373	25	95	468
Total Vol.				3430		7353	**10783**					9604		5259	**14863**

Daily Totals

NB	SB	EB	WB	Combined
		13034	12612	**25646**

			AM				PM		
Split %			31.8%	68.2%	**42.0%**		64.6%	35.4%	**58.0%**
Peak Hour	0:30	0:30	11:45	6:45	**7:00**		16:45	13:00	**16:45**
Volume			791	1687	**2002**		1360	680	**1873**
P.H.F.			0.96	0.94	**0.94**		0.94	0.95	**0.97**

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Thursday, February 15, 2018 Location: Inglewood PROJECT: SC1625

ADT7 Arbor Vitae east of Oak. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			43		13			12:00			131		121		
0:15			44		17			12:15			132		126		
0:30			51		21			12:30			126		131		
0:45			31	169	10	61	230	12:45			133	522	101	479	1001
1:00			34		8			13:00			111		114		
1:15			34		8			13:15			126		131		
1:30			30		8			13:30			150		126		
1:45			15	113	17	41	154	13:45			157	544	133	504	1048
2:00			22		9			14:00			175		103		
2:15			17		9			14:15			153		149		
2:30			16		10			14:30			186		109		
2:45			5	60	11	39	99	14:45			204	718	133	494	1212
3:00			8		17			15:00			206		128		
3:15			10		13			15:15			180		113		
3:30			7		31			15:30			184		138		
3:45			13	38	19	80	118	15:45			186	756	131	510	1266
4:00			13		19			16:00			203		119		
4:15			10		24			16:15			201		103		
4:30			12		44			16:30			209		107		
4:45			16	51	40	127	178	16:45			183	796	113	442	1238
5:00			16		49			17:00			187		103		
5:15			25		76			17:15			187		98		
5:30			28		89			17:30			180		94		
5:45			36	105	113	327	432	17:45			191	745	93	388	1133
6:00			32		130			18:00			186		111		
6:15			36		188			18:15			163		111		
6:30			57		231			18:30			170		95		
6:45			65	190	249	798	988	18:45			186	705	97	414	1119
7:00			69		251			19:00			157		85		
7:15			57		196			19:15			134		94		
7:30			91		179			19:30			148		77		
7:45			95	312	189	815	1127	19:45			129	568	81	337	905
8:00			98		201			20:00			100		81		
8:15			101		205			20:15			118		71		
8:30			94		195			20:30			90		68		
8:45			91	384	186	787	1171	20:45			100	408	63	283	691
9:00			107		164			21:00			71		65		
9:15			103		156			21:15			108		72		
9:30			97		124			21:30			82		52		
9:45			94	401	132	576	977	21:45			85	346	48	237	583
10:00			102		142			22:00			86		43		
10:15			92		111			22:15			85		45		
10:30			82		123			22:30			73		35		
10:45			96	372	110	486	858	22:45			90	334	31	154	488
11:00			94		120			23:00			65		25		
11:15			107		103			23:15			69		26		
11:30			122		117			23:30			57		29		
11:45			125	448	118	458	906	23:45			46	237	31	111	348
Total Vol.				2643		4595	**7238**					6679		4353	**11032**

Daily Totals

NB	SB	EB	WB	**Combined**
		9322	8948	**18270**

			AM				**PM**		
Split %			36.5%	63.5%	**39.6%**		60.5%	39.5%	**60.4%**
Peak Hour	0:30	0:30	11:45	6:30	**7:45**		15:45	14:15	**14:45**
Volume			514	927	**1178**		799	519	**1286**
P.H.F.			0.97	0.92	**0.96**		0.96	0.87	**0.95**

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Thursday, February 15, 2018 Location: Inglewood PROJECT: SC1625

ADT8 Arbor Vitae east of Inglewood. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			49		17			12:00			115		110		
0:15			49		14			12:15			129		89		
0:30			48		16			12:30			121		106		
0:45			24	170	7	54	224	12:45			131	496	93	398	894
1:00			35		9			13:00			119		103		
1:15			28		8			13:15			132		109		
1:30			26		4			13:30			152		112		
1:45			19	108	11	32	140	13:45			139	542	116	440	982
2:00			23		6			14:00			163		94		
2:15			22		12			14:15			165		138		
2:30			20		9			14:30			183		119		
2:45			6	71	12	39	110	14:45			181	692	109	460	1152
3:00			11		14			15:00			181		121		
3:15			15		13			15:15			179		108		
3:30			9		24			15:30			194		130		
3:45			12	47	18	69	116	15:45			169	723	119	478	1201
4:00			17		16			16:00			188		96		
4:15			6		29			16:15			197		111		
4:30			17		36			16:30			181		105		
4:45			16	56	39	120	176	16:45			196	762	106	418	1180
5:00			22		40			17:00			187		103		
5:15			25		60			17:15			172		107		
5:30			32		74			17:30			199		97		
5:45			47	126	95	269	395	17:45			181	739	103	410	1149
6:00			35		109			18:00			195		113		
6:15			45		141			18:15			180		85		
6:30			56		162			18:30			192		106		
6:45			81	217	176	588	805	18:45			178	745	97	401	1146
7:00			63		188			19:00			155		89		
7:15			81		181			19:15			149		87		
7:30			99		181			19:30			135		74		
7:45			87	330	173	723	1053	19:45			133	572	76	326	898
8:00			97		159			20:00			101		81		
8:15			113		168			20:15			128		85		
8:30			93		160			20:30			98		69		
8:45			91	394	152	639	1033	20:45			94	421	55	290	711
9:00			78		146			21:00			73		51		
9:15			96		140			21:15			102		50		
9:30			101		140			21:30			80		56		
9:45			95	370	128	554	924	21:45			91	346	43	200	546
10:00			93		115			22:00			82		49		
10:15			101		97			22:15			94		43		
10:30			91		109			22:30			68		36		
10:45			118	403	105	426	829	22:45			86	330	32	160	490
11:00			94		127			23:00			69		23		
11:15			109		99			23:15			65		19		
11:30			125		103			23:30			50		18		
11:45			121	449	100	429	878	23:45			44	228	24	84	312
Total Vol.				2741		3942	**6683**					6596		4065	**10661**

	Daily Totals				
	NB	SB	EB	WB	**Combined**
			9337	8007	**17344**

			AM					**PM**		
Split %			41.0%	59.0%	**38.5%**			61.9%	38.1%	**61.5%**
Peak Hour	0:30	0:30	11:30	6:45	**7:30**			16:00	14:15	**15:30**
Volume			490	726	**1077**			762	487	**1204**
P.H.F.			0.95	0.97	**0.96**			0.97	0.88	**0.93**

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Thursday, February 15, 2018 Location: Inglewood PROJECT: SC1625

ADT9 Arbor Vitae west of La Brea. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			45		13			12:00			107		94		
0:15			38		18			12:15			111		85		
0:30			39		17			12:30			102		111		
0:45			24	146	9	57	203	12:45			119	439	103	393	832
1:00			27		12			13:00			105		104		
1:15			25		6			13:15			104		111		
1:30			19		7			13:30			109		127		
1:45			19	90	10	35	125	13:45			131	449	122	464	913
2:00			20		7			14:00			119		107		
2:15			15		6			14:15			137		131		
2:30			17		8			14:30			157		118		
2:45			9	61	17	38	99	14:45			130	543	122	478	1021
3:00			12		9			15:00			131		119		
3:15			6		11			15:15			144		127		
3:30			10		20			15:30			137		120		
3:45			10	38	13	53	91	15:45			148	560	121	487	1047
4:00			16		14			16:00			137		127		
4:15			12		20			16:15			139		108		
4:30			18		33			16:30			153		117		
4:45			22	68	27	94	162	16:45			159	588	124	476	1064
5:00			22		43			17:00			158		113		
5:15			28		48			17:15			168		126		
5:30			33		50			17:30			166		117		
5:45			53	136	77	218	354	17:45			170	662	120	476	1138
6:00			36		87			18:00			151		112		
6:15			50		98			18:15			149		105		
6:30			67		144			18:30			145		124		
6:45			81	234	154	483	717	18:45			130	575	103	444	1019
7:00			89		167			19:00			138		103		
7:15			94		175			19:15			116		98		
7:30			92		179			19:30			121		93		
7:45			122	397	183	704	1101	19:45			123	498	78	372	870
8:00			119		159			20:00			94		94		
8:15			111		187			20:15			116		76		
8:30			99		173			20:30			95		70		
8:45			89	418	178	697	1115	20:45			80	385	53	293	678
9:00			85		154			21:00			72		63		
9:15			66		125			21:15			80		64		
9:30			86		121			21:30			64		59		
9:45			99	336	120	520	856	21:45			84	300	61	247	547
10:00			96		106			22:00			67		55		
10:15			77		92			22:15			79		44		
10:30			86		98			22:30			61		49		
10:45			106	365	101	397	762	22:45			55	262	41	189	451
11:00			82		111			23:00			56		36		
11:15			99		95			23:15			53		24		
11:30			112		97			23:30			43		22		
11:45			105	398	91	394	792	23:45			38	190	22	104	294
Total Vol.				2687		3690	**6377**					5451		4423	**9874**

			Daily Totals		
	NB	SB	EB	WB	**Combined**
			8138	8113	**16251**

			AM					**PM**		
Split %			42.1%	57.9%	**39.2%**			55.2%	44.8%	**60.8%**
Peak Hour	0:30	0:30	7:45	7:30	**7:45**			17:00	15:15	**17:00**
Volume			451	708	**1153**			662	495	**1138**
P.H.F.			0.92	0.95	**0.95**			0.97	0.97	**0.97**

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Thursday, February 15, 2018 Location: Inglewood PROJECT: SC1625

ADT10 Arbor Vitae west of Prairie. **Prepared by AimTD tel. 714 253 7888**

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
0:30			20		12			12:00			74		48		
0:15			25		9			12:15			74		48		
0:30			21		13			12:30			61		55		
0:45			18	84	3	37	121	12:45			66	275	68	219	494
1:00			15		12			13:00			69		58		
1:15			22		9			13:15			76		53		
1:30			11		5			13:30			69		63		
1:45			9	57	2	28	85	13:45			79	293	56	230	523
2:00			14		6			14:00			77		46		
2:15			10		5			14:15			99		74		
2:30			14		7			14:30			94		65		
2:45			5	43	3	21	64	14:45			105	375	55	240	615
3:00			6		6			15:00			92		60		
3:15			6		7			15:15			116		58		
3:30			6		14			15:30			110		56		
3:45			4	22	9	36	58	15:45			106	424	68	242	666
4:00			9		6			16:00			109		60		
4:15			6		9			16:15			103		49		
4:30			12		13			16:30			106		46		
4:45			15	42	12	40	82	16:45			101	419	52	207	626
5:00			12		15			17:00			106		58		
5:15			18		23			17:15			127		58		
5:30			25		26			17:30			103		63		
5:45			35	90	31	95	185	17:45			126	462	58	237	699
6:00			33		35			18:00			98		62		
6:15			43		49			18:15			102		61		
6:30			47		81			18:30			86		72		
6:45			57	180	69	234	414	18:45			92	378	48	243	621
7:00			56		70			19:00			90		44		
7:15			69		64			19:15			73		47		
7:30			72		71			19:30			56		30		
7:45			64	261	84	289	550	19:45			46	265	35	156	421
8:00			65		88			20:00			51		38		
8:15			78		96			20:15			52		41		
8:30			69		85			20:30			49		40		
8:45			76	288	89	358	646	20:45			47	199	36	155	354
9:00			50		81			21:00			43		33		
9:15			58		60			21:15			46		28		
9:30			73		59			21:30			40		32		
9:45			50	231	69	269	500	21:45			59	188	24	117	305
10:00			77		50			22:00			39		18		
10:15			69		66			22:15			32		18		
10:30			67		53			22:30			32		19		
10:45			48	261	49	218	479	22:45			28	131	29	84	215
11:00			56		53			23:00			25		17		
11:15			65		44			23:15			20		14		
11:30			72		47			23:30			26		17		
11:45			62	255	46	190	445	23:45			23	94	10	58	152
Total Vol.				1814		1815	**3629**					3503		2188	**5691**

Daily Totals

NB	SB	EB	WB	**Combined**
		5317	4003	**9320**

			AM					**PM**		
Split %			50.0%	50.0%	**38.9%**			61.6%	38.4%	**61.1%**
Peak Hour	0:30	0:30	8:00	8:00	**8:00**			17:00	14:15	**17:00**
Volume			288	358	**646**			462	254	**699**
P.H.F.			0.92	0.93	**0.93**			0.91	0.86	**0.94**

cs@aimtd.com Tell. 714 253 7888

INTERSECTION TURNING MOVEMENT COUNTS

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

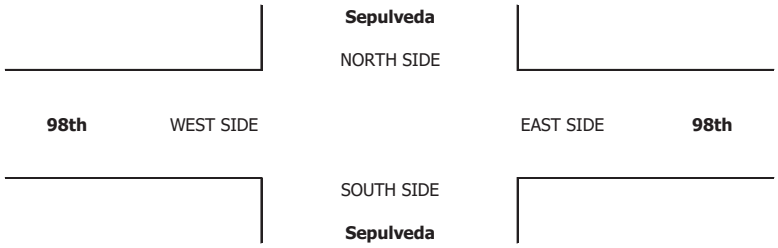
DATE:	LOCATION:	LA	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Sepulveda	LOCATION #:	1
	EAST & WEST:	98th	CONTROL:	STOP W

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND 98th			WESTBOUND 98th			
	LANES:	NL X	NT 4	NR 0	SL X	ST 4	SR X	EL X	ET X	ER X	WL X	WT X	WR 1	TOTAL
AM	7:00 AM	0	1,063	24	0	281	0	0	0	0	0	0	18	1,386
	7:15 AM	0	1,019	38	0	337	0	0	0	0	0	0	20	1,414
	7:30 AM	0	1,010	27	0	408	0	0	0	0	0	0	19	1,464
	7:45 AM	0	986	36	0	518	0	0	0	0	0	0	18	1,558
	8:00 AM	0	897	47	0	509	0	0	0	0	0	0	23	1,476
	8:15 AM	0	901	57	0	508	0	0	0	0	0	0	21	1,487
	8:30 AM	0	923	50	0	554	0	0	0	0	0	0	21	1,548
	8:45 AM	0	892	60	0	540	0	0	0	0	0	0	21	1,513
	9:00 AM	0	826	42	0	428	0	0	0	0	0	0	15	1,311
	9:15 AM	0	833	66	0	385	0	0	0	0	1	0	15	1,300
	9:30 AM	0	852	42	0	382	0	0	0	0	0	0	20	1,296
	9:45 AM	0	905	47	0	362	0	0	0	0	0	0	28	1,342
	VOLUMES	0	11,107	536	0	5,212	0	0	0	0	1	0	239	17,095
	APPROACH %	0%	95%	5%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	11,643	/	11,346	5,212	/	5,212	0	/	537	240	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	3,707	190	0	2,089	0	0	0	0	0	0	83	6,069
	APPROACH %	0%	95%	5%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.953			0.943			0.000			0.902		0.974
	APP/DEPART	3,897	/	3,790	2,089	/	2,089	0	/	190	83	/	0	0
PM	03:00 PM	0	674	28	0	539	0	0	0	0	0	0	19	1,260
	3:15 PM	0	748	39	0	571	0	0	0	0	0	0	22	1,380
	3:30 PM	0	697	34	0	598	0	0	0	0	0	0	24	1,353
	3:45 PM	0	723	32	0	624	0	0	0	0	0	0	30	1,409
	4:00 PM	0	720	32	0	621	0	0	0	0	0	0	30	1,403
	4:15 PM	0	710	41	0	634	0	0	0	0	0	0	22	1,407
	4:30 PM	0	738	28	0	598	0	0	0	0	0	0	31	1,395
	4:45 PM	0	820	39	0	608	0	0	0	0	0	0	34	1,501
	5:00 PM	0	755	34	0	687	0	0	0	0	0	0	34	1,510
	5:15 PM	0	834	35	0	669	0	0	0	0	0	0	36	1,574
	5:30 PM	0	837	29	0	673	0	0	0	0	0	0	34	1,573
	5:45 PM	0	813	28	0	659	0	0	0	0	0	0	31	1,531
	VOLUMES	0	9,069	399	0	7,481	0	0	0	0	0	0	347	17,296
	APPROACH %	0%	96%	4%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	9,468	/	9,416	7,481	/	7,481	0	/	399	347	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	3,239	126	0	2,688	0	0	0	0	0	0	135	6,188
	APPROACH %	0%	96%	4%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.968			0.978			0.000			0.938		0.983
	APP/DEPART	3,365	/	3,374	2,688	/	2,688	0	/	126	135	/	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Vicksburg	LOCATION #:	2
	EAST & WEST:	98th	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Vicksburg			SOUTHBOUND Vicksburg			EASTBOUND 98th			WESTBOUND 98th			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	5	11	15	7	20	3	1	13	5	13	20	39	152
	7:15 AM	11	9	10	6	22	4	5	16	8	9	13	24	137
	7:30 AM	10	11	14	11	15	7	4	16	6	13	15	60	182
	7:45 AM	6	15	6	16	22	7	6	15	5	11	16	40	165
	8:00 AM	5	15	10	14	18	19	7	19	7	16	18	38	186
	8:15 AM	11	11	17	9	24	10	3	30	11	8	21	43	198
	8:30 AM	4	10	14	14	22	13	5	28	4	7	18	31	170
	8:45 AM	4	8	12	14	19	8	6	25	10	13	20	37	176
	9:00 AM	5	11	16	29	21	5	6	24	9	13	16	70	225
	9:15 AM	7	15	16	12	20	7	17	32	14	18	15	51	224
	9:30 AM	5	8	13	12	12	6	14	19	6	21	20	114	250
	9:45 AM	6	16	18	17	26	4	10	22	12	20	29	76	256
	VOLUMES	79	140	161	161	241	93	84	259	97	162	221	623	2,321
	APPROACH %	21%	37%	42%	33%	49%	19%	19%	59%	22%	16%	22%	62%	
	APP/DEPART	380	/	847	495	/	502	440	/	581	1,006	/	391	0
	BEGIN PEAK HR		9:00 AM											
	VOLUMES	23	50	63	70	79	22	47	97	41	72	80	311	955
	APPROACH %	17%	37%	46%	41%	46%	13%	25%	52%	22%	16%	17%	67%	
	PEAK HR FACTOR		0.850			0.777			0.734			0.747		0.933
	APP/DEPART	136	/	408	171	/	192	185	/	230	463	/	125	0
PM	03:00 PM	6	9	10	14	31	5	1	13	11	24	17	68	209
	3:15 PM	4	14	14	15	20	2	6	20	12	20	22	63	212
	3:30 PM	11	15	21	5	25	4	7	14	14	23	19	102	260
	3:45 PM	10	10	9	11	29	5	1	20	9	23	25	85	237
	4:00 PM	6	14	19	21	32	5	10	12	13	17	23	93	265
	4:15 PM	4	11	24	18	21	3	3	19	8	18	16	86	231
	4:30 PM	9	18	21	11	25	5	4	16	8	13	22	62	214
	4:45 PM	11	10	11	7	21	5	3	23	7	18	28	100	244
	5:00 PM	15	18	19	13	28	5	5	22	8	23	26	85	267
	5:15 PM	8	18	23	15	15	8	7	21	6	20	22	86	249
	5:30 PM	13	13	17	10	25	9	3	18	7	20	24	74	233
	5:45 PM	10	15	12	13	26	6	2	18	5	24	19	119	269
	VOLUMES	107	165	200	153	298	62	52	216	108	243	263	1,023	2,890
	APPROACH %	23%	35%	42%	30%	58%	12%	14%	57%	29%	16%	17%	67%	
	APP/DEPART	472	/	1,241	513	/	649	376	/	569	1,529	/	431	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	46	64	71	51	94	28	17	79	26	87	91	364	1,018
	APPROACH %	25%	35%	39%	29%	54%	16%	14%	65%	21%	16%	17%	67%	
	PEAK HR FACTOR		0.870			0.940			0.871			0.836		0.946
	APP/DEPART	181	/	446	173	/	208	122	/	200	542	/	164	0

Vicksburg

NORTH SIDE

98th WEST SIDE EAST SIDE **98th**

SOUTH SIDE

Vicksburg

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Avion	LOCATION #:	3
	EAST & WEST:	98th	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Avion			SOUTHBOUND Avion			EASTBOUND 98th			WESTBOUND 98th			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	11	9	11	0	5	2	3	24	4	7	36	15	127
	7:15 AM	10	10	11	0	3	2	4	16	7	5	38	5	111
	7:30 AM	14	6	13	0	2	1	4	27	4	8	33	11	123
	7:45 AM	11	14	12	1	6	3	3	15	10	17	37	12	141
	8:00 AM	20	7	9	1	4	0	3	10	6	6	58	11	135
	8:15 AM	18	11	13	1	6	1	6	23	11	14	44	9	157
	8:30 AM	17	9	15	2	5	3	5	28	9	10	42	11	156
	8:45 AM	11	9	12	1	4	4	4	30	11	10	46	9	151
	9:00 AM	15	8	13	1	5	1	7	40	10	18	41	13	172
	9:15 AM	12	2	20	1	3	1	3	33	13	12	50	4	154
	9:30 AM	18	1	19	3	3	2	1	21	13	9	47	8	145
	9:45 AM	13	6	17	0	3	4	1	27	13	9	59	1	153
	VOLUMES	170	92	165	11	49	24	44	294	111	125	531	109	1,725
	APPROACH %	40%	22%	39%	13%	58%	29%	10%	65%	25%	16%	69%	14%	
	APP/DEPART	427	/	243	84	/	283	449	/	472	765	/	727	0
	BEGIN PEAK HR		8:15 AM											
	VOLUMES	61	37	53	5	20	9	22	121	41	52	173	42	636
	APPROACH %	40%	25%	35%	15%	59%	26%	12%	66%	22%	19%	65%	16%	
	PEAK HR FACTOR		0.899			0.850			0.807			0.927		0.924
	APP/DEPART	151	/	99	34	/	111	184	/	181	267	/	245	0
PM	03:00 PM	13	6	21	4	6	4	0	28	10	8	53	4	157
	3:15 PM	14	3	17	1	2	2	1	28	11	7	58	4	148
	3:30 PM	22	6	19	3	10	3	2	29	10	13	104	2	223
	3:45 PM	15	7	16	5	10	5	2	39	8	15	55	4	181
	4:00 PM	25	3	19	2	16	8	0	35	12	7	72	1	200
	4:15 PM	12	3	28	9	11	2	3	45	12	13	36	1	175
	4:30 PM	8	4	23	5	13	3	0	34	8	9	53	1	161
	4:45 PM	20	2	18	1	9	6	4	38	4	11	80	3	196
	5:00 PM	26	2	30	8	9	6	1	42	9	16	53	1	203
	5:15 PM	19	2	13	5	11	4	3	39	14	10	45	2	167
	5:30 PM	13	2	17	5	8	7	2	29	7	15	58	1	164
	5:45 PM	28	4	18	5	9	6	1	30	7	12	61	3	184
	VOLUMES	215	44	239	53	114	56	19	416	112	136	728	27	2,159
	APPROACH %	43%	9%	48%	24%	51%	25%	3%	76%	20%	15%	82%	3%	
	APP/DEPART	498	/	90	223	/	364	547	/	710	891	/	995	0
	BEGIN PEAK HR		3:30 PM											
	VOLUMES	74	19	82	19	47	18	7	148	42	48	267	8	779
	APPROACH %	42%	11%	47%	23%	56%	21%	4%	75%	21%	15%	83%	2%	
	PEAK HR FACTOR		0.931			0.808			0.821			0.679		0.873
	APP/DEPART	175	/	34	84	/	137	197	/	249	323	/	359	0

