

## **Appendix M**

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Traffic

## **Appendix M.1**

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### Traffic Study

TRANSPORTATION IMPACT STUDY

**PASEO MARINA PROJECT**

City of Los Angeles, California  
January 3, 2018

*Prepared for:*

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#### APPENDIX

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## TRANSPORTATION IMPACT STUDY

# PASEO MARINA PROJECT

City of Los Angeles, California

January 3, 2018

## 1.0 INTRODUCTION

This transportation analysis has been conducted to identify and evaluate the potential transportation impacts of the proposed Paseo Marina project. The project applicant seeks to construct 658 residential apartment units, 13,650 square feet of restaurant space, and 13,650 square feet of commercial space. The proposed project is located at the southwest corner of the Glencoe Avenue and Maxella Avenue intersection in the Del Rey area of the City of Los Angeles. The project site is located within the Coastal Transportation Corridor Specific Plan area of the City of Los Angeles. The project site is bounded by Maxella Avenue to the north, commercial buildings to the south, Glencoe Avenue to the east, and a private driveway to the west. The project site location and general vicinity are shown in **Figure 1-1**.

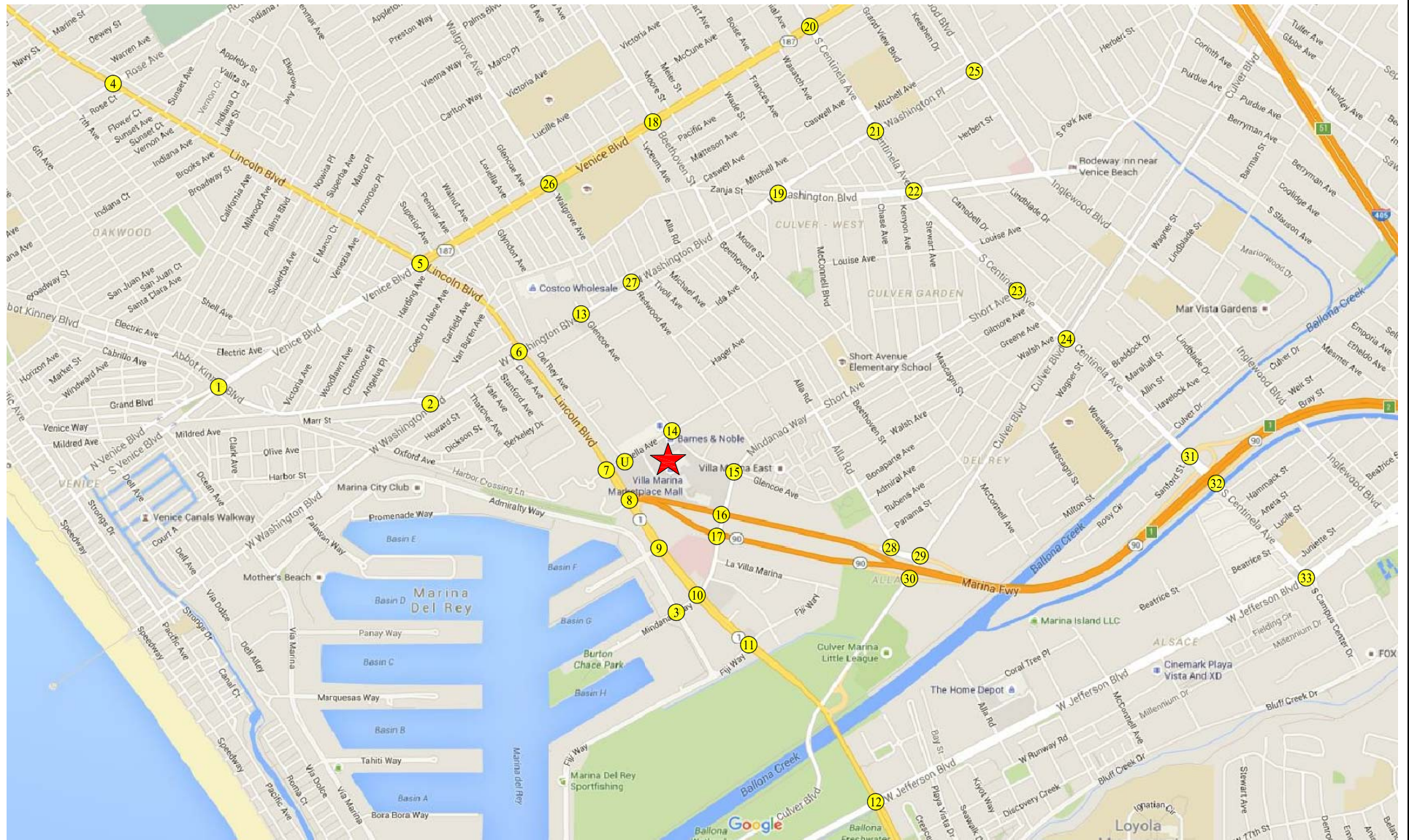
The transportation analysis follows City of Los Angeles transportation study guidelines<sup>1</sup> and is consistent with transportation impact assessment guidelines set forth in the Los Angeles County Congestion Management Program<sup>2</sup>. This transportation analysis evaluates potential project-related impacts at 33 key intersections in the vicinity of the project site. The study intersections were determined in consultation with City of Los Angeles Department of Transportation (LADOT) staff. The Critical Movement Analysis method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for the study intersections located within both the City of Los Angeles and the City of Culver City. Additionally, a supplemental Intersection Capacity Utilization method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for the study intersections located within or shared with the County of Los Angeles. Furthermore, traffic signal warrant analyses were prepared for the following unsignalized intersections: Del Rey Avenue and Maxella Avenue; Walgrove Avenue and Washington Boulevard; Redwood Avenue and Maxella Avenue. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the proposed project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast net new traffic volumes from the proposed project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the proposed project, (vi) determines future forecast with project-related impacts, and (vii) recommends mitigation measures, where necessary.

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<sup>1</sup> *Transportation Impact Study Guidelines*, City of Los Angeles Department of Transportation, December 2016.

<sup>2</sup> *2010 Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, 2010.



MAP SOURCE: GOOGLE MAPS  
 ★ PROJECT SITE  
 ● STUDY INTERSECTION

FIGURE 1-1  
 VICINITY MAP

## 1.1 Study Area

Based on coordination with LADOT staff, 33 study intersections have been identified for evaluation during the weekday morning and afternoon peak hours. The 33 study intersections provide local access to the study area and define the extent of the boundaries for this transportation impact analysis. Further discussion of the existing street system and study area is provided in Section 3.0.

The general location of the project in relation to the study locations and surrounding street system is presented in *Figure 1-1*. The transportation analysis study area is generally comprised of those locations which have the greatest potential to experience significant transportation impacts due to the proposed project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

- a. Immediately adjacent or in close proximity to the project site;
- b. In the vicinity of the project site that are documented to have current or projected future adverse operational issues; and
- c. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, proposed Paseo Marina project peak hour vehicle trip generation, the anticipated distribution of project vehicular trips and existing intersection/corridor operations.

## 2.0 PROJECT DESCRIPTION

### 2.1 Site Location

The proposed Paseo Marina project site is located at the southwest corner of the Glencoe Avenue and Maxella Avenue intersection in the Del Rey area of the City of Los Angeles. The project site is bounded by Maxella Avenue to the north, commercial buildings to the south, Glencoe Avenue to the east, and a private driveway to the west. The project site location and general vicinity are shown in *Figure 1-1*.

### 2.2 Existing Project Site

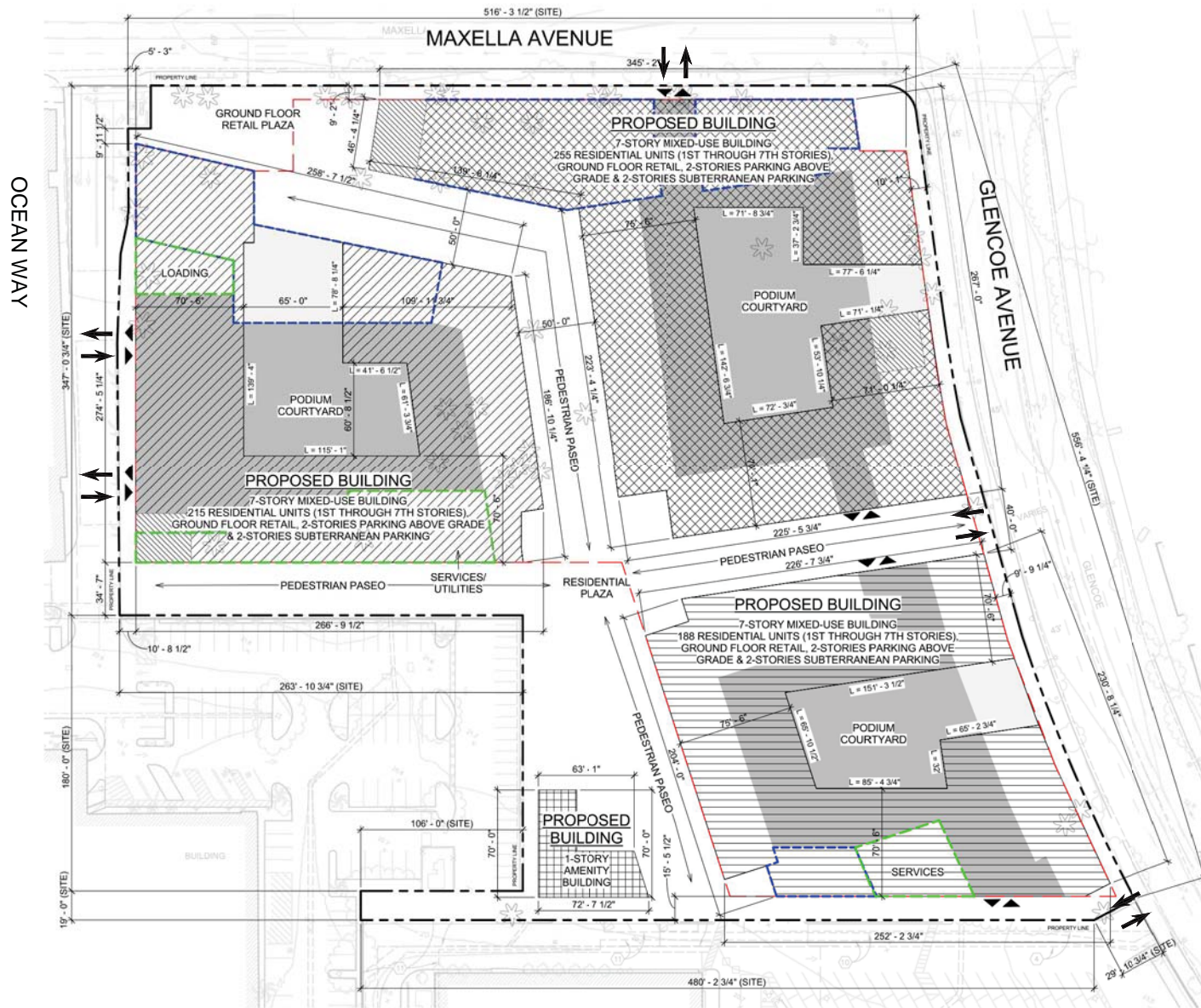
The existing project site is currently occupied by 100,781 square feet of commercial floor area and surface parking lots. Vehicular access to the existing project site is provided via multiple driveways along Maxella Avenue, Glencoe Avenue and the private driveway located on the west side of the site.

### 2.3 Proposed Project Description

The project applicant seeks to construct 658 residential apartment units 13,650 square feet of restaurant space, and 13,650 square feet of commercial space. Construction and occupancy of the proposed project is planned to be completed by the year 2023. The existing commercial buildings and surface parking lots will be removed to accommodate development of the proposed project. The site plan for the proposed project is illustrated in *Figure 2-1*.

Vehicular access to the project site will be provided via Maxella Avenue, Glencoe Avenue, and the private driveway located along the west side of the site. Further discussion of the project site access and circulation schemes is provided in Section 3.0.





  
**NOT TO SCALE**

MAP SOURCE: TCA ARCHITECTS  
↕↕ PROJECT DRIVEWAY SITE ACCESS  
↔ PROJECT BUILDING ACCESS

LINSCOTT, LAW & GREENSPAN, engineers

**FIGURE 2-1**  
**PROJECT SITE PLAN**  
**GROUND FLOOR**

PASEO MARINA PROJECT



## 3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the Paseo Marina project is displayed in *Figure 2-1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

### 3.1 Existing Vehicular Site Access

Vehicular access to the existing project site is provided via two driveways along the east side of Ocean Way, one driveway along the south side of Maxella Avenue, and two driveways along the west side of Glencoe Avenue.

### 3.2 Vehicular Project Site Access

Vehicular access to the site will be provided via two driveways along Ocean Way, one driveway along Maxella Avenue and two driveways along Glencoe Avenue. As shown on *Figure 2-1*, the parking areas below each of the residential buildings will be provided with two vehicular access points.

Descriptions of the project site driveways are provided in the following paragraphs:

- *Maxella Avenue Project Driveway:*

The Maxella Avenue site driveway is proposed on the south side of Maxella Avenue. The Maxella Avenue driveway is proposed to accommodate right-turn vehicular ingress and egress only (i.e., left-turn ingress and egress traffic movements are not permitted).

- *Glencoe Avenue Project Driveways:*

The two Glencoe Avenue site driveways are proposed on the west side of Glencoe Avenue. The northerly Glencoe Avenue driveway is proposed to accommodate left-turn and right-turn vehicular ingress, but right-turn vehicular egress only (i.e., left-turn egress traffic movements are not permitted). The southerly Glencoe Avenue driveway is an existing driveway serving the commercial development to the south the project site. The existing southerly Glencoe Avenue driveway is proposed to continue to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

- *Ocean Way Project Driveways:*

Two site driveways are proposed along the private driveway located along the west side of the project site. The private driveway is named Ocean Way for identification purposes in this report. The two project site driveways along Ocean Way are proposed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

The existing intersection of Ocean Way and Maxella Avenue is controlled by a stop sign (i.e., a stop sign faces traffic on the northbound Ocean Way approach). As a project feature, it is proposed that the intersection be signalized in the future prior to occupancy of the project. In conjunction with this improvement, the existing mid-block signalized crosswalk on Maxella Avenue would be shifted approximately 100 west to the Ocean Way intersection.

## 4.0 EXISTING STREET SYSTEM

### 4.1 Regional Highway System

Regional access to the project site is provided by the SR-90 (Marina) Freeway. A brief description of the SR-90 Freeway is provided in the following paragraph.

*SR-90 (Marina) Freeway* is an east-west state highway that locally extends from Marina del Rey to Culver City. In the project vicinity, two to three mixed-flow freeway lanes are provided in each direction on the SR-90 Freeway. Eastbound and westbound ramps are provided on the SR-90 Freeway at Mindanao Way in the project area, and are located approximately 0.25 miles south of the project site.

### 4.2 Local Roadway System

The study intersections were selected in consultation with LADOT staff. The following intersections were analyzed for potential transportation impacts due to the proposed project:

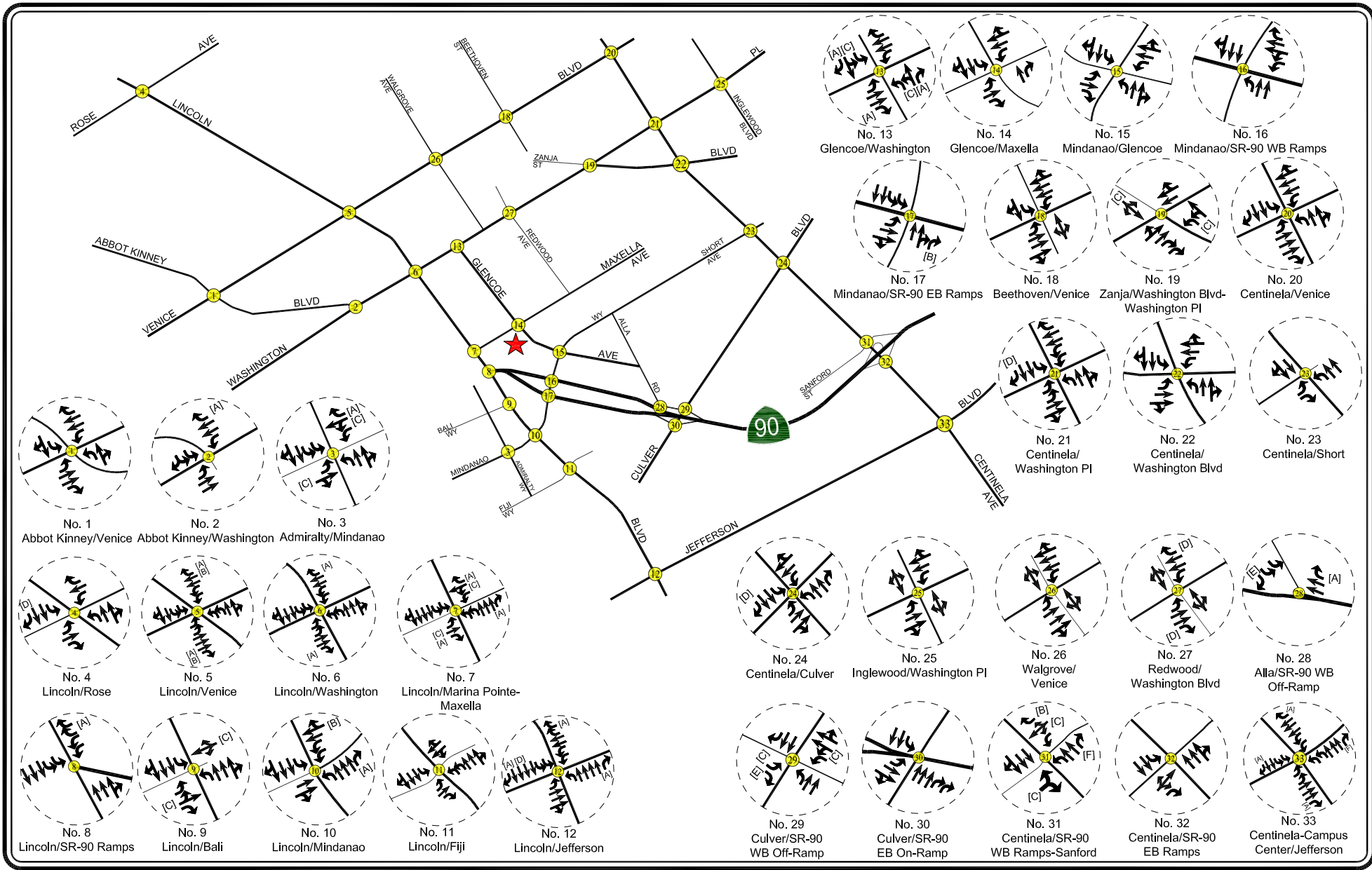
1. Abbot Kinney Boulevard / Venice Boulevard
2. Abbot Kinney Boulevard / Washington Boulevard
3. Admiralty Way / Mindanao Way (County of Los Angeles)
4. Lincoln Boulevard / Rose Avenue
5. Lincoln Boulevard / Venice Boulevard
6. Lincoln Boulevard / Washington Boulevard
7. Lincoln Boulevard / Marina Pointe Drive - Maxella Avenue
8. Lincoln Boulevard / SR-90 Ramps
9. Lincoln Boulevard / Bali Way (shared with County of Los Angeles)
10. Lincoln Boulevard / Mindanao Way (shared with County of Los Angeles)
11. Lincoln Boulevard / Fiji Way (shared with County of Los Angeles)
12. Lincoln Boulevard / Jefferson Boulevard
13. Glencoe Avenue / Washington Boulevard (City of Culver City)
14. Glencoe Avenue / Maxella Avenue
15. Mindanao Way / Glencoe Avenue


16. Mindanao Way / SR-90 WB Ramps
17. Mindanao Way / SR-90 EB Ramps
18. Beethoven Street / Venice Boulevard
19. Zanja Street / Washington Boulevard - Washington Place (City of Culver City)
20. Centinela Avenue / Venice Boulevard
21. Centinela Avenue / Washington Place (City of Culver City)
22. Centinela Avenue / Washington Boulevard (City of Culver City)
23. Centinela Avenue / Short Avenue
24. Centinela Avenue / Culver Boulevard
25. Inglewood Boulevard / Washington Place
26. Walgrove Avenue / Venice Boulevard
27. Redwood Avenue / Washington Boulevard (City of Culver City)
28. Alla Road / SR-90 WB Off-Ramp
29. Culver Boulevard / SR-90 WB Off-Ramp
30. Culver Boulevard / SR-90 EB On-Ramp
31. Centinela Avenue / SR-90 WB Ramps-Sanford Street
32. Centinela Avenue / SR-90 EB Ramps
33. Centinela Avenue-Campus Center Drive / Jefferson Boulevard

As noted above, Intersection Nos. 13, 19, 21, 22, and 27 are located in the City of Culver City and intersections Nos. 3, 9, 10, and 11 are located in or shared with the County of Los Angeles. All 33 study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in **Figure 4-1**.

A supplemental analysis was performed at the following stop-sign controlled intersections to determine the potential need for traffic signal installation:

1. Del Rey Avenue / Maxella Avenue
2. Walgrove Avenue / Washington Boulevard



-  **NOT TO SCALE**
- ★ PROJECT SITE    ● STUDY INTERSECTION
- [A] = RIGHT-TURN OVERLAP
  - [B] = NO RIGHT-TURN ON RED
  - [C] = SPLIT PHASING
  - [D] = DEFACTO RIGHT-TURN
  - [E] = STOP-CONTROLLED RIGHT-TURN
  - [F] = FREE-FLOW RIGHT-TURN

LINSCOTT, LAW & GREENSPAN, engineers

**FIGURE 4-1**  
**EXISTING LANE CONFIGURATIONS**

PASEO MARINA PROJECT

### 3. Redwood Avenue /Maxella Avenue

As previously noted, the project proposes to provide a traffic signal at the Ocean Way / Maxella Avenue intersection as a project feature. Further discussion of the supplemental traffic signal warrants analysis for the stop-sign controlled intersection is provided in Section 13.0.

### 4.3 Roadway Descriptions

A brief description<sup>3</sup> of the important roadways in the project vicinity is provided in the following paragraphs.

*Abbot Kinney Boulevard* is a north-south oriented roadway that is located west of the project site. Within the project study area, Abbot Kinney Boulevard is designated as a Secondary Highway/Avenue III by the City of Los Angeles. One through travel lane is generally provided in both directions on Abbot Kinney Boulevard within the project study area. Separate exclusive left-turn lanes are provided on Abbot Kinney Boulevard at major intersections. Abbot Kinney Boulevard is posted for a 30 miles per hour speed limit in the project vicinity.

*Lincoln Boulevard* is a north-south oriented roadway located west of the project site. Within the project study area, Lincoln Boulevard is designated as a Major Highway Class II/Boulevard II north of Venice Boulevard and as a Major Highway Class II/Boulevard I south of Venice Boulevard by the City of Los Angeles. Lincoln Boulevard is also classified as a Major Highway by the County of Los Angeles. Two to three through travel lanes are generally provided in both directions on Lincoln Boulevard in the project study area. Separate exclusive left-turn and right-turn lanes are provided on Lincoln Boulevard at major intersections. Lincoln Boulevard is posted for a 40 miles per hour speed limit north of Fiji Way and a 45 miles per hour speed limit south of Fiji Way in the project vicinity.

*Beethoven Street* is a north-south oriented roadway that is located east of the project site. Within the project study area, Beethoven Street is designated as a Collector Street north of Short Avenue and as a Local Street south of Short Avenue by the City of Los Angeles. One through travel lane is generally provided in both directions on Beethoven Street within the project study area. A separate southbound left-turn only lane is provided on Beethoven Street at the Venice Boulevard intersection. Beethoven Street becomes Rose Avenue west of Morningside Way. Beethoven Street is posted for a 30 miles per hour speed limit in the project vicinity.

*Centinela Avenue* is a north-south oriented roadway located east of the project site. Within the project study area, Centinela Avenue is designated as a Major Highway Class II/Avenue I by the City of Los Angeles. Centinela Avenue is also designated as a Primary Arterial by the City of Culver City Circulation Element. Two through travel lanes are generally provided in both directions on Centinela Avenue in the project study area. Separate exclusive left-turn lanes are provided on Centinela Avenue at major intersections. Separate right-turn only lanes are

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<sup>3</sup> For reference, the street descriptions provided include both the designations under the prior City Transportation Element (e.g., Major Highway, Secondary Highway, etc.) and Mobility Plan 2035 (e.g., Boulevard, Avenue, etc.) adopted by the Los Angeles City Council in August 2015).

generally provided on Centinela Avenue at the Jefferson Boulevard, Culver Boulevard, Washington Place, and Venice Boulevard intersections. Centinela Avenue is posted for a 35 miles per hour speed limit in the project vicinity.

*Glencoe Avenue* is a north-south oriented roadway that borders the project site to the east. Within the project study area, Glencoe Avenue is designated as a Secondary Highway/Avenue II north of Maxella Avenue and as a Collector Street south of Maxella Avenue by the City of Los Angeles. Glencoe Avenue is also classified as a Secondary Arterial by the City of Culver City Circulation Element. One to two through travel lanes are generally provided in both directions on Glencoe Avenue within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Glencoe Avenue at major intersections. Glencoe Avenue is posted for a 25 miles per hour speed limit in the project vicinity.

*Zanja Street* is a north-south oriented roadway that is located east of the project site. Within the project study area, Zanja Street is designated as a Local Street by the City of Los Angeles and as a Collector Street by the City of Culver City Circulation Element. One through travel lane is generally provided in the southbound direction on Zanja Street within the project study area. Zanja Street is posted for a 30 miles per hour speed limit in the project vicinity.

*Inglewood Boulevard* is a north-south oriented roadway located east of the project site. Within the project study area, Inglewood Boulevard is designated as a Collector Street north of Venice Boulevard, as a Secondary Highway/Avenue II between Venice Boulevard and Mitchell Avenue, as a Collector Street/Avenue II between Mitchell Avenue and Herbert Street, and as a Secondary Highway/Avenue II south of Herbert Street by the City of Los Angeles. One through travel lane is generally provided in both directions on Inglewood Boulevard within the project study area. Inglewood Boulevard is posted for a 30 miles per hour speed limit in the project vicinity.

*Del Rey Avenue* is a north-south oriented roadway that is located west of the project site. Within the project study area, Del Rey Avenue is designated as a Local Street by the City of Los Angeles. One through travel lane is generally provided in the southbound direction on Del Rey Avenue within the project study area. Del Rey Avenue is posted for a 25 miles per hour speed limit in the project vicinity.

*Admiralty Way* is a north-south oriented roadway that is located west of the project site. Within the project study area, Admiralty Way is designated as a Major Highway by the County of Los Angeles. Two through travel lanes are generally provided in both directions on Admiralty Way within the project study area. Separate exclusive left-turn lanes are provided on Admiralty Way at the Mindanao Way intersection. Admiralty Way is posted for a 40 miles per hour speed limit in the project vicinity.

*Walgrove Avenue* is a north-south oriented roadway that is located east of the project site. Within the project study area, Walgrove Avenue is designated as a Collector Street by the City of Los Angeles and by the City of Culver City Circulation Element. One through travel lane is generally provided in both directions within the project study area within the project study area. Walgrove Avenue is posted for a 25 miles per hour speed limit in the project vicinity.

*Redwood Avenue* is a north-south oriented roadway that is located east of the project site. Within the project study area, Redwood Avenue is designated as a Collector Street by the City of Los Angeles and by the City of Culver City Circulation Element. One through travel lane is generally provided in both directions on Redwood Avenue within the project study area. Redwood Avenue is posted for a 25 miles per hour speed limit in the project vicinity.

*Alla Road* is a north-south oriented roadway that is located east of the project site. Within the project study area, Del Rey Avenue is designated as a Collector Street north of Maxella Avenue, and as Secondary Highway/Avenue II south of Maxella Avenue by the City of Los Angeles. One through travel lane is generally provided in the northbound direction on Alla Road, and two through travel lanes are generally provided in the southbound direction on Alla Road within the project study area. Alla Road is posted for a 30 miles per hour speed limit in the project vicinity.

*Rose Avenue* is an east-west oriented roadway located north of the project site. Within the project study area, Rose Avenue is designated as a Secondary Highway/Avenue III west of Main Street, as a Collector Street between Main Street and Lincoln Boulevard, and as a Secondary Highway/Avenue III east of Lincoln Boulevard by the City of Los Angeles. One through travel lane is generally provided in both directions on Rose Avenue within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Rose Avenue at the Lincoln Boulevard intersection. Rose Avenue is posted for a 25 miles per hour speed limit west of Lincoln Boulevard and a 35 miles per hour speed limit east of Lincoln Boulevard in the project vicinity.

*Venice Boulevard* is an east-west oriented roadway that is located north of the project site. Within the project study area, Venice Boulevard is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles and as a Primary Arterial by the City of Culver City Circulation Element. Two to three through travel lanes are generally provided in both directions on Venice Boulevard within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Venice Boulevard at major intersections. Venice Boulevard is posted for a 35 miles per hour speed limit west of Lincoln Boulevard and a 40 miles per hour speed limit east of Lincoln Boulevard in the project vicinity.

*Washington Boulevard* is an east-west oriented roadway that is located north of the project site. Within the project study area, Washington Boulevard is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles and as a Primary Arterial by the City of Culver City Circulation Element. Two through travel lanes are generally provided in both directions on Washington Boulevard within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Washington Boulevard at major intersections. Washington Boulevard is posted for a 35 miles per hour speed limit in the project vicinity.

*Washington Place* is an east-west oriented roadway that is located north of the project site. Within the project study area, Washington Place is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles and as a Primary Arterial by the City of Culver City



Circulation Element. Two through travel lanes are generally provided in both directions on Washington Place within the project study area. Separate exclusive left-turn lanes are provided on Washington Place at major intersections. A separate westbound right-turn only lane is provided on Washington Place at the Centinela Avenue intersection. Washington Place becomes Washington Boulevard west of Zanja Street. Washington Place is posted for a 35 miles per hour speed limit in the project vicinity.

*Marina Pointe Drive* is an east-west oriented roadway that is located north of the project site. Within the project study area, Marina Pointe Drive is designated as a Local Street by the County of Los Angeles. One through travel lane is generally provided in the eastbound direction on Marina Pointe Drive within the project study area. Separate eastbound left-turn and right-turn only lanes are provided on Marina Pointe Drive at the Lincoln Boulevard intersection within the project study area. Marina Pointe Drive becomes Maxella Avenue east of Lincoln Boulevard. There is no speed limit posted on Marina Pointe Drive in the project vicinity, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.

*Maxella Avenue* is an east-west oriented roadway that borders the project site to the north. Within the project study area, Maxella Avenue is designated as a Collector Street/Avenue III west of Glencoe Avenue, as a Collector Street between Glencoe Avenue and Alla Road, and as a Local Street east of Alla Road by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on Maxella Avenue within the project study area. Separate exclusive left-turn lanes are provided on Maxella Avenue at major intersections. Separate right-turn only lanes are generally provided at the Lincoln Boulevard and Glencoe Avenue intersections. Maxella Avenue becomes Marina Pointe Drive west of Lincoln Boulevard. Maxella Avenue is posted for a 25 miles per hour speed limit in the project vicinity.