Avion

NORTH SIDE

98th WEST SIDE EAST SIDE **98th**

SOUTH SIDE

Avion

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC1530
Thu, Feb 15, 18	NORTH & SOUTH:	Airport	LOCATION #:	4
	EAST & WEST:	98th	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Airport			SOUTHBOUND Airport			EASTBOUND 98th			WESTBOUND 98th			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	25	205	19	28	74	29	18	12	18	8	15	15	466
	7:15 AM	19	215	17	39	77	33	9	5	10	10	10	15	459
	7:30 AM	16	214	19	38	83	38	19	9	17	13	21	14	501
	7:45 AM	20	208	25	43	100	52	28	13	17	7	20	19	552
	8:00 AM	27	235	37	39	94	46	20	7	18	17	6	22	568
	8:15 AM	20	227	27	33	87	59	18	7	12	11	18	18	537
	8:30 AM	17	222	23	35	97	54	25	10	13	18	15	18	547
	8:45 AM	27	231	31	37	88	61	18	12	17	17	10	16	565
	9:00 AM	25	207	17	29	95	50	16	21	12	9	15	21	517
	9:15 AM	26	234	27	29	108	50	29	8	15	12	13	21	572
	9:30 AM	15	219	18	22	116	55	23	12	21	11	8	23	543
	9:45 AM	18	191	31	27	90	49	25	14	13	11	11	17	497
	VOLUMES	255	2,608	291	399	1,109	576	248	130	183	144	162	219	6,324
	APPROACH %	8%	83%	9%	19%	53%	28%	44%	23%	33%	27%	31%	42%	
	APP/DEPART	3,154	/	3,077	2,084	/	1,444	561	/	818	525	/	985	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	91	915	118	144	366	220	81	36	60	63	49	74	2,217
	APPROACH %	8%	81%	10%	20%	50%	30%	46%	20%	34%	34%	26%	40%	
	PEAK HR FACTOR		0.940			0.981			0.922			0.912		0.976
	APP/DEPART	1,124	/	1,070	730	/	491	177	/	298	186	/	358	0
PM	03:00 PM	23	185	22	23	119	46	38	19	22	17	6	28	548
	3:15 PM	14	199	27	17	132	59	44	10	19	19	9	40	589
	3:30 PM	22	203	24	20	148	88	38	24	28	18	19	91	723
	3:45 PM	23	192	31	23	129	49	43	12	25	19	15	38	599
	4:00 PM	18	215	25	20	123	44	33	19	30	17	15	55	614
	4:15 PM	20	207	40	22	110	28	37	19	47	14	10	40	594
	4:30 PM	15	226	32	9	134	48	35	23	36	16	15	72	661
	4:45 PM	20	202	34	22	119	56	44	12	31	28	15	56	639
	5:00 PM	16	189	29	9	107	36	50	31	26	36	18	93	640
	5:15 PM	18	183	17	9	139	38	28	17	31	22	6	55	563
	5:30 PM	14	183	21	11	111	54	35	15	29	24	17	59	573
	5:45 PM	29	170	26	13	140	42	39	20	24	17	13	45	578
	VOLUMES	232	2,354	328	198	1,511	588	464	221	348	247	158	672	7,321
	APPROACH %	8%	81%	11%	9%	66%	26%	45%	21%	34%	23%	15%	62%	
	APP/DEPART	2,914	/	3,491	2,297	/	2,111	1,033	/	746	1,077	/	973	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	71	824	135	62	470	168	166	85	140	94	58	261	2,534
	APPROACH %	7%	80%	13%	9%	67%	24%	42%	22%	36%	23%	14%	63%	
	PEAK HR FACTOR		0.943			0.888			0.914			0.702		0.958
	APP/DEPART	1,030	/	1,251	700	/	708	391	/	282	413	/	293	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Bellanca	LOCATION #:	5
	EAST & WEST:	98th	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Bellanca			SOUTHBOUND Bellanca			EASTBOUND 98th			WESTBOUND 98th			
	LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 1	ER 0	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	36	37	0	0	11	5	6	0	29	0	0	0	124
	7:15 AM	29	35	0	0	15	3	8	0	31	0	0	0	121
	7:30 AM	57	39	0	0	13	3	6	0	32	0	0	0	150
	7:45 AM	63	32	0	0	11	1	6	0	33	0	0	0	146
	8:00 AM	53	45	0	0	16	8	8	0	40	0	0	0	170
	8:15 AM	63	32	0	1	15	8	8	0	24	0	0	0	151
	8:30 AM	46	44	0	0	14	7	6	0	18	0	0	0	135
	8:45 AM	57	50	0	0	17	7	12	1	45	0	0	0	189
	9:00 AM	40	29	1	0	14	1	5	0	41	0	0	0	131
	9:15 AM	37	50	0	0	11	6	8	0	35	0	0	0	147
	9:30 AM	42	49	0	0	15	9	6	0	34	0	0	0	155
	9:45 AM	28	52	0	0	18	5	8	0	40	0	0	0	151
	VOLUMES	551	494	1	1	170	63	87	1	402	0	0	0	1,770
	APPROACH %	53%	47%	0%	0%	73%	27%	18%	0%	82%	0%	0%	0%	
	APP/DEPART	1,046	/	582	234	/	573	490	/	2	0	/	613	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	219	171	0	1	62	30	34	1	127	0	0	0	645
	APPROACH %	56%	44%	0%	1%	67%	32%	21%	1%	78%	0%	0%	0%	
	PEAK HR FACTOR		0.911			0.969			0.698			0.000		0.853
	APP/DEPART	390	/	206	93	/	189	162	/	1	0	/	249	0
PM	03:00 PM	27	44	0	0	39	7	11	0	94	0	0	0	222
	3:15 PM	27	37	0	0	42	10	7	0	74	0	0	0	197
	3:30 PM	30	34	0	0	34	5	9	0	98	0	0	0	210
	3:45 PM	21	20	0	0	28	2	8	0	80	0	0	0	159
	4:00 PM	19	45	0	0	49	7	9	0	111	0	0	0	240
	4:15 PM	28	32	0	0	37	6	5	0	92	0	0	0	200
	4:30 PM	34	35	0	0	35	5	8	0	115	0	0	0	232
	4:45 PM	29	39	0	1	44	6	16	0	101	0	0	0	236
	5:00 PM	30	33	0	0	44	9	11	0	111	0	0	0	238
	5:15 PM	26	31	0	0	40	4	8	0	94	0	0	0	203
	5:30 PM	21	28	0	0	42	6	11	0	84	0	0	0	192
	5:45 PM	15	34	0	0	42	6	5	0	84	0	0	0	186
	VOLUMES	307	412	0	1	476	73	108	0	1,138	0	0	0	2,515
	APPROACH %	43%	57%	0%	0%	87%	13%	9%	0%	91%	0%	0%	0%	
	APP/DEPART	719	/	520	550	/	1,614	1,246	/	0	0	/	381	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	119	138	0	1	163	24	43	0	421	0	0	0	909
	APPROACH %	46%	54%	0%	1%	87%	13%	9%	0%	91%	0%	0%	0%	
	PEAK HR FACTOR		0.931			0.887			0.943			0.000		0.955
	APP/DEPART	257	/	182	188	/	584	464	/	0	0	/	143	0

INTERSECTION TURNING MOVEMENT COUNTS

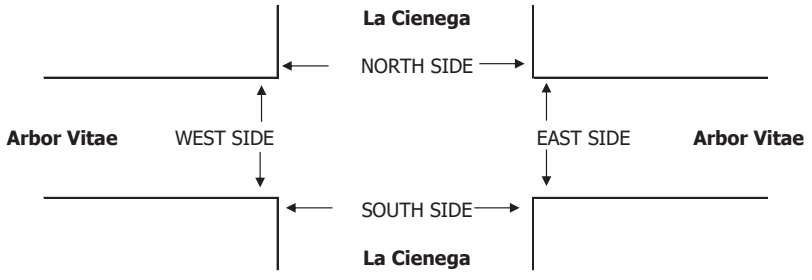
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	LA	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	La Cienega	LOCATION #:	6
	EAST & WEST:	Arbor Vitae	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND La Cienega			SOUTHBOUND La Cienega			EASTBOUND Arbor Vitae			WESTBOUND Arbor Vitae			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	141	251	19	15	48	19	13	33	22	34	248	85	928
	7:15 AM	128	247	18	2	36	31	12	37	22	41	289	97	960
	7:30 AM	130	271	37	4	47	41	14	38	23	43	291	91	1,030
	7:45 AM	113	265	27	5	61	23	12	45	38	61	254	81	985
	8:00 AM	132	322	32	5	75	30	14	54	29	50	189	62	994
	8:15 AM	126	282	26	8	77	30	10	58	28	38	206	66	955
	8:30 AM	113	233	26	11	71	53	12	49	35	37	159	51	850
	8:45 AM	128	260	29	14	57	38	15	39	32	44	162	45	863
	VOLUMES	1,011	2,131	214	64	472	265	102	353	229	348	1,798	578	7,565
	APPROACH %	30%	63%	6%	8%	59%	33%	15%	52%	33%	13%	66%	21%	
	APP/DEPART	3,356	/	2,809	801	/	1,049	684	/	631	2,724	/	3,076	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	503	1,105	114	16	219	125	52	174	112	195	1,023	331	3,969
	APPROACH %	29%	64%	7%	4%	61%	35%	15%	51%	33%	13%	66%	21%	
	PEAK HR FACTOR		0.886			0.818			0.871			0.907		0.963
	APP/DEPART	1,722	/	1,487	360	/	526	338	/	304	1,549	/	1,652	0
PM	4:00 PM	63	103	92	21	95	21	30	166	102	8	57	24	782
	4:15 PM	45	129	98	23	113	15	56	179	83	14	67	22	844
	4:30 PM	45	106	70	13	95	14	60	190	94	13	76	25	801
	4:45 PM	47	108	83	8	113	19	55	180	88	15	71	16	803
	5:00 PM	36	130	103	18	113	11	44	201	110	10	65	27	868
	5:15 PM	38	160	108	18	122	11	54	172	93	8	66	20	870
	5:30 PM	47	134	90	21	117	19	64	176	85	21	61	17	852
	5:45 PM	37	125	87	23	129	15	47	154	85	22	69	20	813
	VOLUMES	358	995	731	145	897	125	410	1,418	740	111	532	171	6,633
	APPROACH %	17%	48%	35%	12%	77%	11%	16%	55%	29%	14%	65%	21%	
	APP/DEPART	2,084	/	1,576	1,167	/	1,748	2,568	/	2,294	814	/	1,015	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	158	549	388	80	481	56	209	703	373	61	261	84	3,403
	APPROACH %	14%	50%	35%	13%	78%	9%	16%	55%	29%	15%	64%	21%	
	PEAK HR FACTOR		0.895			0.924			0.905			0.914		0.978
	APP/DEPART	1,095	/	842	617	/	915	1,285	/	1,171	406	/	475	0



INTERSECTION TURNING MOVEMENT COUNTS

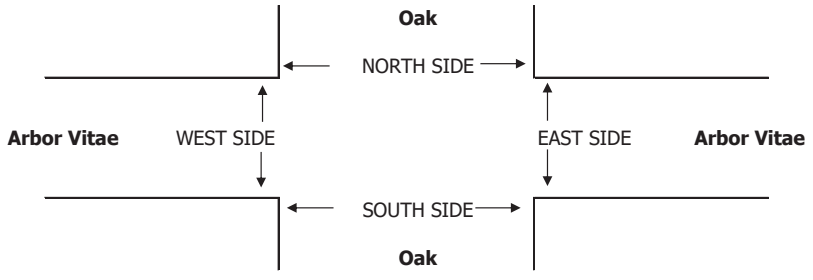
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Thu, Feb 15, 18	LOCATION:	Inglewood	PROJECT #:	SC1625
	NORTH & SOUTH:	Oak	LOCATION #:	7
	EAST & WEST:	Arbor Vitae	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Oak			SOUTHBOUND Oak			EASTBOUND Arbor Vitae			WESTBOUND Arbor Vitae			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	49	4	1	4	2	45	7	64	1	0	252	4	433
	7:15 AM	57	6	2	7	2	82	9	48	2	2	203	2	422
	7:30 AM	54	9	12	9	5	88	9	70	4	1	185	2	448
	7:45 AM	52	22	4	16	3	69	7	75	2	3	198	7	458
	8:00 AM	40	21	6	20	4	53	12	72	3	0	183	9	423
	8:15 AM	43	9	3	16	10	40	7	82	7	3	203	9	432
	8:30 AM	12	5	4	4	7	15	3	80	4	8	205	8	355
	8:45 AM	17	3	1	10	3	12	6	72	1	2	198	5	330
	VOLUMES	324	79	33	86	36	404	60	563	24	19	1,627	46	3,301
	APPROACH %	74%	18%	8%	16%	7%	77%	9%	87%	4%	1%	96%	3%	
	APP/DEPART	436	/	185	526	/	79	647	/	682	1,692	/	2,355	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	189	61	25	61	22	250	35	299	16	7	769	27	1,761
	APPROACH %	69%	22%	9%	18%	7%	75%	10%	85%	5%	1%	96%	3%	
	PEAK HR FACTOR		0.881			0.816			0.911			0.784		0.961
	APP/DEPART	275	/	123	333	/	45	350	/	385	803	/	1,208	0
PM	4:00 PM	5	8	2	11	4	12	6	213	6	1	84	10	362
	4:15 PM	4	2	4	6	6	11	13	196	10	4	74	9	339
	4:30 PM	10	7	6	9	9	14	12	190	4	1	95	10	367
	4:45 PM	4	3	0	6	8	7	9	172	3	9	94	10	325
	5:00 PM	6	2	3	13	6	9	11	182	5	9	89	16	351
	5:15 PM	5	6	3	7	6	10	9	185	5	3	81	13	333
	5:30 PM	8	12	3	10	8	5	12	173	6	4	72	13	326
	5:45 PM	9	7	5	14	13	12	17	171	10	5	84	14	361
	VOLUMES	51	47	26	76	60	80	89	1,482	49	36	673	95	2,764
	APPROACH %	41%	38%	21%	35%	28%	37%	5%	91%	3%	4%	84%	12%	
	APP/DEPART	124	/	231	216	/	145	1,620	/	1,583	804	/	805	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	23	20	12	32	27	44	40	771	23	15	347	39	1,393
	APPROACH %	42%	36%	22%	31%	26%	43%	5%	92%	3%	4%	87%	10%	
	PEAK HR FACTOR		0.598			0.805			0.927			0.887		0.949
	APP/DEPART	55	/	99	103	/	65	834	/	815	401	/	414	0



INTERSECTION TURNING MOVEMENT COUNTS

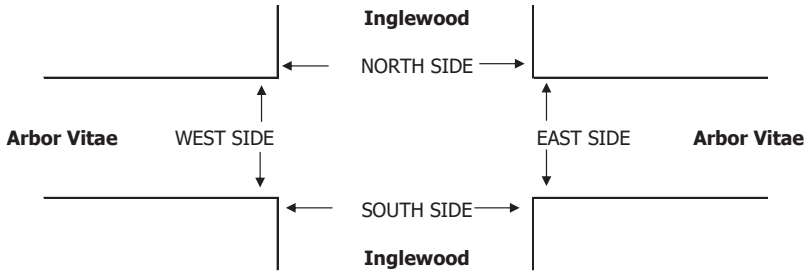
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Inglewood	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Inglewood	LOCATION #:	8
	EAST & WEST:	Arbor Vitae	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Inglewood			SOUTHBOUND Inglewood			EASTBOUND Arbor Vitae			WESTBOUND Arbor Vitae			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	47	45	13	9	28	8	5	46	9	17	158	13	398
	7:15 AM	40	54	19	8	39	11	6	52	12	12	154	15	422
	7:30 AM	54	61	29	13	51	13	8	68	14	19	150	17	497
	7:45 AM	55	67	18	19	54	21	9	75	15	23	131	14	501
	8:00 AM	58	59	17	17	46	16	7	72	17	18	134	17	478
	8:15 AM	52	49	15	12	34	12	8	73	15	21	132	18	441
	8:30 AM	40	59	14	11	29	10	5	63	11	20	136	13	411
	8:45 AM	26	45	9	6	35	7	3	61	13	16	113	12	346
	VOLUMES	372	439	134	95	316	98	51	510	106	146	1,108	119	3,494
	APPROACH %	39%	46%	14%	19%	62%	19%	8%	76%	16%	11%	81%	9%	
	APP/DEPART	945	/	609	509	/	568	667	/	739	1,373	/	1,578	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	219	236	79	61	185	62	32	288	61	81	547	66	1,917
	APPROACH %	41%	44%	15%	20%	60%	20%	8%	76%	16%	12%	79%	10%	
	PEAK HR FACTOR		0.927			0.819			0.962			0.933		0.957
	APP/DEPART	534	/	334	308	/	327	381	/	428	694	/	828	0
PM	4:00 PM	25	38	23	17	48	10	12	154	39	16	73	8	463
	4:15 PM	20	57	31	11	50	7	7	145	30	18	67	17	460
	4:30 PM	28	40	26	10	49	9	8	146	17	11	83	12	439
	4:45 PM	26	35	27	14	81	13	11	123	24	17	76	10	457
	5:00 PM	25	44	29	14	88	9	9	139	28	13	79	9	486
	5:15 PM	28	40	30	15	73	6	9	139	27	13	78	15	473
	5:30 PM	22	31	30	16	87	8	24	125	17	9	74	4	447
	5:45 PM	30	45	30	18	69	14	11	142	17	17	89	17	499
	VOLUMES	204	330	226	115	545	76	91	1,113	199	114	619	92	3,724
	APPROACH %	27%	43%	30%	16%	74%	10%	6%	79%	14%	14%	75%	11%	
	APP/DEPART	760	/	513	736	/	858	1,403	/	1,454	825	/	899	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	105	160	119	63	317	37	53	545	89	52	320	45	1,905
	APPROACH %	27%	42%	31%	15%	76%	9%	8%	79%	13%	12%	77%	11%	
	PEAK HR FACTOR		0.914			0.939			0.976			0.848		0.954
	APP/DEPART	384	/	258	417	/	458	687	/	727	417	/	462	0



INTERSECTION TURNING MOVEMENT COUNTS

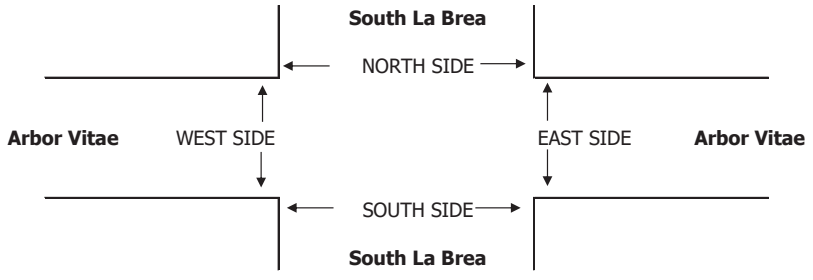
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Inglewood	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	South La Brea	LOCATION #:	9
	EAST & WEST:	Arbor Vitae	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND South La Brea			SOUTHBOUND South La Brea			EASTBOUND Arbor Vitae			WESTBOUND Arbor Vitae			
	LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 1	EL 1	ET 1	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	47	153	3	13	95	31	18	42	22	15	86	16	541
	7:15 AM	63	179	3	14	156	25	16	39	24	27	100	13	659
	7:30 AM	50	208	8	16	158	29	21	42	29	18	96	14	689
	7:45 AM	52	238	10	20	192	30	13	53	56	28	103	18	813
	8:00 AM	48	234	13	22	224	32	16	57	46	21	74	11	798
	8:15 AM	73	231	9	21	171	18	26	63	27	27	100	14	780
	8:30 AM	67	199	6	34	143	20	20	55	27	26	92	14	703
	8:45 AM	54	187	9	23	129	33	17	61	23	19	106	16	677
	VOLUMES	454	1,629	61	163	1,268	218	147	412	254	181	757	116	5,660
	APPROACH %	21%	76%	3%	10%	77%	13%	18%	51%	31%	17%	72%	11%	
	APP/DEPART	2,144	/	1,909	1,649	/	1,716	813	/	619	1,054	/	1,416	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	240	902	38	97	730	100	75	228	156	102	369	57	3,094
	APPROACH %	20%	76%	3%	10%	79%	11%	16%	50%	34%	19%	70%	11%	
	PEAK HR FACTOR		0.942			0.834			0.941			0.886		0.951
	APP/DEPART	1,180	/	1,043	927	/	996	459	/	354	528	/	701	0
PM	4:00 PM	42	151	24	26	192	12	27	79	39	23	61	23	699
	4:15 PM	38	158	23	32	183	13	21	88	50	19	66	20	711
	4:30 PM	49	163	20	29	205	11	25	90	49	16	55	21	733
	4:45 PM	41	143	21	21	209	17	25	88	51	18	53	24	711
	5:00 PM	39	154	18	30	224	15	22	95	49	15	68	18	747
	5:15 PM	45	163	20	25	227	19	17	104	47	20	64	19	770
	5:30 PM	46	158	21	34	231	21	19	106	43	21	66	15	781
	5:45 PM	44	148	17	33	202	18	24	97	38	19	69	11	720
	VOLUMES	344	1,238	164	230	1,673	126	180	747	366	151	502	151	5,872
	APPROACH %	20%	71%	9%	11%	82%	6%	14%	58%	28%	19%	62%	19%	
	APP/DEPART	1,746	/	1,608	2,029	/	2,211	1,293	/	1,102	804	/	951	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	174	623	76	122	884	73	82	402	177	75	267	63	3,018
	APPROACH %	20%	71%	9%	11%	82%	7%	12%	61%	27%	19%	66%	16%	
	PEAK HR FACTOR		0.957			0.943			0.984			0.983		0.966
	APP/DEPART	873	/	790	1,079	/	1,146	661	/	578	405	/	504	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