*Bali Way* is an east-west oriented roadway that is located south of the project site. Within the project study area, Bali Way is designated as a Local Street by the County of Los Angeles. One through travel lane is generally provided in each direction within the project study area. Separate eastbound left-turn and right-turn only lanes are provided on Bali Way at the Lincoln Boulevard intersection. Bali Way is posted for a 30 miles per hour speed limit in the project vicinity.

*Mindanao Way* is an east-west oriented roadway that is located south of the project site. Within the project study area, Mindanao Way is designated as a Secondary Highway/Avenue I east of Lincoln Boulevard to Glencoe Avenue and as a Secondary Highway/Avenue II between Glencoe Avenue and Alla Road by the City of Los Angeles. West of Lincoln Boulevard, Mindanao Way is classified as a Local Street by the County of Los Angeles. Two through travel lanes are generally provided in both directions on Mindanao Way within the project study area. Separate exclusive left-turn lanes are provided on Mindanao Way at major intersections. Separate right-turn only lanes are generally provided on Mindanao way at the Admiralty Way, SR-90 EB Ramps, and Short Avenue intersections. Mindanao Way becomes Short Avenue east of Alla Road. Mindanao Way is posted for a 30 miles per hour speed limit in the project vicinity.

*Short Avenue* is an east-west oriented roadway that is located south of the project site. Within the project study area, Short Avenue is designated as a Secondary Highway/Avenue III by the

City of Los Angeles. Two through travel lanes are generally provided in both directions on Short Avenue within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Short Avenue at the Centinela Avenue intersection. Short Avenue becomes Mindanao Way west of Alla Road. Short Avenue is posted for a 30 miles per hour speed limit in the project vicinity.

*Fiji Way* is an east-west oriented roadway that is located south of the project site. Within the project study area, Fiji Way is designated as a Local Street east of Lincoln Boulevard by the City of Los Angeles. West of Lincoln Boulevard, Fiji Way is classified as a Parkway by the County of Los Angeles. One to two through travel lanes are generally provided in each direction within the project study area. Separate eastbound left-turn and right-turn only lanes are provided on Fiji Way at the Lincoln Boulevard intersection. Fiji Way is posted for a 35 miles per hour speed limit in the project vicinity.

*Culver Boulevard* is an east-west oriented roadway located south of the project site. Within the project study area, Culver Boulevard is designated as a Major Highway Class II/Avenue III west of Lincoln Boulevard and as a Major Highway Class II/Avenue I east of Lincoln Boulevard by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Culver Boulevard within the project study area. Separate exclusive left-turn lanes are provided on Culver Boulevard at the Centinela Avenue intersection. Culver Boulevard is posted for a 40 miles per hour speed limit in the project vicinity.

*Jefferson Boulevard* is an east-west oriented roadway that is located south of the project site. Within the project study area, Jefferson Boulevard is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. Two to three through travel lanes are generally provided in both directions on Jefferson Boulevard within the project study area. Separate exclusive left-turn lanes are provided on Jefferson Boulevard at the Lincoln Boulevard intersection. Separate westbound right-turn only lanes are provided on Jefferson Boulevard at the Lincoln Boulevard intersection. Jefferson Boulevard is posted for a 45 miles per hour speed limit in the project vicinity.

*Sanford Street* is an east-west oriented roadway that is located south of the project site. Within the project study area, Sanford is designated as a Local Street by the City of Los Angeles. One through travel lanes is generally provided in each direction within the project study area. Sanford Street is posted for a 25 miles per hour speed limit in the project vicinity.

#### 4.4 Public Transit Services

Public transit service within the Paseo Marina project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro), LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus. A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in **Table 4-1**. The existing public transit routes in the Paseo Marina project site vicinity are illustrated in **Figure 4-2**.

Table 4-1  
EXISTING PUBLIC TRANSIT ROUTES [1]

21-Sep-17

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Metro 33	Downtown Los Angeles to Santa Monica (via Venice Boulevard)	Venice Boulevard	EB WB	4 8	6 4
Metro 108 / 358	Pico Rivera to Marina del Rey (via Slauson Avenue)	Mindanao Way	EB WB	2 3	3 2
Metro 110	Bell Gardens to Playa Vista (via Jefferson Boulevard)	Jefferson Boulevard	EB WB	8 12	7 8
Metro Rapid 733	Downtown Los Angeles to Santa Monica (via Venice Boulevard)	Venice Boulevard	EB WB	3 8	6 4
CCB Line 1	Venice Beach to West LA Transit Center (via Washington Boulevard)	Washington Boulevard	EB WB	4 4	4 5
CCB Line 2	Venice High School to Westfield Culver City Mall (via Inglewood Boulevard)	Washington Boulevard	EB WB	2 1	1 1
CCB Line 4	Playa Vista to West LA Transit Center (via Jefferson Boulevard)	Jefferson Boulevard	EB WB	5 5	5 5
CCB Line 7	Marina del Rey to Downtown Culver City (via Culver Boulevard)	Lincoln Boulevard	EB WB	2 1	2 2
CE 437	Downtown Los Angeles to Culver City/Marina Del Rey/Venice (via Culver Boulevard, Grand Avenue & Olive Street)	Mindanao Way	EB WB	2 0	0 2

Table 4-1 (Continued)  
EXISTING PUBLIC TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
BBB 3	Aviation Center Green Line to Downtown Santa Monica (via Lincoln Boulevard)	Lincoln Boulevard	NB SB	4 4	4 3
BBB Rapid 3	Aviation Center Green Line to Downtown Santa Monica (via Lincoln Boulevard)	Lincoln Boulevard	NB SB	6 4	5 5
BBB 14	Playa Vista to Brentwood (via Bundy Drive & Centinela Avenue)	Centinela Avenue	NB SB	5 4	4 4
BBB 16	West Los Angeles to Marina Del Rey (via Wilshire Boulevard & Bundy Drive)	Washington Boulevard	NB SB	2 2	2 3
			<b>Total</b>	<b>105</b>	<b>97</b>

[1] Sources: Los Angeles County Metropolitan Transportation Authority (Metro) website, 2017.  
Culver CityBus (CCB) website, 2017.  
Los Angeles Department of Transportation (Commuter Express) website, 2017.  
City of Santa Monica Big Blue Bus (BBB) website, 2017.

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NOT TO SCALE



SOURCE: METROPOLITAN TRANSPORTATION AUTHORITY  
PROJECT SITE

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 4-2  
EXISTING PUBLIC TRANSIT ROUTES

PASEO MARINA PROJECT

## 5.0 TRAFFIC COUNTS

Manual traffic counts of vehicular turning movements were conducted at each of the study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours. In addition to vehicle traffic, the data collection included counts of pedestrians and bicycles at the study intersections.

The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in **Table 5-1**. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in **Figures 5-1** and **5-2**, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in **Appendix A**.

As noted in *Appendix A*, traffic counts at 25 of the 33 study intersections were conducted in 2016. To represent year 2017 conditions (the year of commencement of the transportation analysis), the traffic count data from 2016 were increased by a 1.0% annual traffic growth rate through the year 2017. The 1.0% traffic growth rate is conservatively assumed for development projects in the Del Rey area for purposes of estimating local traffic growth in future years. Further discussion of the annual traffic growth rate is provided in Section 6.0.

Table 5-1  
EXISTING TRAFFIC VOLUMES [1]

08-Sep-17

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME [2]	BEGAN	VOLUME [2]
1	Abbot Kinney Boulevard / Venice Boulevard	04/26/2016	NB SB EB WB	8:15	921 532 677 775	5:00	536 841 847 857
2	Abbot Kinney Boulevard / Washington Boulevard	04/26/2016	NB SB EB WB	7:45	2 533 1,130 1,389	5:00	0 815 795 1,203
3	Admiralty Way / Mindanao Way	04/26/2016	NB SB EB WB	8:15	1,034 1,192 31 674	5:00	823 1,446 83 723
4	Lincoln Boulevard / Rose Avenue	04/26/2016	NB SB EB WB	8:15	1,786 1,491 496 518	5:00	1,246 1,836 666 318
5	Lincoln Boulevard / Venice Boulevard	04/26/2016	NB SB EB WB	7:45	1,561 1,618 1,068 1,195	5:00	1,484 1,346 1,340 1,006
6	Lincoln Boulevard / Washington Boulevard	04/26/2016	NB SB EB WB	8:00	2,130 1,746 1,370 1,023	5:00	1,937 1,767 1,271 1,208
7	Lincoln Boulevard / Marina Pointe Drive - Maxella Avenue	04/26/2016	NB SB EB WB	8:00	2,393 1,950 342 333	5:00	2,265 2,215 247 592
8	Lincoln Boulevard / SR-90 Ramps	04/26/2016	NB SB EB WB	8:15	1,586 2,249 0 1,337	5:00	1,752 2,550 0 1,012
9	Lincoln Boulevard / Bali Way	04/26/2016	NB SB EB WB	7:45	1,543 1,490 256 15	5:00	1,445 1,921 421 23
10	Lincoln Boulevard / Mindanao Way	04/26/2016	NB SB EB WB	7:45	2,140 1,235 599 837	5:00	1,704 1,814 647 1,102
11	Lincoln Boulevard / Fiji Way	04/26/2016	NB SB EB WB	7:45	2,914 1,396 671 79	5:00	2,213 2,267 1,161 123

Table 5-1 (Continued)  
EXISTING TRAFFIC VOLUMES [1]

08-Sep-17

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
12	Lincoln Boulevard / Jefferson Boulevard	04/26/2016	NB SB EB WB	7:45	2,898 1,858 602 1,342	5:00	1,996 3,308 364 1,731
13	Glencoe Avenue / Washington Boulevard	04/26/2016	NB SB EB WB	7:45	903 141 1,067 1,114	5:00	627 431 1,098 1,786
14	Glencoe Avenue / Maxella Avenue	04/26/2016	NB SB EB WB	8:15	719 670 333 225	4:45	534 831 455 337
15	Mindanao Way / Glencoe Avenue	04/26/2016	NB SB EB WB	7:45	1,066 483 645 253	5:00	596 602 934 353
16	Mindanao Way / SR-90 WB Ramps	04/26/2016	NB SB EB WB	8:00	538 859 0 2,563	5:00	451 1,393 0 1,831
17	Mindanao Way / SR-90 EB Ramps	04/26/2016	NB SB EB WB	8:00	1,241 1,485 1,238 0	4:45	1,123 1,826 1,176 0
18	Beethoven Street / Venice Boulevard	04/26/2016	NB SB EB WB	7:45	502 330 1,748 1,456	5:00	230 535 1,539 1,492
19	Zanja Street / Washington Boulevard - Washington Place	04/26/2016	NB SB EB WB	7:45	583 229 1,276 627	4:45	604 253 1,221 884
20	Centinela Avenue / Venice Boulevard	04/26/2016	NB SB EB WB	8:00	1,215 1,062 1,995 1,566	5:00	907 1,362 1,709 1,601
21	Centinela Avenue / Washington Place	04/26/2016	NB SB EB WB	7:45	1,476 1,031 920 808	5:00	1,187 1,729 851 948
22	Centinela Avenue / Washington Boulevard	04/26/2016	NB SB EB WB	7:45	1,565 982 853 641	5:00	1,164 1,682 787 777



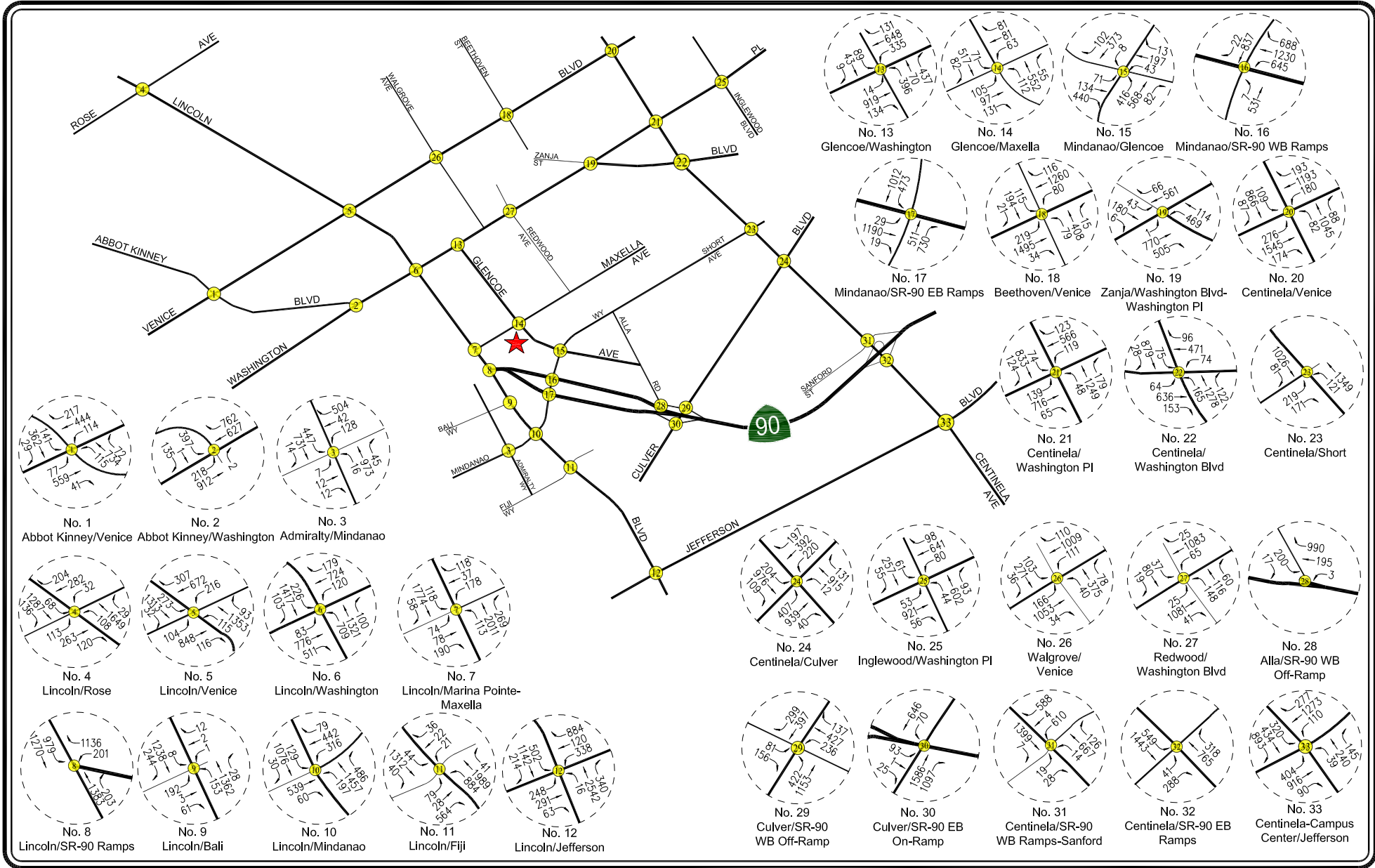
Table 5-1 (Continued)  
EXISTING TRAFFIC VOLUMES [1]

08-Sep-17

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
23	Centinela Avenue / Short Avenue	04/26/2016	NB SB EB WB	7:45	1,470 1,107 390 0	5:00	1,221 1,507 341 0
24	Centinela Avenue / Culver Boulevard	04/26/2016	NB SB EB WB	8:00	1,058 1,289 1,386 809	5:00	1,171 1,762 774 1,202
25	Inglewood Boulevard / Washington Place	04/26/2016	NB SB EB WB	7:45	739 373 1,030 819	5:00	371 601 891 1,085
26	Walgrove Avenue / Venice Boulevard	08/29/2017	NB SB EB WB	7:45	493 410 1,253 1,230	5:00	465 569 1,259 1,118
27	Redwood Avenue / Washington Boulevard	08/29/2017	NB SB EB WB	8:00	324 136 1,147 1,173	5:00	217 331 1,184 1,248
28	Alla Road / SR-90 WB On-Ramp	08/29/2017	NB SB EB WB	8:15	0 217 0 1,188	5:00	0 674 0 729
29	Culver Boulevard / SR-90 WB Off-Ramp	08/29/2017	NB SB EB WB	7:30	1,575 696 237 800	5:00	969 925 652 448
30	Culver Boulevard / SR-90 EB Ramps	08/29/2017	NB SB EB WB	7:15	2,683 716 119 0	3:15	1,170 1,336 132 0
31	Centinela Avenue / Sanford Street - SR-90 WB Off-Ramp	08/29/2017	NB SB EB WB	8:30	807 1,406 47 1,202	5:00	920 1,769 26 735
32	Centinela Avenue / SR-90 EB Ramps	08/29/2017	NB SB EB WB	8:15	1,083 1,992 329 0	5:00	1,044 1,972 285 0
33	Centinela Avenue - Campus Center Drive / Jefferson Boulevard	08/29/2017	NB SB EB WB	8:30	424 1,647 1,410 1,660	5:00	704 1,592 1,883 1,333

[1] National Data & Surveying Services

[2] Note: Volumes conducted prior to existing year 2017 were increased using an ambient growth rate of 1.0%.

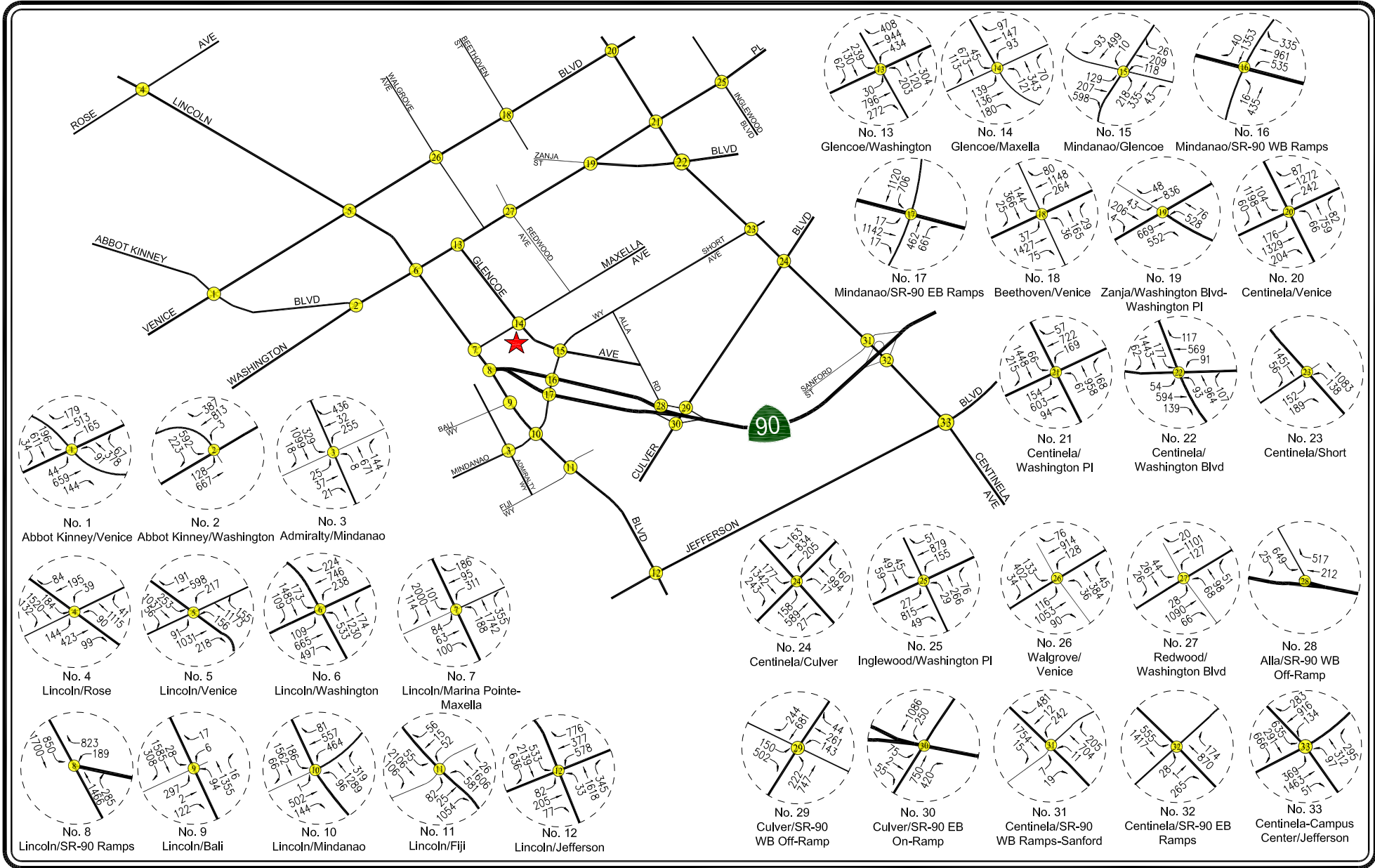






  
 ★ PROJECT SITE
   
 (X) STUDY INTERSECTION
   
**NOT TO SCALE**

LINSCOTT, LAW & GREENSPAN, engineers

## FIGURE 5-1 EXISTING TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT




 PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

LINSCOTT, LAW & GREENSPAN, engineers

## FIGURE 5-2 EXISTING TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

## 6.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

“(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.”

Accordingly, the transportation analysis provides a highly conservative estimate of future pre-project traffic volumes as it incorporates both the “A” and “B” options outlined in CEQA Guidelines for purposes of developing the forecast.

### 6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the proposed project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Los Angeles Departments of Transportation and Planning, County of Los Angeles Department of Regional Planning, and City of Culver City Planning Division. The list of related projects in the project site area is presented in **Table 6-1**. The location of the related projects is shown in **Figure 6-1**.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers’ (ITE) *Trip Generation* manual<sup>4</sup>. The related projects’ respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 6-1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in **Figures 6-2** and **6-3**, respectively.

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<sup>4</sup> Institute of Transportation Engineers *Trip Generation* manual, 9<sup>th</sup> Edition, Washington, D.C., 2012.

Table 6-1  
RELATED PROJECTS LIST AND TRIP GENERATION [1]

05-Oct-17

MAP NO.	PROJECT NAME/ PROJECT NUMBER	PROJECT STATUS	ADDRESS/ LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				LAND-USE	SIZE			IN	OUT	TOTAL	IN	OUT	TOTAL
City of Los Angeles													
LA1	High-Turnover Restaurant	Under Construction	1020 E. Venice Boulevard	High-Turnover Restaurant	3,895 GSF		396	18	15	33	20	13	33
LA2	New Apartment & Office Building VTT-72107	Under Construction	4140 S. Glencoe Avenue	Apartments Office	67 DU 3,211 GSF		481	11	28	39	33	23	56
LA3	D1 by CLG	Under Construction	4210 S. Del Rey Avenue	Condominiums Office	136 DU 14,929 GSF		627	24	47	71	48	37	85
LA4	4040 Del Rey Avenue Apartment Project	Proposed	4040 S. Del Rey Avenue	Apartments Office	230 DU 18,800 GSF	[3]	831	(28)	72	44	74	(14)	60
LA5	Marina Island	Proposed	5000 Beethoven Street	Apartments Office	236 DU 18,077 GSF		1,363	24	96	120	107	58	165
LA6	Teledyne Office Project	Proposed	12964 W. Panama Street	Office	159,000 GSF		777	72	9	81	20	71	91
LA7	New 3-Story Manufacturing & Retail	Proposed	595 Venice Boulevard	Office Retail Manufacturing	25,150 GSF 5,028 GSF 5,930 GSF		556	50	6	56	15	70	85
LA8	Westside Neighborhood School	Proposed	12901 W. Coral Tree Place	School	68 Students	[20]	169	34	21	55	5	7	12
LA9	12575 Beatrice Street Office Project	Proposed	12575 Beatrice Street	Office Restaurant Retail Office	196,100 GSF 2,500 GSF 900 GSF (23,072) GSF	[5]	1,946	242	33	275	57	277	334
LA10	Playa Vista Plant Site (Spruce Goose)	Under Construction	Campus Center Drive / Bluff Creek Drive	Production/Staging Office	1,129,900 DU 572,050 GSF		nom.	1,456	198	1,654	259	1,267	1,526
LA11	Village at Playa Vista Phase II	Under Construction	South of Jefferson Boulevard / Westlawn Avenue	Condominiums Office Retail Community Serving	2,600 DU 175,000 GSF 150,000 GSF 40,000 GSF	[4]	24,220	577	1,049	1,626	1,275	1,027	2,302
LA12	Venice Place	Proposed	1027 S. Abbot Kinney Boulevard	Hotel Retail Restaurant	92 Rooms 3,000 GSF 2,072 GSF		654	16	9	25	25	17	42
LA13	Inclave Mixed-Use Project	Proposed	4065-71 Glencoe Avenue	Creative Office Specialty Retail Apartments	35,206 GSF 1,500 GSF 49 DU	[9]	(96)	31	18	49	1	47	48

Table 6-1 (Continued)  
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT NAME/ PROJECT NUMBER	PROJECT STATUS	ADDRESS/ LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				LAND-USE	SIZE			IN	OUT	TOTAL	IN	OUT	TOTAL
LA14	DIR-2016-54-DB	Proposed	12575 W. Venice Boulevard	Apartments	52 DU	[17]	346	5	22	27	21	11	32
LA15	DIR-2016-304-DB-SPR	Proposed	12444 W. Venice Boulevard	Apartments Retail	77 DU 2,100 GSF	[17] [8]	512 90	8 1	31 1	39 2	31 4	17 4	48 8
LA16	Expansion of Charter School	Proposed	4471 Inglewood Boulevard	School	800 Students		275	55	45	100	31	36	67
LA17	Warehouse to Office	Proposed	4721 S. Alla Road	Office	118,352 GSF		267	38	5	43	9	48	57
LA18	Stella Phase 2	Proposed	13488 W. Maxella Avenue	Apartments	65 DU		362	6	23	29	26	14	40
LA19	Charter School	Proposed	12870 W. Panama Street	School	532 Students		1,320	263	216	479	79	89	168
LA20	DIR-2016-3999-DB	Proposed	11830 W. Courtleigh Drive	Apartments	29 DU	[17]	193	3	12	15	12	6	18
City of Culver City													
CC1	Costco Expansion	Under Construction	13463 Washington Boulevard	Discount Club Fueling Station Supermarket	31,023 GSF 2 FP (63,213) GSF	[12] [13] [14]	1,297 315 (6,463)	11 23 (133)	4 23 (82)	15 46 (215)	65 25 (305)	65 24 (294)	130 49 (599)
CC2	Washington/Tivoli Mixed Use Project	Proposed	13112-13114 Washington Boulevard	Retail/Restaurant Office Residential	1,536 GSF 3,702 GSF 2 DU	[8] [15] [16]	66 41 12	1 5 0	0 1 1	1 6 1	3 1 1	3 5 0	6 6 1
CC3	Baldwin Site	Proposed	12803 Washington Boulevard	Office Retail	31,000 GSF 6,000 GSF	[15] [8]	342 256	42 4	6 2	48 6	8 11	38 11	46 22
CC4	Kayvon Mixed Use	Under Construction	12712-12718 Washington Boulevard	Residential Commercial/Office Commercial	5 DU 3,308 GSF (2,340) GSF	[16] [8] [8]	29 141 (100)	0 2 (1)	2 1 (1)	2 3 (2)	2 6 (4)	1 6 (5)	3 12 (9)
CC5	Market Hall - Washington/Centinela	Proposed	12403 Washington Boulevard	Market Hall	60,000 GSF	[8]	2,562	36	22	58	107	116	223
CC6	Grandview Apartments	Proposed	4025 Grand View Boulevard	Apartments Mobile Homes	36 DU (20) DU	[17] [18]	239 (100)	4 (2)	14 (7)	18 (9)	14 (7)	8 (5)	22 (12)
CC7	Townhome Development	Proposed	4118 Wade Street	Townhome	1 DU	[16]	6	0	0	0	1	0	1
CC8	Pennylane Mixed Use Washington/Inglewood	Proposed	11924 Washington Boulevard	Restaurant Specialty Retail Apartments Commercial	3,750 GSF 11,250 GSF 98 DU (26,445) GSF	[7] [19] [17] [8]	477 499 652 (1,129)	23 0 10 (16)	18 0 40 (9)	41 0 50 (25)	22 13 40 (47)	15 17 21 (51)	37 30 61 (98)
CC9	New 2-story Office Building	Proposed	12038 Washington Boulevard	Office Retail	2,685 GSF (1,200) GSF	[15] [8]	30 (51)	4 (1)	0 0	4 (1)	1 (2)	3 (2)	4 (4)

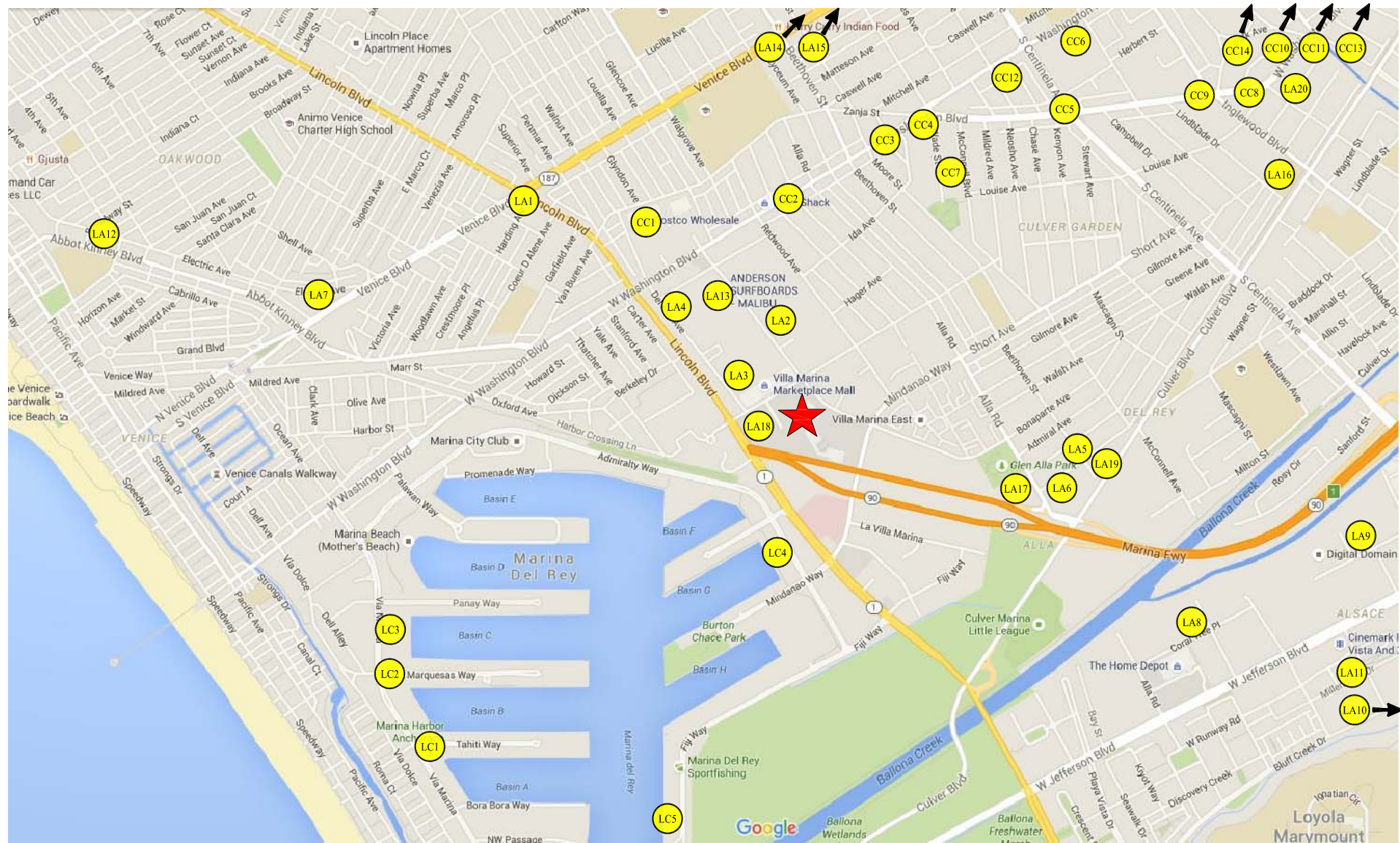
Table 6-1 (Continued)  
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT NAME/ PROJECT NUMBER	PROJECT STATUS	ADDRESS/ LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				LAND-USE	SIZE			IN	OUT	TOTAL	IN	OUT	TOTAL
CC10	Mixed-Use with Density Bonus	Proposed	11281 Washington Place	Residential Retail	14 DU 4,897 GSF	[16] [8]	81 209	1 3	5 2	6 5	5 9	2 9	7 18
CC11	Globe Housing Project	Proposed	4044 - 4068 Globe Avenue	Apartments	10 DU	[17]	67	1	4	5	4	2	6
CC12	Washington Place Condominium	Proposed	12464 Washington Place	Condominium	2 DU	[16]	12	0	1	1	1	0	1
CC13	New Condominium	Proposed	4234 Sawtelle Boulevard	Condominium	2 DU	[16]	12	0	1	1	1	0	1
CC14	3906-3910 Sawtelle Blvd	Proposed	3906-3910 Sawtelle Boulevard	Condominium	1 DU	[16]	6	0	0	0	1	0	1
County of Los Angeles													
LC1	Courtyard by Marriott and Residence Inn (Lease Parcel 9)	Approved	Southeast Corner of Via Marina and Tahiti Way	Hotel Park	288 Rooms 1.46 Acres	[21]	1,588	63	54	117	46	56	102
LC2	Neptune Marina (Lease Parcel 10/14)	Approved	Via Marina and Marquesas Way	Apartments Marina Apartments Marina	526 DU 174 Berths (136) DU (184) Berths	[21]	1,516	24	112	136	86	40	126
LC3	AMLI MDR (Lease Parcel 15)	Under Construction	4242 Via Marina	Apartments	585 DU	[17]	3,890	60	238	298	236	127	363
				Comercial	8,000 GSF	[8]	342	5	3	8	14	16	30
				Marina	241 Berths	[22]	713	6	13	19	28	18	46
				Apartments	(288) DU	[17]	(1,915)	(29)	(118)	(147)	(116)	(63)	(179)
				Commercial Marina	(4,400) GSF (253) Berths	[8] [22]	(188) (749)	(2) (7)	(2) (13)	(4) (20)	(8) (29)	(8) (19)	(16) (48)
LC4	Pier 44 (Lease Parcel 44)	Approved	4625 & 4635 Admiralty Way	Specialty Grocery	13,625 GSF	[23]	1,393	28	18	46	66	63	129
				Retail	41,680 GSF	[8]	1,780	25	15	40	74	81	155
				Restaurant	9,978 GSF	[7]	1,269	59	49	108	59	39	98
				Office	17,369 GSF	[15]	192	24	3	27	4	22	26
				Marina Office	141 Berths (14,724) GSF	[22] [15]	417 (162)	4 (20)	7 (3)	11 (23)	16 (4)	11 (18)	27 (22)
LC5	Boat Central (Lease Parcel 52)	Approved	13843 Fiji Way	Dry Stack Boat Storage	375 Spaces	[24]	125	12	6	18	2	16	18
				Boatwright Facility	5,300 GSF	[15]	58	7	1	8	1	7	8
TOTAL							45,066	3,182	2,387	5,569	2,603	3,502	6,105

nom. = nominal

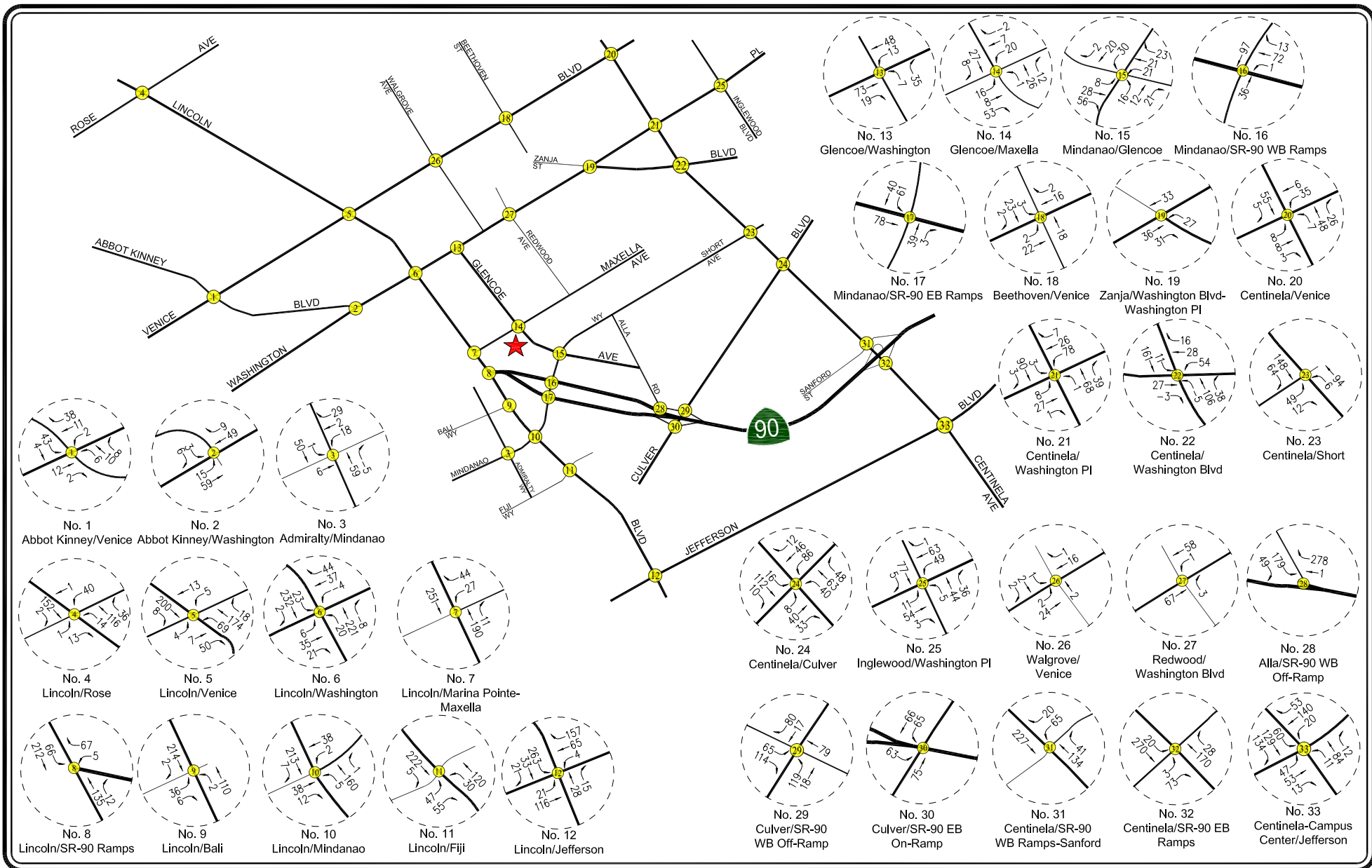
- [1] Source: City of Los Angeles Department of Transportation Related Projects List and Culver City Related Projects List.
- [2] Trips are one-way traffic movements, entering or leaving.
- [3] Source: Memorandum for the 4040 Del Rey Avenue Apartment Project, prepared by Gibson Transportation Consulting, Inc., Revised March 30, 2016.
- [4] Source: Del Rey Pointe - Traffic Impact Study, prepared by KOA Corporation, September 8, 2015.
- [5] Source: Traffic Impact Study for the 12575 Beatrice Street Office Project, prepared by Linscott, Law & Greenspan, Engineers, 2016.
- [6] Source: Planning Department Transmittal to the City Clerk's Office for 320 E. Sunset Boulevard, April 13, 2016.
- [7] ITE Land Use Code 932 (High-Turnover (Sit-Down) Restaurant) trip generation equation rates.
- [8] ITE Land Use Code 820 (Shopping Center) trip generation equation rates.
- [9] Source: Traffic Impact Study for the Inclave Mixed-Use Project, prepared by Linscott, Law & Greenspan, Engineers, 2016.
- [10] Source: Traffic Analysis for Proposed Mixed-Use Development at Pacific Avenue and Culver Boulevard, prepared by Crain & Associates, Updated June 14, 2006.
- [11] Source: Traffic Impact Analysis Report for the Proposed 72-Unit Residential and 16,000 Square Foot Commercial Mixed-Use Development, prepared by Hirsch/Green Transportation Consulting, Inc., Updated September 30, 2013.
- [12] ITE Land Use Code 857 (Discount Club) trip generation equation rates.
- [13] Source: Addendum for Traffic And Parking Analysis for the Village at Westfield Topanga, prepared by Gibson Transportation Consulting, Inc., Revised February 2011.
- [14] ITE Land Use Code 850 (Supermarket) trip generation equation rates.
- [15] ITE Land Use Code 710 (General Office Building) trip generation equation rates.
- [16] ITE Land Use Code 230 (Residential Condominium/Townhouse) trip generation equation rates.
- [17] ITE Land Use Code 220 (Apartment) trip generation equation rates.
- [18] ITE Land Use Code 240 (Mobile Home Park) trip generation equation rates.
- [19] ITE Land Use Code 826 (Specialty Retail Center) trip generation equation rates.
- [20] ITE Land Use Code 536 [Private School (K-12)] trip generation equation rates.
- [21] Source: Traffic Analysis for Proposed Neptune Marina Apartments and Anchorage/Woodfin Suites Hotel and Timeshare Resort, prepared by Crain & Associates, Updated November, 2013.
- [22] ITE Land Use Code 420 (Marina) trip generation equation rates.
- [23] ITE Land Use Code 850 (Supermarket) trip generation equation rates.
- [24] Source: Traffic Impact Analysis for the Dry Stack Boat Storage Project, prepared by Linscott, Law & Greenspan, Engineers, Updated January 26, 2011.





MAP SOURCE: GOOGLE MAPS  
 ★ PROJECT SITE  
 ○X○ RELATED PROJECT

FIGURE 6-1  
 LOCATION OF RELATED PROJECTS



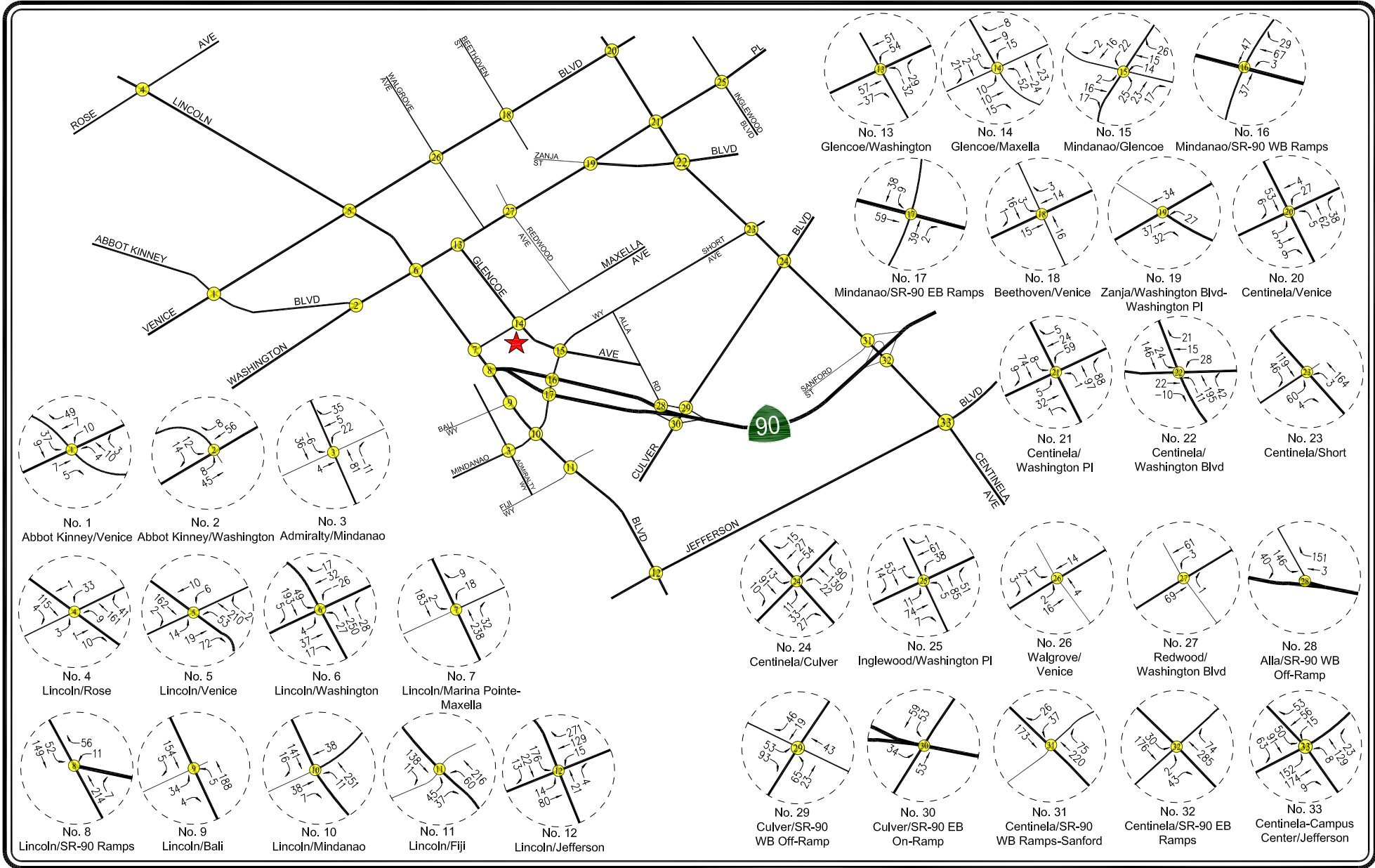
★ PROJECT SITE
   
 STUDY INTERSECTION
   
 NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

## FIGURE 6-2 RELATED PROJECTS TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT





**FIGURE 6-3**  
**RELATED PROJECTS TRAFFIC VOLUMES**

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

## 6.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%) per year to the year 2023 (i.e., the anticipated year of project build-out). The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the “CMP manual”) and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the Santa Monica area, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 0.24% per year between the years 2015 and 2025. Thus, application of an annual growth factor of the 1.0% annual growth rate provides a conservative, worst case forecast of future traffic volumes in the area as it substantially exceeds the annual traffic growth rate published in the CMP manual. Further, it is noted that the CMP manual’s traffic growth rate is intended to anticipate future traffic generated by development projects in the project vicinity. Thus, the inclusion in this transportation analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

## 7.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the transportation impact characteristics of the Paseo Marina project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

### 7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed Paseo Marina project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual, as well as the Coastal Transportation Corridor Specific Plan (September 2003). The Coastal Plan provides trip rates for the PM peak hour. For purposes of forecasting daily (24-hour) and AM peak hour trips due to the project, trip rates from the ITE *Trip Generation* manual were utilized. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project land use components:

- Apartment: ITE Land Use Code 220 (Apartment) and Coastal Transportation Corridor Specific Plan for Multi-Story Apartments, Condominiums, Townhomes or Single-Family Housing trip generation average rates were used to forecast the traffic volumes expected to be generated by the residential component of the project.
- Restaurant: ITE Land Use Code 932 (High-Turnover Restaurant) and Coastal Transportation Corridor Specific Plan for High Turnover Restaurant trip generation average rates were used to forecast the traffic volumes expected to be generated by the restaurant component of the project.

- Commercial: ITE Land Use Code 820 (Shopping Center) and Coastal Transportation Corridor Specific Plan for Shopping Center less than 30,000 square feet trip generation average rates were used to forecast the traffic volumes expected to be generated by the commercial component of the project.

In addition to the trip generation forecasts for the proposed project land use components (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the project site access points), an internal capture adjustment has been applied for the project to account for the synergistic effects of the planned land use mix. Internal capture trips are those trips made internal to the site between land uses in a mixed or multi-use development. When combined within a mixed or multi-use development, land uses tend to interact, and thus attract a portion of each other's trip generation. An internal capture adjustment of 15% has been utilized to account for the interaction between the residential and commercial land uses.

An adjustment was made to the trip generation forecast based on the project site's existing land uses. The existing land uses to be removed include 100,781 square feet of commercial floor area. ITE Land Use Code 820 (Shopping Center) and Coastal Transportation Corridor Specific Plan for Shopping Center 30,000 square feet or more trip generation average rates were used to estimate the trips generated by the existing commercial buildings within the project site.

Furthermore, forecast was also made of transit trips. The transit reduction is based on the site's proximity to the various bus lines, as well as the land use characteristics of the Project. As shown in *Table 4-1* and *Figure 4-2*, the Project site is well served by public transit. A transit adjustment of 15% has been utilized.

Lastly, a forecast was made of likely pass-by trips. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. In this instance, the adjacent roadways to the project site include Maxella Avenue and Glencoe Avenue. Based on the *LADOT Policy on Pass-By Trips*, a 20% pass-by reduction adjustment was applied to the restaurant land use component of the project, a 50% pass-by reduction adjustment for Shopping Center less than 50,000 square feet was applied to the commercial land use component of the project and a 30% pass-by reduction adjustment for Shopping Center 100,000 to less than 300,000 square feet was applied to the existing commercial floor area.

The trip generation forecast for the proposed project was submitted for review and approval by LADOT staff. As presented in *Table 7-1*, the proposed project is expected to generate 296 net new vehicle trips (60 inbound trips and 236 outbound trips) during the AM peak hour. During the PM peak hour, the proposed project is expected to generate 83 net new vehicle trips (increase in 115 inbound trips and decrease in 32 outbound trips). Over a 24-hour period, the proposed project is forecast to generate 2,079 daily trips ends (approximately 1,040 inbound trips and 1,039 outbound trips) during a typical weekday.

Table 7-1  
PROJECT TRIP GENERATION [1]

26-Jun-17

LAND USE	SIZE	DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
		VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Apartments [3]	658 DU	4,376	67	269	336	300	161	461
Restaurant [4]	13,650 GSF	1,736	81	67	148	86	57	143
Commercial [5]	13,650 GLSF	<u>583</u>	<u>8</u>	<u>5</u>	<u>13</u>	<u>96</u>	<u>103</u>	<u>199</u>
Subtotal		6,695	156	341	497	482	321	803
<i>Internal Capture</i>								
Apartments [6]		(347)	(13)	(11)	(24)	(27)	(24)	(51)
Restaurant (15%) [7]		(260)	(12)	(10)	(22)	(13)	(9)	(22)
Commercial (15%) [7]		<u>(87)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(14)</u>	<u>(15)</u>	<u>(29)</u>
Subtotal		(694)	(26)	(22)	(48)	(54)	(48)	(102)
<i>Transit Trips [8]</i>								
Apartments (15%)		(604)	(8)	(39)	(47)	(41)	(21)	(62)
Restaurant (15%)		(221)	(10)	(9)	(19)	(11)	(7)	(18)
Commercial (15%)		<u>(74)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(12)</u>	<u>(13)</u>	<u>(25)</u>
Subtotal		(899)	(19)	(49)	(68)	(64)	(41)	(105)
Subtotal Project Driveway Trips		5,102	111	270	381	364	232	596
<i>Existing Land Use</i>								
Commercial [5]	(100,781) GLSF	(4,303)	(60)	(37)	(97)	(339)	(367)	(706)
<i>Transit Trips [8]</i>								
Existing Use (15%)		645	9	6	15	51	55	106
Subtotal Existing Driveway Trips		(3,658)	(51)	(31)	(82)	(288)	(312)	(600)
NET INCREASE DRIVEWAY TRIPS		1,444	60	239	299	76	(80)	(4)
<i>Proposed Pass-By Trips [9]</i>								
Restaurant (20%)		(251)	(12)	(10)	(22)	(12)	(8)	(20)
Commercial (50%)		(211)	(3)	(2)	(5)	(35)	(38)	(73)
<i>Existing Pass-By Trips [9]</i>								
Existing Use (30%)		1,097	15	9	24	86	94	180
NET INCREASE "OFF-SITE" TRIPS		2,079	60	236	296	115	(32)	83

[1] Sources: ITE "Trip Generation", 9th Edition, 2012; Coastal Transportation Corridor Specific Plan, 1993.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 220 (Apartment) trip generation average rates.

- Daily Trip Rate: 6.65 trips/dwelling unit; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.51 trips/dwelling unit; 20% inbound/80% outbound

- PM Peak Hour directional distribution: 65% inbound/35% outbound

For Multi-Story Apartments, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 0.70 trips/dwelling unit

[4] ITE Land Use Code 932 (High-Turnover Restaurant) trip generation average rates.

- Daily Weekday Trip Rate: 127.15 trips/1,000 GSF of floor area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 10.81 trips/1000 GSF of floor area; 55% inbound/45% outbound

- PM Peak Hour directional distribution: 60% inbound/40% outbound

For High Turnover Restaurant, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 10.5 trips/1000 GSF

[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.

- Daily Trip Rate: 42.70 trips/1000 GLSF of leasable area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF of leasable area; 62% inbound/38% outbound

- PM Peak Hour directional distribution: 48% inbound/52% outbound

For shopping center less than 30,000 sq. ft., PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 14.6 trips/1000 GLSF

For shopping center 30,000 sq. ft. or more, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate:  $-0.001(A) + 323.5/(A) + 3.9$  trips/1000 GLSF, [where (A) = floor area/(1000 GLSF)]

- [6] The internal capture reduction for the residential use is based on the internal capture reduction of the restaurant and retail uses.
- [7] The internal capture reduction for the restaurant and retail is based on the synergy between all the land uses provided within the Project site.
- [8] A 15% transit use reduction applied based on the project site being located within 1/4 mile of a Big Blue Bus rapid stop. The trip reduction for transit trips has been applied to the proposed project and existing land uses based on the "LADOT Transportation Impact Study Guidelines", December 2016 for developments within a 1/4 mile walking distance of a transit station or a Rapid Bus stop.
- [9] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. The trip reduction for pass-by trips has been applied to the commercial component of the project based on the "LADOT Transportation Impact Study Guidelines", December 2016 for High Turnover Restaurant, Shopping Center less than 50,000 sf, and Shopping Center 100,000 to less than 300,000 sf.

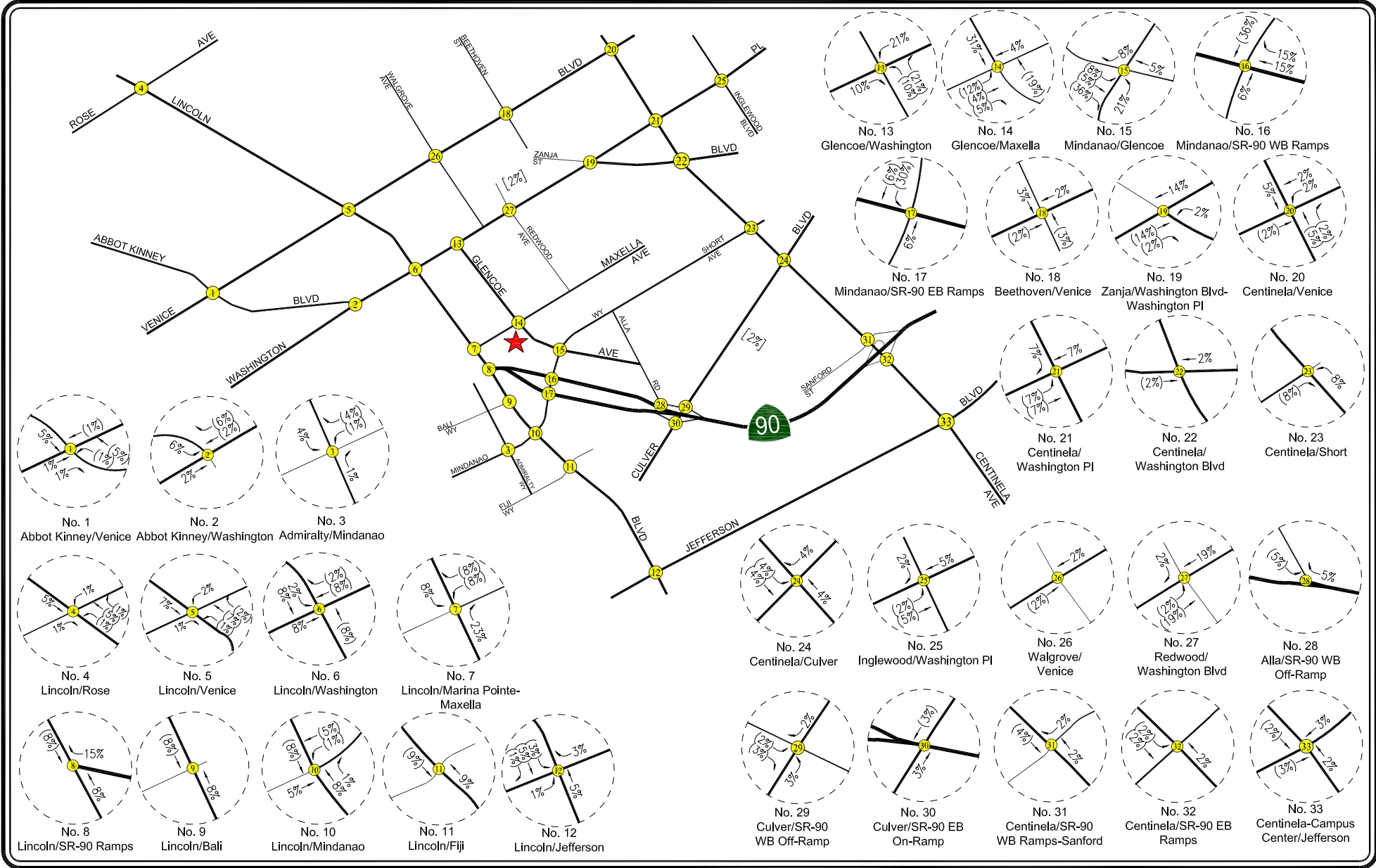


## 7.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

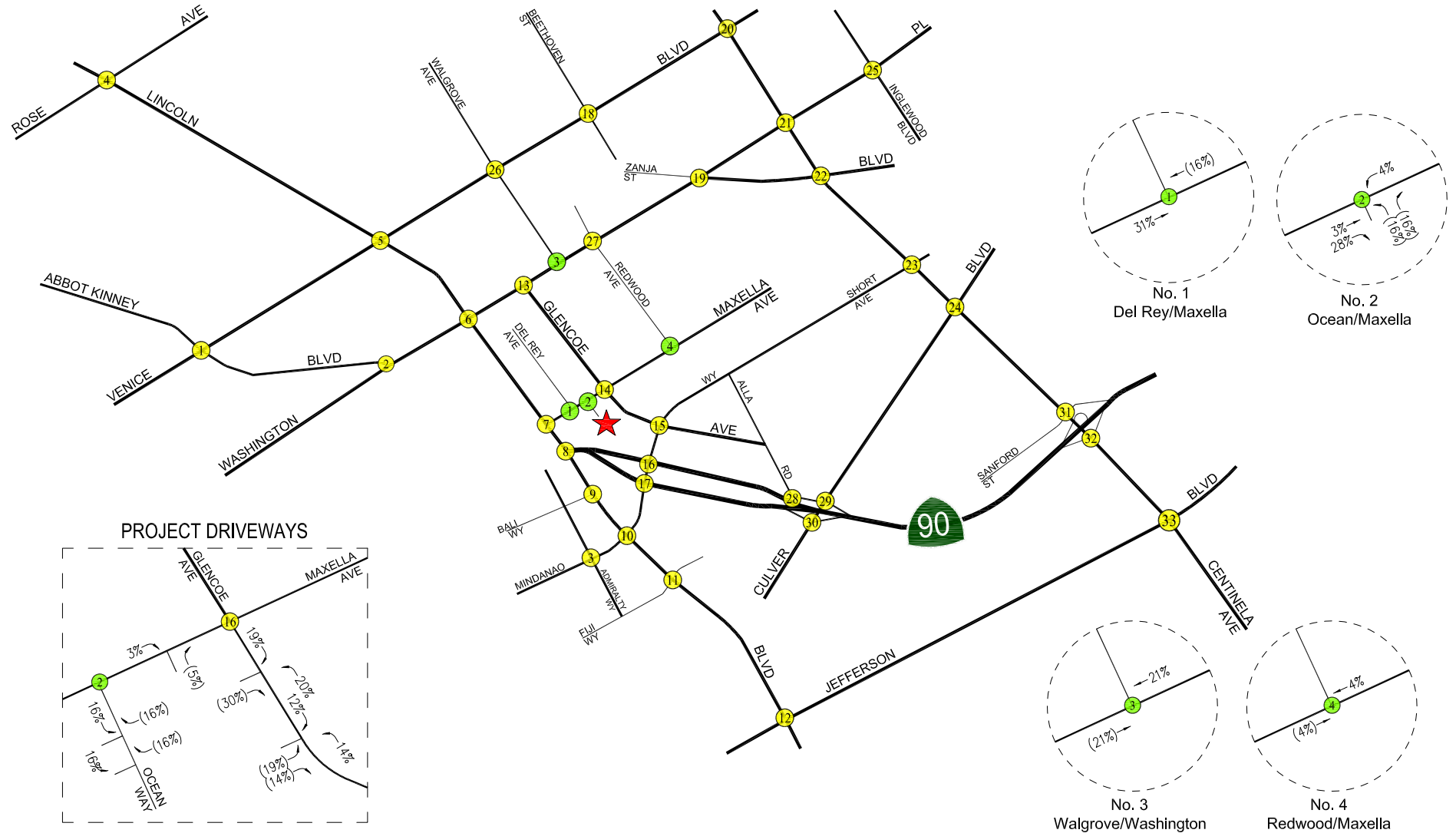
- The site's proximity to major traffic corridors (i.e., Venice Boulevard, Washington Boulevard, Lincoln Boulevard, SR-90 Freeway etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the project site assuming the site access and circulation scheme described in Section 3.0;
- The location of existing and proposed parking areas;
- Nearby population and employment centers as well as adjacent residential neighborhoods;
- Input from LADOT staff.