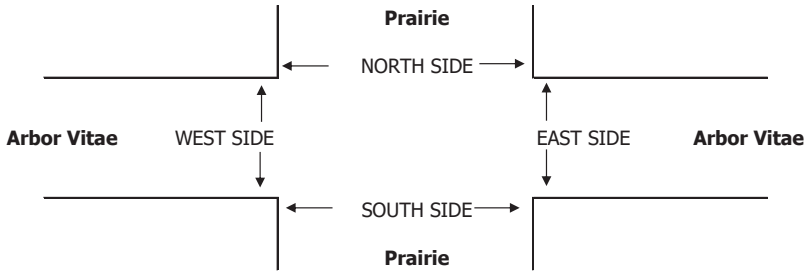
DATE:	LOCATION:	Inglewood	PROJECT #:	SC1625
Thu, Feb 15, 18	NORTH & SOUTH:	Prairie	LOCATION #:	10
	EAST & WEST:	Arbor Vitae	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Prairie			SOUTHBOUND Prairie			EASTBOUND Arbor Vitae			WESTBOUND Arbor Vitae			
	LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 1	ET 0.5	ER 0.5	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	12	183	4	11	198	57	32	7	15	1	1	1	522
	7:15 AM	16	233	4	6	198	48	29	5	34	2	0	0	575
	7:30 AM	24	288	8	4	234	46	49	1	22	3	1	1	681
	7:45 AM	29	290	5	5	274	55	34	0	27	3	0	0	722
	8:00 AM	20	275	2	4	276	68	38	1	22	5	0	0	711
	8:15 AM	28	273	7	4	176	68	57	0	23	3	0	3	642
	8:30 AM	29	261	5	1	165	56	42	1	24	2	0	0	586
	8:45 AM	21	266	5	2	189	67	47	1	29	2	1	2	632
	VOLUMES	179	2,069	40	37	1,710	465	328	16	196	21	3	7	5,071
	APPROACH %	8%	90%	2%	2%	77%	21%	61%	3%	36%	68%	10%	23%	
	APP/DEPART	2,288	/	2,405	2,212	/	1,928	540	/	92	31	/	646	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	101	1,126	22	17	960	237	178	2	94	14	1	4	2,756
	APPROACH %	8%	90%	2%	1%	79%	20%	65%	1%	34%	74%	5%	21%	
	PEAK HR FACTOR		0.964			0.872			0.856			0.792		0.954
	APP/DEPART	1,249	/	1,309	1,214	/	1,069	274	/	40	19	/	338	0
PM	4:00 PM	24	274	18	3	232	36	70	7	37	8	0	23	732
	4:15 PM	20	277	4	1	249	33	86	3	26	23	3	25	750
	4:30 PM	16	280	4	1	251	31	78	1	28	42	5	33	770
	4:45 PM	18	288	3	1	252	26	68	2	31	19	6	19	733
	5:00 PM	25	263	1	1	266	20	74	0	40	13	0	8	711
	5:15 PM	32	284	0	0	261	22	89	1	35	5	1	8	738
	5:30 PM	30	288	1	0	280	28	70	1	31	5	0	4	738
	5:45 PM	23	326	3	1	243	31	66	1	43	2	0	4	743
	VOLUMES	188	2,280	34	8	2,034	227	601	16	271	117	15	124	5,915
	APPROACH %	8%	91%	1%	0%	90%	10%	68%	2%	31%	46%	6%	48%	
	APP/DEPART	2,502	/	3,007	2,269	/	2,426	888	/	56	256	/	426	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	78	1,119	29	6	984	126	302	13	122	92	14	100	2,985
	APPROACH %	6%	91%	2%	1%	88%	11%	69%	3%	28%	45%	7%	49%	
	PEAK HR FACTOR		0.970			0.986			0.950			0.644		0.969
	APP/DEPART	1,226	/	1,522	1,116	/	1,200	437	/	47	206	/	216	0



APPENDIX B:
LEVEL OF SERVICE (LOS) ANALYSIS SHEETS

EXISTING BASE

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 7:07

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.1
Total Del/Veh (s)	1.7	7.6	0.7	1.2	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 7:22

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.7	7.7	0.8	1.4	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 7:37

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.7	9.0	0.7	1.3	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 7:52

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.0	6.6	0.7	1.9	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.5	8.3	0.7	1.5	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 5:00

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.3	0.1	0.1
Total Del/Veh (s)	1.3	6.7	0.6	0.8	0.4	0.6

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 5:15

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.4	0.1	0.1
Total Del/Veh (s)	1.8	9.4	0.6	0.9	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 5:30

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.3	0.1	0.1
Total Del/Veh (s)	0.9	7.2	0.5	0.9	0.4	0.6

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 5:45

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.1	0.1
Total Del/Veh (s)	1.5	8.7	0.5	0.8	0.5	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.3	0.1	0.1
Total Del/Veh (s)	1.4	8.1	0.5	0.9	0.4	0.7

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	97	41	72	80	311	23	50	63	70	79	22
Future Vol, veh/h	47	97	41	72	80	311	23	50	63	70	79	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	104	44	77	86	334	25	54	68	75	85	24
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.6	15.2	10.7	11.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	100%	0%	100%	0%	41%
Vol Thru, %	37%	0%	70%	0%	20%	46%
Vol Right, %	46%	0%	30%	0%	80%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	47	138	72	391	171
LT Vol	23	47	0	72	0	70
Through Vol	50	0	97	0	80	79
RT Vol	63	0	41	0	311	22
Lane Flow Rate	146	51	148	77	420	184
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.237	0.094	0.247	0.136	0.615	0.306
Departure Headway (Hd)	5.832	6.703	5.983	6.339	5.268	5.987
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	613	533	598	565	685	598
Service Time	3.895	4.462	3.741	4.086	3.014	4.046
HCM Lane V/C Ratio	0.238	0.096	0.247	0.136	0.613	0.308
HCM Control Delay	10.7	10.2	10.7	10.1	16.1	11.7
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	0.9	0.3	1	0.5	4.2	1.3

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	79	26	87	91	364	46	64	71	51	94	28
Future Vol, veh/h	17	79	26	87	91	364	46	64	71	51	94	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	83	27	92	96	383	48	67	75	54	99	29
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.5	18.4	11.6	11.8
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	100%	0%	100%	0%	29%
Vol Thru, %	35%	0%	75%	0%	20%	54%
Vol Right, %	39%	0%	25%	0%	80%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	181	17	105	87	455	173
LT Vol	46	17	0	87	0	51
Through Vol	64	0	79	0	91	94
RT Vol	71	0	26	0	364	28
Lane Flow Rate	191	18	111	92	479	182
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.311	0.035	0.193	0.162	0.706	0.306
Departure Headway (Hd)	5.884	6.968	6.281	6.38	5.305	6.04
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	608	512	569	561	680	592
Service Time	3.95	4.737	4.049	4.127	3.052	4.106
HCM Lane V/C Ratio	0.314	0.035	0.195	0.164	0.704	0.307
HCM Control Delay	11.6	10	10.6	10.4	19.9	11.8
HCM Lane LOS	B	A	B	B	C	B
HCM 95th-tile Q	1.3	0.1	0.7	0.6	5.8	1.3

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	121	41	52	173	42	61	37	53	5	20	9
Future Vol, veh/h	22	121	41	52	173	42	61	37	53	5	20	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	132	45	57	188	46	66	40	58	5	22	10
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.7	10.2	9.4	8.8
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	77%	0%	100%	0%	100%	0%	33%	0%
Vol Thru, %	23%	26%	0%	75%	0%	80%	67%	53%
Vol Right, %	0%	74%	0%	25%	0%	20%	0%	47%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	72	22	162	52	215	15	19
LT Vol	61	0	22	0	52	0	5	0
Through Vol	19	19	0	121	0	173	10	10
RT Vol	0	53	0	41	0	42	0	9
Lane Flow Rate	86	78	24	176	57	234	16	21
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.148	0.114	0.039	0.254	0.091	0.334	0.028	0.032
Departure Headway (Hd)	6.169	5.259	5.882	5.201	5.786	5.145	6.137	5.633
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	578	676	605	685	616	694	578	629
Service Time	3.945	3.033	3.653	2.97	3.549	2.909	3.931	3.426
HCM Lane V/C Ratio	0.149	0.115	0.04	0.257	0.093	0.337	0.028	0.033
HCM Control Delay	10	8.7	8.9	9.8	9.1	10.5	9.1	8.6
HCM Lane LOS	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0.5	0.4	0.1	1	0.3	1.5	0.1	0.1

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	148	42	48	267	8	74	19	82	19	47	18
Future Vol, veh/h	7	148	42	48	267	8	74	19	82	19	47	18
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	170	48	55	307	9	85	22	94	22	54	21
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.6	13.5	10.3	9.9
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	89%	0%	100%	0%	100%	0%	45%	0%
Vol Thru, %	11%	10%	0%	78%	0%	97%	55%	57%
Vol Right, %	0%	90%	0%	22%	0%	3%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	92	7	190	48	275	43	42
LT Vol	74	0	7	0	48	0	19	0
Through Vol	10	10	0	148	0	267	24	24
RT Vol	0	82	0	42	0	8	0	18
Lane Flow Rate	96	105	8	218	55	316	49	48
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.182	0.167	0.014	0.352	0.096	0.504	0.092	0.083
Departure Headway (Hd)	6.815	5.729	6.459	5.797	6.26	5.735	6.785	6.249
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	626	554	620	573	629	528	572
Service Time	4.559	3.472	4.197	3.534	3.993	3.467	4.534	3.998
HCM Lane V/C Ratio	0.183	0.168	0.014	0.352	0.096	0.502	0.093	0.084
HCM Control Delay	11.1	9.6	9.3	11.7	9.7	14.2	10.2	9.6
HCM Lane LOS	B	A	A	B	A	B	B	A
HCM 95th-tile Q	0.7	0.6	0	1.6	0.3	2.8	0.3	0.3

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Century Trunk Line Project			
4	North-South Street:	Airport Boulevard	East-West Street:	98th Street	
	Scenario:	Existing			
	Count Date:	1/0/1900	Analyst: Fehr & Peers	Date:	3/23/2018

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	91	1	91	71	1	71
	Left-Through		0			0	
	Through	915	2	**458**	824	2	**412**
	Through-Right		0			0	
	Right	118	1	87	135	1	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	144	1	**144**	62	1	**62**
	Left-Through		0			0	
	Through	366	2	183	470	2	213
	Through-Right		1			1	
	Right	220	0	180	168	0	168
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	81	1	**81**	166	1	**166**
	Left-Through		0			0	
	Through	36	1	36	85	1	85
	Through-Right		0			0	
	Right	60	1	15	140	1	105
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	63	1	63	94	1	94
	Left-Through		0			0	
	Through	49	0	**123**	58	0	**319**
	Through-Right		1			1	
	Right	74	0	0	261	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	602		North-South:	474
			East-West:	204		East-West:	485
			SUM:	806		SUM:	959
	VOLUME/CAPACITY (V/C) RATIO:			0.537			0.639
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.437**			**0.539**
	LEVEL OF SERVICE (LOS):			**A**			**A**

Version: 1i Beta; 8/4/2011

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	127	219	171	62	30
Future Vol, veh/h	34	127	219	171	62	30
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	149	258	201	73	35
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.5	11.2	9.2
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	67%
Vol Right, %	0%	0%	0%	100%	33%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	171	34	127	92
LT Vol	219	0	34	0	0
Through Vol	0	171	0	0	62
RT Vol	0	0	0	127	30
Lane Flow Rate	258	201	40	149	108
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.404	0.287	0.071	0.216	0.155
Departure Headway (Hd)	5.638	5.135	6.419	5.208	5.149
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	636	696	556	686	692
Service Time	3.394	2.891	4.177	2.966	3.217
HCM Lane V/C Ratio	0.406	0.289	0.072	0.217	0.156
HCM Control Delay	12.2	10	9.7	9.4	9.2
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2	1.2	0.2	0.8	0.5

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	421	119	138	163	24
Future Vol, veh/h	43	421	119	138	163	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	443	125	145	172	25
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	16.1	11.2	12
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	87%
Vol Right, %	0%	0%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	138	43	421	187
LT Vol	119	0	43	0	0
Through Vol	0	138	0	0	163
RT Vol	0	0	0	421	24
Lane Flow Rate	125	145	45	443	197
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.233	0.249	0.081	0.64	0.329
Departure Headway (Hd)	6.687	6.18	6.411	5.199	6.017
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	537	581	559	696	598
Service Time	4.426	3.918	4.143	2.931	4.055
HCM Lane V/C Ratio	0.233	0.25	0.081	0.636	0.329
HCM Control Delay	11.5	11	9.7	16.8	12
HCM Lane LOS	B	B	A	C	B
HCM 95th-tile Q	0.9	1	0.3	4.6	1.4

Project Title: Century Trunk Line Project
Intersection: 6 - La Cienega Boulevard & Arbor Vitae Street
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	125	0	0.000	N-S(1):	0.391
	TH	2.00	219	3,200	0.108 *	N-S(2):	0.422 *
	LT	1.00	16	1,600	0.010	E-W(1):	0.211
Westbound	RT	1.00	331	1,600	0.207	E-W(2):	0.353 *
	TH	2.00	1,023	3,200	0.320 *		
	LT	1.00	195	1,600	0.122	V/C:	0.775
Northbound	RT	0.00	114	0	0.000	Lost Time:	0.100
	TH	2.00	1,105	3,200	0.381	ITS:	0.000
	LT	1.00	503	1,600	0.314 *		
Eastbound	RT	0.00	112	0	0.000	ICU:	0.875
	TH	2.00	174	3,200	0.089		
	LT	1.00	52	1,600	0.033 *	LOS:	D

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	56	0	0.000	N-S(1):	0.343 *
	TH	2.00	481	3,200	0.168	N-S(2):	0.267
	LT	1.00	80	1,600	0.050 *	E-W(1):	0.374 *
Westbound	RT	1.00	84	1,600	0.053	E-W(2):	0.213
	TH	2.00	261	3,200	0.082		
	LT	1.00	61	1,600	0.038 *	V/C:	0.717
Northbound	RT	0.00	388	0	0.000	Lost Time:	0.100
	TH	2.00	549	3,200	0.293 *	ITS:	0.000
	LT	1.00	158	1,600	0.099		
Eastbound	RT	0.00	373	0	0.000	ICU:	0.817
	TH	2.00	703	3,200	0.336 *		
	LT	1.00	209	1,600	0.131	LOS:	D

* - Denotes critical movement

Project Title: **Century Trunk Line Project**
Intersection: **7 - Oak Street & Arbor Vitae Street**
Description: **Existing**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	250	1,600	0.145 *	N-S(1):	0.317 *
	TH	0.27	22	424	0.052	N-S(2):	0.000
	LT	0.73	61	1,176	0.052	E-W(1):	0.102
Westbound	RT	0.00	27	0	0.000	E-W(2):	0.271 *
	TH	2.00	769	3,200	0.249 *		
	LT	1.00	7	1,600	0.004	V/C:	0.588
Northbound	RT	0.00	25	0	0.000	Lost Time:	0.100
	TH	1.00	61	1,600	0.172 *	ITS:	0.000
	LT	0.00	189	1,600	0.118		
Eastbound	RT	0.00	16	0	0.000	ICU:	0.688
	TH	2.00	299	3,200	0.098		
	LT	1.00	35	1,600	0.022 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	44	1,600	0.015	N-S(1):	0.071 *
	TH	0.46	27	732	0.037	N-S(2):	0.000
	LT	0.54	32	868	0.037 *	E-W(1):	0.257 *
Westbound	RT	0.00	39	0	0.000	E-W(2):	0.146
	TH	2.00	347	3,200	0.121		
	LT	1.00	15	1,600	0.009 *	V/C:	0.328
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	20	1,600	0.034 *	ITS:	0.000
	LT	0.00	23	1,600	0.014		
Eastbound	RT	0.00	23	0	0.000	ICU:	0.428
	TH	2.00	771	3,200	0.248 *		
	LT	1.00	40	1,600	0.025	LOS:	A

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 8 - Inglewood Avenue & Arbor Vitae Street
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.25	62	402	0.144	N-S(1):	0.351 *
	TH	0.75	185	1,198	0.154 *	N-S(2):	0.000
	LT	1.00	61	1,600	0.038	E-W(1):	0.160
Westbound	RT	0.00	66	0	0.000	E-W(2):	0.212 *
	TH	2.00	547	3,200	0.192 *		
	LT	1.00	81	1,600	0.051	V/C:	0.563
Northbound	RT	0.25	79	401	0.172	Lost Time:	0.100
	TH	0.75	236	1,199	0.197 *	ITS:	0.000
	LT	1.00	219	1,600	0.137		
Eastbound	RT	0.00	61	0	0.000	ICU:	0.663
	TH	2.00	288	3,200	0.109		
	LT	1.00	32	1,600	0.020 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.10	37	167	0.205	N-S(1):	0.395 *
	TH	0.90	317	1,433	0.221 *	N-S(2):	0.000
	LT	1.00	63	1,600	0.039	E-W(1):	0.231 *
Westbound	RT	0.00	45	0	0.000	E-W(2):	0.147
	TH	2.00	320	3,200	0.114		
	LT	1.00	52	1,600	0.033 *	V/C:	0.626
Northbound	RT	0.43	119	682	0.158	Lost Time:	0.100
	TH	0.57	160	918	0.174 *	ITS:	0.000
	LT	1.00	105	1,600	0.066		
Eastbound	RT	0.00	89	0	0.000	ICU:	0.726
	TH	2.00	545	3,200	0.198 *		
	LT	1.00	53	1,600	0.033	LOS:	C

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 9 - South La Brea Ave & Arbor Vitae Street
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	100	1,600	0.039	N-S(1):	0.257
	TH	3.00	730	4,800	0.152 *	N-S(2):	0.302 *
	LT	1.00	97	1,600	0.061	E-W(1):	0.207 *
Westbound	RT	1.00	57	1,600	0.005	E-W(2):	0.162
	TH	2.00	369	3,200	0.115		
	LT	1.00	102	1,600	0.064 *	V/C:	0.509
Northbound	RT	0.00	38	0	0.000	Lost Time:	0.100
	TH	3.00	902	4,800	0.196	ITS:	0.000
	LT	1.00	240	1,600	0.150 *		
Eastbound	RT	1.00	156	1,600	0.023	ICU:	0.609
	TH	1.00	228	1,600	0.143 *		
	LT	1.00	75	1,600	0.047	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	73	1,600	0.020	N-S(1):	0.222
	TH	3.00	884	4,800	0.184 *	N-S(2):	0.293 *
	LT	1.00	122	1,600	0.076	E-W(1):	0.298 *
Westbound	RT	1.00	63	1,600	0.001	E-W(2):	0.134
	TH	2.00	267	3,200	0.083		
	LT	1.00	75	1,600	0.047 *	V/C:	0.591
Northbound	RT	0.00	76	0	0.000	Lost Time:	0.100
	TH	3.00	623	4,800	0.146	ITS:	0.000
	LT	1.00	174	1,600	0.109 *		
Eastbound	RT	1.00	177	1,600	0.056	ICU:	0.691
	TH	1.00	402	1,600	0.251 *		
	LT	1.00	82	1,600	0.051	LOS:	B

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 10 - Prairie Avenue & Arbor Vitae Street
Description: Existing

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	237	0	0.000	N-S(1):	0.246
	TH	3.00	960	4,800	0.249 *	N-S(2):	0.312 *
	LT	1.00	17	1,600	0.011	E-W(1):	0.069
Westbound	RT	0.80	4	1,280	0.000	E-W(2):	0.114 *
	TH	0.20	1	320	0.003 *		
	LT	1.00	14	1,600	0.009	V/C:	0.426
Northbound	RT	1.00	22	1,600	0.009	Lost Time:	0.100
	TH	3.00	1,126	4,800	0.235	ITS:	0.000
	LT	1.00	101	1,600	0.063 *		
Eastbound	RT	0.98	94	1,567	0.028	ICU:	0.526
	TH	0.02	2	33	0.060		
	LT	1.00	178	1,600	0.111 *	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	126	0	0.000	N-S(1):	0.237
	TH	3.00	984	4,800	0.231 *	N-S(2):	0.280 *
	LT	1.00	6	1,600	0.004	E-W(1):	0.142
Westbound	RT	0.88	100	1,404	0.069	E-W(2):	0.260 *
	TH	0.12	14	196	0.071 *		
	LT	1.00	92	1,600	0.058	V/C:	0.540
Northbound	RT	1.00	29	1,600	0.000	Lost Time:	0.100
	TH	3.00	1,119	4,800	0.233	ITS:	0.000
	LT	1.00	78	1,600	0.049 *		
Eastbound	RT	0.90	122	1,446	0.060	ICU:	0.640
	TH	0.10	13	154	0.084		
	LT	1.00	302	1,600	0.189 *	LOS:	B

* - Denotes critical movement

FUTURE BASE (2020)

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 7:00

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.5	5.9	0.7	1.8	0.3	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 7:15

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.9	9.3	0.8	1.2	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 7:30

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	1.5	10.7	0.7	1.0	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 7:45

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	1.4	8.1	0.8	1.7	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.6	8.9	0.8	1.5	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 5:00

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.1
Total Del/Veh (s)	1.8	7.6	0.5	1.0	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 5:15

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.2
Total Del/Veh (s)	1.8	8.5	0.7	1.2	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 5:30

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.1	0.1
Total Del/Veh (s)	1.3	7.1	0.5	0.9	0.4	0.6

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 5:45

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.1	0.1
Total Del/Veh (s)	1.8	10.8	0.6	0.7	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.1
Total Del/Veh (s)	1.7	8.7	0.6	1.0	0.4	0.7

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	101	43	75	83	324	24	52	66	73	82	23
Future Vol, veh/h	49	101	43	75	83	324	24	52	66	73	82	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	109	46	81	89	348	26	56	71	78	88	25
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.8	16.5	11	12.1
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	100%	0%	100%	0%	41%
Vol Thru, %	37%	0%	70%	0%	20%	46%
Vol Right, %	46%	0%	30%	0%	80%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	49	144	75	407	178
LT Vol	24	49	0	75	0	73
Through Vol	52	0	101	0	83	82
RT Vol	66	0	43	0	324	23
Lane Flow Rate	153	53	155	81	438	191
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.252	0.1	0.262	0.144	0.65	0.324
Departure Headway (Hd)	5.947	6.809	6.087	6.421	5.348	6.095
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	600	524	587	557	674	588
Service Time	4.019	4.576	3.854	4.173	3.1	4.163
HCM Lane V/C Ratio	0.255	0.101	0.264	0.145	0.65	0.325
HCM Control Delay	11	10.3	11	10.3	17.6	12.1
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1	0.3	1	0.5	4.8	1.4

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	82	27	91	95	379	48	67	74	53	98	29
Future Vol, veh/h	18	82	27	91	95	379	48	67	74	53	98	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	88	29	98	102	408	52	72	80	57	105	31
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.9	21.9	12.3	12.4
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	100%	0%	100%	0%	29%
Vol Thru, %	35%	0%	75%	0%	20%	54%
Vol Right, %	39%	0%	25%	0%	80%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	189	18	109	91	474	180
LT Vol	48	18	0	91	0	53
Through Vol	67	0	82	0	95	98
RT Vol	74	0	27	0	379	29
Lane Flow Rate	203	19	117	98	510	194
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.342	0.038	0.211	0.177	0.768	0.334
Departure Headway (Hd)	6.059	7.158	6.47	6.504	5.428	6.218
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	589	497	551	550	663	575
Service Time	4.137	4.944	4.255	4.263	3.187	4.298
HCM Lane V/C Ratio	0.345	0.038	0.212	0.178	0.769	0.337
HCM Control Delay	12.3	10.2	11	10.7	24	12.4
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1.5	0.1	0.8	0.6	7.2	1.5

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	126	43	54	180	44	63	38	55	5	21	9
Future Vol, veh/h	23	126	43	54	180	44	63	38	55	5	21	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	137	47	59	196	48	68	41	60	5	23	10
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.8	10.4	9.5	8.9
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	77%	0%	100%	0%	100%	0%	32%	0%
Vol Thru, %	23%	26%	0%	75%	0%	80%	68%	54%
Vol Right, %	0%	74%	0%	25%	0%	20%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	74	23	169	54	224	16	20
LT Vol	63	0	23	0	54	0	5	0
Through Vol	19	19	0	126	0	180	11	11
RT Vol	0	55	0	43	0	44	0	9
Lane Flow Rate	89	80	25	184	59	243	17	21
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.154	0.119	0.041	0.267	0.095	0.35	0.029	0.034
Departure Headway (Hd)	6.223	5.31	5.92	5.237	5.819	5.177	6.297	5.807
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	669	601	680	612	689	572	620
Service Time	4.005	3.092	3.696	3.012	3.588	2.946	3.997	3.507
HCM Lane V/C Ratio	0.156	0.12	0.042	0.271	0.096	0.353	0.03	0.034
HCM Control Delay	10.1	8.8	9	9.9	9.2	10.7	9.2	8.7
HCM Lane LOS	B	A	A	A	A	B	A	A
HCM 95th-tile Q	0.5	0.4	0.1	1.1	0.3	1.6	0.1	0.1

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	154	44	50	278	8	77	20	85	20	49	19
Future Vol, veh/h	7	154	44	50	278	8	77	20	85	20	49	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	167	48	54	302	9	84	22	92	22	53	21
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.4	13.3	10.3	9.9
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	89%	0%	100%	0%	100%	0%	45%	0%
Vol Thru, %	11%	11%	0%	78%	0%	97%	55%	56%
Vol Right, %	0%	89%	0%	22%	0%	3%	0%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	95	7	198	50	286	45	44
LT Vol	77	0	7	0	50	0	20	0
Through Vol	10	10	0	154	0	278	25	25
RT Vol	0	85	0	44	0	8	0	19
Lane Flow Rate	95	103	8	215	54	311	48	47
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.178	0.163	0.014	0.345	0.094	0.493	0.091	0.081
Departure Headway (Hd)	6.778	5.694	6.428	5.764	6.233	5.708	6.743	6.204
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	530	629	557	624	576	631	531	576
Service Time	4.522	3.437	4.164	3.501	3.966	3.441	4.492	3.952
HCM Lane V/C Ratio	0.179	0.164	0.014	0.345	0.094	0.493	0.09	0.082
HCM Control Delay	11	9.6	9.3	11.5	9.6	13.9	10.2	9.5
HCM Lane LOS	B	A	A	B	A	B	B	A
HCM 95th-tile Q	0.6	0.6	0	1.5	0.3	2.7	0.3	0.3

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Century Trunk Line Project			
4	North-South Street:	Airport Boulevard	East-West Street:	98th Street	
	Scenario:	Future Base (2020)			
	Count Date:	1/0/1900	Analyst: Fehr & Peers	Date:	3/23/2018

		AM				PM			
	No. of Phases				2				2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
	ATSAC-1 or ATSAC+ATCS-2?				2				2
	Override Capacity				0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	95	1	95		74	1	74	
	Left-Through		0				0		
	Through	952	2	**476**		859	2	**430**	
	Through-Right		0				0		
	Right	123	1	90		140	1	91	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	150	1	**150**		65	1	**65**	
	Left-Through		0				0		
	Through	384	2	192		490	2	222	
	Through-Right		1				1		
	Right	229	0	187		175	0	175	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	84	1	**84**		173	1	**173**	
	Left-Through		0				0		
	Through	37	1	37		88	1	88	
	Through-Right		0				0		
	Right	62	1	15		146	1	109	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	66	1	66		98	1	98	
	Left-Through		0				0		
	Through	51	0	**128**		60	0	**332**	
	Through-Right		1				1		
	Right	77	0	0		272	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		North-South:	626			North-South:	495	
			East-West:	212			East-West:	505	
			SUM:	838			SUM:	1000	
	VOLUME/CAPACITY (V/C) RATIO:			0.559				0.667	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.459**				**0.567**	
	LEVEL OF SERVICE (LOS):			**A**				**A**	

Version: 1i Beta; 8/4/2011

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	132	228	178	65	31
Future Vol, veh/h	35	132	228	178	65	31
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	155	268	209	76	36
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.6	11.4	9.3
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	68%
Vol Right, %	0%	0%	0%	100%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	228	178	35	132	96
LT Vol	228	0	35	0	0
Through Vol	0	178	0	0	65
RT Vol	0	0	0	132	31
Lane Flow Rate	268	209	41	155	113
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.422	0.3	0.074	0.227	0.163
Departure Headway (Hd)	5.666	5.163	6.472	5.261	5.193
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	633	693	552	679	686
Service Time	3.427	2.924	4.234	3.022	3.266
HCM Lane V/C Ratio	0.423	0.302	0.074	0.228	0.165
HCM Control Delay	12.5	10.1	9.8	9.6	9.3
HCM Lane LOS	B	B	A	A	A
HCM 95th-tile Q	2.1	1.3	0.2	0.9	0.6

Intersection	
Intersection Delay, s/veh	18.5
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	438	124	144	170	25
Future Vol, veh/h	45	438	124	144	170	25
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	515	146	169	200	29
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	23.7	12.4	13.8
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	87%
Vol Right, %	0%	0%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	124	144	45	438	195
LT Vol	124	0	45	0	0
Through Vol	0	144	0	0	170
RT Vol	0	0	0	438	25
Lane Flow Rate	146	169	53	515	229
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.286	0.308	0.098	0.782	0.407
Departure Headway (Hd)	7.062	6.553	6.675	5.461	6.384
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	508	547	536	660	562
Service Time	4.825	4.315	4.426	3.212	4.443
HCM Lane V/C Ratio	0.287	0.309	0.099	0.78	0.407
HCM Control Delay	12.7	12.2	10.2	25.1	13.8
HCM Lane LOS	B	B	B	D	B
HCM 95th-tile Q	1.2	1.3	0.3	7.6	2

Project Title: **Century Trunk Line Project**
Intersection: **6 - La Cienega Boulevard & Arbor Vitae Street**
Description: **Future Base (2020)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.408
	TH	2.00	229	3,200	0.112 *	N-S(2):	0.439 *
	LT	1.00	17	1,600	0.011	E-W(1):	0.222
Westbound	RT	1.00	344	1,600	0.215	E-W(2):	0.367 *
	TH	2.00	1,066	3,200	0.333 *		
	LT	1.00	203	1,600	0.127	V/C:	0.806
Northbound	RT	0.00	119	0	0.000	Lost Time:	0.100
	TH	2.00	1,152	3,200	0.397	ITS:	0.000
	LT	1.00	523	1,600	0.327 *		
Eastbound	RT	0.00	117	0	0.000	ICU:	0.906
	TH	2.00	187	3,200	0.095		
	LT	1.00	54	1,600	0.034 *	LOS:	E

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	58	0	0.000	N-S(1):	0.358 *
	TH	2.00	505	3,200	0.176	N-S(2):	0.279
	LT	1.00	83	1,600	0.052 *	E-W(1):	0.396 *
Westbound	RT	1.00	87	1,600	0.054	E-W(2):	0.230
	TH	2.00	300	3,200	0.094		
	LT	1.00	63	1,600	0.039 *	V/C:	0.754
Northbound	RT	0.00	404	0	0.000	Lost Time:	0.100
	TH	2.00	576	3,200	0.306 *	ITS:	0.000
	LT	1.00	164	1,600	0.103		
Eastbound	RT	0.00	388	0	0.000	ICU:	0.854
	TH	2.00	755	3,200	0.357 *		
	LT	1.00	217	1,600	0.136	LOS:	D

* - Denotes critical movement

Project Title: **Century Trunk Line Project**
Intersection: **7 - Oak Street & Arbor Vitae Street**
Description: **Future Base (2020)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	260	1,600	0.151 *	N-S(1):	0.330 *
	TH	0.27	23	428	0.054	N-S(2):	0.000
	LT	0.73	63	1,172	0.054	E-W(1):	0.108
Westbound	RT	0.00	28	0	0.000	E-W(2):	0.282 *
	TH	2.00	802	3,200	0.259 *		
	LT	1.00	7	1,600	0.004	V/C:	0.612
Northbound	RT	0.00	26	0	0.000	Lost Time:	0.100
	TH	1.00	63	1,600	0.179 *	ITS:	0.000
	LT	0.00	197	1,600	0.123		
Eastbound	RT	0.00	17	0	0.000	ICU:	0.712
	TH	2.00	317	3,200	0.104		
	LT	1.00	36	1,600	0.023 *	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	46	1,600	0.016	N-S(1):	0.074 *
	TH	0.46	28	734	0.038	N-S(2):	0.000
	LT	0.54	33	866	0.038 *	E-W(1):	0.276 *
Westbound	RT	0.00	41	0	0.000	E-W(2):	0.160
	TH	2.00	389	3,200	0.134		
	LT	1.00	16	1,600	0.010 *	V/C:	0.350
Northbound	RT	0.00	12	0	0.000	Lost Time:	0.100
	TH	1.00	21	1,600	0.036 *	ITS:	0.000
	LT	0.00	24	1,600	0.015		
Eastbound	RT	0.00	24	0	0.000	ICU:	0.450
	TH	2.00	826	3,200	0.266 *		
	LT	1.00	42	1,600	0.026	LOS:	A

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 8 - Inglewood Avenue & Arbor Vitae Street
Description: Future Base (2020)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.25	65	400	0.152	N-S(1):	0.372 *
	TH	0.75	195	1,200	0.163 *	N-S(2):	0.000
	LT	1.00	66	1,600	0.041	E-W(1):	0.182
Westbound	RT	0.00	71	0	0.000	E-W(2):	0.223 *
	TH	2.00	575	3,200	0.202 *		
	LT	1.00	104	1,600	0.065	V/C:	0.595
Northbound	RT	0.26	87	417	0.176	Lost Time:	0.100
	TH	0.74	247	1,183	0.209 *	ITS:	0.000
	LT	1.00	228	1,600	0.143		
Eastbound	RT	0.00	64	0	0.000	ICU:	0.695
	TH	2.00	310	3,200	0.117		
	LT	1.00	33	1,600	0.021 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.10	38	162	0.217	N-S(1):	0.436 *
	TH	0.90	337	1,438	0.234 *	N-S(2):	0.000
	LT	1.00	76	1,600	0.048	E-W(1):	0.257 *
Westbound	RT	0.00	58	0	0.000	E-W(2):	0.165
	TH	2.00	361	3,200	0.131		
	LT	1.00	68	1,600	0.043 *	V/C:	0.693
Northbound	RT	0.46	149	738	0.181	Lost Time:	0.100
	TH	0.54	174	862	0.202 *	ITS:	0.000
	LT	1.00	109	1,600	0.068		
Eastbound	RT	0.00	93	0	0.000	ICU:	0.793
	TH	2.00	591	3,200	0.214 *		
	LT	1.00	55	1,600	0.034	LOS:	C

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 9 - South La Brea Ave & Arbor Vitae Street
Description: Future Base (2020)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	104	1,600	0.041	N-S(1):	0.271
	TH	3.00	779	4,800	0.162 *	N-S(2):	0.318 *
	LT	1.00	101	1,600	0.063	E-W(1):	0.235 *
Westbound	RT	1.00	59	1,600	0.005	E-W(2):	0.178
	TH	2.00	414	3,200	0.129		
	LT	1.00	121	1,600	0.076 *	V/C:	0.553
Northbound	RT	0.00	43	0	0.000	Lost Time:	0.100
	TH	3.00	954	4,800	0.208	ITS:	0.000
	LT	1.00	250	1,600	0.156 *		
Eastbound	RT	1.00	162	1,600	0.023	ICU:	0.653
	TH	1.00	255	1,600	0.159 *		
	LT	1.00	78	1,600	0.049	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	76	1,600	0.021	N-S(1):	0.246
	TH	3.00	949	4,800	0.198 *	N-S(2):	0.311 *
	LT	1.00	132	1,600	0.083	E-W(1):	0.353 *
Westbound	RT	1.00	71	1,600	0.003	E-W(2):	0.156
	TH	2.00	331	3,200	0.103		
	LT	1.00	88	1,600	0.055 *	V/C:	0.664
Northbound	RT	0.00	97	0	0.000	Lost Time:	0.100
	TH	3.00	683	4,800	0.163	ITS:	0.000
	LT	1.00	181	1,600	0.113 *		
Eastbound	RT	1.00	184	1,600	0.058	ICU:	0.764
	TH	1.00	476	1,600	0.298 *		
	LT	1.00	85	1,600	0.053	LOS:	C

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 10 - Prairie Avenue & Arbor Vitae Street
Description: Future Base (2020)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	247	0	0.000	N-S(1):	0.319
	TH	3.00	1,134	4,800	0.288 *	N-S(2):	0.357 *
	LT	1.00	80	1,600	0.050	E-W(1):	0.146
Westbound	RT	0.77	148	1,233	0.095	E-W(2):	0.236 *
	TH	0.23	44	367	0.120 *		
	LT	1.00	102	1,600	0.064	V/C:	0.593
Northbound	RT	1.00	52	1,600	0.001	Lost Time:	0.100
	TH	3.00	1,291	4,800	0.269	ITS:	0.000
	LT	1.00	110	1,600	0.069 *		
Eastbound	RT	0.83	109	1,331	0.048	ICU:	0.693
	TH	0.17	22	269	0.082		
	LT	1.00	185	1,600	0.116 *	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	131	0	0.000	N-S(1):	0.411 *
	TH	3.00	1,340	4,800	0.306	N-S(2):	0.377
	LT	1.00	154	1,600	0.096 *	E-W(1):	0.384
Westbound	RT	0.71	563	1,142	0.445	E-W(2):	0.689 *
	TH	0.29	226	458	0.493 *		
	LT	1.00	365	1,600	0.228	V/C:	1.100
Northbound	RT	1.00	116	1,600	0.000	Lost Time:	0.100
	TH	3.00	1,513	4,800	0.315 *	ITS:	0.000
	LT	1.00	113	1,600	0.071		
Eastbound	RT	0.62	154	986	0.121	ICU:	1.200
	TH	0.38	96	614	0.156		
	LT	1.00	314	1,600	0.196 *	LOS:	F

* - Denotes critical movement

FUTURE BASE (2022)

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 7:00

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.1	0.2
Total Del/Veh (s)	1.8	8.9	0.7	0.8	0.3	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 7:15

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	2.0	11.4	0.9	1.4	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 7:30

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.1	0.2
Total Del/Veh (s)	2.0	6.1	0.9	1.7	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 7:45

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	1.3	5.3	0.9	1.9	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	1.9	8.4	0.8	1.6	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #1 5:00

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.1
Total Del/Veh (s)	1.3	10.6	0.6	1.4	0.4	0.8

1: 98th Street & Sepulveda Blvd Performance by movement Interval #2 5:15

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.1	0.1
Total Del/Veh (s)	1.5	8.6	0.6	1.1	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Interval #3 5:30

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.2
Total Del/Veh (s)	1.3	11.5	0.7	1.1	0.4	0.9

1: 98th Street & Sepulveda Blvd Performance by movement Interval #4 5:45

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.1	0.1
Total Del/Veh (s)	1.9	8.7	0.6	0.8	0.4	0.7

1: 98th Street & Sepulveda Blvd Performance by movement Entire Run

Movement	WBT	WBR	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.1	0.1
Total Del/Veh (s)	1.5	10.2	0.7	1.1	0.4	0.8

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	105	44	78	87	337	25	54	68	76	86	24
Future Vol, veh/h	51	105	44	78	87	337	25	54	68	76	86	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	55	113	47	84	94	362	27	58	73	82	92	26
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.2	18	11.4	12.5
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	17%	100%	0%	100%	0%	41%
Vol Thru, %	37%	0%	70%	0%	21%	46%
Vol Right, %	46%	0%	30%	0%	79%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	51	149	78	424	186
LT Vol	25	51	0	78	0	76
Through Vol	54	0	105	0	87	86
RT Vol	68	0	44	0	337	24
Lane Flow Rate	158	55	160	84	456	200
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.266	0.105	0.276	0.151	0.688	0.345
Departure Headway (Hd)	6.066	6.919	6.199	6.502	5.43	6.201
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	515	575	550	661	576
Service Time	4.151	4.698	3.977	4.263	3.189	4.279
HCM Lane V/C Ratio	0.269	0.107	0.278	0.153	0.69	0.347
HCM Control Delay	11.4	10.5	11.4	10.4	19.4	12.5
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1.1	0.3	1.1	0.5	5.5	1.5

Intersection	
Intersection Delay, s/veh	19.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	86	28	94	99	394	50	69	77	55	102	30
Future Vol, veh/h	18	86	28	94	99	394	50	69	77	55	102	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	92	30	101	106	424	54	74	83	59	110	32
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.3	25.1	12.9	12.9
HCM LOS	B	D	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	100%	0%	100%	0%	29%
Vol Thru, %	35%	0%	75%	0%	20%	55%
Vol Right, %	39%	0%	25%	0%	80%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	196	18	114	94	493	187
LT Vol	50	18	0	94	0	55
Through Vol	69	0	86	0	99	102
RT Vol	77	0	28	0	394	30
Lane Flow Rate	211	19	123	101	530	201
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.367	0.04	0.228	0.185	0.811	0.354
Departure Headway (Hd)	6.274	7.383	6.695	6.587	5.51	6.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	577	487	538	541	652	561
Service Time	4.274	5.097	4.409	4.371	3.293	4.444
HCM Lane V/C Ratio	0.366	0.039	0.229	0.187	0.813	0.358
HCM Control Delay	12.9	10.4	11.4	10.9	27.8	12.9
HCM Lane LOS	B	B	B	B	D	B
HCM 95th-tile Q	1.7	0.1	0.9	0.7	8.3	1.6

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	131	44	56	187	45	66	40	57	5	22	10
Future Vol, veh/h	24	131	44	56	187	45	66	40	57	5	22	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	142	48	61	203	49	72	43	62	5	24	11
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10	10.7	9.6	9
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	77%	0%	100%	0%	100%	0%	31%	0%
Vol Thru, %	23%	26%	0%	75%	0%	81%	69%	52%
Vol Right, %	0%	74%	0%	25%	0%	19%	0%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	77	24	175	56	232	16	21
LT Vol	66	0	24	0	56	0	5	0
Through Vol	20	20	0	131	0	187	11	11
RT Vol	0	57	0	44	0	45	0	10
Lane Flow Rate	93	84	26	190	61	252	17	23
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.163	0.125	0.043	0.279	0.099	0.366	0.031	0.037
Departure Headway (Hd)	6.271	5.36	5.966	5.285	5.86	5.22	6.366	5.87
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	567	661	595	673	607	683	566	614
Service Time	4.065	3.153	3.751	3.07	3.637	2.997	4.066	3.57
HCM Lane V/C Ratio	0.164	0.127	0.044	0.282	0.1	0.369	0.03	0.037
HCM Control Delay	10.3	8.9	9	10.1	9.3	11	9.3	8.8
HCM Lane LOS	B	A	A	B	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	1.1	0.3	1.7	0.1	0.1