The general, directional traffic distribution patterns for the proposed project are presented in **Figures 7-1A and 7-1B**. The forecast net new weekday AM and PM peak hour project traffic volumes at the study intersections associated with the proposed project are presented in **Figures 7-2 and 7-3**, respectively. The traffic volume assignments presented in **Figures 7-2 and 7-3** reflect the traffic distribution characteristics shown in **Figures 7-1A and 7-1B**, as well as the project traffic generation forecast presented in **Table 7-1**.



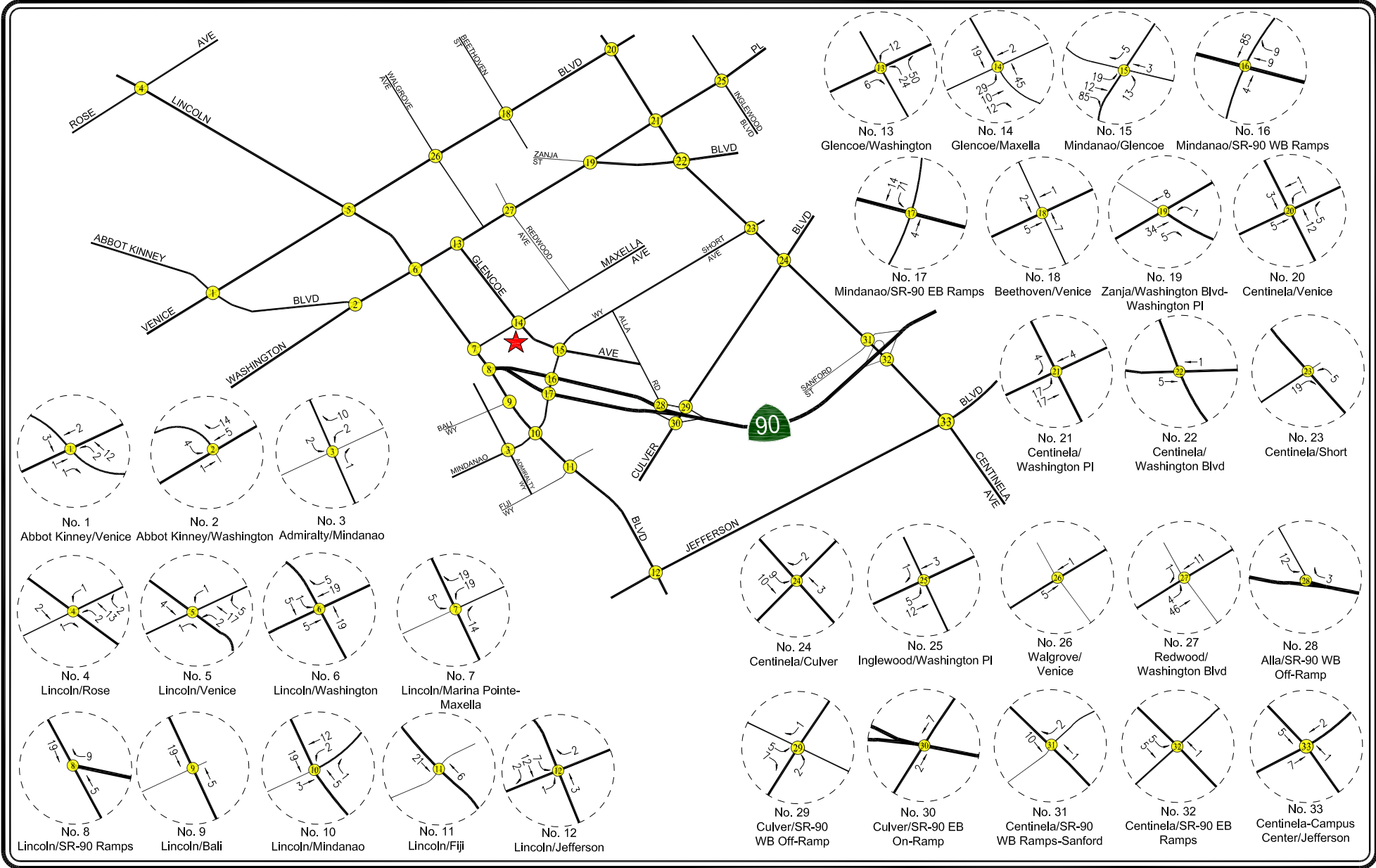
**NOT TO SCALE**
  
 ★ PROJECT SITE
   
 (X) STUDY INTERSECTION
   
 ## = INBOUND PERCENTAGES
   
 (##) = OUTBOUND PERCENTAGES
   
 [##] = INTERNAL TRAFFIC PERCENTAGES


# FIGURE 7-1A PROJECT TRIP DISTRIBUTION SIGNALIZED INTERSECTIONS



- NOT TO SCALE  
 ★ PROJECT SITE  
 ● SIGNALIZED STUDY INTERSECTION  
 ● UNSIGNALIZED STUDY INTERSECTION  
 ## = INBOUND PERCENTAGES  
 (##) = OUTBOUND PERCENTAGES

**FIGURE 7-1B**  
**PROJECT TRIP DISTRIBUTION**  
**UNSIGNALIZED INTERSECTIONS AND DRIVEWAYS**

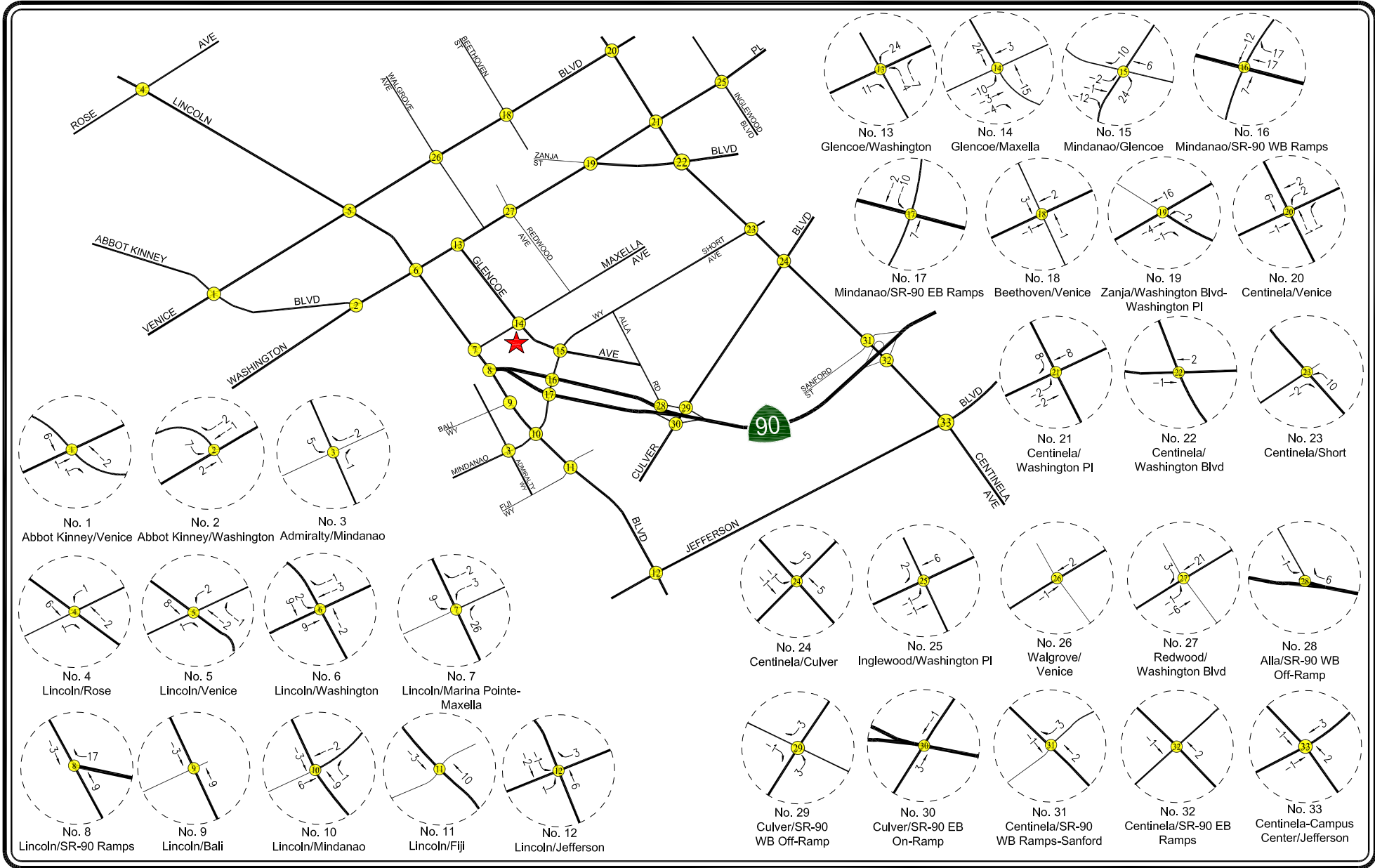


 PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

# FIGURE 7-2

## NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT



PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

## FIGURE 7-3 NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

## 8.0 TRANSPORTATION IMPACT ANALYSIS METHODOLOGY

Operations at the study intersections were evaluated using the Critical Movement Analysis (CMA) method<sup>5</sup> that determines Volume-to-Capacity ( $v/c$ ) ratios on a critical lane basis in the City of Los Angeles and City of Culver City. In addition to the transportation analysis using CMA methodology, a supplemental analysis was prepared using the Intersection Capacity Utilization (ICU) method for those study intersections located in or shared with the County of Los Angeles. Specifically, the ICU method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the study intersections located outside City of Los Angeles and City of Culver City as the ICU method is used for transportation analysis purposes in these neighboring jurisdictions. The ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left-turn capacity of 2,880 vph. A clearance adjustment factor of 0.10 was added to each Level of Service calculation.

The overall intersection  $v/c$  ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the CMA and ICU method and corresponding Level of Service is provided in **Appendix B** and **C**, respectively.

### 8.1 Impact Criteria and Thresholds

The relative impact of the added project traffic volumes to be generated by the proposed project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the study intersections, without and with the proposed project. The previously discussed capacity analysis procedures were utilized to evaluate the future  $v/c$  relationships and service level characteristics at each study intersection.

The significance of the potential impacts of project generated traffic was identified using the transportation impact criteria set forth in LADOT's *Transportation Impact Study Guidelines*, December 2016, coordination with the City of Culver City's Planning Division, and set forth in the County of Los Angeles' *Traffic Impact Analysis Report Guidelines*, January 1, 1997. The transportation impact thresholds of significance for Los Angeles, Culver City, and Los Angeles County are provided in **Tables 8-1**, **8-2** and **8-3**, respectively.

Table 8-1 CITY OF LOS ANGELES INTERSECTION IMPACT THRESHOLD CRITERIA		
Final $v/c$	Level of Service	Project Related Increase in $v/c$
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

<sup>5</sup> Both the cities of Los Angeles and Culver City utilize the CMA method for purposes of evaluating the operations of intersections within transportation impact studies prepared for development projects.

Table 8-2 CITY OF CULVER CITY INTERSECTION IMPACT THRESHOLD CRITERIA		
Final $v/c$	Level of Service	Project Related Increase in $v/c$
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

Table 8-3 COUNTY OF LOS ANGELES INTERSECTION IMPACT THRESHOLD CRITERIA		
Pre-Project $v/c$	Level of Service	Project Related Increase in $v/c$
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

As required by the City of Los Angeles, City of Culver City, and County of Los Angeles mitigation of project transportation impacts are required whenever traffic generated by the proposed development causes an increase of the analyzed intersection  $v/c$  ratio by an amount equal to or greater than the values shown above.

## 8.2 LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical  $v/c$  ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical  $v/c$  ratios by three percent (0.03) for a total of 10 percent (0.10). ATSAC system upgrades for the study intersections have been implemented as part of the LADOT ATSAC/ATCS system. Accordingly, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated.

## 8.3 Transportation Impact Analysis Scenarios

### 8.3.1 *City of Los Angeles and City of Culver City Transportation Impact Analysis Scenarios*

Pursuant to LADOT and City of Culver City transportation study guidelines, Level of Service calculations have been prepared for the following scenarios for the Cities' study intersections:

- (a) Existing (2017) conditions.
- (b) Condition (a) with completion and occupancy of the project.
- (c) Condition (b) with implementation of project mitigation measures where necessary.
- (d) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2023 and with completion and occupancy of the related projects (i.e., future cumulative baseline)
- (e) Condition (d) with completion and occupancy of the project.
- (f) Condition (e) with implementation of project mitigation measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

### 8.3.2 *County of Los Angeles Transportation Impact Analysis Scenarios*

Pursuant to the County of Los Angeles' traffic study guidelines, the County study intersections were prepared for the following analysis scenarios:

- (a) Existing (2017) conditions.
- (b) Condition (a) with completion and occupancy of the proposed project.
- (c) Condition (b) with completion and occupancy of the related projects.
- (d) Condition (c) with implementation of cumulative mitigation measures, where necessary.

It is important to note that the County's analysis scenarios were analyzed by evaluating the potential transportation impacts from the project only in Condition (c) prior to combining the cumulative traffic from other related projects in the study area.



## 9.0 CITY OF LOS ANGELES TRANSPORTATION ANALYSIS

The transportation impact analysis prepared for the 28 study intersections located in the City of Los Angeles using the CMA methodology and application of the City of Los Angeles significant transportation impact criteria is summarized in **Table 9-1**. The CMA data worksheets for the analyzed intersections are contained in *Appendix B*.

### 9.1 Existing Conditions

#### 9.1.1 Existing Conditions

As indicated in column [1] of *Table 9-1*, 24 of the 28 study intersections located in the City of Los Angeles are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The following intersections are presently operating at LOS E or worse during the peak hours shown below under existing conditions<sup>1</sup>:

- |   |  |
|---|--|
| • Int. No. 7: Lincoln Boulevard /<br>Marina Pointe Dr.-Maxella Ave. | AM Peak Hour: Constrained, LOS F<br>PM Peak Hour: Constrained, LOS F |
| • Int. No. 8: Lincoln Boulevard /<br>SR-90 Ramps                    | AM Peak Hour: Constrained, LOS F<br>PM Peak Hour: Constrained, LOS F |
| • Int. No. 11: Lincoln Boulevard /<br>Fiji Way                      | PM Peak Hour: $v/c = 1.306$ , LOS F                                  |
| • Int. No. 20: Centinela Avenue /<br>Venice Boulevard               | AM Peak Hour: $v/c = 0.928$ , LOS E                                  |

The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5-1* and *5-2*, respectively.

#### 9.1.2 Existing With Project Conditions

As shown in column [2] of *Table 9-1*, application of the City's threshold criteria to the "Existing With Project" scenario indicates that the proposed project is not expected to create significant impacts at 27 of the 28 study intersections located in the City of Los Angeles. As indicated in *Table 9-1*, a significant transportation impact is expected at the following intersections during the peak hours shown below under existing with project conditions:

---

<sup>1</sup> Based on field reviews, it was observed during the commuter peak hours that traffic flow at Intersection Nos. 7 and 8 (Lincoln Boulevard/Marina Pointe Drive-Maxella Avenue and Lincoln Boulevard/SR-90 Ramps) was constrained due to the relatively close proximity of the two intersections. For example, it was observed that northbound traffic flow on Lincoln Boulevard at the SR-90 intersection would have a green traffic signal, but vehicles were not able to travel through the intersection due to a red traffic signal for northbound traffic at the nearby Marina Pointe Drive-Maxella Avenue intersection. As the constraints artificially limit the amount of traffic that travels through the intersections, the resulting  $v/c$  ratios and corresponding Levels of Service may understate actual conditions. Accordingly, as noted on *Table 9-1*, an LOS F service level was assigned such that the most sensitive impact threshold would apply for purposes of assessing the potential transportation impacts of the project at these two affected intersections.

Table 9-1  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF LOS ANGELES INTERSECTIONS

03-Jan-18

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]				[5]			
			YEAR 2017 EXISTING V/C	LOS	YEAR 2017 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2023 FUTURE PRE-PROJECT V/C	LOS	YEAR 2023 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ PROJECT MITIGATION V/C	LOS	CHANGE V/C [(5)-(3)]	MITI-GATED
1	Abbot Kinney Boulevard / Venice Boulevard	AM PM	0.794 0.721	C C	0.802 0.725	D C	0.008 0.004	NO NO	0.895 0.789	D C	0.903 0.793	E C	0.008 0.004	NO NO	0.903 0.793	E C	0.008 0.004	N/A N/A
2	Abbot Kinney Boulevard / Washington Boulevard	AM PM	0.553 0.529	A A	0.563 0.530	A A	0.010 0.001	NO NO	0.609 0.600	B A	0.619 0.601	B B	0.010 0.001	NO NO	0.619 0.601	B B	0.010 0.001	N/A N/A
3	Admiralty Way / Mindanao Way	AM PM	0.628 0.533	B A	0.635 0.532	B A	0.007 -0.001	NO NO	0.717 0.624	C B	0.724 0.622	C B	0.007 -0.002	NO NO	0.724 0.622	C B	0.007 -0.002	N/A N/A
4	Lincoln Boulevard / Rose Avenue	AM PM	0.768 0.775	C C	0.773 0.777	C C	0.005 0.002	NO NO	0.873 0.896	D D	0.878 0.899	D D	0.005 0.003	NO NO	0.878 0.899	D D	0.005 0.003	N/A N/A
5	Lincoln Boulevard / Venice Boulevard	AM PM	0.827 0.821	D D	0.835 0.821	D D	0.008 0.000	NO NO	0.958 0.960	E E	0.966 0.960	E E	0.008 0.000	NO NO	0.966 0.960	E E	0.008 0.000	N/A N/A
6	Lincoln Boulevard / Washington Boulevard	AM PM	0.883 0.837	D D	0.885 0.842	D D	0.002 0.005	NO NO	1.019 0.957	F E	1.021 0.962	F E	0.002 0.005	NO NO	1.021 0.962	F E	0.002 0.005	N/A N/A
7	Lincoln Boulevard / Marina Pointe Drive - Maxella Avenue [b]	AM PM	0.606 0.572	F F	0.615 0.575	F F	0.009 0.003	NO NO	0.706 0.678	F F	0.715 0.680	F F	0.009 0.002	NO NO	0.715 0.680	F F	0.009 0.002	N/A N/A
8	Lincoln Boulevard / SR-90 Ramps [b]	AM PM	0.727 0.711	F F	0.727 0.713	F F	0.000 0.002	NO NO	0.839 0.837	F F	0.840 0.839	F F	0.001 0.002	NO NO	0.840 0.839	F F	0.001 0.002	N/A N/A
9	Lincoln Boulevard / Bali Way	AM PM	0.453 0.553	A A	0.457 0.552	A A	0.004 -0.001	NO NO	0.553 0.648	A B	0.558 0.647	A B	0.005 -0.001	NO NO	0.558 0.647	A B	0.005 -0.001	N/A N/A
10	Lincoln Boulevard / Mindanao Way	AM PM	0.692 0.785	B C	0.694 0.787	B C	0.002 0.002	NO NO	0.797 0.902	C E	0.801 0.904	D E	0.004 0.002	NO NO	0.801 0.904	D E	0.004 0.002	N/A N/A
11	Lincoln Boulevard / Fiji Way	AM PM	0.798 1.306	C F	0.802 1.305	D F	0.004 -0.001	NO NO	0.950 1.465	E F	0.955 1.464	E F	0.005 -0.001	NO NO	0.955 1.464	E F	0.005 -0.001	N/A N/A

Table 9-1 (Continued)  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF LOS ANGELES INTERSECTIONS

10-Oct-17

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]				[5]			
			YEAR 2017 EXISTING V/C	LOS	YEAR 2017 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2023 FUTURE PRE- PROJECT V/C	LOS	YEAR 2023 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ PROJECT MITIGATION V/C	LOS	CHANGE V/C [(5)-(3)]	MITI- GATED
12	Lincoln Boulevard / Jefferson Boulevard	AM PM	0.896 0.707	D C	0.898 0.708	D C	0.002 0.001	NO NO	1.040 0.857	F D	1.042 0.858	F D	0.002 0.001	NO NO	1.042 0.858	F D	0.002 0.001	N/A N/A
14	Glencoe Avenue / Maxella Avenue [c]	AM PM	0.439 0.417	A A	0.489 0.419	A A	0.050 0.002	NO NO	0.504 0.498	A A	0.552 0.501	A A	0.048 0.003	NO NO	0.552 0.501	A A	0.048 0.003	N/A N/A
15	Mindanao Way / Glencoe Avenue [c]	AM PM	0.519 0.647	A B	0.582 0.651	A B	0.063 0.004	NO NO	0.621 0.729	B C	0.685 0.732	B C	0.064 0.003	NO NO	0.685 0.732	B C	0.064 0.003	N/A N/A
16	Mindanao Way / SR-90 WB Ramps	AM PM	0.588 0.587	A A	0.615 0.588	B A	0.027 0.001	NO NO	0.662 0.656	B B	0.688 0.657	B B	0.026 0.001	NO NO	0.688 0.657	B B	0.026 0.001	N/A N/A
17	Mindanao Way / SR-90 EB Ramps	AM PM	0.798 0.842	C D	0.826 0.840	D D	0.028 -0.002	YES NO	0.913 0.934	E E	0.941 0.931	E E	0.028 -0.003	YES NO	0.832 0.829	D D	-0.109 -0.102	YES N/A
18	Beethoven Street / Venice Boulevard	AM PM	0.809 0.736	D C	0.814 0.738	D C	0.005 0.002	NO NO	0.885 0.804	D D	0.889 0.805	D D	0.004 0.001	NO NO	0.889 0.805	D D	0.004 0.001	N/A N/A
20	Centinela Avenue / Venice Boulevard	AM PM	0.928 0.882	E D	0.934 0.885	E D	0.006 0.003	NO NO	1.025 0.986	F E	1.032 0.989	F E	0.007 0.003	NO NO	1.032 0.989	F E	0.007 0.003	N/A N/A
23	Centinela Avenue / Short Avenue	AM PM	0.496 0.596	A A	0.499 0.603	A B	0.003 0.007	NO NO	0.639 0.735	B C	0.643 0.741	B C	0.004 0.006	NO NO	0.643 0.741	B C	0.004 0.006	N/A N/A
24	Centinela Avenue / Culver Boulevard	AM PM	0.898 0.878	D D	0.905 0.880	E D	0.007 0.002	NO NO	1.083 1.011	F F	1.091 1.013	F F	0.008 0.002	NO NO	1.091 1.013	F F	0.008 0.002	N/A N/A
25	Inglewood Boulevard / Washington Place	AM PM	0.813 0.711	D C	0.817 0.713	D C	0.004 0.002	NO NO	0.977 0.863	E D	0.981 0.865	E D	0.004 0.002	NO NO	0.981 0.865	E D	0.004 0.002	N/A N/A
26	Walgrove Avenue / Venice Boulevard	AM PM	0.696 0.682	B B	0.696 0.682	B B	0.000 0.000	NO NO	0.753 0.738	C C	0.753 0.738	C C	0.000 0.000	NO NO	0.753 0.738	C C	0.000 0.000	N/A N/A

Table 9-1 (Continued)  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF LOS ANGELES INTERSECTIONS

10-Oct-17

NO.	INTERSECTION	PEAK HOUR	[1]		[2]			[3]		[4]				[5]				
			YEAR 2017 EXISTING		YEAR 2017 EXISTING W/ PROJECT		CHANGE V/C	SIGNIF. IMPACT	YEAR 2023 FUTURE PRE-PROJECT		YEAR 2023 FUTURE W/ PROJECT		CHANGE V/C	SIGNIF. IMPACT	YEAR 2023 W/ PROJECT MITIGATION		CHANGE V/C	MITI-GATED
			V/C	LOS	V/C	LOS	[(2)-(1)]	[a]	V/C	LOS	V/C	LOS	[(4)-(3)]	[a]	V/C	LOS	[(5)-(3)]	
28	Alla Road / SR-90 WB On-Ramp	AM PM	0.560 0.245	A A	0.562 0.249	A A	0.002 0.004	NO NO	0.786 0.367	C A	0.788 0.371	C A	0.002 0.004	NO NO	0.788 0.371	C A	0.002 0.004	N/A N/A
29	Culver Boulevard / SR-90 WB Off-Ramp	AM PM	0.831 0.784	D C	0.834 0.784	D C	0.003 0.000	NO NO	1.105 0.963	F E	1.108 0.963	F E	0.003 0.000	NO NO	1.108 0.963	F E	0.003 0.000	N/A N/A
30	Culver Boulevard / SR-90 EB Ramps [c]	AM PM	0.411 0.312	A A	0.411 0.312	A A	0.000 0.000	NO NO	0.527 0.380	A A	0.527 0.380	A A	0.000 0.000	NO NO	0.527 0.380	A A	0.000 0.000	N/A N/A
31	Centinela Avenue / Sanford Street - SR-90 WB Off-Ramp [c]	AM PM	0.577 0.536	A A	0.579 0.536	A A	0.002 0.000	NO NO	0.694 0.630	B B	0.696 0.630	B B	0.002 0.000	NO NO	0.696 0.630	B B	0.002 0.000	N/A N/A
32	Centinela Avenue / SR-90 EB Ramps	AM PM	0.609 0.577	B A	0.610 0.576	B A	0.001 -0.001	NO NO	0.798 0.711	C C	0.800 0.711	D C	0.002 0.000	NO NO	0.800 0.711	D C	0.002 0.000	N/A N/A
33	Centinela Avenue - Campus Center Drive / Jefferson Boulevard	AM PM	0.873 0.750	D C	0.874 0.749	D C	0.001 -0.001	NO NO	1.069 0.884	F D	1.070 0.883	F D	0.001 -0.001	NO NO	1.070 0.883	F D	0.001 -0.001	N/A N/A

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010

[b] Based on field observations, vehicle movements are constrained at times during peak periods due to downstream conditions. Therefore, a LOS F value has been assigned to describe existing and future conditions.

[c] Unsignalized Intersection

- Int. No. 17: Mindanao Way /  
SR-90 EB Ramps

AM Peak Hour  $v/c$  increases 0.028

Incremental, but not significant, impacts are noted at the other 27 study intersections due to the project. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9-1* and *9-2*, respectively.

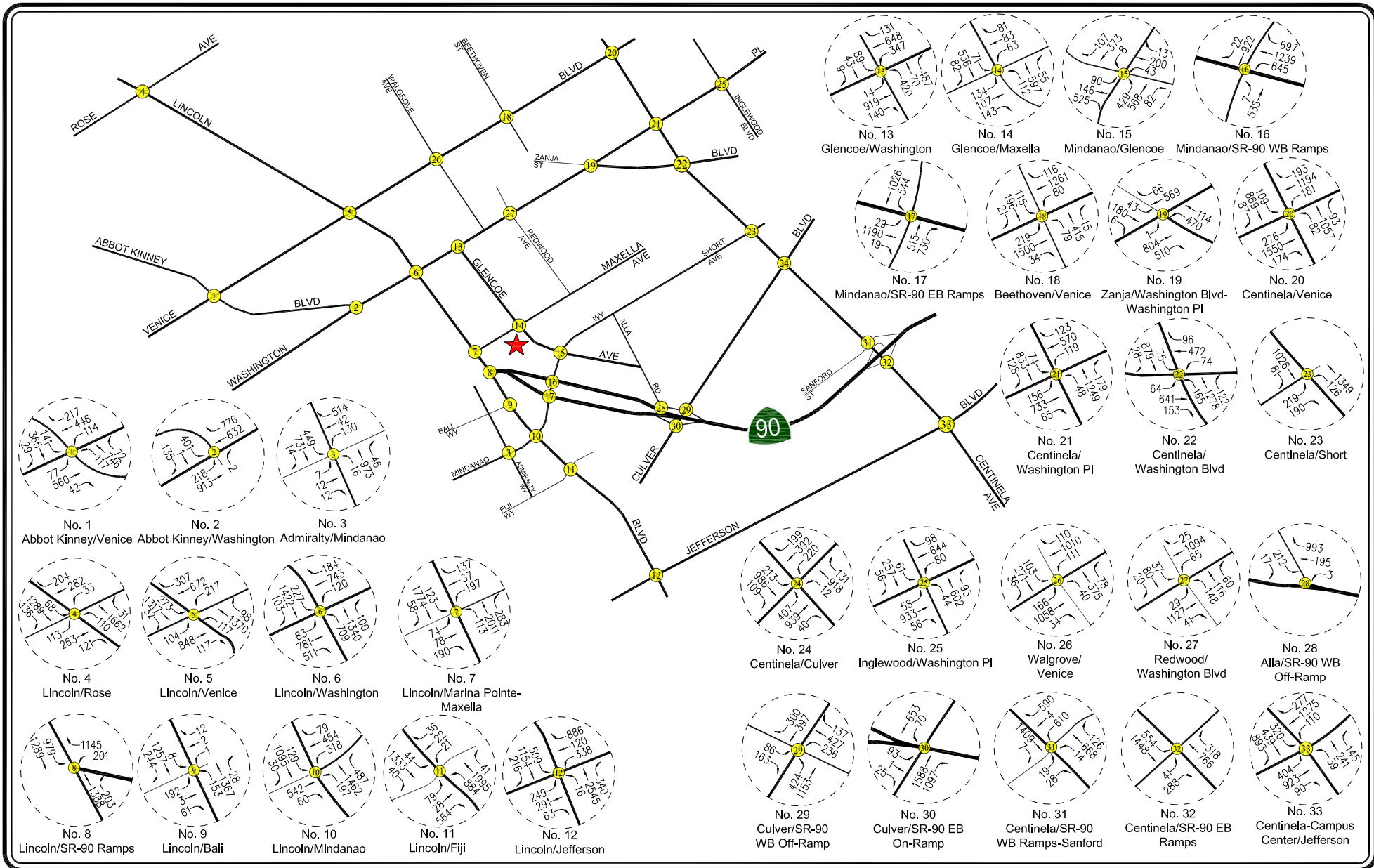
## 9.2 Future Conditions

### 9.2.1 Future Cumulative Baseline Conditions

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the project plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The  $v/c$  ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 6-1*.

As presented in column [3] of *Table 9-1*, 13 of the 28 study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline conditions. The following intersections are expected to operate at LOS E or worse during the peak hours shown below under future cumulative baseline conditions:

- |   |  |
|---|--|
| • Int. No. 5: Lincoln Boulevard /<br>Venice Boulevard                   | AM Peak Hour: $v/c = 0.958$ , LOS E<br>PM Peak Hour: $v/c = 0.960$ , LOS E |
| • Int. No. 6: Lincoln Boulevard /<br>Washington Boulevard               | AM Peak Hour: $v/c = 1.019$ , LOS F<br>PM Peak Hour: $v/c = 0.957$ , LOS E |
| • Int. No. 7: Lincoln Boulevard /<br>Marina Pointe Drive-Maxella Avenue | AM Peak Hour: Constrained, LOS F<br>PM Peak Hour: Constrained, LOS F       |
| • Int. No. 8: Lincoln Boulevard /<br>SR-90 Ramps                        | AM Peak Hour: Constrained, LOS F<br>PM Peak Hour: Constrained, LOS F       |
| • Int. No. 10: Lincoln Boulevard /<br>Mindanao Way                      | PM Peak Hour: $v/c = 0.902$ , LOS E  |
| • Int. No. 11: Lincoln Boulevard /<br>Fiji Way                          | AM Peak Hour: $v/c = 0.955$ , LOS E<br>PM Peak Hour: $v/c = 1.464$ , LOS F |
| • Int. No. 12: Lincoln Boulevard /<br>Jefferson Boulevard               | AM Peak Hour: $v/c = 1.040$ , LOS F  |
| • Int. No. 17: Mindanao Way /<br>SR-90 EB Ramps                         | AM Peak Hour: $v/c = 0.913$ , LOS E<br>PM Peak Hour: $v/c = 0.934$ , LOS E |



NOT TO SCALE

★ PROJECT SITE

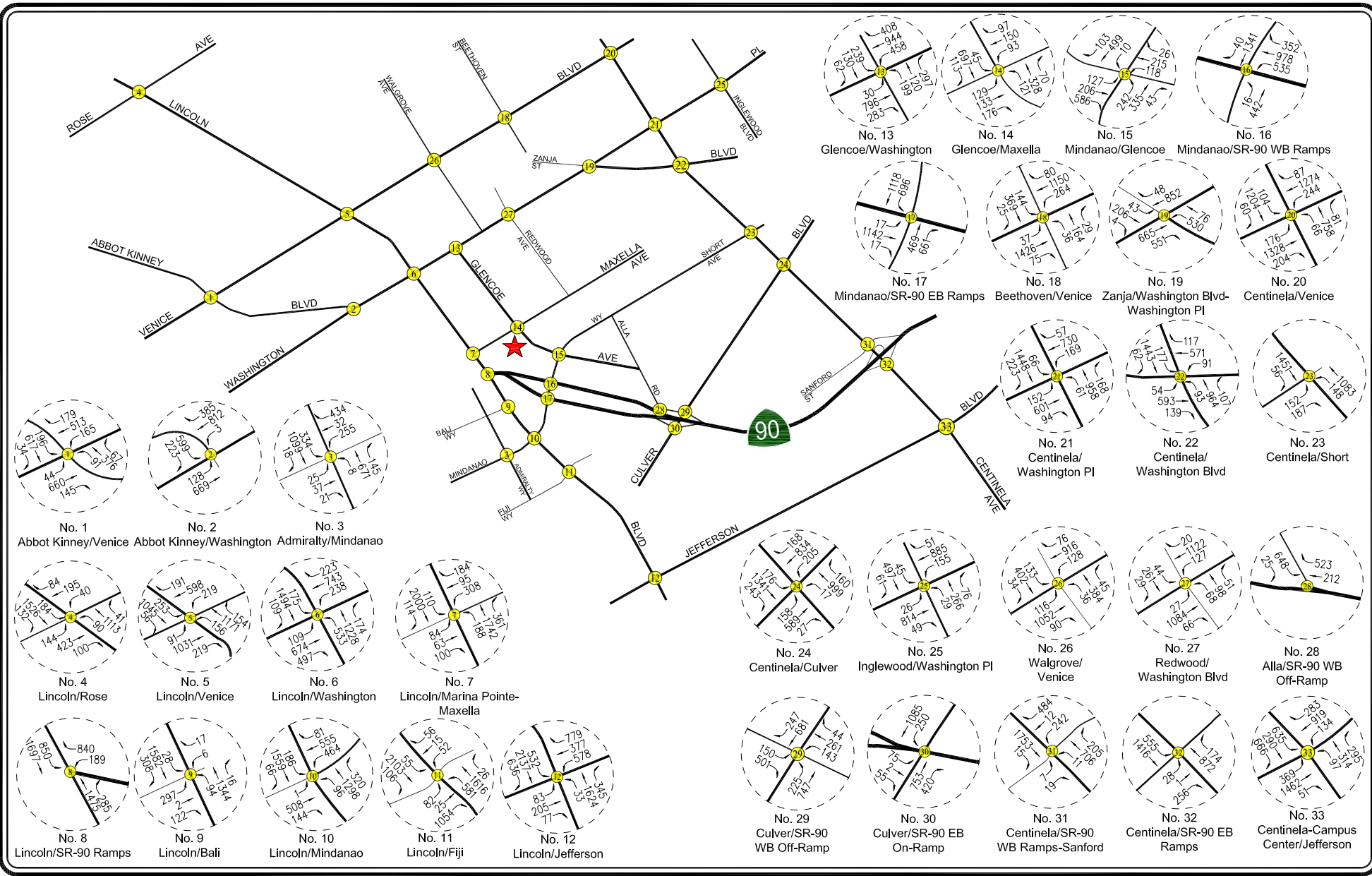
⊗ STUDY INTERSECTION


# FIGURE 9-1

## EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT

c:\0265\dwg\9-2.dwg 01/03/2018 14:01:53 jshender llg exhibits color.ctb





★ PROJECT SITE

● STUDY INTERSECTION

**NOT TO SCALE**

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 9-2

EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

- |   |  |
|---|--|
| • Int. No. 20: Centinela Avenue / Venice Boulevard                        | AM Peak Hour: $v/c = 1.025$ , LOS F<br>PM Peak Hour: $v/c = 0.986$ , LOS E |
| • Int. No. 24: Centinela Avenue / Culver Boulevard                        | AM Peak Hour: $v/c = 1.083$ , LOS F<br>PM Peak Hour: $v/c = 1.011$ , LOS F |
| • Int. No. 25: Inglewood Boulevard / Washington Place                     | AM Peak Hour: $v/c = 0.977$ , LOS E  |
| • Int. No. 29: Culver Boulevard / SR-90 WB Off-Ramp                       | AM Peak Hour: $v/c = 1.105$ , LOS F<br>PM Peak Hour: $v/c = 0.963$ , LOS E |
| • Int. No. 33: Centinela Avenue-Campus Center Drive / Jefferson Boulevard | AM Peak Hour: $v/c = 1.070$ , LOS F  |

The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in **Figures 9-3** and **9-4**, respectively.

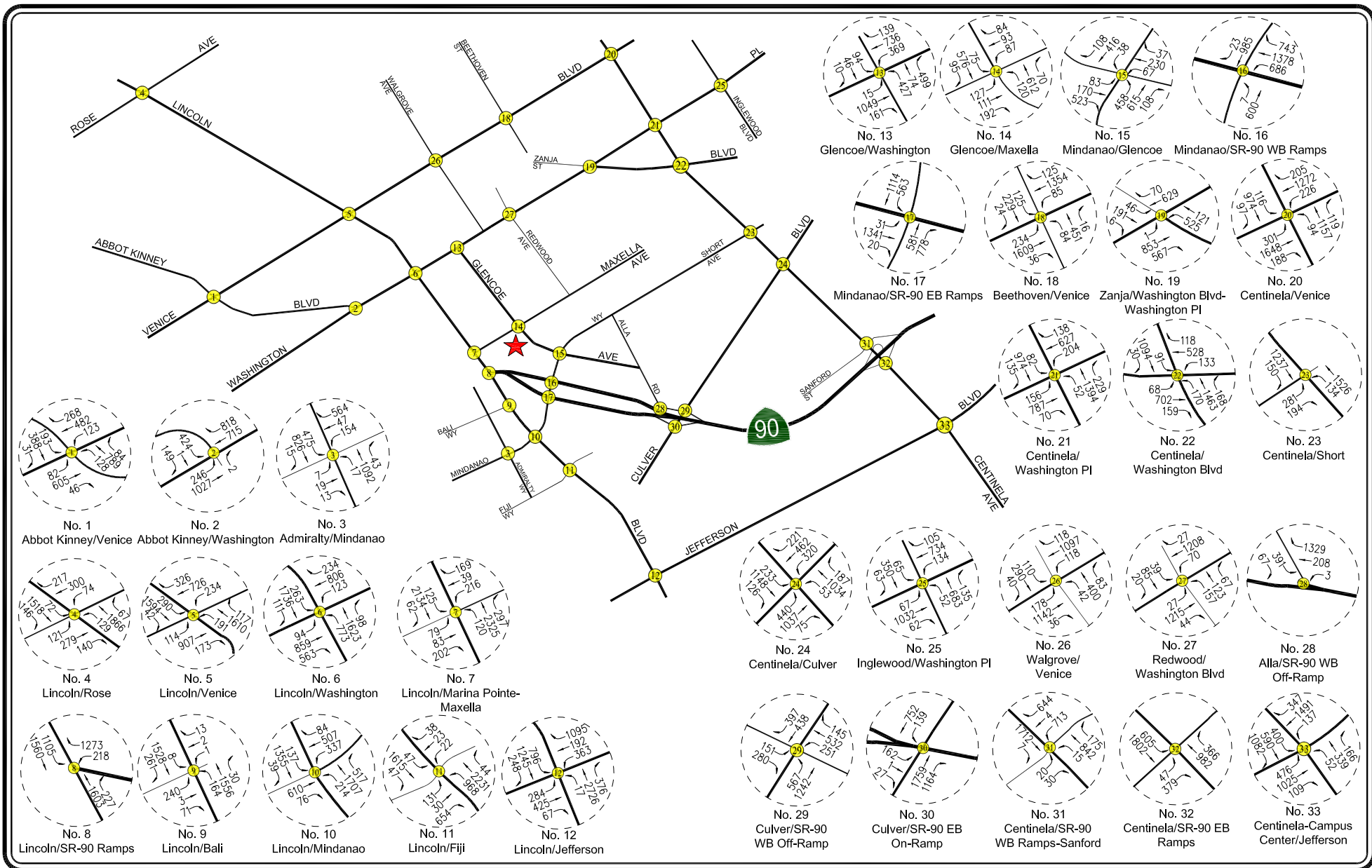
#### 9.2.2 Future Cumulative With Project Conditions



The future cumulative with project conditions were forecast based on the addition of traffic generated by the project plus completion and occupancy of related projects. As shown in column [4] of *Table 9-1*, application of the City's threshold criteria to the "Future With Project" scenario indicates that the proposed project is not expected to create significant impacts at 27 of the 28 study intersections located in the City of Los Angeles. As indicated in *Table 9-1*, a significant transportation impact is expected at the following intersection during the peak hour shown below under future cumulative with project conditions:

- |  |                                    |
|--|------------------------------------|
| • Int. No. 17: Mindanao Way / SR-90 EB Ramps | AM Peak Hour $v/c$ increases 0.028 |
|--|------------------------------------|

Incremental, but not significant, impacts are noted at the other 27 study intersections due to the project. The future cumulative with project (existing, ambient growth, related projects and project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in **Figures 9-5** and **9-6**, respectively.

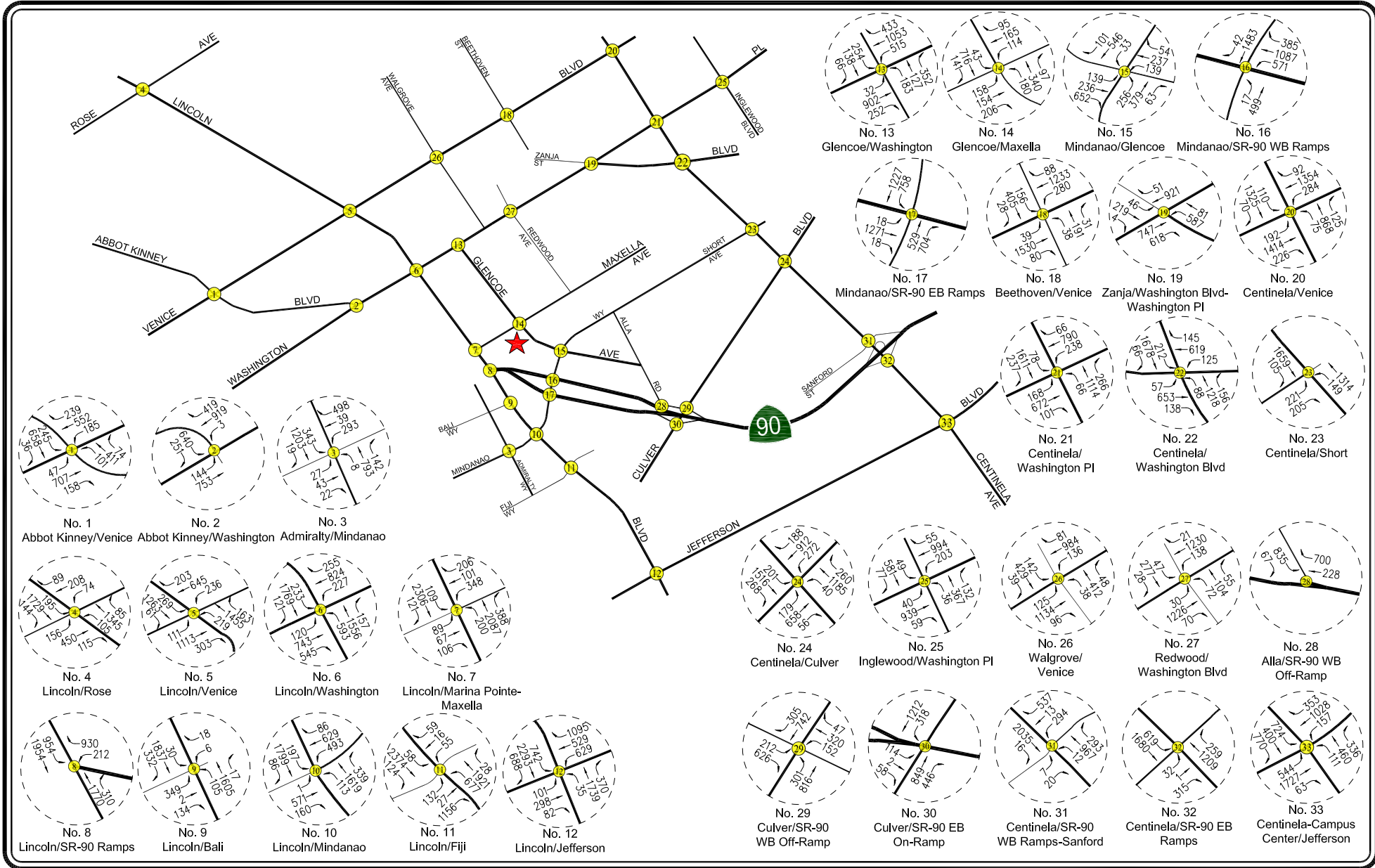




 PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

## FIGURE 9-3 FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT

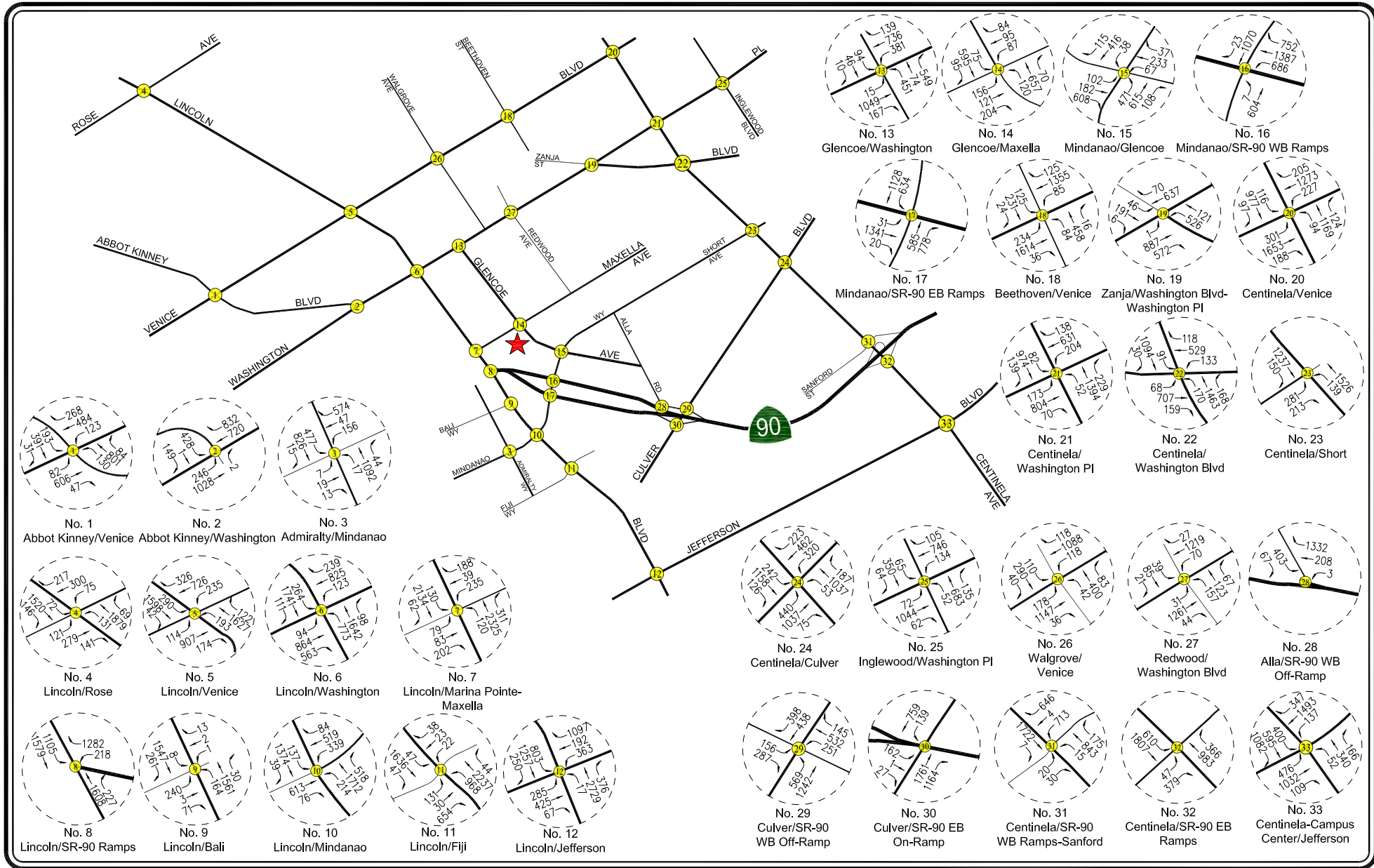




**FIGURE 9-4**

**FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES**

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

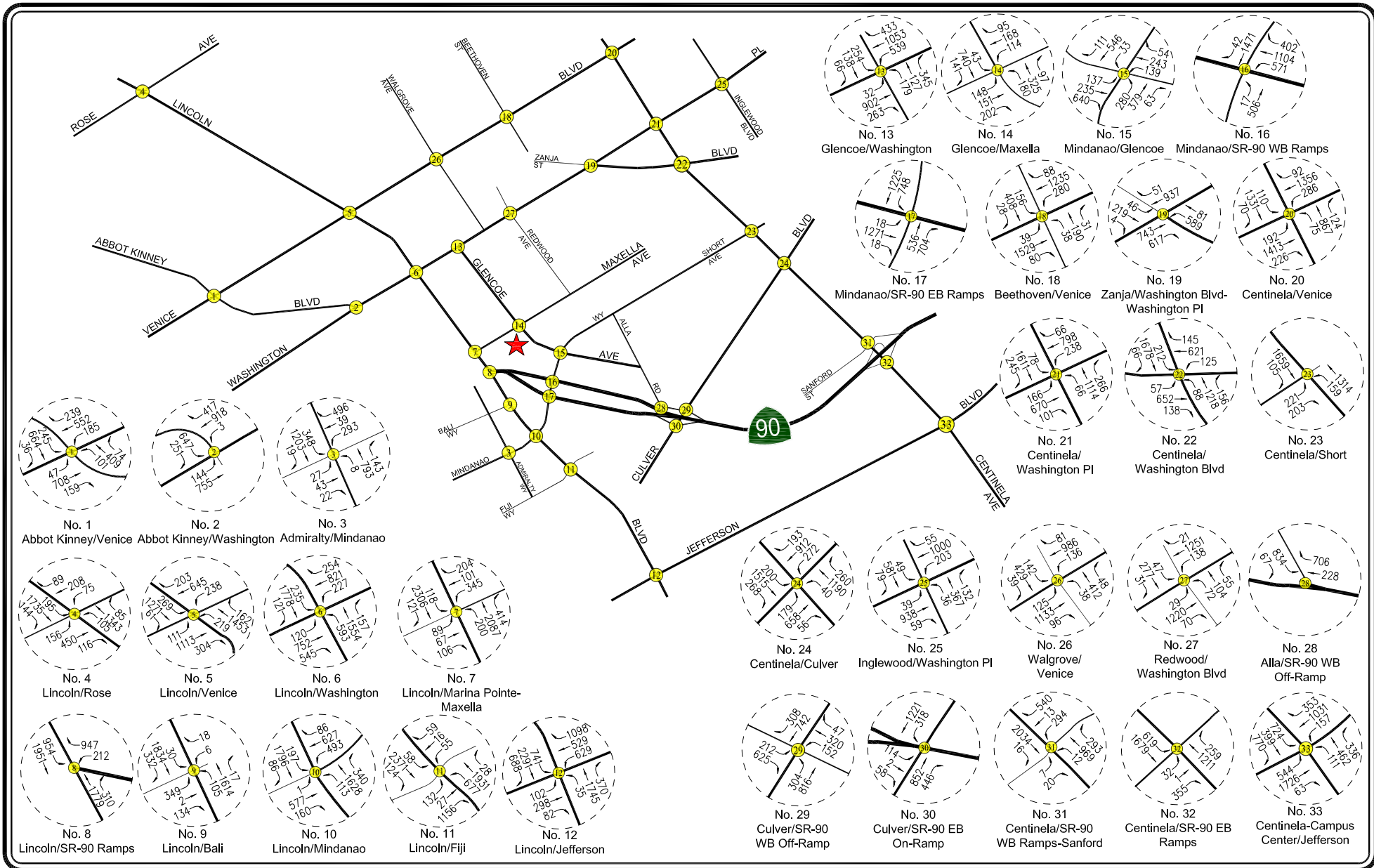
LINSCOTT, LAW & GREENSPAN, engineers





 PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

## FIGURE 9-5 FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR  
PASEO MARINA PROJECT



 PROJECT SITE  
 STUDY INTERSECTION  
**NOT TO SCALE**

# FIGURE 9-6 FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR  
PASEO MARINA PROJECT

## 10.0 CITY OF CULVER CITY TRANSPORTATION ANALYSIS

The transportation impact analysis prepared for the five study intersections located in the City of Culver City using the CMA methodology and application of the City of Culver City significant transportation impact criteria is summarized in *Table 10-1*. The CMA data worksheets for the analyzed intersections are contained in *Appendix B*. Based on coordination with City of Culver City Planning Division staff, the following study intersections located within Culver City were evaluated:

- Intersection No. 13: Glencoe Avenue / Washington Boulevard
- Intersection No. 19: Zanja Street / Washington Boulevard - Washington Place
- Intersection No. 21: Centinela Avenue / Washington Place
- Intersection No. 22: Centinela Avenue / Washington Boulevard
- Intersection No. 27: Redwood Avenue / Washington Boulevard

### 10.1 Existing Conditions

#### 10.1.1 Existing Conditions

As indicated in column [1] of *Table 10-1*, all five study intersections located in the City of Culver City are presently operating at LOS C or better during the weekday AM and PM peak hours under existing conditions. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5-1* and *5-2*, respectively.

#### 10.1.2 Existing With Project Conditions

As shown in column [2] of *Table 10-1*, application of the City's threshold criteria to the "Existing With Project" scenario indicates that the proposed project is not expected to create a significant impact at any of the five study intersections located in the City of Culver City. Incremental, but not significant, impacts are noted at the study intersections due to the project. The existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9-1* and *9-2*, respectively.

### 10.2 Future Conditions

#### 10.2.1 Future Cumulative Baseline Conditions

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the project plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 6-1*.

Table 10-1  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF CULVER CITY INTERSECTIONS

03-Jan-18

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]			
			YEAR 2017 EXISTING		YEAR 2017 EXISTING W/ PROJECT		CHANGE V/C	SIGNIF. IMPACT	YEAR 2023 FUTURE PRE-PROJECT		YEAR 2023 FUTURE W/ PROJECT		CHANGE V/C	SIGNIF. IMPACT
			V/C	LOS	V/C	LOS	[(2)-(1)]	[a]	V/C	LOS	V/C	LOS	[(4)-(3)]	[a]
13	Glencoe Avenue / Washington Boulevard	AM	0.696	B	0.713	C	0.017	NO	0.784	C	0.801	D	0.017	NO
		PM	0.757	C	0.773	C	0.016	NO	0.858	D	0.874	D	0.016	NO
19	Zanja Street / Washington Boulevard - Washington Place	AM	0.537	A	0.549	A	0.012	NO	0.598	A	0.611	B	0.013	NO
		PM	0.600	A	0.606	B	0.006	NO	0.664	B	0.671	B	0.007	NO
21	Centinela Avenue / Washington Place	AM	0.773	C	0.779	C	0.006	NO	0.907	E	0.913	E	0.006	NO
		PM	0.764	C	0.766	C	0.002	NO	0.875	D	0.875	D	0.000	NO
22	Centinela Avenue / Washington Boulevard	AM	0.729	C	0.731	C	0.002	NO	0.881	D	0.882	D	0.001	NO
		PM	0.769	C	0.769	C	0.000	NO	0.887	D	0.887	D	0.000	NO
27	Redwood Avenue / Washington Boulevard	AM	0.545	A	0.560	A	0.015	NO	0.609	B	0.625	B	0.016	NO
		PM	0.614	B	0.614	B	0.000	NO	0.683	B	0.683	B	0.000	NO

[a] According to City of Culver City, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

<u>Final v/c</u>	<u>LOS</u>	<u>Project Related Increase in v/c</u>
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010

As presented in column [3] of *Table 10-1*, four of the five study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline conditions. The following intersection is expected to operate at LOS E or worse during the peak hour shown below under future cumulative baseline conditions:

- Int. No. 21: Centinela Avenue / Washington Place AM Peak Hour:  $v/c = 0.907$ , LOS E

The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in *Figures 9-3* and *9-4*, respectively.

### 10.2.2 Future Cumulative With Project Conditions

The future cumulative with project conditions were forecast based on the addition of traffic generated by the project plus completion and occupancy of related projects. As shown in column [4] of *Table 10-1*, application of the City's threshold criteria to the "Future With Project" scenario indicates that the proposed project is not expected to create a significant impact at any of the five study intersections located in the City of Culver City. Incremental, but not significant, impacts are noted at the study intersections due to the project. As no significant impacts are expected due to the proposed project, no traffic mitigation measures are required or recommended for the five study intersections located in the City of Culver City.

The future cumulative with project (existing, ambient growth, related projects and project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9-5* and *9-6*, respectively.



## 11.0 COUNTY OF LOS ANGELES TRANSPORTATION ANALYSIS

The transportation impact analysis prepared for the four study intersections located in unincorporated Los Angeles County using the ICU methodology and application of the County of Los Angeles significant transportation impact criteria is summarized in **Table 11-1**. The ICU data worksheets for the four analyzed intersections are contained in *Appendix C*. The following study intersections located within or shared with the County of Los Angeles were evaluated:

- Intersection No. 3: Admiralty Way / Mindanao Way
- Intersection No. 9: Lincoln Boulevard / Bali Way
- Intersection No. 10: Lincoln Boulevard / Mindanao Way
- Intersection No. 11: Lincoln Boulevard / Fiji Way

### 11.1 Existing Conditions

As indicated in column [1] of *Table 11-1*, three of the four study intersections located in unincorporated Los Angeles County are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The following intersection is presently operating at LOS F during the peak hour shown below under existing conditions:

- Int. No. 11: Lincoln Boulevard / Fiji Way PM Peak Hour:  $v/c = 1.235$ , LOS F

The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5-1* and *5-2*, respectively.

### 11.2 Existing With Project Conditions

As shown in column [2] of *Table 11-1*, application of the County's threshold criteria to the "Existing With Project" scenario indicates that the proposed project is not expected to create a significant impact at any of the study intersections located in unincorporated Los Angeles County. Therefore, no mitigation measures are required or recommended. As previously mentioned, the existing with project traffic volumes at the study intersections during the weekday AM and PM peak hours are provided in *Figures 9-1* and *9-2*, respectively.

### 11.3 Future Conditions

The future conditions take into account lane configuration changes made to the Admiralty Way / Mindanao Way intersection as a result of the County's *Traffic Study for the Marina Del Rey Local Coastal Program Amendment*, April 29, 2010. The lane configurations following completion of the County improvements at the Admiralty Way / Mindanao Way intersection include:



Table 11-1  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
COUNTY OF LOS ANGELES INTERSECTIONS

03-Jan-18

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]			
			YEAR 2017 EXISTING V/C	LOS	YEAR 2017 W/ PROPOSED PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ RELATED PROJECTS V/C	LOS	CHANGE V/C [(3)-(1)]	SIGNIF. IMPACT [a]
3	Admiralty Way / Mindanao Way	AM PM	0.748 0.665	C B	0.755 0.667	C B	0.007 0.002	NO NO	0.728 0.717	C C	-0.020 0.052	NO NO
9	Lincoln Boulevard / Bali Way	AM PM	0.580 0.671	A B	0.584 0.670	A B	0.004 -0.001	NO NO	0.673 0.753	B C	0.093 0.082	NO NO
10	Lincoln Boulevard / Mindanao Way [b]	AM PM	0.781 0.862	C D	0.784 0.864	C D	0.003 0.002	NO NO	0.875 0.964	D E	0.094 0.102	YES YES
11	Lincoln Boulevard / Fiji Way [b]	AM PM	0.763 1.236	C F	0.767 1.235	C F	0.004 -0.001	NO NO	0.895 1.359	D F	0.132 0.123	YES YES

[a] According to Los Angeles County Department of Public Works "Traffic Impact Analysis Report Guidelines, " January 1997, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

<u>Pre-Project V/C</u>	<u>LOS</u>	<u>Project Related Increase in V/C</u>
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E,F	equal to or greater than 0.010

[b] Significant unmitigated impact.

- Northbound: One left-turn lane, one through lane, one optional through/right-turn lane
- Southbound: Two left-turn lanes, one through lane, one optional through/right-turn lane
- Eastbound: One left-turn lane, one optional through/left-turn lane, one optional through/right-turn lane
- Westbound: One left-turn lane, one optional left/through/right-turn lane, one right-turn lane

No lane configuration changes at the remaining three County study intersections are proposed by the Local Coastal Program Amendment.

#### 11.4 Future with Project and Related Project Conditions

The  $v/c$  ratios at all the County study intersections are incrementally increased with the addition of traffic generated by the related projects listed in *Table 6-1*. As presented in column [3] of *Table 11-1*, all the County study intersections are expected to operate at LOS C or worse during the weekday AM and PM peak hours with the addition of project traffic and the traffic due to the related projects. As also indicated in column [3] of *Table 11-1*, application of the County's threshold criteria to the "Future with Project and Related Project" scenario indicates that cumulative significant impacts are forecasted for two of the four County study intersections. A significant transportation impact is expected at the following intersections during the peak hours shown below under future with project and related project conditions:

- |  |  |
|--|--|
| • Int. No. 10: Lincoln Boulevard /<br>Mindanao Way | AM Peak Hour $v/c$ increases 0.094<br>PM Peak Hour $v/c$ increases 0.102 |
| • Int. No. 11: Lincoln Boulevard /<br>Fiji Way     | AM Peak Hour $v/c$ increases 0.132<br>PM Peak Hour $v/c$ increases 0.123 |

Incremental, but not significant, impacts are noted at the other two County study intersections due to the project and related projects.