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	160	45	52	289	9	80	21	89	21	51	19
Future Vol, veh/h	8	160	45	52	289	9	80	21	89	21	51	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	174	49	57	314	10	87	23	97	23	55	21
Number of Lanes	1	1	0	1	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.8	13.9	10.5	10
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	88%	0%	100%	0%	100%	0%	45%	0%
Vol Thru, %	12%	11%	0%	78%	0%	97%	55%	57%
Vol Right, %	0%	89%	0%	22%	0%	3%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	100	8	205	52	298	47	45
LT Vol	80	0	8	0	52	0	21	0
Through Vol	11	11	0	160	0	289	26	26
RT Vol	0	89	0	45	0	9	0	19
Lane Flow Rate	98	108	9	223	57	324	51	48
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.188	0.174	0.016	0.362	0.099	0.519	0.096	0.085
Departure Headway (Hd)	6.865	5.781	6.506	5.844	6.299	5.772	6.848	6.314
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	620	550	615	569	625	522	566
Service Time	4.613	3.528	4.25	3.587	4.038	3.511	4.602	4.068
HCM Lane V/C Ratio	0.188	0.174	0.016	0.363	0.1	0.518	0.098	0.085
HCM Control Delay	11.2	9.8	9.4	11.9	9.7	14.6	10.3	9.7
HCM Lane LOS	B	A	A	B	A	B	B	A
HCM 95th-tile Q	0.7	0.6	0	1.6	0.3	3	0.3	0.3

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	Century Trunk Line Project			
4	North-South Street:	Airport Boulevard	East-West Street:	98th Street	
	Scenario:	Future Base (2022)			
	Count Date:	1/0/1900	Analyst: Fehr & Peers	Date:	3/23/2018

		AM				PM			
	No. of Phases				2				2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
	ATSAC-1 or ATSAC+ATCS-2?				2				2
	Override Capacity				0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	99	1	99		77	1	77	
	Left-Through		0				0		
	Through	991	2	**496**		894	2	**447**	
	Through-Right		0				0		
	Right	128	1	94		146	1	95	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	156	1	**156**		67	1	**67**	
	Left-Through		0				0		
	Through	399	2	200		510	2	231	
	Through-Right		1				1		
	Right	238	0	194		182	0	182	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	88	1	**88**		180	1	**180**	
	Left-Through		0				0		
	Through	39	1	39		92	1	92	
	Through-Right		0				0		
	Right	65	1	16		152	1	114	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	68	1	68		102	1	102	
	Left-Through		0				0		
	Through	53	0	**133**		63	0	**346**	
	Through-Right		1				1		
	Right	80	0	0		283	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
	CRITICAL VOLUMES		North-South:	652			North-South:	514	
			East-West:	221			East-West:	526	
			SUM:	873			SUM:	1040	
	VOLUME/CAPACITY (V/C) RATIO:			0.582				0.693	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.482**				**0.593**	
	LEVEL OF SERVICE (LOS):			**A**				**A**	

Version: 1i Beta; 8/4/2011

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	137	237	185	67	32
Future Vol, veh/h	37	137	237	185	67	32
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	161	279	218	79	38
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.7	11.8	9.4
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	68%
Vol Right, %	0%	0%	0%	100%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	237	185	37	137	99
LT Vol	237	0	37	0	0
Through Vol	0	185	0	0	67
RT Vol	0	0	0	137	32
Lane Flow Rate	279	218	44	161	116
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.441	0.314	0.079	0.238	0.169
Departure Headway (Hd)	5.697	5.194	6.524	5.312	5.239
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	630	688	547	672	679
Service Time	3.463	2.959	4.29	3.078	3.318
HCM Lane V/C Ratio	0.443	0.317	0.08	0.24	0.171
HCM Control Delay	12.9	10.3	9.9	9.7	9.4
HCM Lane LOS	B	B	A	A	A
HCM 95th-tile Q	2.3	1.3	0.3	0.9	0.6

Intersection	
Intersection Delay, s/veh	20.5
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	456	129	149	176	26
Future Vol, veh/h	47	456	129	149	176	26
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	536	152	175	207	31
Number of Lanes	1	1	1	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	27.3	12.8	14.4
HCM LOS	D	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	87%
Vol Right, %	0%	0%	0%	100%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	149	47	456	202
LT Vol	129	0	47	0	0
Through Vol	0	149	0	0	176
RT Vol	0	0	0	456	26
Lane Flow Rate	152	175	55	536	238
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.302	0.324	0.104	0.824	0.428
Departure Headway (Hd)	7.173	6.663	6.746	5.531	6.49
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	499	538	530	654	554
Service Time	4.942	4.432	4.502	3.287	4.556
HCM Lane V/C Ratio	0.305	0.325	0.104	0.82	0.43
HCM Control Delay	13	12.6	10.3	29	14.4
HCM Lane LOS	B	B	B	D	B
HCM 95th-tile Q	1.3	1.4	0.3	8.7	2.1

Project Title: Century Trunk Line Project
Intersection: 6 - La Cienega Boulevard & Arbor Vitae Street
Description: Future Base (2022)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	135	0	0.000	N-S(1):	0.424
	TH	2.00	239	3,200	0.117 *	N-S(2):	0.457 *
	LT	1.00	17	1,600	0.011	E-W(1):	0.230
Westbound	RT	1.00	358	1,600	0.224	E-W(2):	0.382 *
	TH	2.00	1,109	3,200	0.347 *		
	LT	1.00	211	1,600	0.132	V/C:	0.839
Northbound	RT	0.00	123	0	0.000	Lost Time:	0.100
	TH	2.00	1,198	3,200	0.413	ITS:	0.000
	LT	1.00	544	1,600	0.340 *		
Eastbound	RT	0.00	121	0	0.000	ICU:	0.939
	TH	2.00	194	3,200	0.098		
	LT	1.00	56	1,600	0.035 *	LOS:	E

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.372 *
	TH	2.00	525	3,200	0.183	N-S(2):	0.290
	LT	1.00	87	1,600	0.054 *	E-W(1):	0.413 *
Westbound	RT	1.00	91	1,600	0.057	E-W(2):	0.238
	TH	2.00	311	3,200	0.097		
	LT	1.00	66	1,600	0.041 *	V/C:	0.785
Northbound	RT	0.00	420	0	0.000	Lost Time:	0.100
	TH	2.00	599	3,200	0.318 *	ITS:	0.000
	LT	1.00	171	1,600	0.107		
Eastbound	RT	0.00	404	0	0.000	ICU:	0.885
	TH	2.00	785	3,200	0.372 *		
	LT	1.00	226	1,600	0.141	LOS:	D

* - Denotes critical movement

Project Title: **Century Trunk Line Project**
Intersection: **7 - Oak Street & Arbor Vitae Street**
Description: **Future Base (2022)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: **AM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	271	1,600	0.158 *	N-S(1):	0.344 *
	TH	0.27	24	427	0.056	N-S(2):	0.000
	LT	0.73	66	1,173	0.056	E-W(1):	0.113
Westbound	RT	0.00	29	0	0.000	E-W(2):	0.294 *
	TH	2.00	834	3,200	0.270 *		
	LT	1.00	8	1,600	0.005	V/C:	0.638
Northbound	RT	0.00	27	0	0.000	Lost Time:	0.100
	TH	1.00	66	1,600	0.186 *	ITS:	0.000
	LT	0.00	205	1,600	0.128		
Eastbound	RT	0.00	17	0	0.000	ICU:	0.738
	TH	2.00	329	3,200	0.108		
	LT	1.00	38	1,600	0.024 *	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	48	1,600	0.017	N-S(1):	0.078 *
	TH	0.45	29	725	0.040	N-S(2):	0.000
	LT	0.55	35	875	0.040 *	E-W(1):	0.286 *
Westbound	RT	0.00	42	0	0.000	E-W(2):	0.166
	TH	2.00	404	3,200	0.139		
	LT	1.00	16	1,600	0.010 *	V/C:	0.364
Northbound	RT	0.00	13	0	0.000	Lost Time:	0.100
	TH	1.00	22	1,600	0.038 *	ITS:	0.000
	LT	0.00	25	1,600	0.016		
Eastbound	RT	0.00	25	0	0.000	ICU:	0.464
	TH	2.00	859	3,200	0.276 *		
	LT	1.00	43	1,600	0.027	LOS:	A

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 8 - Inglewood Avenue & Arbor Vitae Street
Description: Future Base (2022)

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.25	67	397	0.158	N-S(1):	0.386 *
	TH	0.75	203	1,203	0.169 *	N-S(2):	0.000
	LT	1.00	69	1,600	0.043	E-W(1):	0.189
Westbound	RT	0.00	74	0	0.000	E-W(2):	0.232 *
	TH	2.00	598	3,200	0.210 *		
	LT	1.00	108	1,600	0.068	V/C:	0.618
Northbound	RT	0.26	91	420	0.183	Lost Time:	0.100
	TH	0.74	256	1,180	0.217 *	ITS:	0.000
	LT	1.00	237	1,600	0.148		
Eastbound	RT	0.00	66	0	0.000	ICU:	0.718
	TH	2.00	322	3,200	0.121		
	LT	1.00	35	1,600	0.022 *	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.10	40	164	0.226	N-S(1):	0.453 *
	TH	0.90	350	1,436	0.244 *	N-S(2):	0.000
	LT	1.00	78	1,600	0.049	E-W(1):	0.266 *
Westbound	RT	0.00	60	0	0.000	E-W(2):	0.172
	TH	2.00	374	3,200	0.136		
	LT	1.00	70	1,600	0.044 *	V/C:	0.719
Northbound	RT	0.46	154	736	0.188	Lost Time:	0.100
	TH	0.54	181	864	0.209 *	ITS:	0.000
	LT	1.00	114	1,600	0.071		
Eastbound	RT	0.00	96	0	0.000	ICU:	0.819
	TH	2.00	614	3,200	0.222 *		
	LT	1.00	57	1,600	0.036	LOS:	D

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 9 - South La Brea Ave & Arbor Vitae Street
Description: Future Base (2022)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	108	1,600	0.042	N-S(1):	0.282
	TH	3.00	810	4,800	0.169 *	N-S(2):	0.332 *
	LT	1.00	105	1,600	0.066	E-W(1):	0.244 *
Westbound	RT	1.00	62	1,600	0.006	E-W(2):	0.185
	TH	2.00	429	3,200	0.134		
	LT	1.00	125	1,600	0.078 *	V/C:	0.576
Northbound	RT	0.00	44	0	0.000	Lost Time:	0.100
	TH	3.00	992	4,800	0.216	ITS:	0.000
	LT	1.00	260	1,600	0.163 *		
Eastbound	RT	1.00	169	1,600	0.024	ICU:	0.676
	TH	1.00	265	1,600	0.166 *		
	LT	1.00	81	1,600	0.051	LOS:	B

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	79	1,600	0.022	N-S(1):	0.255
	TH	3.00	986	4,800	0.205 *	N-S(2):	0.323 *
	LT	1.00	137	1,600	0.086	E-W(1):	0.365 *
Westbound	RT	1.00	74	1,600	0.003	E-W(2):	0.163
	TH	2.00	342	3,200	0.107		
	LT	1.00	91	1,600	0.057 *	V/C:	0.688
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.100
	TH	3.00	710	4,800	0.169	ITS:	0.000
	LT	1.00	188	1,600	0.118 *		
Eastbound	RT	1.00	192	1,600	0.061	ICU:	0.788
	TH	1.00	493	1,600	0.308 *		
	LT	1.00	89	1,600	0.056	LOS:	C

* - Denotes critical movement

Project Title: Century Trunk Line Project
Intersection: 10 - Prairie Avenue & Arbor Vitae Street
Description: Future Base (2022)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	20 %	Lost Time (% of cycle) :	10
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

Date/Time: AM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	257	0	0.000	N-S(1):	0.330
	TH	3.00	1,174	4,800	0.298 *	N-S(2):	0.369 *
	LT	1.00	81	1,600	0.051	E-W(1):	0.148
Westbound	RT	0.77	148	1,233	0.095	E-W(2):	0.241 *
	TH	0.23	44	367	0.120 *		
	LT	1.00	103	1,600	0.064	V/C:	0.610
Northbound	RT	1.00	53	1,600	0.001	Lost Time:	0.100
	TH	3.00	1,338	4,800	0.279	ITS:	0.000
	LT	1.00	114	1,600	0.071 *		
Eastbound	RT	0.84	113	1,339	0.049	ICU:	0.710
	TH	0.16	22	261	0.084		
	LT	1.00	193	1,600	0.121 *	LOS:	C

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	136	0	0.000	N-S(1):	0.421 *
	TH	3.00	1,382	4,800	0.316	N-S(2):	0.389
	LT	1.00	154	1,600	0.096 *	E-W(1):	0.390
Westbound	RT	0.71	567	1,143	0.448	E-W(2):	0.700 *
	TH	0.29	227	457	0.496 *		
	LT	1.00	368	1,600	0.230	V/C:	1.121
Northbound	RT	1.00	118	1,600	0.000	Lost Time:	0.100
	TH	3.00	1,560	4,800	0.325 *	ITS:	0.000
	LT	1.00	116	1,600	0.073		
Eastbound	RT	0.62	159	994	0.124	ICU:	1.221
	TH	0.38	97	606	0.160		
	LT	1.00	327	1,600	0.204 *	LOS:	F

* - Denotes critical movement

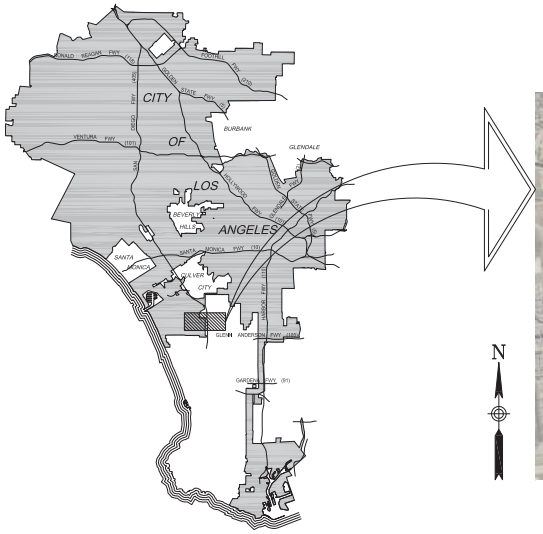
APPENDIX C:

CONCEPTUAL PLANS FOR THE PROPOSED PROJECT (UNIT 1 ONLY)

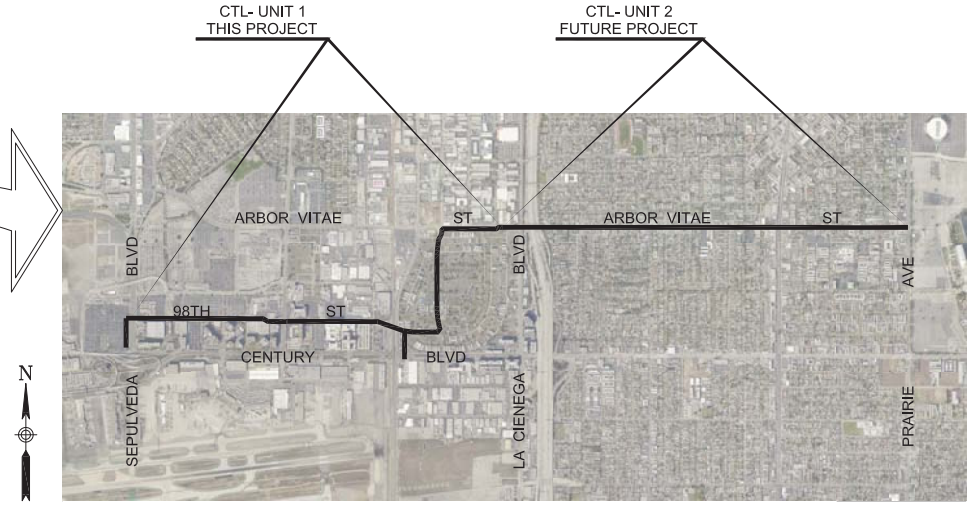
D05993-T-000

CENTURY TRUNK LINE - UNIT 1

DEPARTMENT OF WATER AND POWER
OF
THE CITY OF LOS ANGELES



LOCATION MAP
SCALE: 1"=5 MILES



VICINITY MAP
SCALE: 1"=1200'

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T000.DWG

Scale AS SHOWN	DATE
Designer E. GOBATOFF, MORENO	1/31/18
Assistant	-
Drawn By R. KALTENBERG	1/31/18
Checked By R. YEE	1/31/18
Last Update R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO	1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

CENTURY TRUNK LINE - UNIT 1
COVER SHEET

DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER
D05993-T-000

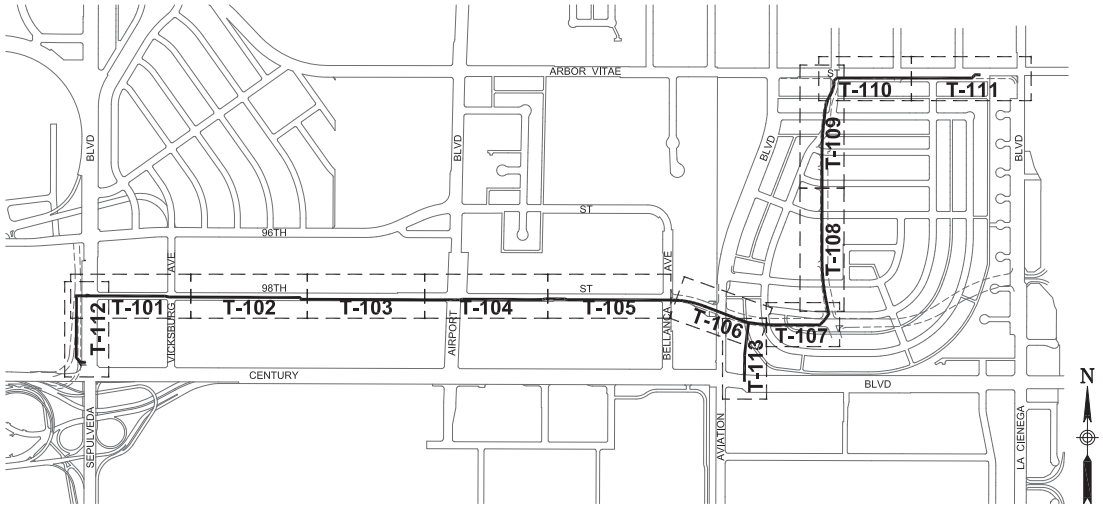
VERSION 15.0

D05993-T-001

DRAWING INDEX

DWG. NO.	REV.	TITLE
D05993-T-000	-	COVER SHEET
D05993-T-001	-	DRAWING INDEX AND KEY MAP
-	-	-
-	-	-
-	-	-
D05993-T-101	-	PLAN AND PROFILE - STA. 1+00.00 TO STA. 11+00.00
D05993-T-102	-	PLAN AND PROFILE - STA. 11+00.00 TO STA. 21+00.00
D05993-T-103	-	PLAN AND PROFILE - STA. 21+00.00 TO STA. 31+00.00
D05993-T-104	-	PLAN AND PROFILE - STA. 31+00.00 TO STA. 41+50.00
D05993-T-105	-	PLAN AND PROFILE - STA. 41+50.00 TO STA. 52+00.00
D05993-T-106	-	PLAN AND PROFILE - STA. 52+00.00 TO STA. 59+50.00
D05993-T-107	-	PLAN AND PROFILE - STA. 59+50.00 TO STA. 65+50.00
D05993-T-108	-	PLAN AND PROFILE - STA. 65+50.00 TO STA. 76+00.00
D05993-T-109	-	PLAN AND PROFILE - STA. 76+00.00 TO STA. 85+00.00
D05993-T-110	-	PLAN AND PROFILE - STA. 85+00.00 TO STA. 92+00.00
D05993-T-111	-	PLAN AND PROFILE - STA. 92+00.00 TO STA. 98+00.00
D05993-T-112	-	SEPULVEDA/CENTURY REGULATOR STATION CONNECTION - STA. 100+00.00 TO STA. 107+14.84
D05993-T-113	-	CENTURY/ALLEY E/O AVIATION REGULATOR STATION CONNECTION - STA. 200+00.00 TO STA. 205+91.50

TRUNK LINE



KEY MAP
SCALE: 1"=500'

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS						
Number	Date	Initials	Location	Description		Approved

REFERENCES

File Name 05993T001.DWG

Scale AS SHOWN	DATE	APPROVED
Designer E. GOBATOFF, MORENO	1/31/18	As to Design
Assistant -	-	
Drawn By R. KALTENBERG	1/31/18	As to Operation
Checked By R. YEE	1/31/18	
Last Update R. KALTENBERG	1/31/18	As to Distribution
Recommended CHARLES C. NGO	1/18	Senior Assistant GM of Water

CENTURY TRUNK LINE - UNIT 1

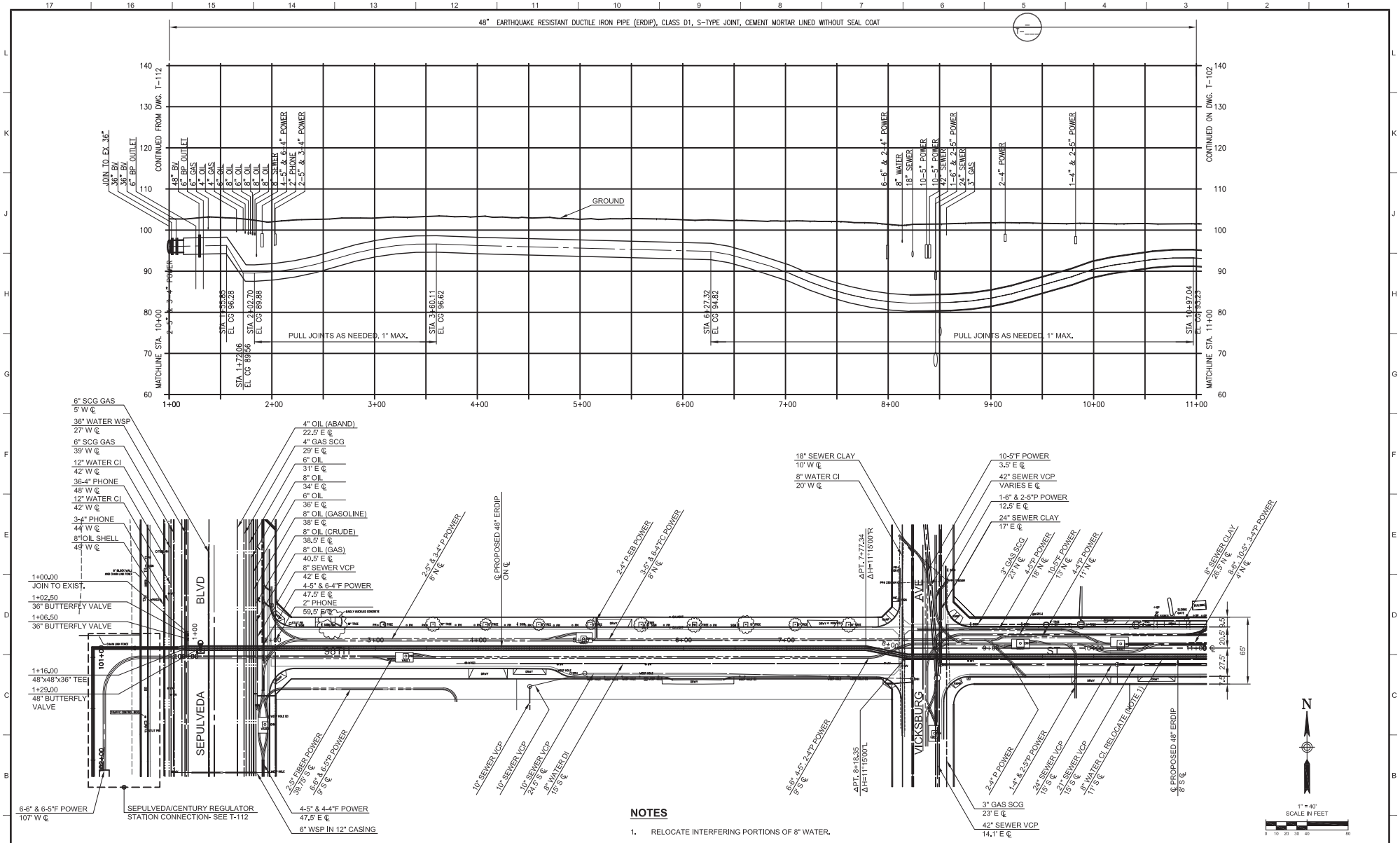
DRAWING INDEX AND KEY MAP

DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-001

VERSION 01.0

D05993-T-101



NOTES

1. RELOCATE INTERFERING PORTIONS OF 8" WATER.

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T101.DWG

Scale	AS SHOWN	DATE	
Designer	F. MORENO	1/31/18	
Assistant	-	-	
Drawn By	R. KALTENBERG	1/31/18	
Checked By	R. YEE	1/31/18	
Last Update	R. KALTENBERG	1/31/18	
Recommended	CHARLES C. NGO	1/18	

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

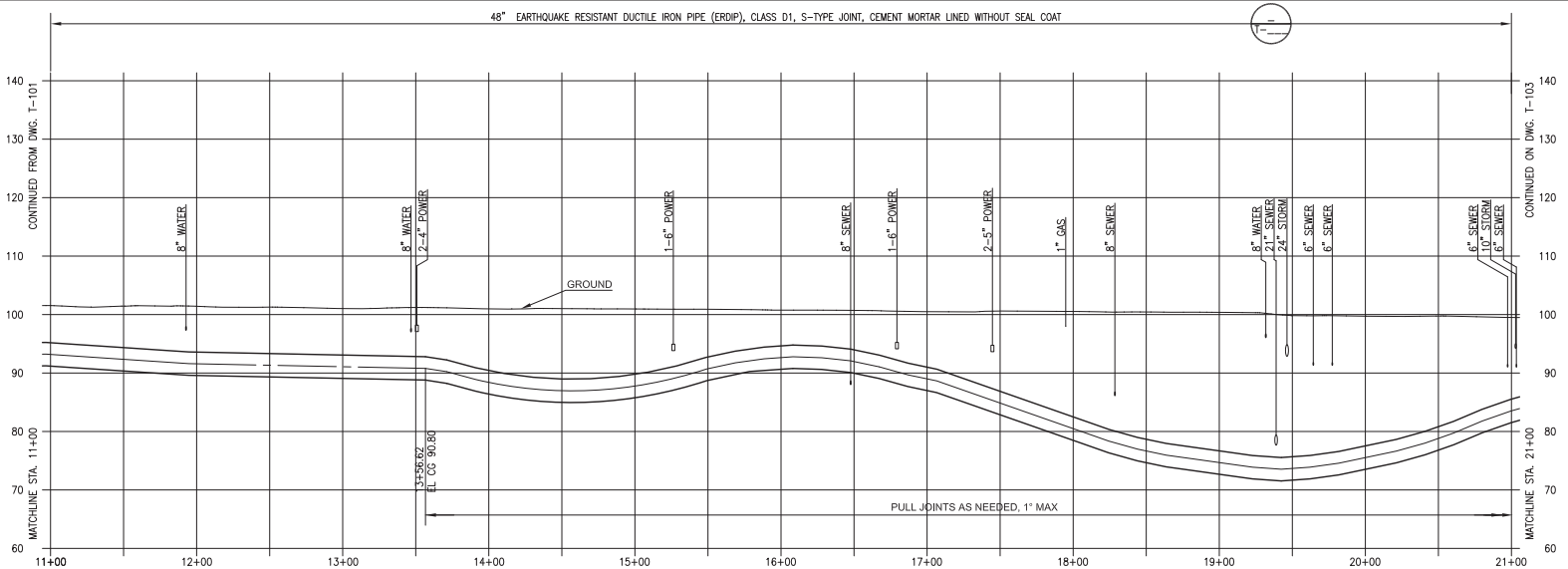
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 1+00.00 TO STA. 11+00.00

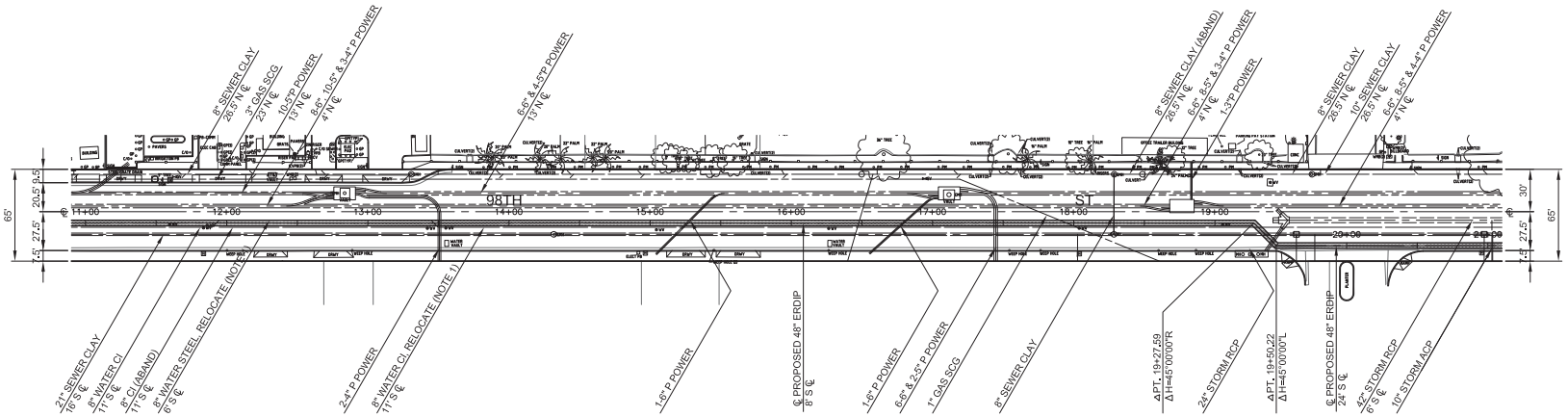
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

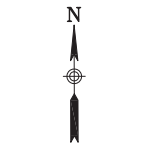
DRAWING NUMBER D05993-T-101

VERSION 11.0

D05993-T-102







NOTES

1. RELOCATE INTERFERING PORTIONS OF 8" WATER.

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T102.DWG

Scale AS SHOWN	DATE
Designer F. MORENO	1/31/18
Assistant -	-
Drawn By R. KALTENBERG	1/31/18
Checked By R. YEE	1/31/18
Last Update R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO	1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

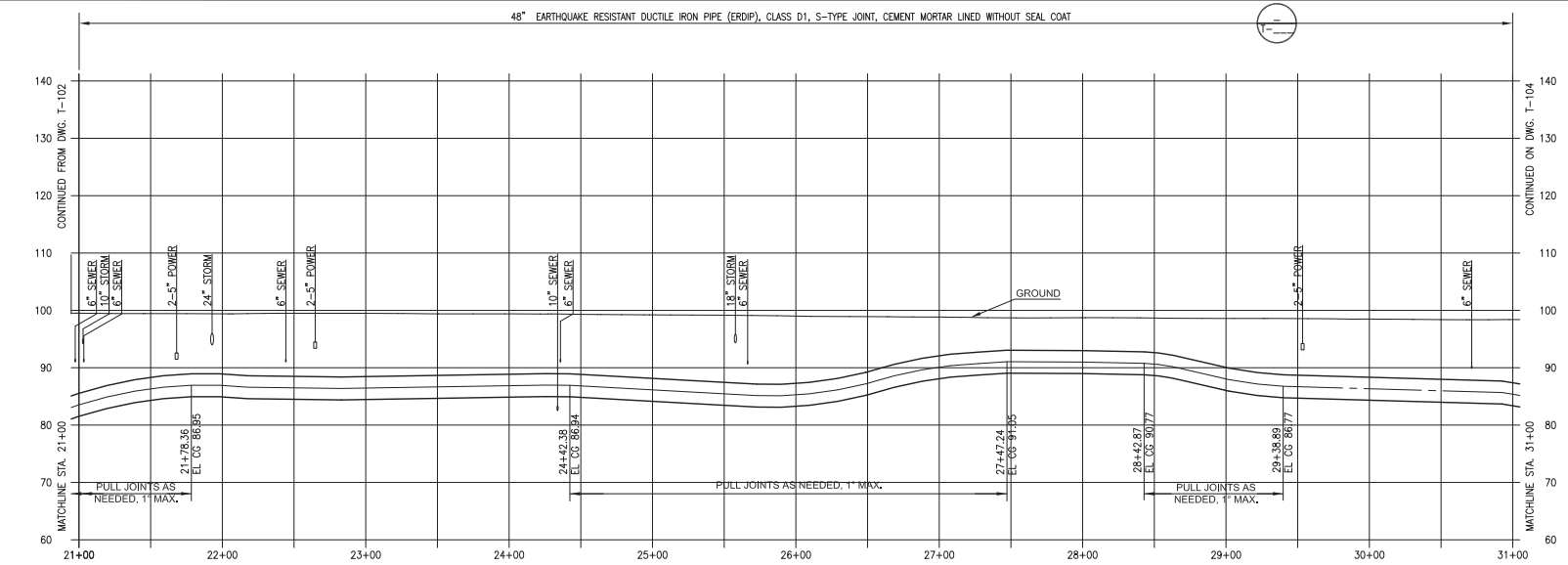
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 11+00.00 TO STA. 21+00.00

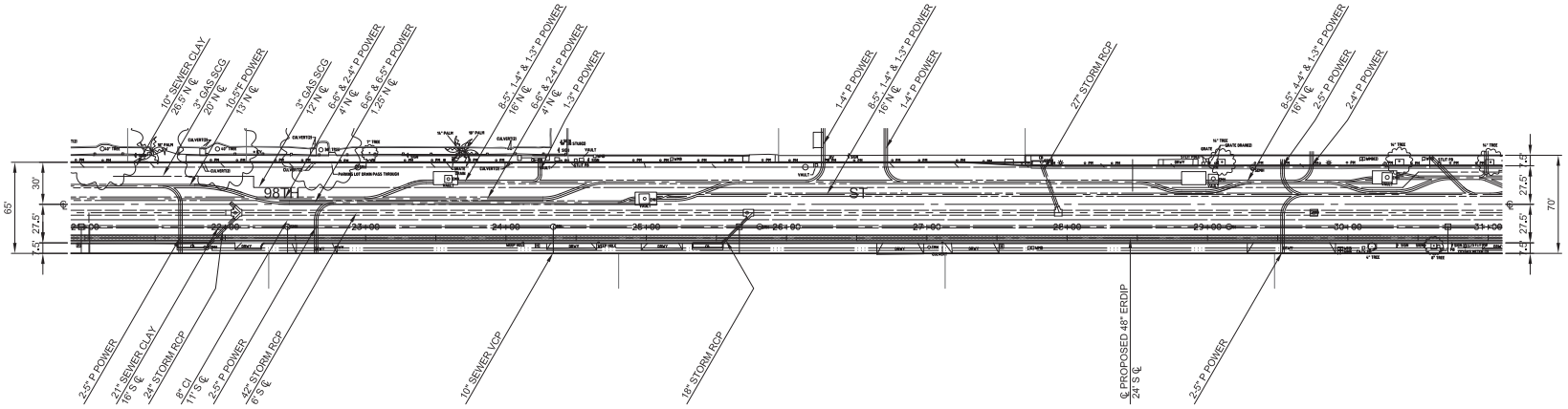
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-102

VERSION 01.0

D05993-T-103





60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T103.DWG

Scale	AS SHOWN	DATE
Designer	F. MORENO	1/31/18
Assistant	-	-
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

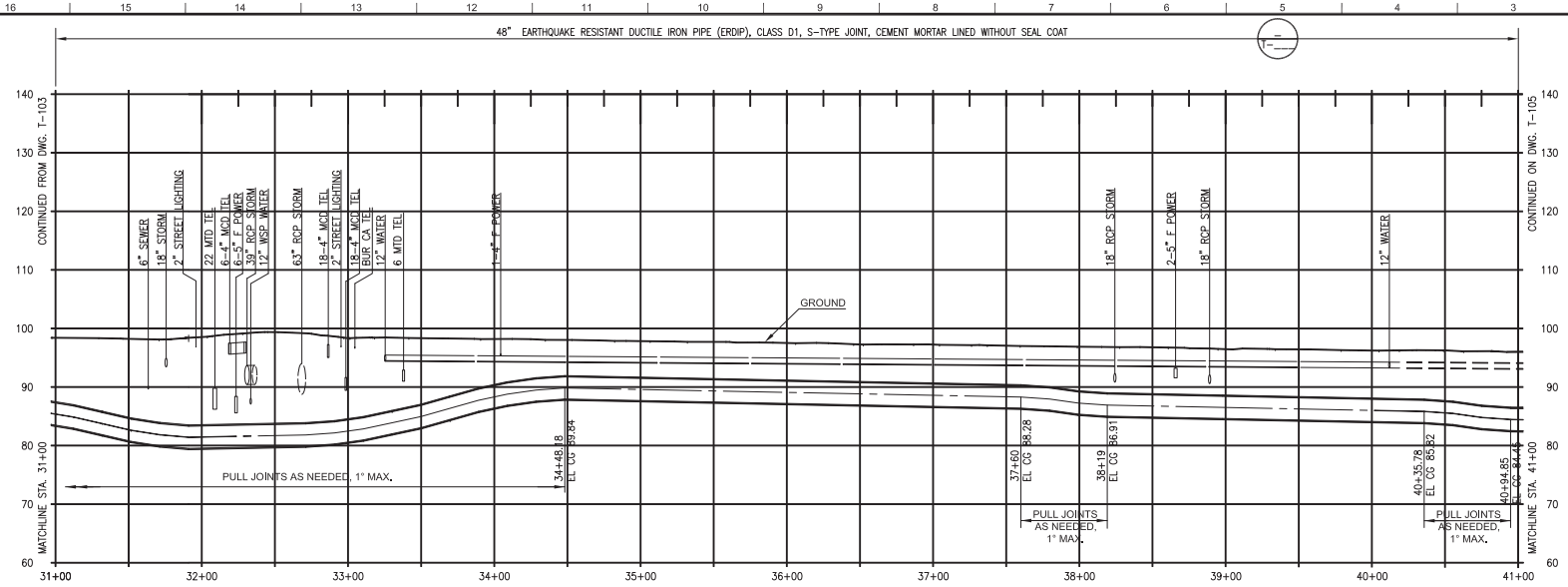
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 21+00.00 TO STA. 31+00.00

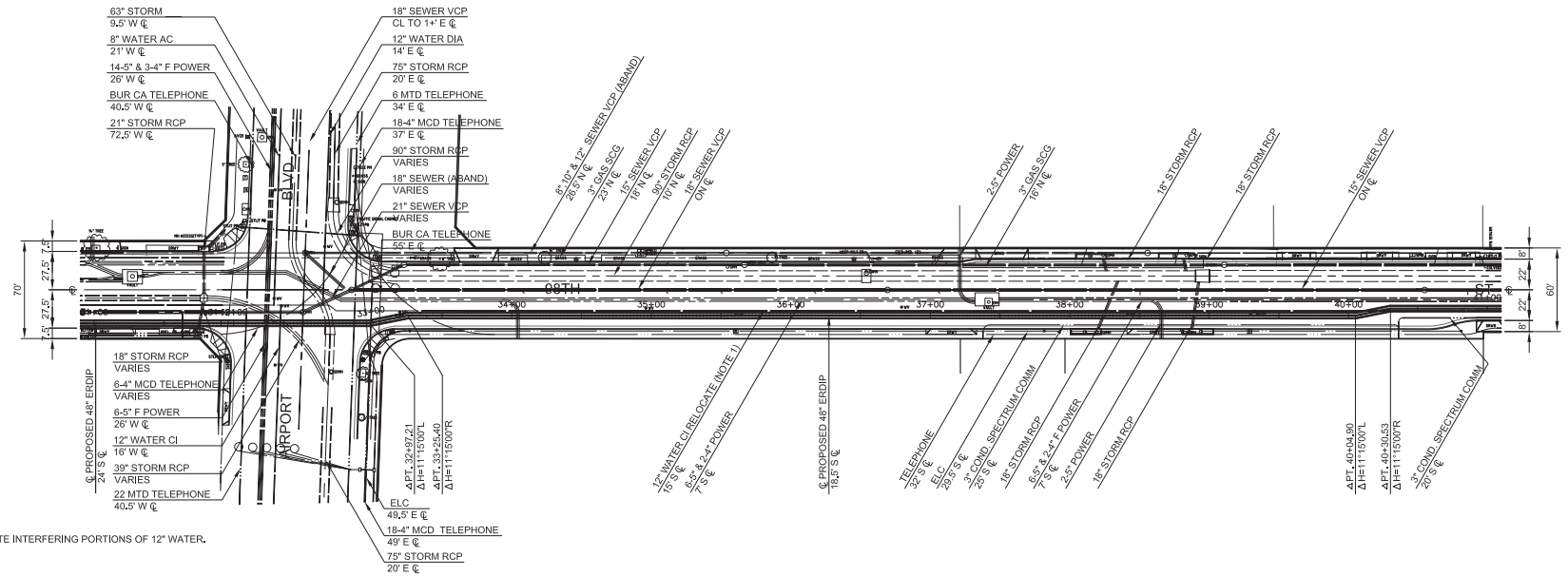
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-103

VERSION 11.0

D05993-T-104





NOTES

1. RELOCATE INTERFERING PORTIONS OF 12" WATER.

N

1" = 40'
SCALE IN FEET
0 10 20 30 40 80

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T104.DWG

Scale	AS SHOWN	
Designer	E. GOBATON	1/31/18
Assistant	-	
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

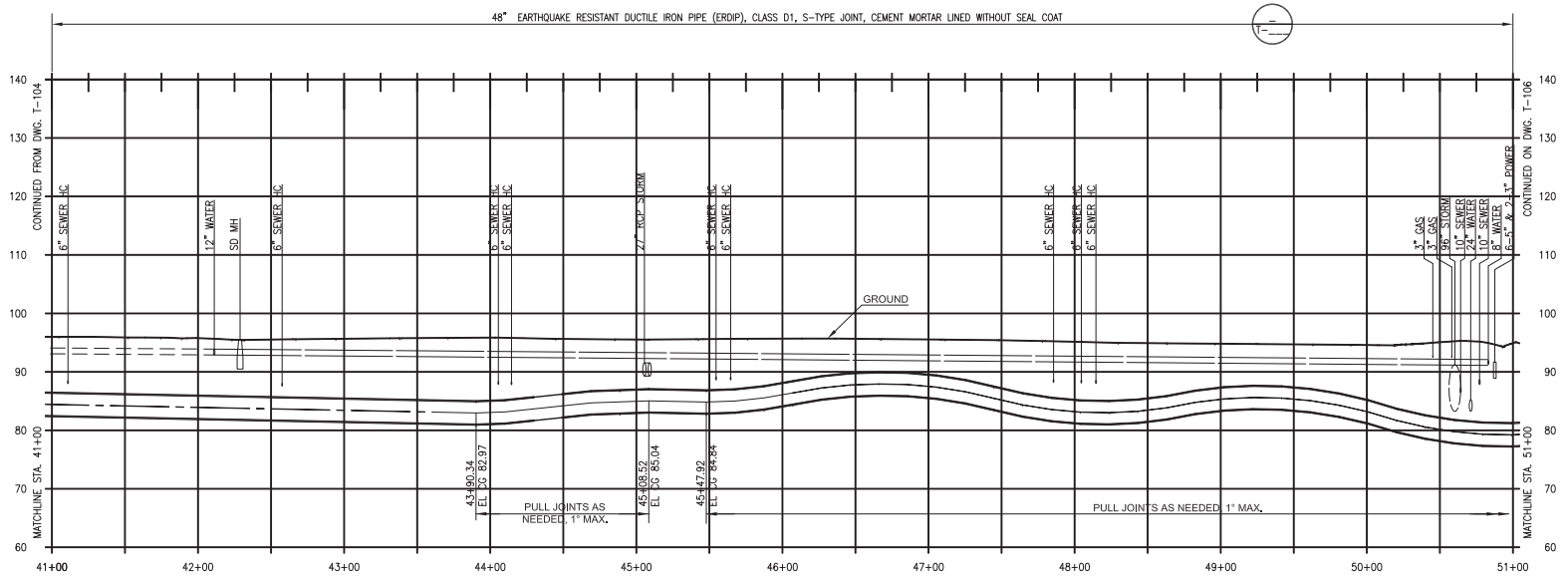
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 31+00.00 TO STA. 41+00.00