## 12.0 MITIGATION MEASURES

The following traffic mitigation measure was developed to mitigate the potentially significant Project-related transportation impact identified in Section 9.0 above to less than significant levels. The mitigation measure consists of recommended physical improvements intended to improve the overall operation at the affected intersection.

### 12.1 Mindanao Way / SR-90 EB Ramps

The recommended mitigations consist of modifying the Mindanao Way / SR-90 EB On and Off-Ramps intersection so as to provide a free-flow right-turn lane for traffic turning from northbound Mindanao Way to eastbound SR-90. A conceptual drawing of the proposed mitigation measure is provided in *Appendix D*.

Based on the Level of Service calculation prepare for the intersection, the traffic movements which require the most traffic signal green time on Mindanao Way are the northbound right-turn movements and the southbound left-turn movements. The provision for a continuously moving (free-flow) right-turn lane would increase the overall operations at the intersection since the northbound right-turn movement would no longer require traffic signal green time, thereby allowing for more green devoted to the other traffic movements at the intersection, such as the southbound left-turn movement and the eastbound through movement on SR-90.

As shown in *Appendix D*, the measure would require the widening of the north and south sides of SR-90 east and west of Mindanao Way. The northbound Mindanao Way approach would be restriped to convert the existing shared through/right-turn lane to a through lane. The resulting lane configuration on the northbound approach of Mindanao Way would provide two through lanes and one right-turn free flow lane. Changes to the existing traffic signal equipment needed in conjunction with the recommended improvements would also be implemented as part of the mitigation measure. In addition, as shown in *Appendix D*, the re-striping of eastbound SR-90 would be needed to allow the right-turns from Mindanao Way to safely merge with through traffic east of Mindanao Way.

### 12.2 Effects of Mitigation Measures

The intersection transportation analysis was updated assuming implementation of the physical traffic improvements described in Section 12.1. As shown in Column [5] of *Table 9-1* (City of Los Angeles study intersections), the recommended mitigation measures will completely mitigate the effects of project traffic at the Mindanao Way / SR-90 Eastbound Ramps intersection. It is noted, however, that SR-90 is under the jurisdiction of Caltrans. As the City of Los Angeles does not have direct control over the operation of the intersection, it cannot guarantee that Caltrans will agree with implementation of the recommended mitigation measure. Therefore, if Caltrans does not permit construction of the improvements, the impact of the project will remain significant and unavoidable.

### 12.3 Residual Impacts

The following provides a summary of the potential transportation impacts of the project at the study intersections:

- City of Los Angeles. The project will cause a potentially significant transportation impact at one of the 28 study intersections: Mindanao Way / SR-90 Eastbound Ramps. While a potential mitigation measure has been identified for the affected intersection, implementation would require the approval of Caltrans. As the City of Los Angeles does not have direct control of the intersection, it cannot guarantee its implementation. Therefore, the project-related impacts are deemed to be significant and unavoidable at the one study intersection. Impacts at the remaining study intersections due to the project are less than significant.
- City of Culver City. The potential transportation impacts due to the project at the five study intersections located in the City of Culver City are deemed to be less than significant.
- County of Los Angeles. The direct project transportation impacts at the four study intersections located in unincorporated Los Angeles County are deemed to be less than significant. However, based on the County's methodology and thresholds of significance, it is determined that project traffic – combined with the potential traffic generated by other known development projects – would contribute to a potentially significant cumulative transportation impact at two of the four County intersections: Lincoln Boulevard / Mindanao Way and Lincoln Boulevard / Fiji Way. As the two County intersections are built-out, the potential cumulative transportation impacts are deemed to be significant and unavoidable at the two study intersections. Impacts at the remaining two study intersections are less than significant.

## 13.0 TRAFFIC SIGNAL WARRANT ANALYSIS

A supplemental analysis was conducted at the existing stop-sign controlled intersections located near the Project site – Del Rey Avenue / Maxella Avenue – to determine if traffic signal installation may be warranted following build-out and occupancy of the Project. Accordingly, the preparation of traffic signal warrants at this location was deemed to be not required as the project proposes to shift the location of an existing traffic signal. As previously noted, the project proposes to install a traffic signal at the Ocean Way / Maxella Avenue intersection as a project feature.

Additionally, separate traffic signal warrant analyses were conducted for the following stop-controlled intersections located near the project site: Walgrove Avenue / Washington Boulevard and Redwood Avenue / Maxella Avenue. These analyses were prepared at the request of LADOT to determine if traffic signals are warranted at these intersections.

The traffic signal warrant analysis was prepared based on criteria set forth in Chapter 4C of the *Manual on Uniform Traffic Control Devices (MUTCD)*<sup>4</sup>. Warrant No. 2 (Four Hour Vehicular Volume) and Warrant No. 3 (Peak Hour Volume) traffic signal warrants were prepared. The traffic signal warrant calculations were based on existing traffic volumes and future forecast cumulative plus project traffic volumes along all approaches. Copies of the traffic signal warrant data worksheets are contained in *Appendix E*.

### 13.1 Existing Conditions

The following provides a summary of existing conditions, as well as factors assumed and data collected in preparing the traffic signal warrant analysis:

- The Del Rey Avenue / Maxella Avenue intersection is currently controlled by a stop sign facing the side street (Del Rey Avenue) approach.
- The Walgrove Avenue / Washington Boulevard intersection is currently controlled by a stop sign facing the side street (Walgrove Avenue) approach.
- The Redwood Avenue / Maxella Avenue intersection is currently controlled by all-way stop signs.
- For the Del Rey Avenue / Maxella Avenue intersection, Maxella Avenue was assumed to be the major street while Del Rey Avenue was assumed to be the minor street.
- For the Walgrove Avenue / Washington Boulevard intersection, Washington Boulevard was assumed to be the major street while Walgrove Avenue was assumed to be the minor street.

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<sup>4</sup> *Manual on Uniform Traffic Control Devices (MUTCD)*, 2014 California Supplement, November 7, 2014.

- For the Redwood Avenue / Maxella Avenue intersection, Redwood Avenue was assumed to be the major street while Maxella Avenue was assumed to be the minor street.
- Maxella Avenue, Del Rey Avenue, and Redwood Avenue are posted for a 25 miles per hour speed limit in the project vicinity. Washington Boulevard is posted for a 35 miles per hour speed limit in the project vicinity. There are no speed limits posted on Walgrove Avenue, thus a prima facie speed limit of 25 miles per hour is assumed, consistent with the State of California Vehicle Code.
- Manual peak hour traffic counts were conducted at the unsignalized intersections. Copies the traffic counts for the intersection and approaches are contained in *Appendix A*.
- The traffic count data from 2016 were increased by a 1.0% annual traffic growth rate through the year 2017.

The existing with project scenario evaluates existing traffic volumes, plus Project-related traffic.

The future with project scenario evaluated existing traffic volumes, Project-related traffic volumes, traffic related to nearby related projects, as well as ambient traffic growth.

## 13.2 Traffic Signal Warrant Analysis

### 13.2.1 *Del Rey Avenue / Maxella Avenue*

The following paragraphs provide a detailed discussion of the traffic signal warrant prepared for the Del Rey Avenue/Maxella Avenue intersection.

#### Warrant 2: Four Hour Vehicular Volume Warrant

The Four Hour Vehicular Volume Warrant is intended for application at locations where a large volume of traffic along a major street occurs during any four one-hour periods of a day. Warrant No. 2 is not satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for only one point in Figure 4C-2 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 400 vehicles per hour while the lower threshold for a minor street with one approach lane is 80 vehicles per hour.

As indicated in Figure 4C-1 provided on pages E-2 and E-5 in *Appendix E*, the plotted point for the Four Hour Vehicular Volume is only above the applicable curve for existing with project conditions for the Del Rey Avenue/Maxella Avenue intersection at three points and above the applicable curve at all four points for future with project conditions. Therefore, Warrant No. 2 is not satisfied for the intersection under existing with project conditions, but is satisfied under future with project conditions.

### Warrant 3: Peak Hour Volume Warrant

The Peak Hour Volume Warrant is applied for land uses that attract or discharge large numbers of vehicles over a short period of time. Warrant No. 3 is satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve in Figure 4C-4 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 500 vehicles per hour while the lower threshold for a minor street approach with one lane is 100 vehicles per hour.

As indicated in Figure 4C-3 provided on pages E-3 and E-6 in *Appendix E*, the plotted point for the peak hour is below the applicable curve for existing with project conditions for the Del Rey Avenue/Maxella Avenue intersection and above for the future with project conditions. Therefore, Warrant No. 3 is not satisfied for the intersection under existing with project conditions, but is satisfied under future with project conditions.

#### **13.2.2 Walgrove Avenue / Washington Boulevard**

The following paragraphs provide a detailed discussion of the traffic signal warrant prepared for the Walgrove Avenue/Washington Boulevard intersection.

### Warrant 2: Four Hour Vehicular Volume Warrant

The Four Hour Vehicular Volume Warrant is intended for application at locations where a large volume of traffic along a major street occurs during any four one-hour periods of a day. Warrant No. 2 is not satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for only one point in Figure 4C-2 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 400 vehicles per hour while the lower threshold for a minor street with one approach lane is 80 vehicles per hour.

As indicated in Figure 4C-1 provided on pages E-2 and E-5 in *Appendix E*, the plotted point for the Four Hour Vehicular Volume is above the applicable curve for existing conditions for the Walgrove Avenue/Washington Boulevard intersection at all four points and above the applicable curve at all four points for future with project conditions. Therefore, Warrant No. 2 is satisfied for the intersection under existing conditions.

### Warrant 3: Peak Hour Volume Warrant

The Peak Hour Volume Warrant is applied for land uses that attract or discharge large numbers of vehicles over a short period of time. Warrant No. 3 is satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the

corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve in Figure 4C-4 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 500 vehicles per hour while the lower threshold for a minor street approach with one lane is 100 vehicles per hour.

As indicated in Figure 4C-3 provided on pages E-3 and E-6 in *Appendix E*, the plotted point for the peak hour is above the applicable curve for existing conditions for the Walgrove Avenue/Washington Boulevard intersection. Therefore, Warrant No. 3 is satisfied for the intersection under existing conditions.

### 13.2.3 *Redwood Avenue / Maxella Avenue*

The following paragraphs provide a detailed discussion of the traffic signal warrant prepared for the Del Rey Avenue/Maxella Avenue intersection.

#### Warrant 2: Four Hour Vehicular Volume Warrant

The Four Hour Vehicular Volume Warrant is intended for application at locations where a large volume of traffic along a major street occurs during any four one-hour periods of a day. Warrant No. 2 is not satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for only one point in Figure 4C-2 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 400 vehicles per hour while the lower threshold for a minor street with one approach lane is 80 vehicles per hour.

As indicated in Figure 4C-1 provided on pages E-2 and E-5 in *Appendix E*, the plotted point for the Four Hour Vehicular Volume is only above the applicable curve for existing with project conditions for the Redwood Avenue/Maxella Avenue intersection at one point and is only above the applicable curve at one point for future with project conditions. Therefore, Warrant No. 2 is not satisfied for the intersection under both existing with project conditions and under future with project conditions.

#### Warrant 3: Peak Hour Volume Warrant

The Peak Hour Volume Warrant is applied for land uses that attract or discharge large numbers of vehicles over a short period of time. Warrant No. 3 is satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve in Figure 4C-4 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 500 vehicles per hour while the lower threshold for a minor street approach with one lane is 100 vehicles per hour.



As indicated in Figure 4C-3 provided on pages E-3 and E-6 in *Appendix E*, the plotted point for the peak hour is below the applicable curve for existing with project conditions for the Redwood Avenue/Maxella Avenue intersection and below for the future with project conditions. Therefore, Warrant No. 3 is not satisfied for the intersection under both existing with project conditions and under future with project conditions.

### 13.3 Traffic Signal Warrants Conclusions

**Table 13-1** provides a summary of the traffic signal warrants analysis prepared for the stop-sign controlled intersections. The findings are provided below:

#### Del Rey Avenue/Maxella Avenue

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for existing plus project conditions.
- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are satisfied for future plus project conditions.

#### Walgrove Avenue/Washington Boulevard

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are satisfied for existing conditions.

#### Redwood Avenue/Maxella Avenue

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for existing plus project conditions.
- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for future plus project conditions.

As noted above and in *Table 13-1*, traffic signal control may be required at the Walgrove Avenue/Washington Boulevard intersection under existing conditions, as well as at the Del Rey Avenue/Maxella Avenue intersection in the future plus project conditions.

As noted in the MUTCD document, the satisfaction of traffic signal warrants does not necessarily justify the installation of a traffic signal. Delay, congestion, approach conditions, driver behavior, intersection location/vicinity, and/or other evidence of the need for right-of-way assignment beyond that which could be provided by stop-sign control may also be demonstrated.

Table 13-1  
TRAFFIC SIGNAL WARRANTS SUMMARY [A]

21-Sep-17

NO.	INTERSECTION	EXISTING + PROJECT		FUTURE + PROJECT	
		WARRANT 2 4-HOUR SATISFIED? [B]	WARRANT 3 PEAK HOUR SATISFIED? [B]	WARRANT 2 4-HOUR SATISFIED? [B]	WARRANT 3 PEAK HOUR SATISFIED? [B]
1	Del Rey Avenue / Maxella Avenue	NO	NO	YES	YES
2	Walgrove Avenue / Washington Boulevard	YES	YES	YES	YES
3	Redwood Avenue / Maxella Avenue	NO	NO	NO	NO

[A] Traffic signal warrant analysis based on the Manual on Uniform Traffic Control Devices (MUTCD), 2014 California Supplement, November 7, 2014.

[B] Traffic signal warrant data worksheets are contained in *Appendix E*.

## 14.0 CONGESTION MANAGEMENT PROGRAM TRANSPORTATION IMPACT ASSESSMENT

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Transportation Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2010 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

“A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ( $V/C \geq 0.02$ ), causing or worsening LOS F ( $V/C > 1.00$ ).”

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

### 14.1 Intersections

The following CMP intersection monitoring locations in the project vicinity have been identified:

<u>CMP Station</u>	<u>Intersection</u>
No. 49	Lincoln Boulevard / Marina Expressway
No. 50	Lincoln Boulevard / Venice Boulevard
No. 70	Venice Boulevard / Centinela Boulevard

The CMP TIA guidelines require that intersection monitoring locations must be examined if the proposed project will add 50 or more trips during either the AM or PM weekday peak hours. As shown in *Figure 7-2* and *Figure 7-3*, the proposed project would not add 50 or more trips during the AM or PM peak hours at any of the CMP monitoring locations. Specifically, the proposed project would add only 33 AM peak hour trips and 23 PM peak hour trips to the Lincoln Boulevard/Marina Expressway intersection, add only 30 AM peak hour trips and 8 PM peak hour trips to the Lincoln Boulevard/Venice Boulevard intersection, and add only 27 AM peak hour trips and 7 PM peak hour trips to the Venice Boulevard/Centinela Boulevard intersection. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

## 14.2 Freeways

The following CMP freeway monitoring locations have been identified in the project vicinity:

<u>CMP Station</u>	<u>Location</u>
No. 1069	I-405 Freeway north of La Tijera Boulevard
No. 1070	I-405 Freeway north of Venice Boulevard

The CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The proposed project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to the CMP freeway monitoring location which is the threshold for preparing a transportation impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

## 14.3 Transit Impact Review

As required by the *2010 Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the project on transit service. As discussed in Subsection 4.5 herein, existing transit service is provided in the vicinity of the proposed Paseo Marina project.

The project trip generation, as shown in *Table 7-1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the proposed project is forecast to generate demand for 15 transit trips during the AM peak hour and 5 transit trips during the PM peak hour. Over a 24-hour period, the proposed project is forecast to generate demand for 102 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour =  $296 \times 1.4 \times 0.035 = 15$  Transit Trips
- PM Peak Hour =  $83 \times 1.4 \times 0.035 = 5$  Transit Trips
- Daily Trips =  $2,079 \times 1.4 \times 0.035 = 102$  Transit Trips

As shown in *Table 4-1*, 13 bus transit lines and routes are provided adjacent to or in close proximity the project site. As outlined in *Table 4-1*, under the “No. of Buses/Trains During Peak Hour” column, these 13 public transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) generally 105 buses during the AM peak hour and roughly 97 buses during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond to an insignificant number of additional Project generated transit trips per bus. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips.

## 15.0 FREEWAY IMPACT ASSESSMENT

In December 2015, LADOT and Caltrans entered into a renewed agreement (the “City/Caltrans Agreement”) for purposes of assessing the potential transportation impacts of development projects in the City of Los Angeles on the State highway system. The City/Caltrans Agreement includes the steps for preparing an initial screening of the potential traffic contribution of traffic related to a development project to a freeway mainline segment and off-ramps.

The four screening criteria in the City/Caltrans Agreement are based on the current traffic volumes and capacities of nearby freeway mainline segments and freeway off-ramps, and the amount of project traffic expected to be added to those facilities. The City/Caltrans Agreement could require a more detailed review of the potential impacts based on the outcome of this screening analysis. More specifically, pursuant to the City/Caltrans Agreement, if one of the screening criteria is met, a full transportation impact analysis using Caltrans’ *Guide for the Preparation of Traffic Impact Studies* (December 2002) would be required beyond what is required by the CMP review.

The four screening criteria are as follows:

- The project’s peak hour trips would result in a 1% or more increase to the freeway mainline capacity of a freeway segment operating at LOS E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project’s peak hour trips would result in a 2% or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project’s peak hour trips would result in a 1% or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 850 vehicles per hour per lane); or
- The project’s peak hour trips would result in a 2% or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 850 vehicles per hour per lane).

A freeway screening analysis was prepared to address project-related traffic using freeway mainline and off-ramps. Four freeway mainline segments that would be affected by project traffic have been analyzed for potential screening conditions:

- SR-90 west of Mindanao Way
- SR-90 between Mindanao Way and Culver Boulevard
- SR-90 between Culver Boulevard and Centinela Avenue
- SR-90 east of Centinela Avenue

Additionally, seven freeway off-ramp locations that would be affected by project traffic were selected:

- SR-90 Westbound Off-Ramp at Lincoln Boulevard
- SR-90 Eastbound Off-Ramp at Mindanao Way
- SR-90 Westbound Off-Ramp at Mindanao Way
- SR-90 Eastbound Off-Ramp at Culver Boulevard
- SR-90 Westbound Off-Ramp at Culver Boulevard
- SR-90 Eastbound Off-Ramp at Centinela Avenue
- SR-90 Westbound Off-Ramp at Centinela Avenue

Together, they capture nearly all project traffic expected to travel to or from the project site via SR-90 Freeway. As project traffic travels further from the project site, the concentration of trips in any one direction dissipates. Therefore, while some project trips may also use other Caltrans facilities further from the project site, the facilities chosen for the screening analysis are those closest to the project site with the greatest concentration of project trips, and thus the first to trigger the screening criteria. As none of the screening criteria were met at the facilities closest to the project site with the greatest concentration of project trips, they would similarly not be met at facilities further from the project site with fewer project trips.

A summary of the screening analysis results is illustrated in *Table 15-1*.

#### Freeway Segment Screening

The four freeway segments were reviewed to determine if they met the screening criteria described above. *Table 15-1* summarizes the hourly capacity, existing peak hour volumes, and Project traffic volumes for the segments during the AM and PM peak hours. SR-90 provides three to four mainline lanes east of Centinela Avenue, three mainline lanes in each direction between Culver Boulevard and Centinela Avenue, and two mainline travel lanes in each direction west of Culver Boulevard. Therefore, based on an assumed hourly capacity of 2,000 vehicles per lane (per the City/Caltrans Agreement), as shown in *Table 15-1*, SR-90 has a capacity of 6,000 to 8,000 vehicles per hour east of Centinela Avenue, 6,000 vehicles per hour per direction between Culver Boulevard and Centinela Avenue, and 4,000 vehicles per hour per direction west of Culver Boulevard.

As shown in *Table 15-1*, based on the existing traffic volumes, all segments of SR-90 within the project vicinity are calculated to operate at LOS B or better during the AM and PM peak hours in both directions. Therefore, pursuant to the City/Caltrans Agreement, none of the off-ramps would require additional review because they are currently operating at a service level that is better than LOS D, E or F.

Table 15-1  
 FREEWAY SEGMENT AND OFF-RAMP SCREENING PROCESS  
 EXISTING CONDITIONS

07-Sep-17

NO.	FREEWAY SEGMENT	DIRECTION	PEAK HOUR	NUMBER OF LANES [A]	CAPACITY [B]	EXISTING VOLUME [C], [D]	V/C RATIO	LEVEL OF SERVICE	ADDED PROJECT TRAFFIC	PERCENT OF CAPACITY	MEETS SCREENING CRITERIA
1	SR-90 Mainline west of Mindanao Way	EB	AM PM	2 2	4000 4000	1391 1391	0.35 0.35	A A	0 0	0.00% 0.00%	NO NO
		WB	AM PM	2 2	4000 4000	1391 1391	0.35 0.35	A A	9 17	0.23% 0.43%	NO NO
2	SR-90 Mainline btwn. Mindanao Way & Culver Blvd.	EB	AM PM	2 2	4000 4000	2421 2421	0.61 0.61	B B	71 -10	1.78% -0.25%	NO NO
		WB	AM PM	2 2	4000 4000	2421 2421	0.61 0.61	B B	18 34	0.45% 0.85%	NO NO
3	SR-90 Mainline btwn. Culver Blvd. & Centinela Ave.	EB	AM PM	3 3	6000 6000	2988 2988	0.50 0.50	A A	71 -10	1.19% -0.17%	NO NO
		WB	AM PM	3 3	6000 6000	2988 2988	0.50 0.50	A A	18 34	0.30% 0.57%	NO NO
4	SR-90 Mainline east of Centinela Ave.	EB	AM PM	3 3	6000 6000	3555 3555	0.59 0.59	A A	76 -10	1.27% -0.17%	NO NO
		WB	AM PM	4 4	8000 8000	3555 3555	0.44 0.44	A A	20 37	0.25% 0.46%	NO NO

Table 15-1 (Continued)  
**FREEWAY SEGMENT AND OFF-RAMP SCREENING PROCESS**  
**EXISTING CONDITIONS**

NO.	FREEWAY OFF-RAMP	PEAK HOUR	NUMBER OF LANES	CAPACITY [E]	VOLUME [D], [F]	V/C RATIO	LEVEL OF SERVICE	ADDED PROJECT TRAFFIC	PERCENT OF CAPACITY	MEETS SCREENING CRITERIA
1	SR-90 Westbound Off-Ramp at Lincoln Boulevard	AM	4	3400	1337	0.39	A	9	0.27%	NO
		PM	4	3400	1012	0.30	A	17	0.50%	NO
2	SR-90 Eastbound Off-Ramp at Mindanao Way	AM	2	1700	1238	0.73	C	0	0.00%	NO
		PM	2	1700	1176	0.69	B	0	0.00%	NO
3	SR-90 Westbound Off-Ramp at Mindanao Way	AM	3	2550	2563	1.01	F	9	0.36%	NO
		PM	3	2550	1831	0.72	C	17	0.67%	NO
4	SR-90 Eastbound Off-Ramp at Culver Blvd.	AM	2	1700	119	0.07	A	0	0.00%	NO
		PM	2	1700	132	0.08	A	0	0.00%	NO
5	SR-90 Westbound Off-Ramp at Culver Blvd.	AM	3	2550	800	0.31	A	0	0.00%	NO
		PM	3	2550	448	0.18	A	0	0.00%	NO
6	SR-90 Eastbound Off-Ramp at Centinela Ave.	AM	2	1700	329	0.19	A	0	0.00%	NO
		PM	2	1700	285	0.17	A	0	0.00%	NO
7	SR-90 Westbound Off-Ramp at Centinela Ave.	AM	3	2550	1202	0.47	A	2	0.08%	NO
		PM	3	2550	735	0.29	A	3	0.12%	NO

- [A] Auxiliary lanes and high-occupancy vehicle lanes are not counted toward the total number of lanes.  
[B] Assumed freeway mainline capacity of 2,000 vehicles per hour per lane as stated in the Agreement.  
[C] Traffic Volume Data provided in the most recent Caltrans Traffic Volume (2014).  
[D] Volumes conducted prior to existing year 2017 were increased using an ambient growth rate of 1.0%.  
[E] Assumed freeway off-ramp capacity of 850 vehicles per hour per lane as stated in the Agreement.  
[F] Traffic Volume Data provided by traffic counts.



As shown in *Table 15-1*, the Project is forecast to add peak hour trips to the freeway segments up to 1.78% of the available freeway capacity. This increase is less than one of the restrictive freeway segment screening thresholds identified in the City/Caltrans Agreement (i.e., an increase of 2% or more to the freeway mainline capacity operated at LOS D). This further supports the conclusion that no additional analysis of potential transportation impacts to freeway segments is required.

#### Freeway Off-Ramp Screening

The seven freeway off-ramps were reviewed to determine if they met the screening criteria described above. *Table 15-1* summarizes the hourly capacity, existing peak hour volumes, and project traffic volumes for the off-ramps during the AM and PM peak hours. Each off-ramp provides between two to four lanes. Therefore, based on an assumed hourly capacity of 850 vehicles per lane (per the City/Caltrans Agreement), as shown in *Table 15-1*, each off-ramp has a capacity between 1,700 to 3,400 vehicles per hour.

As shown in *Table 15-1*, based on the existing traffic volumes, six of the seven freeway off-ramps are calculated to operate at LOS C or better during the AM and PM peak hours. The SR-90 Westbound Off-Ramp at Mindanao Way is calculated to operate at LOS F during the AM Peak Hour. Therefore, pursuant to the City/Caltrans Agreement, the applicable threshold for determining whether additional review of potential impacts to the freeway off-ramp is if the project's peak hour trips would result in a 1% or more increase to the freeway off-ramp capacity because the freeway off-ramp operates at LOS E or F.

As shown in *Table 15-1*, the project is forecast to add 9 AM Peak Hour trips to the SR-90 Westbound Off-Ramp at Mindanao Way, which is equivalent to 0.36% of the available freeway off-ramp capacity. Since this increase is less than the 1% threshold, the freeway off-ramp would not meet the screening criteria during either peak hour in either direction. The remaining two freeway off-ramps are currently operating at a service level that is better than LOS D, E or F. Therefore, pursuant to the City/Caltrans Agreement, none of the off-ramps would require additional review.

In summary, the screening analysis concludes that the level of contribution of project traffic to the four selected mainline freeway segments and seven selected freeway off-ramps relative to the available capacity did not warrant further review of potential transportation impacts due to the Project. Therefore, no additional analysis is required.

## 16.0 CONSTRUCTION IMPACT ASSESSMENT

### 16.1 Construction Assumptions

There are two phases related to construction of the Project, each with separate trip generation characteristics. First is the shoring/excavation phase which generally results in the highest number of truck trips per day as compared to other phases of project construction. Second is the building construction phase which typically generates the highest number of construction workers on site as compared to other phases of construction.

#### Shoring/Excavation

The shoring/excavation phase of the Project would result in the need to export approximately 220,000 cubic yards of material from the Project Site. During this phase, hauling of material from the Project Site would occur on weekdays between 7:00 a.m. and 3:00 p.m. (i.e., an 8-hour period). A total of 60 truck round-trips per day (i.e., 60 inbound and 60 outbound) carrying approximately 14 cubic yards of material per truck are expected (e.g., 7-8 trucks per hour). Based on the estimated removal of 840 cubic yards of material each day, it is expected that the materials would be removed from the Project Site over a period of approximately 262 work days.

The precise route of haul trucks arriving to and departing from the Project Site is determined by the Los Angeles Board of Building and Safety Commissioners following a public hearing conducted for the proposed haul route. It is reasonable to assume, however, that the primary route to be used by haul trucks traveling to and from the Project Site will include the SR-90 (Marina) Freeway and I-405 (San Diego) Freeway.

In addition to the trips by hauling trucks, approximately 10 truck round-trips for delivery of construction materials are expected per day (10 inbound and 10 outbound), as well as 30 round-trips per day by construction workers (30 inbound and 30 outbound) related to the shoring/excavation phase.

#### Building Construction

Building construction is estimated to occur over a 38-month period. During peak construction activity, it is estimated that approximately 225 construction worker round-trips per day would be generated (225 inbound and 225 outbound), as well as 30 round-trips by miscellaneous delivery trucks (30 inbound and 30 outbound). Building construction is permitted in the City of Los Angeles on weekdays between 7:00 a.m. and 9:00 p.m., as well as on Saturdays from 8:00 a.m. to 6:00 p.m.

#### Construction Worker Parking and Roadway/Sidewalk Closures

Parking for construction workers will be provided on-site by the project applicant. Street parking by construction workers will not be permitted.

The construction of the Project would not require the closure of any vehicle travel lanes. This is due primarily to the availability of parking “lanes” adjacent to the Project Site on Glencoe Avenue, which precludes the need to use the adjacent travel lanes. The street parking spaces adjacent to the Project Site on Glencoe Avenue would likely be reserved for use by construction vehicles for the duration of construction. As these street parking spaces are likely associated with the existing uses on the Project Site (which will be removed as part of the Project), the temporary unavailability of these street parking spaces is not expected to cause an adverse effect to other nearby businesses.

Temporary closures of the sidewalks adjacent to the Project Site on Glencoe Avenue and Maxella Avenue may be required during portions of the construction period. However, signs would be posted advising pedestrians of temporary sidewalk closures and providing alternative routes (e.g., if the sidewalk on the south side of Maxella Avenue adjacent to the Project Site is closed during the construction period, signs would direct pedestrians to use the sidewalk on the north side of Maxella Avenue as an alternative route). The project applicant would prepare and submit a work site traffic control plan to LADOT prior to the start of construction. That plan would show the location of any temporary street parking or sidewalk closures, warning signs and access to abutting properties.

## 16.2 Vehicle Trip Generation

The potential transportation impacts of the Project at build-out and occupancy are assessed in Sections 9.0 and 10.0 herein based on the evaluation of operations at local intersections during the weekday morning (AM) and afternoon (PM) commuter peak hours. Set forth below is a similar forecast of trip generation related to project construction, which is provided for the AM and PM peak hours for comparison purposes to the Project at build-out. Also provided for informational purposes is a forecast of the weekday daily (24-hour) trip generation related to construction of the Project.

In addition to the construction assumptions outlined in the prior section, the following additional assumptions are made relative to vehicular trip generation during the construction period:

- Typically, most construction workers arrive and depart the worksite outside of the commuter peak hours. For this analysis, it has been conservatively assumed that 20% of the inbound daily trips would arrive at the Project Site during the AM peak hour and that 20% of the outbound daily trips would depart the Project Site during the PM peak hour.
- Trucks utilize more of the physical roadway as compared to passenger cars and small trucks. Thus, for trips generated by trucks, a passenger car equivalency (PCE) factor of 2.0 has been assumed based on factors provided in the *Highway Capacity Manual* published by the Transportation Research Board.