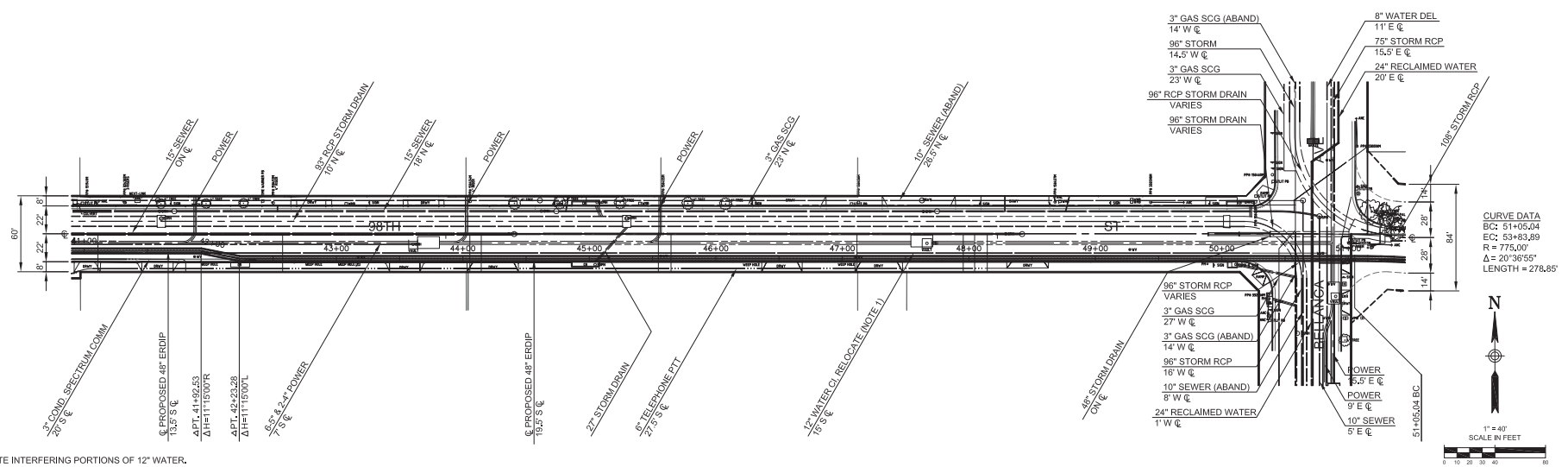
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-104

VERSION 11.0

D05993-T-105





NOTES

1. RELOCATE INTERFERING PORTIONS OF 12" WATER.

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T105.DWG

Scale	AS SHOWN	DATE
Designer	E. GOBATON	1/31/18
Assistant	-	-
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	F. MORENO	1/31/18
Recommended	CHARLES C. NGO	1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

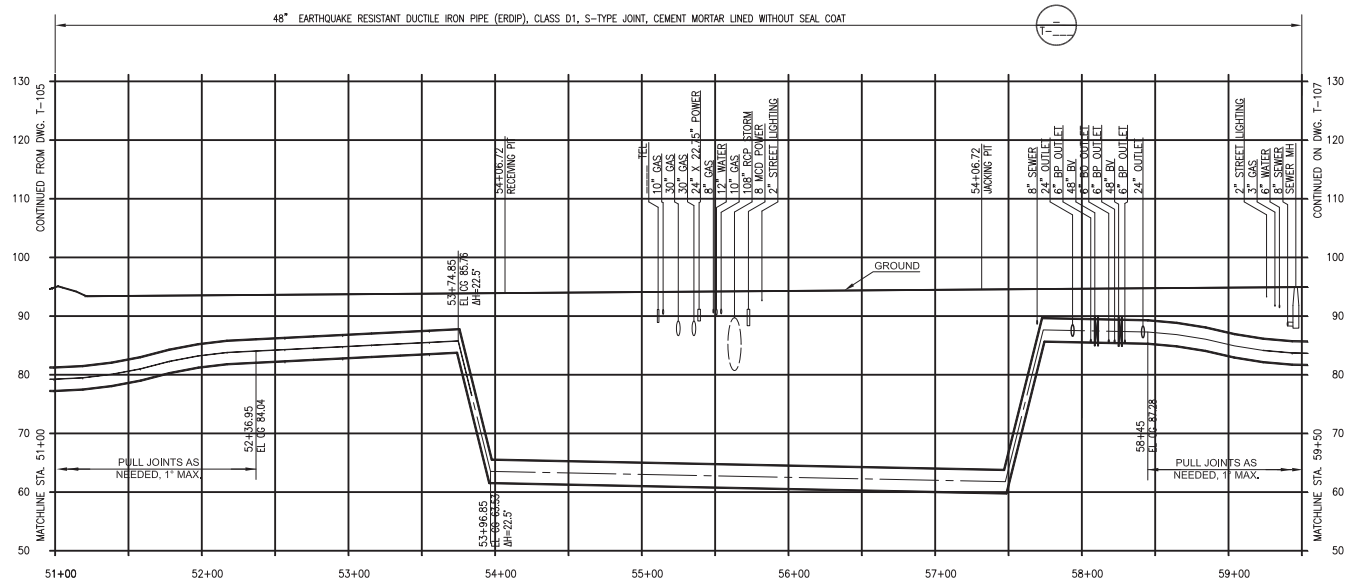
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 41+00.00 TO STA. 51+00.00

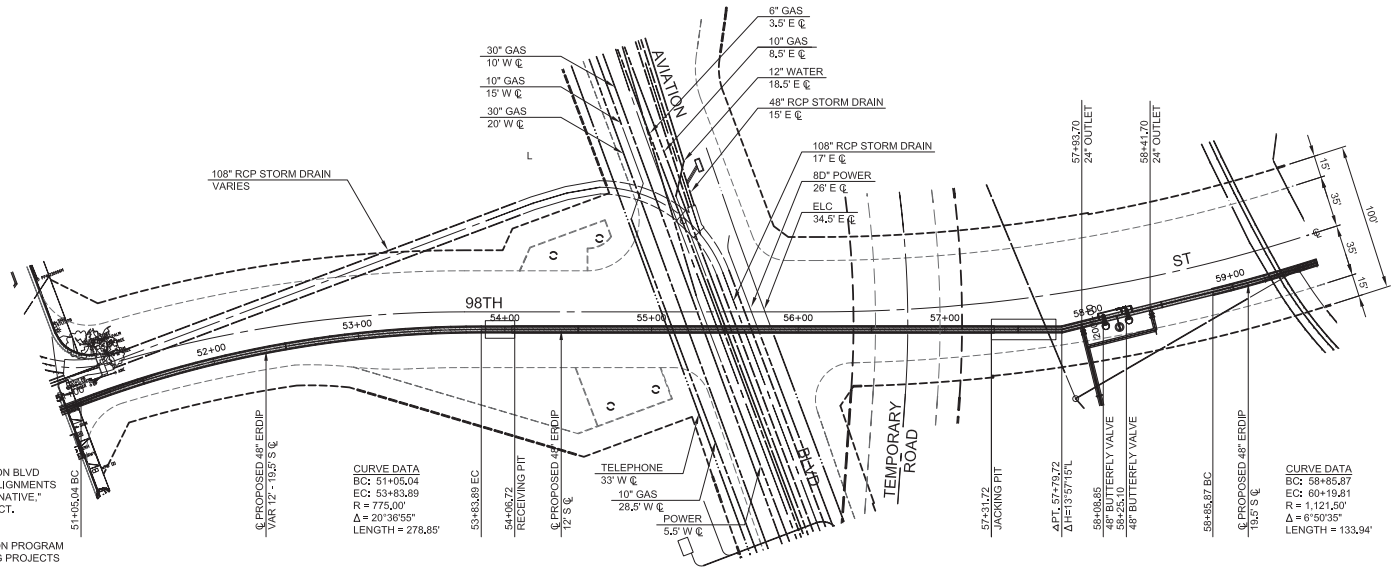
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-105

VERSION 11.0

D05993-T-106





NOTES

1. THE ALIGNMENTS OF 98TH ST AND AVIATION BLVD SHOWN HEREON ARE PROPOSED ROAD ALIGNMENTS PER THE LULEP "BALANCED MOD-A ALTERNATIVE," DATED 9/21/17, OF THE LAWA LAMP PROJECT.

LAWA = LOS ANGELES WORLD AIRPORTS
LAMP = LANDSIDE ACCESS MODERNIZATION PROGRAM
LULEP = LAWA UTILITIES & LAMP ENABLING PROJECTS

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T106.DWG

Scale AS SHOWN		DATE
Designer	E. GOBATON	1/31/18
Assistant		-
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	F. MORENO	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

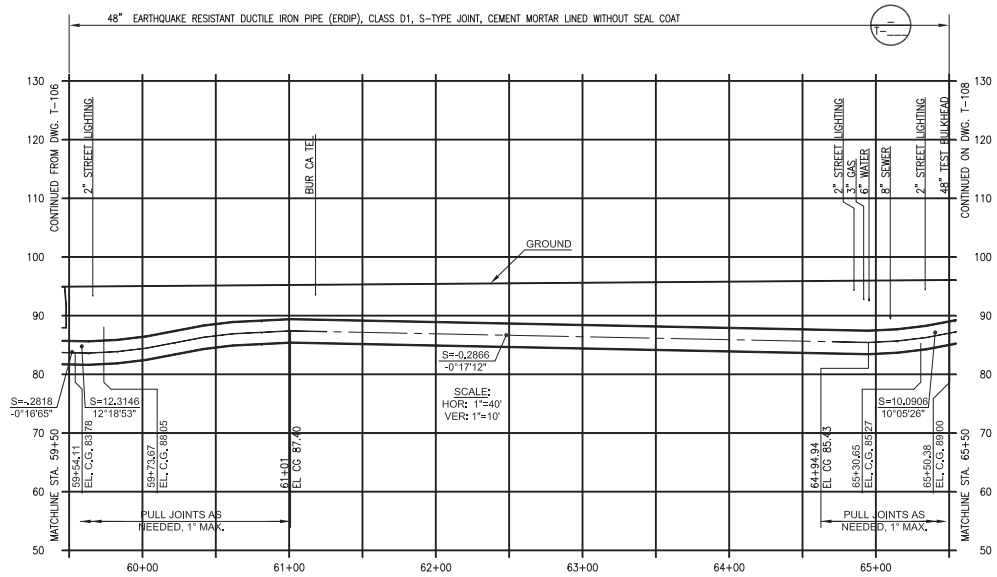
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 51+00.00 TO STA. 59+50.00

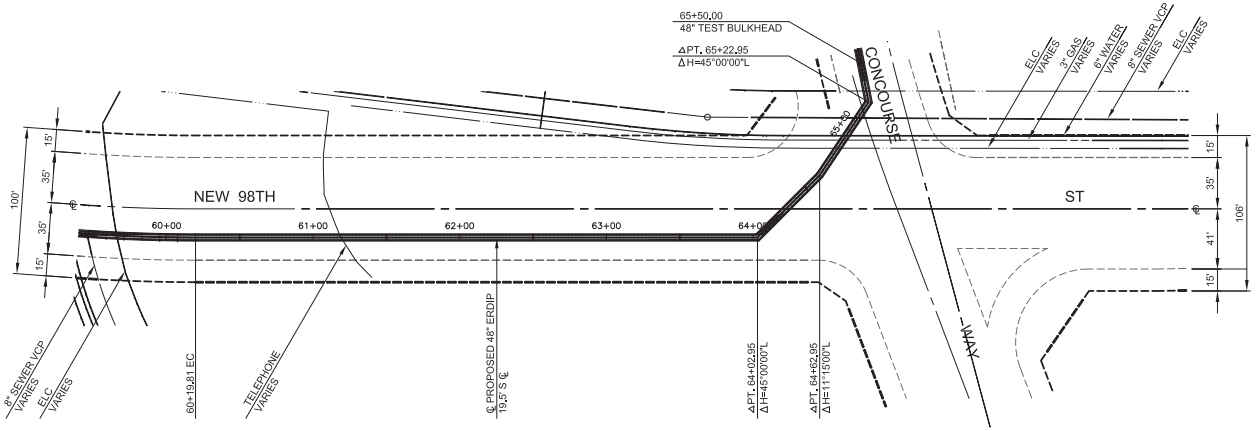
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-106

VERSION 11.0

D05993-T-107





CURVE DATA
BC: 58+85.87
EC: 60+19.81
R = 1,121.50'
Δ = 6°50'35"
LENGTH = 133.94'

NOTES

1. THE ALIGNMENTS OF 98TH ST AND CONCOURSE WAY SHOWN HEREON ARE PROPOSED ROAD ALIGNMENTS PER THE LULEP "BALANCED MOD-A ALTERNATIVE," DATED 9/21/17, AND THE CONRAC ROADWAY IMPROVEMENTS 10 PERCENT CONCEPTUAL DESIGN, DATED 4/07/17, RESPECTIVELY, OF THE LAWA LAMP PROJECT.

   LAWA = LOS ANGELES WORLD AIRPORTS
   LAMP = LANDSIDE ACCESS MODERNIZATION PROGRAM
   LULEP = LAWA UTILITIES & LAMP ENABLING PROJECTS
   CONRAC = CONSOLIDATED RENTAL CAR FACILITY

N

1" = 40'
SCALE IN FEET
0 10 20 30 40 80

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T107.DWG

Scale	AS SHOWN	DATE	APPROVED
Designer	E. GOBATON	1/31/18	As to Design
Assistant	-	-	
Drawn By	R. KALTENBERG	1/31/18	As to Operation
Checked By	R. YEE	1/31/18	
Last Update	F. MORENO	1/31/18	As to Distribution
Recommended CHARLES C. NGO		1/18	Senior Assistant GM of Water

DATE

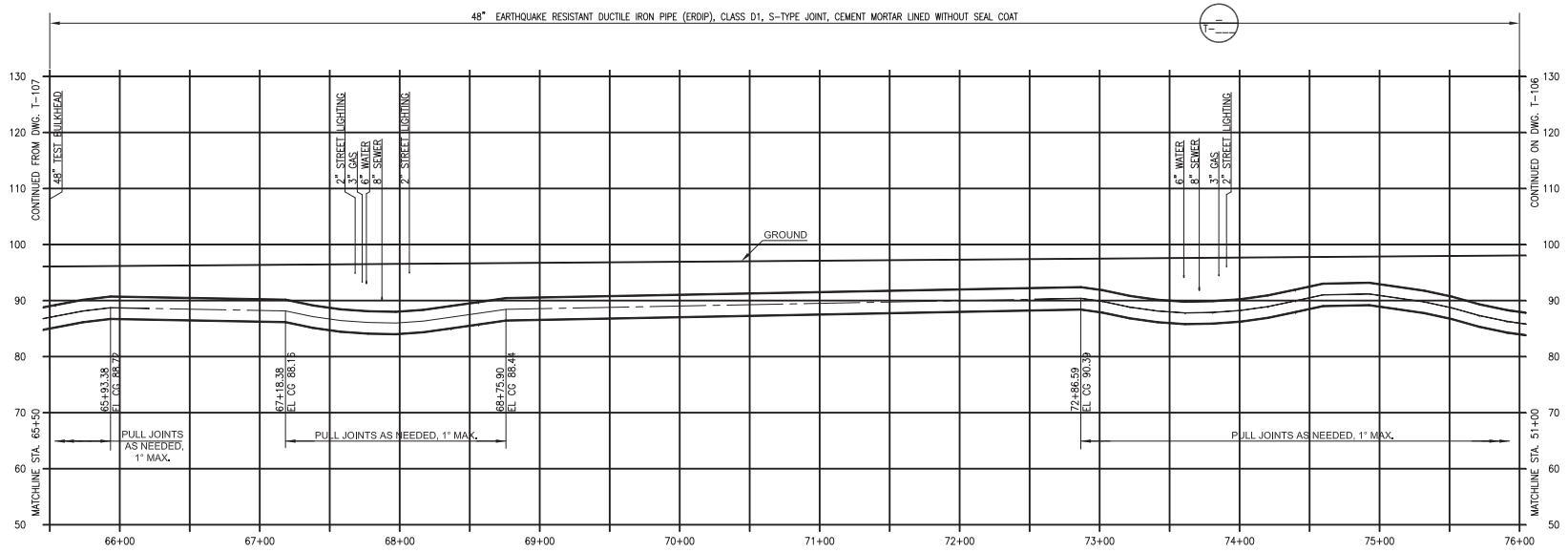
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 59+50.00 TO STA. 65+50.00

DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-107

VERSION 11.0

D05993-T-108



CURVE DATA
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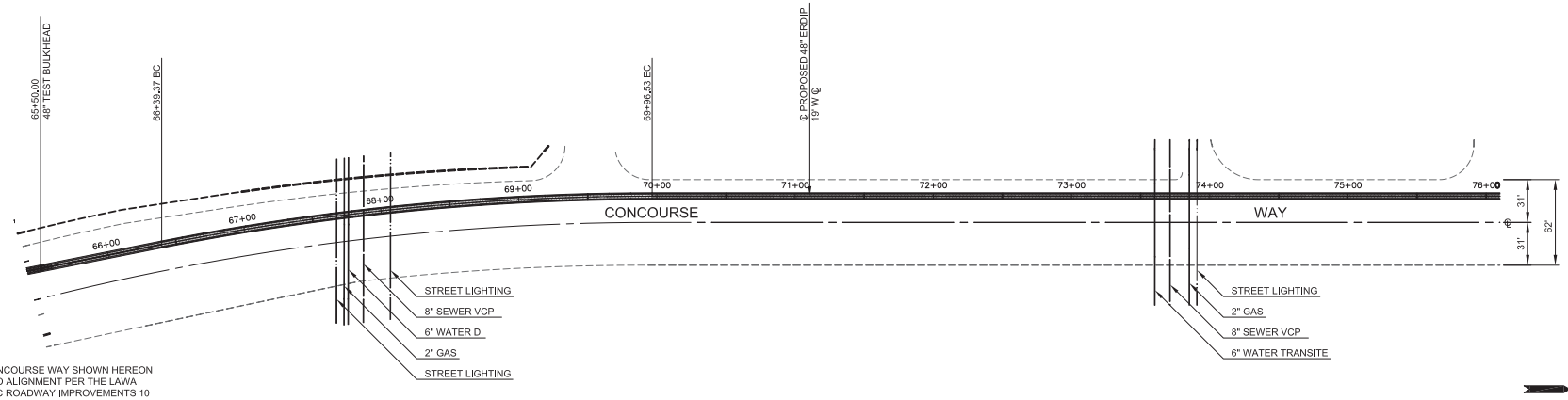
EC: 69+96.53
R = 1,819.00'
Δ = 11°15'00"
LENGTH = 357.16'



NOTES

1. THE ALIGNMENT OF CONCOURSE WAY SHOWN HEREON IS THE PROPOSED ROAD ALIGNMENT PER THE LAWA LAMP PROJECT CONRAC ROADWAY IMPROVEMENTS 10 PERCENT CONCEPTUAL DESIGN, DATED 4/07/17.

   LAWA = LOS ANGELES WORLD AIRPORTS
   LAMP = LANDSIDE ACCESS MODERNIZATION PROGRAM
   CONRAC = CONSOLIDATED RENTAL CAR FACILITY

N

1" = 40'
SCALE IN FEET
0 10 20 30 40 80

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T108.DWG

Scale AS SHOWN		DATE
Designer	E. GOBATON	1/31/18
Assistant	-	-
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

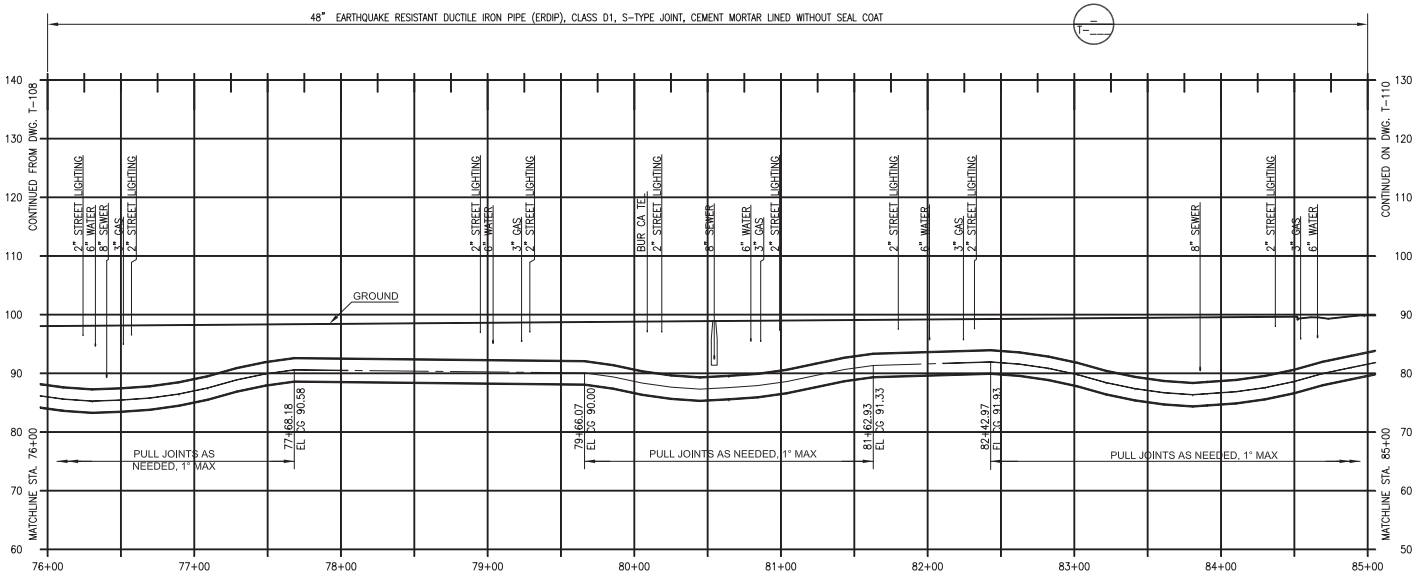
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 65+50.00 TO STA. 76+00.00

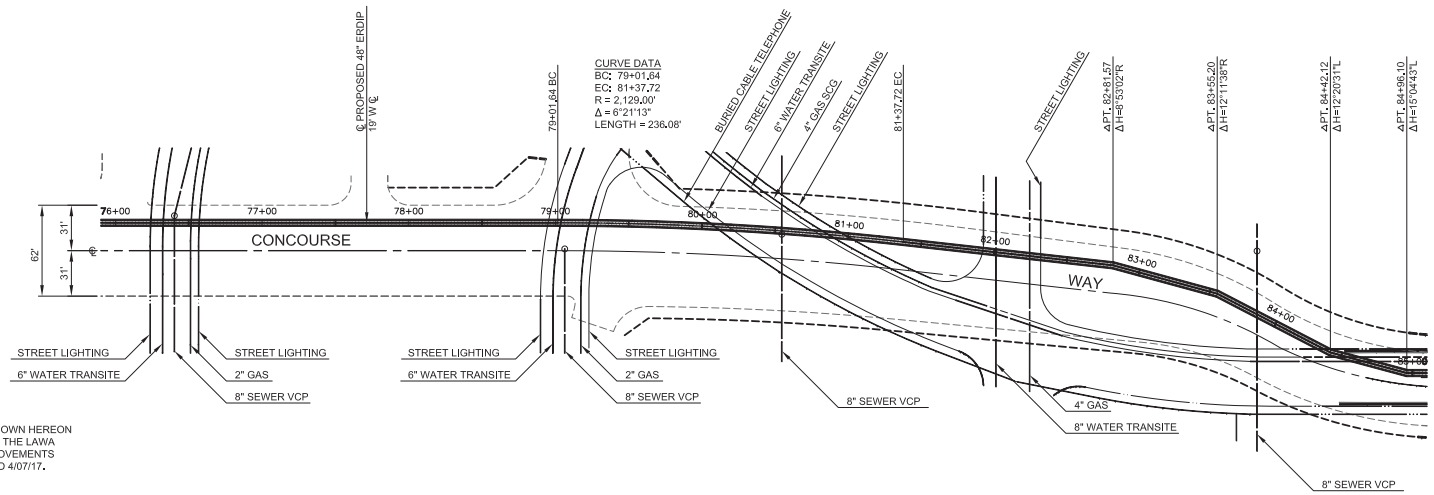
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-108

VERSION 01.0

D05993-T-109





NOTES

1. THE ALIGNMENT OF CONCOURSE WAY SHOWN HEREON IS THE PROPOSED ROAD ALIGNMENT PER THE LAWA LAMP PROJECT CONRAC ROADWAY IMPROVEMENTS 10 PERCENT CONCEPTUAL DESIGN, DATED 4/07/17.

LAWA = LOS ANGELES WORLD AIRPORTS
LAMP = LANDSIDE ACCESS MODERNIZATION PROGRAM
CONRAC = CONSOLIDATED RENTAL CAR FACILITY

N

1" = 40'
SCALE IN FEET
0 10 20 30 40 80

60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T109.DWG

Scale	AS SHOWN	DATE	
Designer	E. GOBATON	1/31/18	
Assistant	-	-	
Drawn By	R. KALTENBERG	1/31/18	
Checked By	R. YEE	1/31/18	
Last Update	R. KALTENBERG	1/31/18	
Recommended	CHARLES C. NGO	1/18	

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

CENTURY TRUNK LINE - UNIT 1

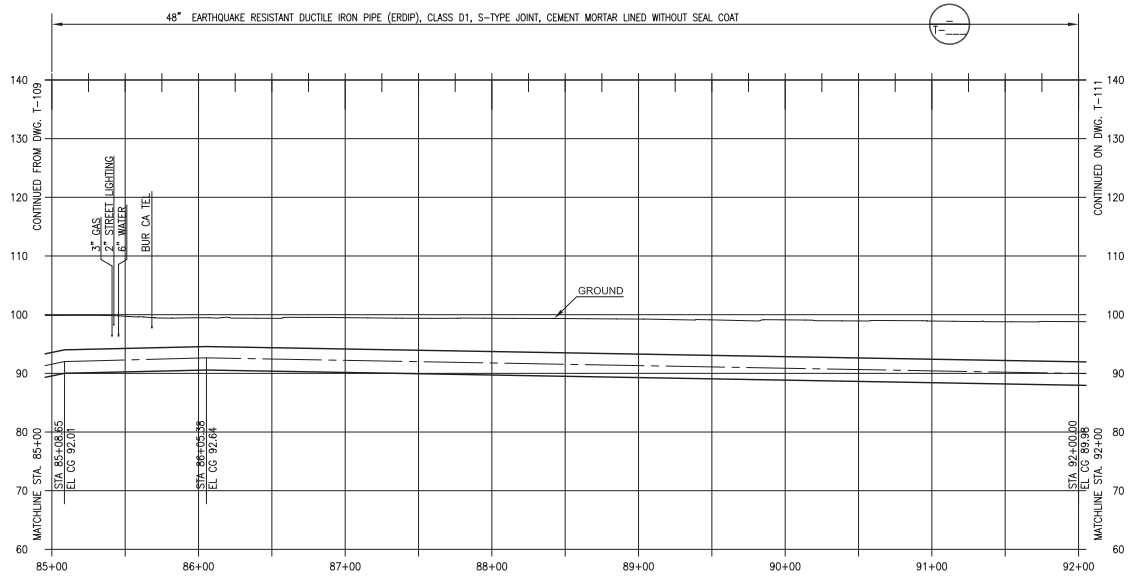
PLAN AND PROFILE
STA. 76+00.00 TO STA. 85+00.00

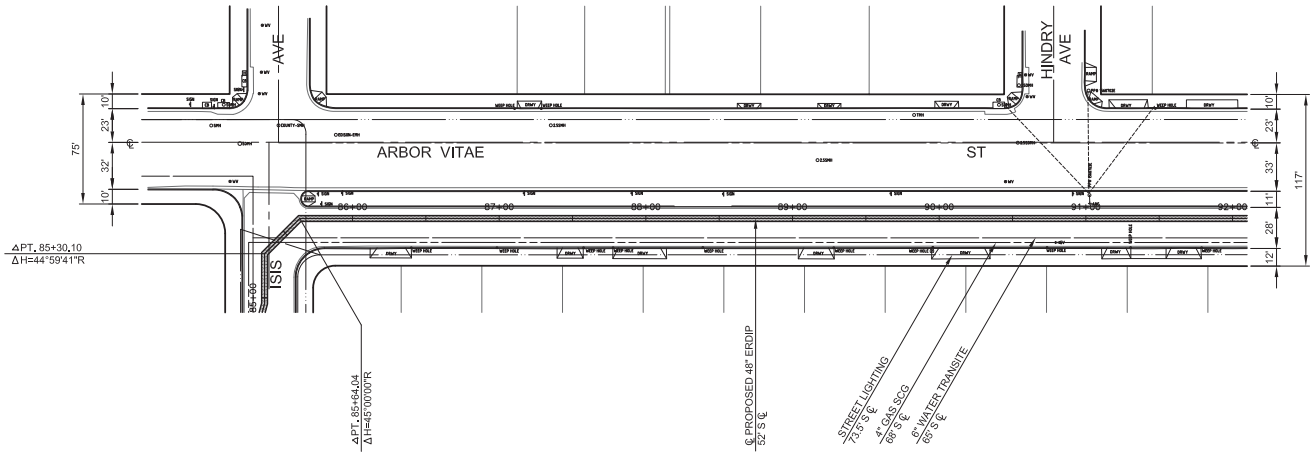
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

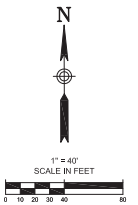
DRAWING NUMBER D05993-T-109

VERSION 01.0

D05993-T-110







60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS						
Number	Date	Initials	Location	Description		Approved

REFERENCES

File Name 05993T110.DWG

Scale	AS SHOWN	DATE
Designer	E. GOBATON	1/31/18
Assistant	-	
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

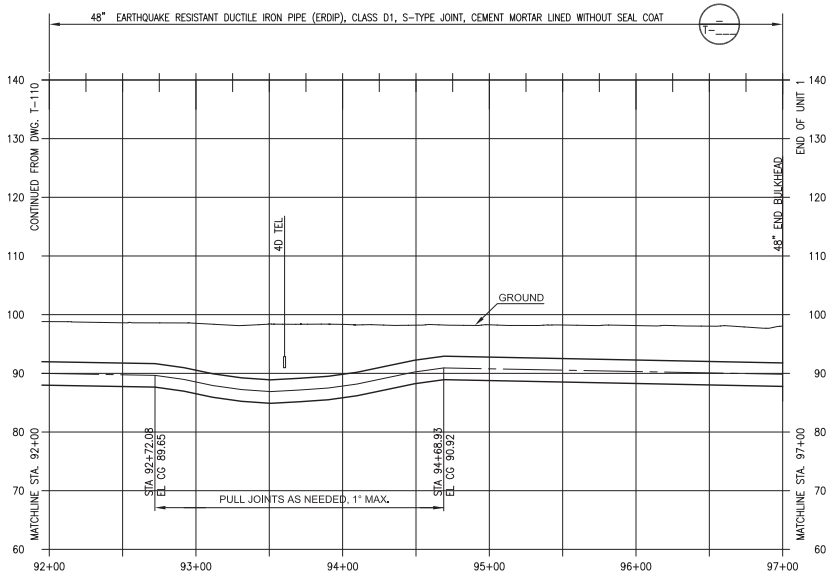
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 85+00.00 TO STA. 92+00.00

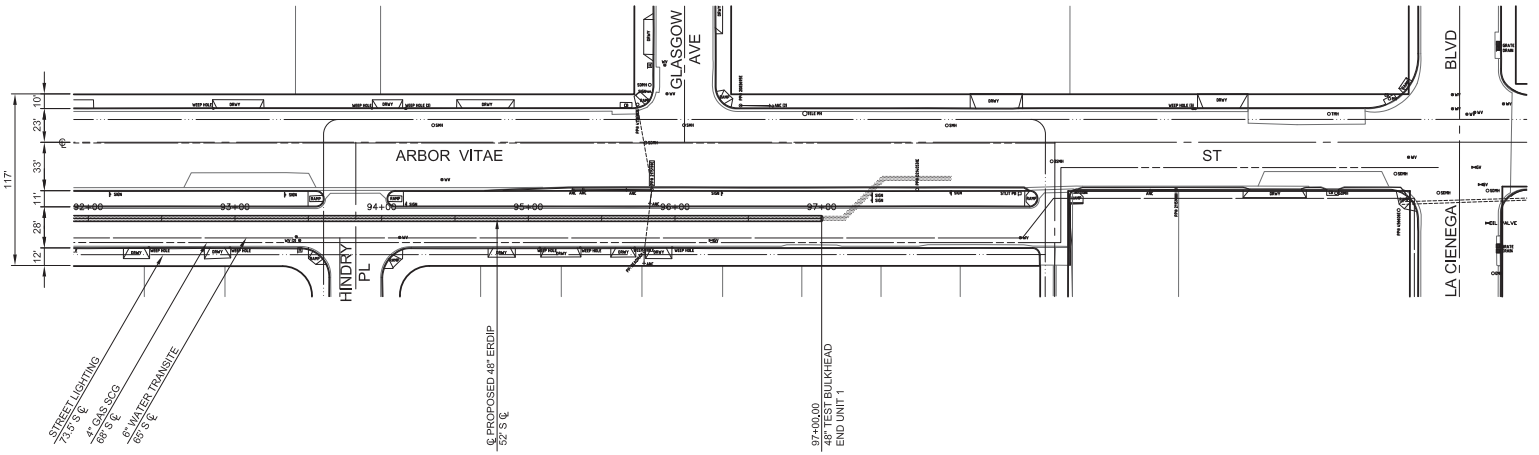
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

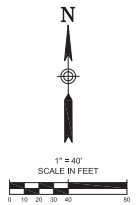
DRAWING NUMBER D05993-T-110

VERSION 11.0

D05993-T-111







60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T111.DWG

Scale	AS SHOWN	DATE	
Designer	E. GOBATON	1/31/18	
Assistant	-		
Drawn By	R. KALTENBERG	1/31/18	
Checked By	R. YEE	1/31/18	
Last Update	R. KALTENBERG	1/31/18	
Recommended CHARLES C. NGO		1/18	

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

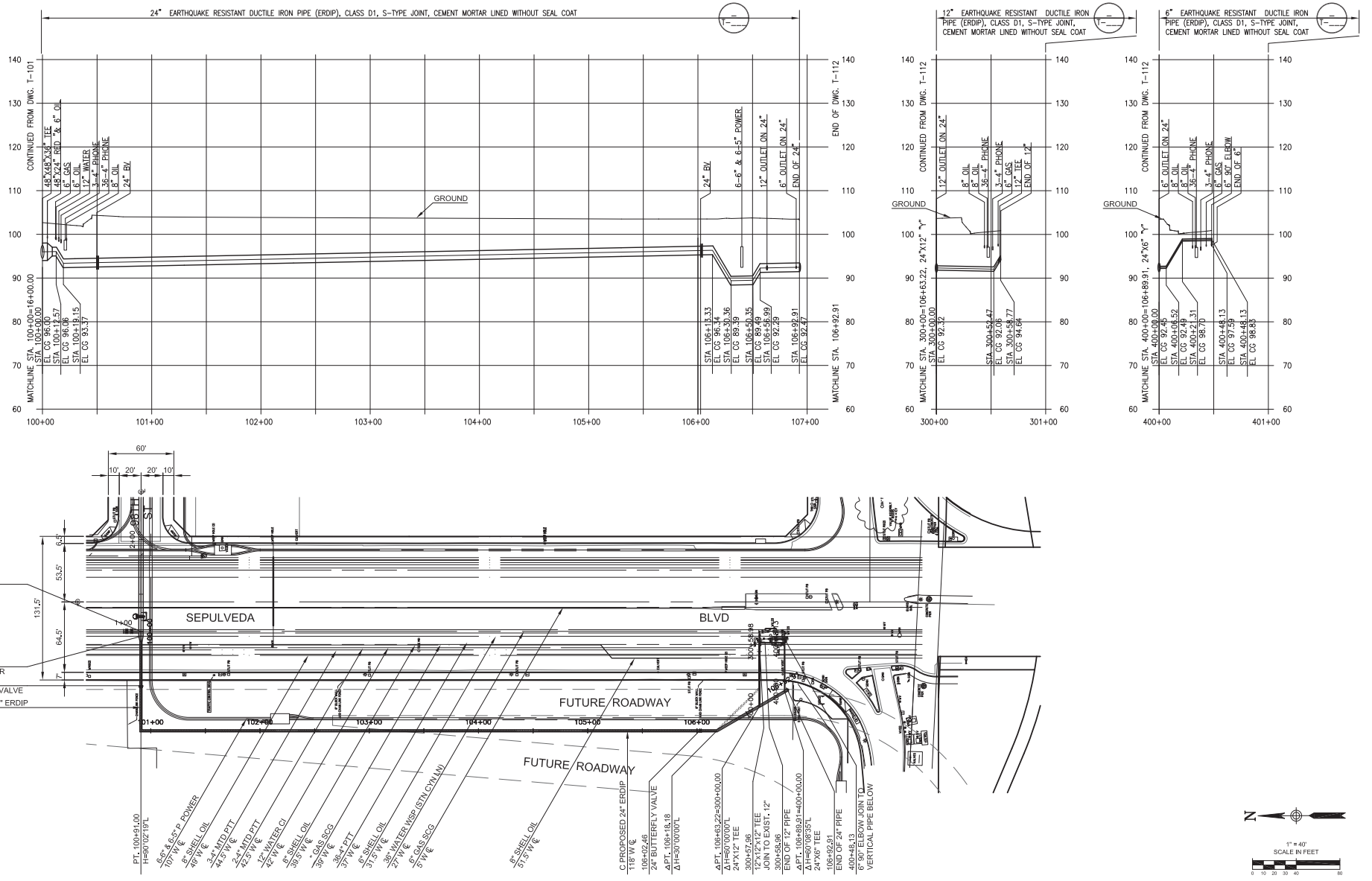
CENTURY TRUNK LINE - UNIT 1
PLAN AND PROFILE
STA. 92+00.00 TO STA. 98+00.00

DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-111

VERSION 01.0

D05993-T-112



60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T112.DWG

Scale	AS SHOWN	DATE
Designer	F. MORENO	1/31/18
Assistant		-
Drawn By	R. KALTENBERG	1/31/18
Checked By	R. YEE	1/31/18
Last Update	R. KALTENBERG	1/31/18
Recommended CHARLES C. NGO		1/18

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

CENTURY TRUNK LINE - UNIT 1

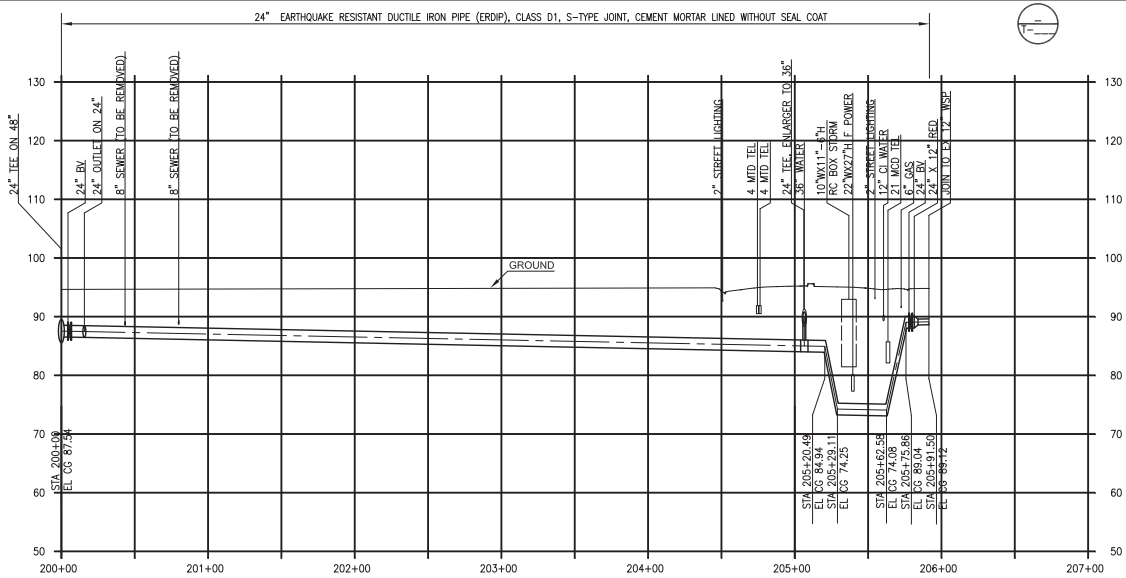
SEPULVEDA/CENTURY REGULATOR STATION CONNECTION
STA. 100+00.00 TO STA. 107+14.84

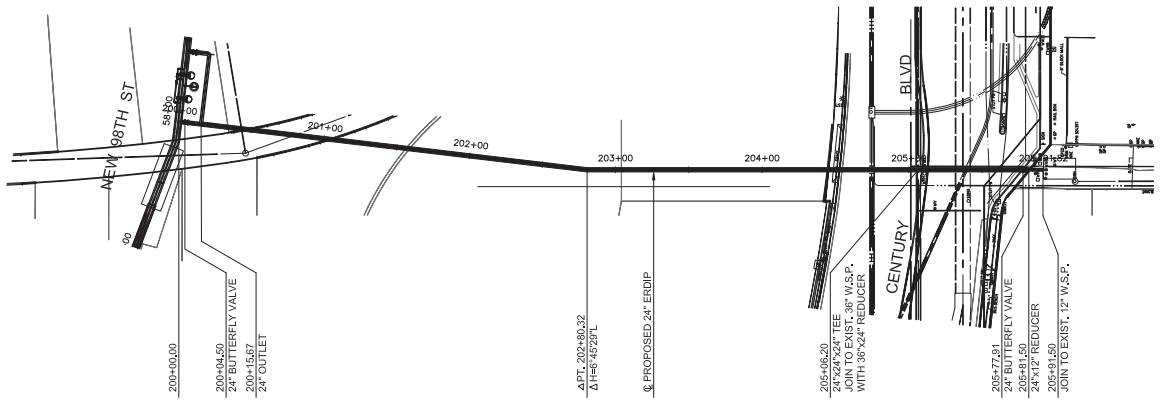
DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

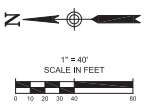
DRAWING NUMBER D05993-T-112

VERSION 11.0

D05993-T-113







60% DESIGN
NOT FOR CONSTRUCTION

REVISIONS					
Number	Date	Initials	Location	Description	Approved

REFERENCES

File Name 05993T113.DWG

Scale	AS SHOWN	DATE	
Designer	E. GOBATON	1/31/18	
Assistant		-	
Drawn By	R. KALTENBERG	1/31/18	
Checked By	R. YEE	1/31/18	
Last Update	R. KALTENBERG	1/31/18	
Recommended CHARLES C. NGO		1/18	

APPROVED	DATE
As to Design	
As to Operation	
As to Distribution	
Senior Assistant GM of Water	

CENTURY TRUNK LINE - UNIT 1

CENTURY/ALLEY E/O AVIATION REGULATOR STATION CONNECTION
STA. 200+00.00 TO STA. 205+91.50

DEPARTMENT OF WATER AND POWER
WATER SYSTEM — CITY OF LOS ANGELES

DRAWING NUMBER D05993-T-113

VERSION 01.0