**Table 16-1** provides the trip generation forecast related to construction of the Project. As shown in **Table 16-1**, the forecast trip generation by phase of construction is as follows:

Table 16-1  
CONSTRUCTION TRIP GENERATION [1]

26-Jun-17

PHASE	DAILY TRIP ENDS VOLUMES	AM PEAK HOUR VOLUMES			PM PEAK HOUR VOLUMES		
		IN	OUT	TOTAL	IN	OUT	TOTAL
<u>Shoring / Excavation</u>							
Construction Workers	60	6	0	6	0	6	6
Trucks	140	9	9	18	0	0	0
PCE (2.0) Adjusted [2]	280	18	18	36	0	0	0
Phase Subtotal (PCE Adjusted)	340	24	18	42	0	6	6
<u>Building Construction</u>							
Construction Workers	450	45	0	45	0	45	45
Trucks	60	3	3	6	3	3	6
PCE (2.0) Adjusted [2]	120	6	6	12	6	6	12
Phase Subtotal (PCE Adjusted)	570	51	6	57	6	51	57

[1] Source: SRG Contractors, L.P.

[2] A Passenger Car Equivalent (PCE) factor of 2.0 was applied to all trucks based on standard traffic engineering practice to conservatively estimate the equivalent number of vehicles associated with the trucks.

- Shoring/Excavation
  - 340 daily trips (170 inbound/170 outbound)
  - 42 AM peak hour trips (24 inbound/18 outbound)
  - 6 PM peak hour trips (0 inbound/6 outbound)
- Building Construction
  - 570 daily trips (285 inbound/285 outbound)
  - 57 AM peak hour trips (51 inbound/6 outbound)
  - 57 PM peak hour trips (6 inbound/51 outbound)

### 16.3 Transportation Assessment

*Table 7-1* provides the trip generation forecast for the Project at build-out. As shown in *Table 7-1*, the Project is forecast to generate 2,079 net new trips during a typical weekday, including 296 net new AM peak hour trips and 83 net new PM peak hour trips. By comparison, the shoring/excavation phase is estimated to generate 340 daily trips, 42 AM peak hour trips and 6 PM peak hour trips while the building construction phase is estimated to generate 570 daily trips, 57 AM peak hour trips and 57 PM peak hour trips. Thus, construction activity at the Project Site would generate significantly fewer trips than the operation of the Project following its completion. In fact, when compared to the trips generated by the existing uses on the site, as provided on *Table 7-1*, construction of the project would generate fewer trips as compared to the current site trip generation.

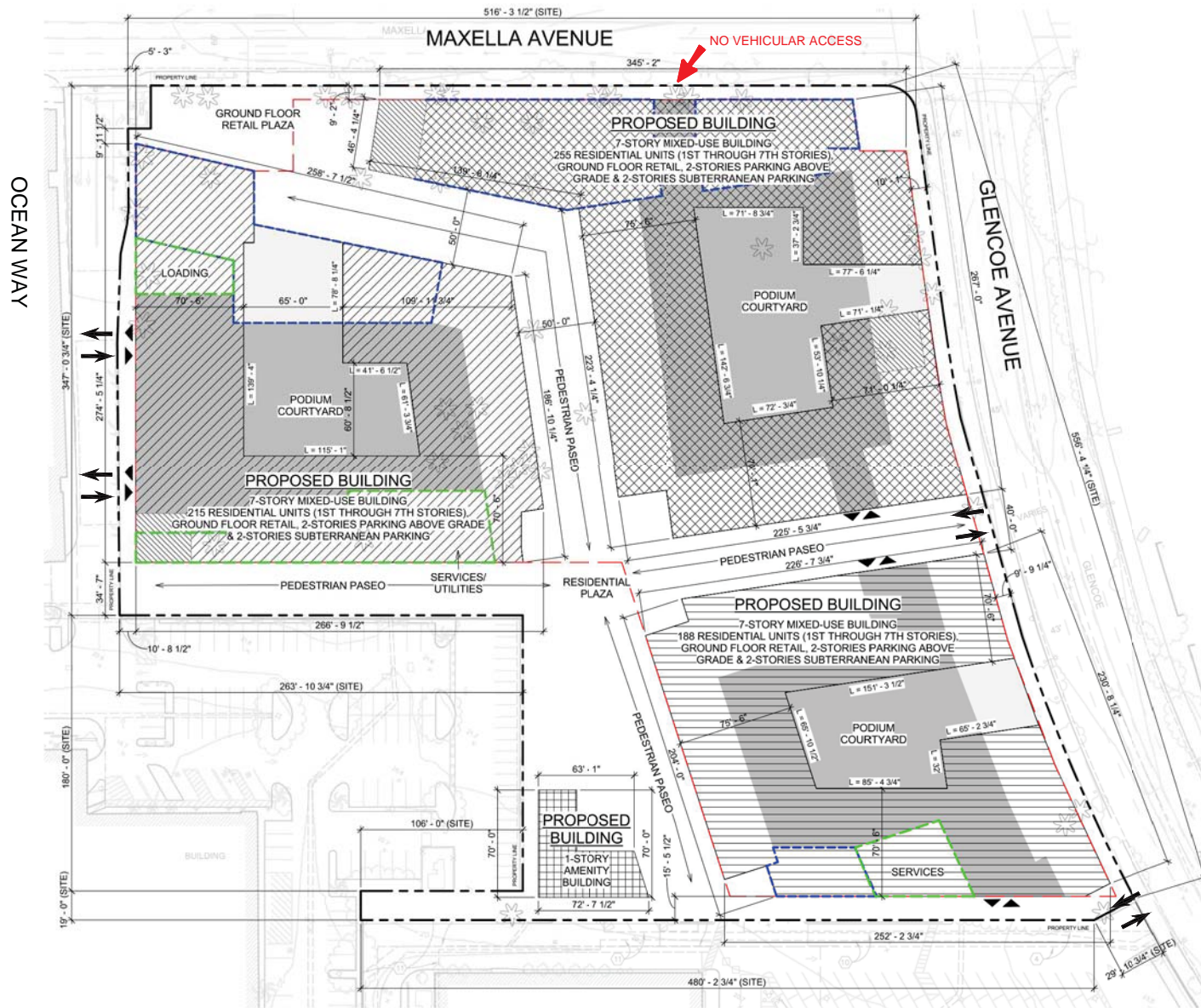
It is reasonable to conclude that the potential transportation impacts related to construction of the Project have been suitably evaluated through the transportation impact analysis provided herein for the Project at build-out. In addition, the potential transportation impacts related to be construction would be substantially less as compared to the Project due to the relatively lower trip generation associated with construction as compared to project operation. Therefore, no additional analysis of transportation impacts related to the construction of the Project is required.

## 17.0 ALTERNATIVE SITE ACCESS PLAN

The project applicant may consider an alternative site access plan whereby the currently proposed driveway on Maxella Avenue west of Glencoe Avenue (i.e., at Building 2) would not be developed. The alternative site plan for the proposed project is illustrated in **Figure 17-1**. Vehicular access would remain unchanged at the other locations throughout the site. Because the parking levels at the project are interconnected, motorists who may have utilized the Maxella Avenue driveway would be able to use the other proposed site driveways for access to and from the project.

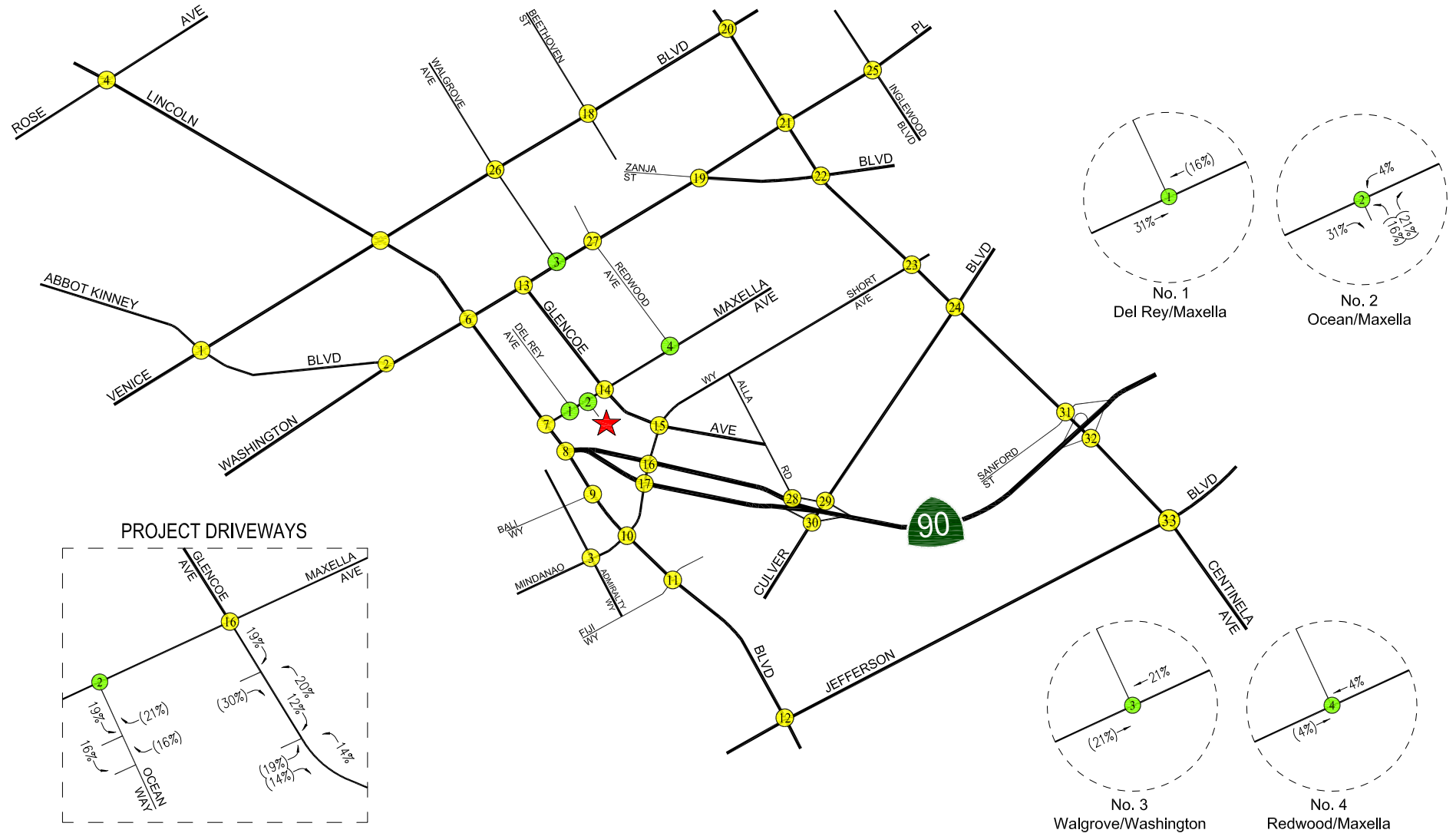
An analysis was prepared to evaluate the potential traffic impacts related to the proposed alternative site access plan that assumes no vehicular access at the Maxella Avenue site driveway. Under the alternative site access plan, vehicles that originally entered and exited the project site via the Maxella Avenue driveway were assumed to instead enter and exit the project site via the project driveways along Ocean Way. Traffic volumes at the remaining site driveways and study intersections associated with the proposed project are expected to remain the same. The resulting directional traffic distribution patterns at the proposed site driveways based on the alternative site access plan is presented in **Figure 17-2** (which corresponds with **Figure 7-1B** previously presented herein for the project as proposed). As previously noted, the project proposes to install a traffic signal at the Ocean Way/Maxella Avenue intersection as a project feature. The incremental amount of additional traffic utilizing the Ocean Way/Maxella Avenue intersection due to the alternative site access plan – 2 additional inbound trips/12 additional outbound trips in the AM peak hour and 2 additional inbound trips/4 fewer outbound trips in the PM peak hour – is not anticipated to cause operational issues at the intersection. Overall, the alternative site access plan would not change any of the analysis and findings related to the traffic analysis previously summarized in *Table 9-1* herein.

In summary, the potential alternative site access plan, which would eliminate the project's Maxella Avenue driveway, is expected to result in a slight increase in project-related trips utilizing the site access points located along Ocean Way. The potential alternative site plan would not change any of the findings or conclusions related to the traffic analysis presented herein for the project as proposed. Accordingly, no additional analysis of traffic impacts is required or recommended as a result of the potential alternative site access plan for the project.



MAP SOURCE: TCA ARCHITECTS  
 ↓↑ PROJECT DRIVEWAY SITE ACCESS  
 ▼▲ PROJECT BUILDING ACCESS

FIGURE 17-1  
 ALTERNATIVE PROJECT SITE PLAN  
 GROUND FLOOR



- NOT TO SCALE**
- ★ PROJECT SITE
  - ⓧ SIGNALIZED STUDY INTERSECTION
  - ⓪ UNSIGNALIZED STUDY INTERSECTION
  - ## = INBOUND PERCENTAGES
  - (##) = OUTBOUND PERCENTAGES

## ALTERNATIVE SITE PLAN PROJECT TRIP DISTRIBUTION UNSIGNALIZED INTERSECTIONS AND DRIVEWAYS

FIGURE 17-2



## 18.0 CONCLUSIONS

This transportation impact analysis has been prepared to evaluate the potential impacts to the local street system due to the proposed Paseo Marina project. Thirty-three (33) intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the proposed project. The following provides a summary of the potential transportation impacts of the project at the study intersections:

- City of Los Angeles. The project will cause a potentially significant transportation impact at one of the 28 study intersections: Mindanao Way / SR-90 Eastbound Ramps. While a potential mitigation measure has been identified for the affected intersection, implementation would require the approval of Caltrans. As the City of Los Angeles does not have direct control of the intersection, it cannot guarantee its implementation. Therefore, the project-related impacts are deemed to be significant and unavoidable at the one study intersection. Impacts at the remaining study intersections due to the project are less than significant.
- City of Culver City. The potential transportation impacts due to the project at the five study intersections located in the City of Culver City are deemed to be less than significant.
- County of Los Angeles. The direct project transportation impacts at the four study intersections located in unincorporated Los Angeles County are deemed to be less than significant. However, based on the County's methodology and thresholds of significance, it is determined that project traffic – combined with the potential traffic generated by other known development projects – would contribute to a potentially significant cumulative transportation impact at two of the four County intersections: Lincoln Boulevard / Mindanao Way and Lincoln Boulevard / Fiji Way. As the two County intersections are built-out, the potential cumulative transportation impacts are deemed to be significant and unavoidable at the two study intersections. Impacts at the remaining County intersections are less than significant.

As noted above and in *Table 13-1*, traffic signal control may be required at the Walgrove Avenue/Washington Boulevard intersection under existing conditions, as well as at the Del Rey Avenue/Maxella Avenue intersection in the future plus project conditions.

The existing intersection of Ocean Way and Maxella Avenue is controlled by a stop sign (i.e., a stop sign faces traffic on the northbound Ocean Way approach). As a project feature, it is proposed that the intersection be signalized in the future prior to occupancy of the project. In conjunction with this improvement, the existing mid-block signalized crosswalk on Maxella Avenue would be shifted approximately 100 west to the Ocean Way intersection.

# APPENDIX A

## MANUAL TRAFFIC COUNT DATA



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Abbot Kinney Blvd

**East/West** Venice Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	53	49	42	63
<b>BIKES</b>	123	128	79	140
<b>BUSES</b>	0	0	55	59

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	242	9.00	142	8.15	199	8.00	223	9.45
<i>PM PK 15 MIN</i>	144	17.15	220	17.15	226	17.00	240	17.45
<i>AM PK HOUR</i>	917	7.45	530	8.00	707	8.00	805	9.00
<i>PM PK HOUR</i>	542	16.45	833	17.00	839	17.00	879	15.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	59	738	67	864
8-9	112	726	68	906
9-10	121	665	87	873
15-16	80	315	67	462
16-17	69	342	73	484
17-18	90	374	66	530
<b>TOTAL</b>	531	3160	428	4119

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	92	236	25	353
8-9	128	367	35	530
9-10	138	305	35	478
15-16	182	561	49	792
16-17	174	585	43	802
17-18	194	605	34	833
<b>TOTAL</b>	908	2659	221	3788

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
1217	16	0	20	1
1436	14	2	40	2
1351	32	3	50	4
1254	38	2	116	9
1286	31	3	105	3
1363	23	0	97	3
<b>7907</b>	<b>154</b>	<b>10</b>	<b>428</b>	<b>22</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	45	373	37	455
8-9	81	585	41	707
9-10	74	537	43	654
15-16	54	590	109	753
16-17	46	631	104	781
17-18	44	652	143	839
<b>TOTAL</b>	344	3368	477	4189

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	44	240	130	414
8-9	103	414	206	723
9-10	106	484	215	805
15-16	137	518	202	857
16-17	164	541	142	847
17-18	163	508	177	848
<b>TOTAL</b>	717	2705	1072	4494

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
869	14	1	15	0
1430	37	2	33	1
1459	34	3	60	0
1610	51	0	69	0
1628	57	0	66	2
1687	58	4	71	0
<b>8683</b>	<b>251</b>	<b>10</b>	<b>314</b>	<b>3</b>

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-001

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Abbot Kinney Blvd			Abbot Kinney Blvd			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM	7	178	15	21	41	8	7	69	6	9	54	29	444
7:15 AM	22	175	21	21	52	1	7	82	12	11	57	26	487
7:30 AM	8	202	9	22	66	9	13	111	11	16	70	45	582
7:45 AM	22	183	22	28	77	7	18	111	8	8	59	30	573
8:00 AM	21	194	21	27	93	11	20	166	13	20	82	41	709
8:15 AM	28	186	16	34	99	9	22	154	5	25	107	58	743
8:30 AM	37	172	15	38	91	11	17	142	15	28	113	46	725
8:45 AM	26	174	16	29	84	4	22	123	8	30	112	61	689
9:00 AM	23	195	24	39	84	5	15	134	13	30	108	50	720
9:15 AM	32	154	18	37	66	11	21	164	12	28	127	57	727
9:30 AM	34	172	20	31	78	9	23	125	10	24	106	52	684
9:45 AM	32	144	25	31	77	10	15	114	8	24	143	56	679
<b>TOTAL VOLUMES :</b>	292	2129	222	358	908	95	200	1495	121	253	1138	551	7762
<b>APPROACH %'s :</b>	11.05%	80.55%	8.40%	26.30%	66.72%	6.98%	11.01%	82.32%	6.66%	13.03%	58.60%	28.37%	
<b>PEAK HR START TIME :</b>	815 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	114	727	71	140	358	29	76	553	41	113	440	215	2877
<b>PEAK HR FACTOR :</b>	0.942			0.928			0.925			0.946			0.968

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-001

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Abbot Kinney Blvd			Abbot Kinney Blvd			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
3:00 PM	19	70	22	50	139	7	14	141	26	38	136	52	714
3:15 PM	21	70	12	49	144	18	11	167	27	29	109	43	700
3:30 PM	20	92	14	42	135	10	18	129	25	32	148	54	719
3:45 PM	20	83	19	41	143	14	11	153	31	38	125	53	731
4:00 PM	13	87	13	45	139	12	15	177	31	42	121	39	734
4:15 PM	18	76	22	51	144	11	15	162	28	41	145	41	754
4:30 PM	15	87	14	38	154	12	6	157	21	41	141	35	721
4:45 PM	23	92	24	40	148	8	10	135	24	40	134	27	705
5:00 PM	24	81	18	43	149	8	7	177	42	30	120	51	750
5:15 PM	20	105	19	49	161	10	6	157	38	43	120	43	771
5:30 PM	23	99	14	45	155	10	20	168	38	50	113	38	773
5:45 PM	23	89	15	57	140	6	11	150	25	40	155	45	756
<b>TOTAL VOLUMES :</b>	239	1031	206	550	1751	126	144	1873	356	464	1567	521	8828
<b>APPROACH %'s :</b>	16.19%	69.85%	13.96%	22.66%	72.15%	5.19%	6.07%	78.93%	15.00%	18.18%	61.40%	20.42%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	90	374	66	194	605	34	44	652	143	163	508	177	3050
<b>PEAK HR FACTOR :</b>	0.920			0.947			0.928			0.883			0.986

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Abbot Kinney Blvd

**East/West** Washington Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	1	50	89	120
<b>BIKES</b>	0	72	91	112
<b>BUSES</b>	0	0	24	23

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	2	8.15	155	8.00	300	8.00	387	8.30
<i>PM PK 15 MIN</i>	3	16.15	221	17.30	219	15.00	325	17.45
<i>AM PK HOUR</i>	3	7.30	540	8.00	1132	7.30	1421	8.30
<i>PM PK HOUR</i>	4	16.15	807	17.00	842	15.30	1191	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	2	2
8-9	0	0	2	2
9-10	0	0	1	1
15-16	0	0	0	0
16-17	0	0	4	4
17-18	0	0	0	0
<b>TOTAL</b>	0	0	9	9

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	265	1	66	332
8-9	407	0	133	540
9-10	332	0	95	427
15-16	529	1	188	718
16-17	533	0	185	718
17-18	586	0	221	807
<b>TOTAL</b>	2652	2	888	3542

**TOTAL**

N-S
334
542
428
718
722
807
3551

**XING S/L**

Ped	Sch
18	2
19	0
23	3
25	3
37	3
62	6
184	17

**XING N/L**

Ped	Sch
20	0
53	5
21	1
28	0
26	5
26	3
174	14

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	204	750	0	954
8-9	181	887	0	1068
9-10	132	867	0	999
15-16	121	718	1	840
16-17	116	702	2	820
17-18	127	660	0	787
<b>TOTAL</b>	881	4584	3	5468

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	1	496	763	1260
8-9	0	634	742	1376
9-10	0	641	742	1383
15-16	1	713	327	1041
16-17	1	685	349	1035
17-18	3	805	383	1191
<b>TOTAL</b>	6	3974	3306	7286

**TOTAL**

E-W
2214
2444
2382
1881
1855
1978
12754

**XING W/L**

Ped	Sch
32	2
47	3
17	0
14	1
28	2
48	5
186	13

**XING E/L**

Ped	Sch
0	0
1	0
0	0
0	0
0	0
2	0
3	0

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-002

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM

NS/EW Streets:		Abbot Kinney Blvd			Abbot Kinney Blvd			Washington Blvd			Washington Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 1	NR 0	SL 1.5	ST 0	SR 0.5	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
7:00 AM		0	0	1	54	0	9	18	139	0	0	103	172	496
7:15 AM		0	0	0	57	0	13	36	184	0	1	124	202	617
7:30 AM		0	0	1	75	0	18	69	212	0	0	127	204	706
7:45 AM		0	0	0	79	1	26	81	215	0	0	142	185	729
8:00 AM		0	0	0	113	0	42	70	230	0	0	147	197	799
8:15 AM		0	0	2	106	0	43	35	220	0	0	153	164	723
8:30 AM		0	0	0	95	0	23	30	238	0	0	179	208	773
8:45 AM		0	0	0	93	0	25	46	199	0	0	155	173	691
9:00 AM		0	0	0	85	0	27	34	247	0	0	158	211	762
9:15 AM		0	0	1	73	0	23	38	217	0	0	149	188	689
9:30 AM		0	0	0	82	0	25	28	211	0	0	163	171	680
9:45 AM		0	0	0	92	0	20	32	192	0	0	171	172	679
TOTAL VOLUMES :		NL 0	NT 0	NR 5	SL 1004	ST 1	SR 294	EL 517	ET 2504	ER 0	WL 1	WT 1771	WR 2247	TOTAL 8344
APPROACH %'s :		0.00%	0.00%	100.00%	77.29%	0.08%	22.63%	17.11%	82.89%	0.00%	0.02%	44.07%	55.91%	
PEAK HR START TIME :		745 AM												TOTAL
PEAK HR VOL :		0	0	2	393	1	134	216	903	0	0	621	754	3024
PEAK HR FACTOR :		0.250			0.852			0.933			0.888			0.946

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-002

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

NS/EW Streets:		PM													
		Abbot Kinney Blvd			Abbot Kinney Blvd			Washington Blvd			Washington Blvd				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
		0	1	0	1.5	0	0.5	1	2	0	1	2	1		
	3:00 PM	0	0	0	140	0	50	37	181	1	1	168	71	649	
	3:15 PM	0	0	0	133	0	57	26	180	0	0	170	75	641	
	3:30 PM	0	0	0	123	0	35	30	172	0	0	178	89	627	
	3:45 PM	0	0	0	133	1	46	28	185	0	0	197	92	682	
	4:00 PM	0	0	0	161	0	41	29	186	0	0	177	78	672	
	4:15 PM	0	0	3	111	0	56	32	178	2	0	164	97	643	
	4:30 PM	0	0	0	139	0	44	21	172	0	1	175	85	637	
	4:45 PM	0	0	1	122	0	44	34	166	0	0	169	89	625	
	5:00 PM	0	0	0	149	0	56	33	176	0	1	182	95	692	
	5:15 PM	0	0	0	143	0	61	35	158	0	1	206	90	694	
	5:30 PM	0	0	0	158	0	63	29	179	0	0	190	101	720	
	5:45 PM	0	0	0	136	0	41	30	147	0	1	227	97	679	
TOTAL VOLUMES :		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
APPROACH %'s :		0	0	4	1648	1	594	364	2080	3	5	2203	1059	7961	
		0.00%	0.00%	100.00%	73.47%	0.04%	26.48%	14.88%	85.00%	0.12%	0.15%	67.43%	32.42%		
PEAK HR START TIME :		500 PM													TOTAL
PEAK HR VOL :		0	0	0	586	0	221	127	660	0	3	805	383	2785	
PEAK HR FACTOR :		0.000			0.913			0.941			0.916			0.967	

CONTROL : Signalized





City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Admiralty Wy

**East/West** Mindanao Wy

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	45	54	3	24
<b>BIKES</b>	121	93	20	21
<b>BUSES</b>	19	34	0	16

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	276	9.00	321	8.30	22	7.45	179	9.15
<i>PM PK 15 MIN</i>	215	17.30	386	16.15	32	15.15	193	17.15
<i>AM PK HOUR</i>	1028	7.45	1181	8.15	65	7.15	695	8.00
<i>PM PK HOUR</i>	825	16.45	1445	16.45	107	15.00	716	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	23	871	18	912
8-9	23	937	43	1003
9-10	19	849	60	928
15-16	19	491	146	656
16-17	14	558	136	708
17-18	8	664	143	815
<b>TOTAL</b>	106	4370	546	5022

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	318	451	8	777
8-9	452	701	9	1162
9-10	371	577	22	970
15-16	326	894	26	1246
16-17	349	1057	18	1424
17-18	326	1088	18	1432
<b>TOTAL</b>	2142	4768	101	7011

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
1689	3	0	14	1
2165	4	0	14	1
1898	8	0	26	5
1902	11	0	40	2
2132	3	0	26	1
2247	4	0	37	3
<b>12033</b>	<b>33</b>	<b>0</b>	<b>157</b>	<b>13</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	17	21	19	57
8-9	9	18	14	41
9-10	13	12	11	36
15-16	32	51	24	107
16-17	16	41	23	80
17-18	25	37	21	83
<b>TOTAL</b>	112	180	112	404

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	71	34	394	499
8-9	128	50	517	695
9-10	146	44	449	639
15-16	248	38	339	625
16-17	229	28	398	655
17-18	252	32	432	716
<b>TOTAL</b>	1074	226	2529	3829

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
556	7	0	8	0
736	11	1	28	2
675	5	0	22	0
732	15	1	35	6
735	16	0	29	0
799	13	0	21	3
<b>4233</b>	<b>67</b>	<b>2</b>	<b>143</b>	<b>11</b>

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-003

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Admiralty Wy			Admiralty Wy			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 1.5	WT 0.5	WR 1	TOTAL
7:00 AM	6	168	2	63	89	2	1	4	5	17	12	83	452
7:15 AM	5	226	5	66	98	0	3	3	5	19	7	80	517
7:30 AM	4	235	7	84	102	4	7	5	2	18	9	98	575
7:45 AM	8	242	4	105	162	2	6	9	7	17	6	133	701
8:00 AM	11	228	16	99	139	0	4	9	5	30	19	122	682
8:15 AM	7	251	9	142	173	2	1	3	2	21	13	136	760
8:30 AM	4	242	6	103	215	3	3	5	2	36	10	131	760
8:45 AM	1	216	12	108	174	4	1	1	5	41	8	128	699
9:00 AM	4	254	18	90	162	5	2	3	3	29	11	104	685
9:15 AM	4	219	13	100	159	3	4	1	1	32	13	134	683
9:30 AM	5	196	18	89	119	6	3	4	4	38	10	108	600
9:45 AM	6	180	11	92	137	8	4	4	3	47	10	103	605
<b>TOTAL VOLUMES :</b>	65	2657	121	1141	1729	39	39	51	44	345	128	1360	7719
<b>APPROACH %'s :</b>	2.29%	93.46%	4.26%	39.22%	59.44%	1.34%	29.10%	38.06%	32.84%	18.82%	6.98%	74.20%	
<b>PEAK HR START TIME :</b>	815 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	16	963	45	443	724	14	7	12	12	127	42	499	2904
<b>PEAK HR FACTOR :</b>	0.928			0.920			0.775			0.944			0.955

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-003

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Admiralty Wy			Admiralty Wy			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 2	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 1.5	WT 0.5	WR 1	TOTAL
3:00 PM	7	127	37	73	248	9	10	7	5	59	11	56	649
3:15 PM	5	108	42	78	207	6	8	15	9	65	8	78	629
3:30 PM	5	119	33	95	222	5	9	14	6	62	9	113	692
3:45 PM	2	137	34	80	217	6	5	15	4	62	10	92	664
4:00 PM	2	132	34	84	285	7	2	9	6	59	12	121	753
4:15 PM	3	140	32	94	289	3	6	12	8	50	8	92	737
4:30 PM	5	132	26	90	232	5	4	10	4	52	5	99	664
4:45 PM	4	154	44	81	251	3	4	10	5	68	3	86	713
5:00 PM	1	175	29	99	279	2	8	13	5	58	5	92	766
5:15 PM	3	166	34	93	283	8	5	9	6	71	6	116	800
5:30 PM	2	177	36	72	268	6	7	9	3	64	8	110	762
5:45 PM	2	146	44	62	258	2	5	6	7	59	13	114	718
<b>TOTAL VOLUMES :</b>	41	1713	425	1001	3039	62	73	129	68	729	98	1169	8547
<b>APPROACH %'s :</b>	1.88%	78.61%	19.50%	24.40%	74.09%	1.51%	27.04%	47.78%	25.19%	36.52%	4.91%	58.57%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	8	664	143	326	1088	18	25	37	21	252	32	432	3046
<b>PEAK HR FACTOR :</b>	0.948			0.932			0.798			0.927			0.952

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Lincoln Blvd

**East/West** Rose Ave

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	112	106	41	24
<b>BIKES</b>	88	80	64	42
<b>BUSES</b>	48	50	3	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	459	9.00	382	8.30	128	9.15	143	7.45
<i>PM PK 15 MIN</i>	333	15.30	471	17.30	176	17.00	103	15.15
<i>AM PK HOUR</i>	1769	8.15	1476	8.00	495	8.30	564	7.45
<i>PM PK HOUR</i>	1294	15.15	1818	17.00	668	16.45	334	15.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	75	1558	22	1655
8-9	91	1600	29	1720
9-10	125	1492	33	1650
15-16	102	1135	54	1291
16-17	99	1015	56	1170
17-18	89	1104	41	1234
TOTAL	581	7904	235	8720

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	44	924	67	1035
8-9	55	1295	126	1476
9-10	75	1133	131	1339
15-16	157	1292	130	1579
16-17	229	1273	120	1622
17-18	182	1505	131	1818
TOTAL	742	7422	705	8869

**TOTAL**

N-S
2690
3196
2989
2870
2792
3052
17589

**XING S/L**

Ped	Sch
27	8
55	17
39	6
39	8
44	5
40	2
244	46

**XING N/L**

Ped	Sch
19	7
70	20
62	13
27	3
37	7
45	3
260	53

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	123	170	88	381
8-9	101	249	115	465
9-10	122	224	145	491
15-16	152	365	110	627
16-17	140	385	107	632
17-18	143	419	98	660
TOTAL	781	1812	663	3256

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	41	169	157	367
8-9	32	294	225	551
9-10	34	245	135	414
15-16	36	183	115	334
16-17	42	162	104	308
17-18	39	193	83	315
TOTAL	224	1246	819	2289

**TOTAL**

E-W
748
1016
905
961
940
975
5545

**XING W/L**

Ped	Sch
25	4
36	6
39	11
48	5
58	4
48	7
254	37

**XING E/L**

Ped	Sch
21	3
57	10
48	11
39	5
40	3
42	3
247	35

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-004

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Rose Ave			Rose Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL
7:00 AM	17	386	7	8	172	16	30	26	18	4	17	26	727
7:15 AM	17	382	6	7	211	15	31	41	19	8	34	36	807
7:30 AM	19	402	3	16	258	15	31	31	31	9	48	42	905
7:45 AM	22	388	6	13	283	21	31	72	20	20	70	53	999
8:00 AM	21	383	6	8	312	25	20	48	33	8	69	65	998
8:15 AM	24	411	4	20	319	38	30	68	26	11	78	54	1083
8:30 AM	25	393	6	10	346	26	25	69	32	7	73	56	1068
8:45 AM	21	413	13	17	318	37	26	64	24	6	74	50	1063
9:00 AM	37	416	6	20	291	34	31	59	37	8	54	42	1035
9:15 AM	27	378	5	15	295	29	29	53	46	11	65	38	991
9:30 AM	28	374	16	19	278	35	30	59	36	7	55	22	959
9:45 AM	33	324	6	21	269	33	32	53	26	8	71	33	909
<b>TOTAL VOLUMES :</b>	291	4650	84	174	3352	324	346	643	348	107	708	517	11544
<b>APPROACH %'s :</b>	5.79%	92.54%	1.67%	4.52%	87.06%	8.42%	25.88%	48.09%	26.03%	8.03%	53.15%	38.81%	
<b>PEAK HR START TIME :</b>	815 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	107	1633	29	67	1274	135	112	260	119	32	279	202	4249
<b>PEAK HR FACTOR :</b>	0.964			0.966			0.967			0.897			0.981

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-004

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

NS/EW Streets:		PM												
		Lincoln Blvd			Lincoln Blvd			Rose Ave			Rose Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL	
3:00 PM	25	272	14	30	311	30	39	95	38	10	43	30	937	
3:15 PM	26	292	10	37	302	40	41	80	23	11	53	39	954	
3:30 PM	26	294	13	49	326	24	40	88	24	6	32	29	951	
3:45 PM	25	277	17	41	353	36	32	102	25	9	55	17	989	
4:00 PM	31	261	22	56	315	23	39	82	27	12	42	27	937	
4:15 PM	16	251	10	59	321	33	34	96	27	9	47	22	925	
4:30 PM	27	247	14	62	316	29	27	103	27	8	35	26	921	
4:45 PM	25	256	10	52	321	35	40	104	26	13	38	29	949	
5:00 PM	22	262	12	44	357	25	38	110	28	6	48	19	971	
5:15 PM	26	265	10	45	369	38	33	94	27	11	40	15	973	
5:30 PM	26	277	12	53	380	38	34	108	26	9	56	26	1045	
5:45 PM	15	300	7	40	399	30	38	107	17	13	49	23	1038	
TOTAL VOLUMES :	NL 290	NT 3254	NR 151	SL 568	ST 4070	SR 381	EL 435	ET 1169	ER 315	WL 117	WT 538	WR 302	TOTAL 11590	
APPROACH %'s :	7.85%	88.06%	4.09%	11.32%	81.09%	7.59%	22.67%	60.92%	16.41%	12.23%	56.22%	31.56%		
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	89	1104	41	182	1505	131	143	419	98	39	193	83	4027	
PEAK HR FACTOR :	0.958			0.965			0.938			0.865			0.963	

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Lincoln Blvd

**East/West** Venice Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	159	143	59	75
<b>BIKES</b>	62	82	146	177
<b>BUSES</b>	57	48	54	58

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	430	7.00	447	8.15	271	8.00	333	8.45
<i>PM PK 15 MIN</i>	382	17.45	373	17.30	347	17.15	282	15.15
<i>AM PK HOUR</i>	1615	7.00	1602	7.45	1058	7.45	1207	8.15
<i>PM PK HOUR</i>	1468	17.00	1332	17.00	1333	16.45	1087	15.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	72	1449	94	1615
8-9	126	1360	87	1573
9-10	136	1261	99	1496
15-16	178	1070	154	1402
16-17	151	1142	130	1423
17-18	154	1161	153	1468
<b>TOTAL</b>	817	7443	717	8977

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	182	1076	24	1282
8-9	258	1260	40	1558
9-10	202	1103	70	1375
15-16	212	905	33	1150
16-17	194	959	49	1202
17-18	250	1027	55	1332
<b>TOTAL</b>	1298	6330	271	7899

**TOTAL**

N-S
2897
3131
2871
2552
2625
2800
16876

**XING S/L**

Ped	Sch
81	0
58	4
37	0
107	0
46	1
47	1
376	6

**XING N/L**

Ped	Sch
35	1
35	1
36	0
82	0
70	0
52	0
310	2

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	81	586	109	776
8-9	106	828	101	1035
9-10	130	685	128	943
15-16	108	846	197	1151
16-17	87	946	259	1292
17-18	90	1021	216	1327
<b>TOTAL</b>	602	4912	1010	6524

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	241	513	280	1034
8-9	190	713	301	1204
9-10	165	734	285	1184
15-16	209	634	244	1087
16-17	238	594	187	1019
17-18	215	592	189	996
<b>TOTAL</b>	1258	3780	1486	6524

**TOTAL**

E-W
1810
2239
2127
2238
2311
2323
13048

**XING W/L**

Ped	Sch
91	0
67	0
45	1
148	0
58	0
44	1
453	2

**XING E/L**

Ped	Sch
50	0
40	1
36	1
104	2
77	0
44	3
351	7

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-005

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 2	WR 1	TOTAL
7:00 AM	14	401	15	26	195	6	12	110	19	43	103	63	1007
7:15 AM	10	352	27	34	241	8	18	120	26	57	109	61	1063
7:30 AM	24	364	23	53	323	5	24	157	29	71	143	72	1288
7:45 AM	24	332	29	69	317	5	27	199	35	70	158	84	1349
8:00 AM	30	367	17	60	288	8	28	212	31	61	157	70	1329
8:15 AM	23	305	21	77	358	12	20	216	20	40	166	85	1343
8:30 AM	37	336	25	64	337	7	28	213	29	43	184	65	1368
8:45 AM	36	352	24	57	277	13	30	187	21	46	206	81	1330
9:00 AM	29	346	16	48	297	15	29	185	43	37	171	83	1299
9:15 AM	33	307	30	51	297	20	37	191	23	33	164	72	1258
9:30 AM	36	320	25	50	255	18	32	156	31	39	196	65	1223
9:45 AM	38	288	28	53	254	17	32	153	31	56	203	65	1218
TOTAL VOLUMES :	334	4070	280	642	3439	134	317	2099	338	596	1960	866	15075
APPROACH %'s :	7.13%	86.89%	5.98%	15.23%	81.59%	3.18%	11.51%	76.22%	12.27%	17.42%	57.28%	25.31%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	114	1340	92	270	1300	32	103	840	115	214	665	304	5389
PEAK HR FACTOR :	0.934			0.896			0.976			0.948			0.985

CONTROL : Signalized



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-005

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM											
		Lincoln Blvd			Lincoln Blvd			Venice Blvd			Venice Blvd		
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND		
LANES:	NL 2	NT 2	NR 0	SL 2	ST 2	SR 0	EL 2	ET 3	ER 1	WL 2	WT 2	WR 1	TOTAL
3:00 PM	57	263	44	58	241	13	32	222	48	56	142	69	1245
3:15 PM	38	277	42	55	207	6	23	218	51	49	153	80	1199
3:30 PM	37	275	34	62	250	9	26	202	49	50	165	53	1212
3:45 PM	46	255	34	37	207	5	27	204	49	54	174	42	1134
4:00 PM	40	272	37	56	231	12	20	255	67	66	135	45	1236
4:15 PM	36	282	29	42	235	8	22	238	73	52	154	46	1217
4:30 PM	33	277	37	47	217	13	18	225	59	63	161	50	1200
4:45 PM	42	311	27	49	276	16	27	228	60	57	144	46	1283
5:00 PM	30	269	38	49	224	14	19	269	53	55	160	43	1223
5:15 PM	49	298	34	55	243	14	22	263	62	46	148	49	1283
5:30 PM	26	297	45	73	286	14	26	254	50	54	123	47	1295
5:45 PM	49	297	36	73	274	13	23	235	51	60	161	50	1322
TOTAL VOLUMES :	483	3373	437	656	2891	137	285	2813	672	662	1820	620	14849
APPROACH %'s :	11.25%	78.57%	10.18%	17.81%	78.47%	3.72%	7.56%	74.62%	17.82%	21.34%	58.67%	19.99%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	154	1161	153	250	1027	55	90	1021	216	215	592	189	5123
PEAK HR FACTOR :	0.961			0.893			0.956			0.919			0.969

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Lincoln Blvd

**East/West** Washington Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	207	141	112	90
<b>BIKES</b>	79	78	91	111
<b>BUSES</b>	48	49	26	30

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	600	7.00	466	8.15	349	8.15	267	9.00
<i>PM PK 15 MIN</i>	504	17.30	459	17.45	335	17.15	324	17.45
<i>AM PK HOUR</i>	2189	7.00	1747	7.45	1356	8.00	1024	8.15
<i>PM PK HOUR</i>	1932	16.45	1749	17.00	1285	16.30	1197	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	646	1449	94	2189
8-9	702	1308	99	2109
9-10	752	1295	136	2183
15-16	431	1102	220	1753
16-17	451	1144	188	1783
17-18	528	1218	172	1918
<b>TOTAL</b>	3510	7516	909	11935

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	183	1123	72	1378
8-9	224	1403	102	1729
9-10	223	1164	120	1507
15-16	212	1384	79	1675
16-17	199	1429	97	1725
17-18	171	1470	108	1749
<b>TOTAL</b>	1212	7973	578	9763

**TOTAL**

N-S
3567
3838
3690
3428
3508
3667
<b>21698</b>

**XING S/L**

Ped	Sch
52	1
40	0
50	0
104	0
90	1
74	0
<b>410</b>	<b>2</b>

**XING N/L**

Ped	Sch
20	1
26	0
32	0
52	0
40	0
35	0
<b>205</b>	<b>1</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	54	608	400	1062
8-9	82	768	506	1356
9-10	94	687	470	1251
15-16	107	656	454	1217
16-17	125	673	472	1270
17-18	108	658	492	1258
<b>TOTAL</b>	570	4050	2794	7414

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	99	602	154	855
8-9	119	717	177	1013
9-10	126	624	192	942
15-16	250	621	229	1100
16-17	256	637	220	1113
17-18	236	739	222	1197
<b>TOTAL</b>	1086	3940	1194	6220

**TOTAL**

E-W
1917
2369
2193
2317
2383
2455
<b>13634</b>

**XING W/L**

Ped	Sch
32	3
36	2
40	0
62	1
41	1
40	0
<b>251</b>	<b>7</b>

**XING E/L**

Ped	Sch
39	0
37	0
50	0
89	0
55	0
56	1
<b>326</b>	<b>1</b>

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-006

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 2	ST 3	SR 0	EL 2	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL
7:00 AM	170	396	34	26	186	13	11	120	82	17	107	37	1199
7:15 AM	163	398	26	37	254	23	10	133	102	20	159	31	1356
7:30 AM	159	333	19	53	308	15	17	169	104	36	169	39	1421
7:45 AM	154	322	15	67	375	21	16	186	112	26	167	47	1508
8:00 AM	186	339	20	54	341	31	20	188	135	28	176	52	1570
8:15 AM	136	316	30	65	378	23	15	206	128	25	189	45	1556
8:30 AM	200	331	33	43	327	22	22	191	124	29	183	37	1542
8:45 AM	180	322	16	62	357	26	25	183	119	37	169	43	1539
9:00 AM	205	317	30	52	285	26	14	173	121	39	181	47	1490
9:15 AM	178	328	28	54	297	21	28	189	121	35	137	43	1459
9:30 AM	153	319	30	58	323	42	34	173	101	28	166	55	1482
9:45 AM	216	331	48	59	259	31	18	152	127	24	140	47	1452
<b>TOTAL VOLUMES :</b>	2100	4052	329	630	3690	294	230	2063	1376	344	1943	523	17574
<b>APPROACH %'s :</b>	32.40%	62.52%	5.08%	13.65%	79.97%	6.37%	6.27%	56.23%	37.50%	12.24%	69.15%	18.61%	
<b>PEAK HR START TIME :</b>	800 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	702	1308	99	224	1403	102	82	768	506	119	717	177	6207
<b>PEAK HR FACTOR :</b>	0.935			0.928			0.971			0.978			0.988

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-006

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Washington Blvd			Washington Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 2	ST 3	SR 0	EL 2	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL
3:00 PM	116	282	62	60	349	26	30	152	114	53	137	60	1441
3:15 PM	95	277	43	51	331	18	23	172	112	56	142	64	1384
3:30 PM	104	283	56	56	357	22	28	175	111	68	168	52	1480
3:45 PM	116	260	59	45	347	13	26	157	117	73	174	53	1440
4:00 PM	94	295	52	49	357	21	34	163	114	63	171	64	1477
4:15 PM	116	260	37	54	365	20	26	171	123	69	146	46	1433
4:30 PM	115	278	37	42	351	24	38	166	123	62	165	48	1449
4:45 PM	126	311	62	54	356	32	27	173	112	62	155	62	1532
5:00 PM	125	267	46	38	368	26	26	152	133	60	164	49	1454
5:15 PM	125	322	44	34	357	18	30	178	127	61	182	61	1539
5:30 PM	146	314	44	46	373	30	30	159	116	67	172	57	1554
5:45 PM	132	315	38	53	372	34	22	169	116	48	221	55	1575
<b>TOTAL VOLUMES :</b>	1410	3464	580	582	4283	284	340	1987	1418	742	1997	671	17758
<b>APPROACH %'s :</b>	25.85%	63.51%	10.63%	11.30%	83.18%	5.52%	9.08%	53.06%	37.86%	21.76%	58.56%	19.68%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	528	1218	172	171	1470	108	108	658	492	236	739	222	6122
<b>PEAK HR FACTOR :</b>	0.951			0.953			0.939			0.924			0.972

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET: Lincoln Blvd

North/South

East/West Marina Pointe Dr\_Maxella Ave

Day: Tuesday Date: April 26, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	223	174	16	41
BIKES	31	19	48	54
BUSES	73	51	0	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	644	8.45	517	8.00	107	7.30	104	9.30
PM PK 15 MIN	598	17.45	600	16.15	81	15.45	160	16.30
AM PK HOUR	2481	7.00	1966	7.45	353	7.30	362	9.00
PM PK HOUR	2243	17.00	2195	16.15	260	16.45	593	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	73	2187	221	2481
8-9	112	1991	266	2369
9-10	110	1985	278	2373
15-16	143	1527	244	1914
16-17	155	1578	287	2020
17-18	186	1725	332	2243
TOTAL	779	10993	1628	13400

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	67	1391	48	1506
8-9	117	1756	57	1930
9-10	113	1514	69	1696
15-16	101	1861	74	2036
16-17	113	1943	103	2159
17-18	100	1980	113	2193
TOTAL	611	10445	464	11520

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
3987	0	0	58	1
4299	1	0	61	0
4069	0	0	93	1
3950	0	0	103	0
4179	0	0	77	0
4436	2	0	103	2
24920	3	0	495	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	74	75	152	301
8-9	73	77	188	338
9-10	81	72	150	303
15-16	81	63	105	249
16-17	72	74	92	238
17-18	83	62	99	244
TOTAL	464	423	786	1673

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	126	33	87	246
8-9	176	37	117	330
9-10	177	37	148	362
15-16	302	99	160	561
16-17	295	98	169	562
17-18	308	94	184	586
TOTAL	1384	398	865	2647

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
547	17	0	17	0
668	25	0	16	0
665	35	0	28	0
810	42	0	42	0
800	62	0	22	0
830	62	0	32	1
4320	243	0	157	1

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-007

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Marina Pointe Dr_Maxella Ave			Marina Pointe Dr_Maxella Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 1	SL 2	ST 4	SR 0	EL 1	ET 1	ER 1	WL 1.5	WT 0.5	WR 1	TOTAL
7:00 AM	17	566	50	12	233	9	9	7	22	24	11	11	971
7:15 AM	9	581	39	14	330	21	20	16	42	25	7	25	1129
7:30 AM	28	516	61	20	380	12	28	26	53	34	6	27	1191
7:45 AM	19	524	71	21	448	6	17	26	35	43	9	24	1243
8:00 AM	16	438	67	34	467	16	20	21	46	37	11	28	1201
8:15 AM	33	506	78	30	420	14	14	25	42	47	8	27	1244
8:30 AM	24	497	66	33	463	14	23	17	53	42	9	30	1271
8:45 AM	39	550	55	20	406	13	16	14	47	50	9	32	1251
9:00 AM	21	487	70	19	381	17	25	25	38	37	7	36	1163
9:15 AM	15	497	69	35	417	14	16	10	36	46	8	31	1194
9:30 AM	47	476	65	34	358	13	22	19	41	47	12	45	1179
9:45 AM	27	525	74	25	358	25	18	18	35	47	10	36	1198
TOTAL VOLUMES :	295	6163	765	297	4661	174	228	224	490	479	107	352	14235
APPROACH %'s :	4.08%	85.32%	10.59%	5.79%	90.82%	3.39%	24.20%	23.78%	52.02%	51.07%	11.41%	37.53%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	112	1991	266	117	1756	57	73	77	188	176	37	117	4967
PEAK HR FACTOR :	0.920			0.933			0.909			0.907			0.977

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-007

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

PM

NS/EW Streets:		Lincoln Blvd			Lincoln Blvd			Marina Pointe Dr_Maxella Ave			Marina Pointe Dr_Maxella Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 2	NT 3	NR 1	SL 2	ST 4	SR 0	EL 1	ET 1	ER 1	WL 1.5	WT 0.5	WR 1	TOTAL
3:00 PM		37	392	68	24	465	18	18	12	36	79	24	37	1210
3:15 PM		31	359	65	30	485	13	17	14	20	73	24	52	1183
3:30 PM		33	390	49	29	463	14	17	17	17	75	25	34	1163
3:45 PM		42	386	62	18	448	29	29	20	32	75	26	37	1204
4:00 PM		30	374	66	29	473	23	16	16	30	78	20	50	1205
4:15 PM		46	414	81	40	536	24	10	14	14	64	14	32	1289
4:30 PM		35	383	65	25	475	32	23	24	24	78	35	47	1246
4:45 PM		44	407	75	19	459	24	23	20	24	75	29	40	1239
5:00 PM		45	421	79	20	514	27	20	14	26	88	15	48	1317
5:15 PM		43	412	81	21	494	26	16	16	27	65	20	53	1274
5:30 PM		48	436	80	23	478	29	29	20	25	88	31	40	1327
5:45 PM		50	456	92	36	494	31	18	12	21	67	28	43	1348
TOTAL VOLUMES :		NL 484	NT 4830	NR 863	SL 314	ST 5784	SR 290	EL 236	ET 199	ER 296	WL 905	WT 291	WR 513	TOTAL 15005
APPROACH %'s :		7.84%	78.19%	13.97%	4.92%	90.54%	4.54%	32.28%	27.22%	40.49%	52.95%	17.03%	30.02%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		186	1725	332	100	1980	113	83	62	99	308	94	184	5266
PEAK HR FACTOR :		0.938			0.977			0.824			0.921			0.977

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET: Lincoln Blvd  
 North/South  
 East/West SR-90 Ramps  
 Day: Tuesday Date: April 26, 2016 Weather: SUNNY  
 Hours: 7-10 & 3-6 Chckrs: NDS  
 School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	124	192	0	133
BIKES	37	42	0	0
BUSES	72	61	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	456	7.00	595	8.30	0	0.00	388	8.45
PM PK 15 MIN	462	17.00	660	17.30	0	0.00	290	16.30
AM PK HOUR	1580	7.00	2283	7.45	0	0.00	1351	8.45
PM PK HOUR	1734	17.00	2547	16.45	0	0.00	1058	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1456	124	1580
8-9	1	1332	228	1561
9-10	0	1332	215	1547
15-16	1	1241	301	1543
16-17	1	1265	300	1566
17-18	1	1451	282	1734
TOTAL	4	8077	1450	9531

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	781	994	0	1775
8-9	972	1272	0	2244
9-10	809	1141	0	1950
15-16	846	1523	0	2369
16-17	849	1573	0	2422
17-18	842	1683	0	2525
TOTAL	5099	8186	0	13285

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
3355	1	0	3	0
3805	0	0	0	0
3497	0	0	0	0
3912	0	0	0	0
3988	0	0	0	0
4259	0	0	0	0
22816	1	0	3	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	165	0	1017	1182
8-9	201	0	1039	1240
9-10	190	0	1096	1286
15-16	210	0	688	898
16-17	191	0	800	991
17-18	187	0	815	1002
TOTAL	1144	0	5455	6599

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1182	0	0	3	1
1240	0	0	3	0
1286	0	0	8	1
898	0	0	9	1
991	0	0	17	1
1002	0	0	11	1
6599	0	0	51	5



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-008

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			SR-90 Ramps			SR-90 Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	3	0	2	3	0	0	0	0	2	0	2	
7:00 AM	0	438	18	142	161	0	0	0	0	31	0	202	992
7:15 AM	0	381	27	184	233	0	0	0	0	36	0	237	1098
7:30 AM	0	289	40	210	252	0	0	0	0	55	0	312	1158
7:45 AM	0	348	39	245	348	0	0	0	0	43	0	266	1289
8:00 AM	1	292	73	222	315	0	0	0	0	49	0	202	1154
8:15 AM	0	378	44	248	310	0	0	0	0	56	0	245	1281
8:30 AM	0	329	62	252	343	0	0	0	0	45	0	255	1286
8:45 AM	0	333	49	250	304	0	0	0	0	51	0	337	1324
9:00 AM	0	329	46	219	300	0	0	0	0	47	0	288	1229
9:15 AM	0	339	57	191	309	0	0	0	0	47	0	253	1196
9:30 AM	0	325	63	217	274	0	0	0	0	41	0	287	1207
9:45 AM	0	339	49	182	258	0	0	0	0	55	0	268	1151
TOTAL VOLUMES :	1	4120	567	2562	3407	0	0	0	0	556	0	3152	14365
APPROACH %'s :	0.02%	87.88%	12.09%	42.92%	57.08%	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	14.99%	0.00%	85.01%	
PEAK HR START TIME :	815 AM												TOTAL
PEAK HR VOL :	0	1369	201	969	1257	0	0	0	0	199	0	1125	5120
PEAK HR FACTOR :	0.930			0.935			0.000			0.853			0.967

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

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Project ID: 16-5257-008

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM												
		Lincoln Blvd			Lincoln Blvd			SR-90 Ramps			SR-90 Ramps			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 3	NR 0	SL 2	ST 3	SR 0	EL 0	ET 0	ER 0	WL 2	WT 0	WR 2	TOTAL	
3:00 PM	0	309	67	212	388	0	0	0	0	55	0	172	1203	
3:15 PM	0	327	80	187	370	0	0	0	0	51	0	148	1163	
3:30 PM	0	297	80	232	387	0	0	0	0	57	0	178	1231	
3:45 PM	1	308	74	215	378	0	0	0	0	47	0	190	1213	
4:00 PM	0	307	87	215	398	0	0	0	0	42	0	165	1214	
4:15 PM	0	341	66	200	416	0	0	0	0	41	0	177	1241	
4:30 PM	1	294	76	213	357	0	0	0	0	63	0	227	1231	
4:45 PM	0	323	71	221	402	0	0	0	0	45	0	231	1293	
5:00 PM	0	369	93	209	450	0	0	0	0	45	0	170	1336	
5:15 PM	0	350	73	228	377	0	0	0	0	62	0	215	1305	
5:30 PM	1	342	63	221	439	0	0	0	0	35	0	222	1323	
5:45 PM	0	390	53	184	417	0	0	0	0	45	0	208	1297	
TOTAL VOLUMES :		NL 3	NT 3957	NR 883	SL 2537	ST 4779	SR 0	EL 0	ET 0	ER 0	WL 588	WT 0	WR 2303	TOTAL 15050
APPROACH %'s :		0.06%	81.71%	18.23%	34.68%	65.32%	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	20.34%	0.00%	79.66%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		1	1451	282	842	1683	0	0	0	0	187	0	815	5261
PEAK HR FACTOR :		0.938			0.956			0.000			0.904			0.984

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET: Lincoln Blvd  
 North/South  
 East/West Bali Wy  
 Day: Tuesday Date: April 26, 2016 Weather: SUNNY  
 Hours: 7-10 & 3-6 Chekrs: NDS  
 School Day: YES District:  I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	105	105	23	1
BIKES	36	32	2	4
BUSES	56	59	13	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	451	7.15	375	8.30	76	8.45	7	9.30
PM PK 15 MIN	399	17.45	493	17.00	138	15.15	8	15.15
AM PK HOUR	1614	7.00	1476	7.45	280	8.30	19	8.45
PM PK HOUR	1431	17.00	1902	17.00	506	15.15	24	15.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	126	1467	21	1614
8-9	144	1318	32	1494
9-10	126	1276	20	1422
15-16	80	1111	16	1207
16-17	86	1140	17	1243
17-18	93	1322	16	1431
TOTAL	655	7634	122	8411

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	7	935	199	1141
8-9	12	1206	246	1464
9-10	31	1066	246	1343
15-16	37	1397	321	1755
16-17	37	1474	325	1836
17-18	28	1569	305	1902
TOTAL	152	7647	1642	9441

TOTAL

N-S
2755
2958
2765
2962
3079
3333
17852

XING S/L

Ped	Sch
3	0
2	3
7	1
0	2
2	0
2	1
16	7

XING N/L

Ped	Sch
5	0
17	0
9	1
11	0
8	0
10	1
60	2

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	136	2	30	168
8-9	202	6	70	278
9-10	217	3	47	267
15-16	373	5	115	493
16-17	360	0	127	487
17-18	294	2	121	417
TOTAL	1582	18	510	2110

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	0	5	6
8-9	1	2	14	17
9-10	2	7	8	17
15-16	5	5	13	23
16-17	4	0	15	19
17-18	6	0	17	23
TOTAL	19	14	72	105

TOTAL

E-W
174
295
284
516
506
440
2215

XING W/L

Ped	Sch
5	0
12	0
13	0
15	0
10	0
12	0
67	0

XING E/L

Ped	Sch
0	1
0	1
0	1
0	2
0	1
0	0
0	6

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-009

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Bali Wy			Bali Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	22	417	8	0	156	33	24	1	6	0	0	0	667
7:15 AM	26	420	5	1	222	39	24	0	9	0	0	1	747
7:30 AM	36	295	5	6	256	59	45	0	8	0	0	2	712
7:45 AM	42	335	3	0	301	68	43	1	7	1	0	2	803
8:00 AM	42	313	5	0	302	59	54	0	21	0	0	5	801
8:15 AM	38	362	8	4	308	59	37	1	21	0	0	1	839
8:30 AM	29	339	12	4	315	56	56	1	11	0	2	4	829
8:45 AM	35	304	7	4	281	72	55	4	17	1	0	4	784
9:00 AM	40	292	4	10	282	55	60	1	9	0	1	0	754
9:15 AM	28	352	7	8	286	56	54	1	11	1	1	4	809
9:30 AM	28	294	5	7	263	53	48	0	15	1	4	2	720
9:45 AM	30	338	4	6	235	82	55	1	12	0	1	2	766
TOTAL VOLUMES :	396	4061	73	50	3207	691	555	11	147	4	9	27	9231
APPROACH %'s :	8.74%	89.65%	1.61%	1.27%	81.23%	17.50%	77.84%	1.54%	20.62%	10.00%	22.50%	67.50%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	151	1349	28	8	1226	242	190	3	60	1	2	12	3272
PEAK HR FACTOR :	0.936			0.984			0.843			0.625			0.975

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-009

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

PM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Bali Wy			Bali Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1.5	ET 0.5	ER 1	WL 0	WT 1	WR 0	TOTAL
3:00 PM	21	278	6	8	365	85	85	4	29	0	2	3	886
3:15 PM	19	283	4	12	323	74	104	0	34	2	3	3	861
3:30 PM	18	268	4	10	354	87	91	1	26	1	0	3	863
3:45 PM	22	282	2	7	355	75	93	0	26	2	0	4	868
4:00 PM	19	290	5	5	383	82	98	0	33	1	0	5	921
4:15 PM	15	301	5	10	396	77	77	0	31	1	0	1	914
4:30 PM	33	253	2	12	320	83	86	0	39	2	0	6	836
4:45 PM	19	296	5	10	375	83	99	0	24	0	0	3	914
5:00 PM	19	322	4	0	420	73	83	1	27	0	0	5	954
5:15 PM	25	311	5	15	359	72	79	0	35	2	0	4	907
5:30 PM	26	318	2	8	380	82	81	1	26	3	0	4	931
5:45 PM	23	371	5	5	410	78	51	0	33	1	0	4	981
TOTAL VOLUMES :	NL 259	NT 3573	NR 49	SL 102	ST 4440	SR 951	EL 1027	ET 7	ER 363	WL 15	WT 5	WR 45	TOTAL 10836
APPROACH %'s :	6.67%	92.06%	1.26%	1.86%	80.83%	17.31%	73.51%	0.50%	25.98%	23.08%	7.69%	69.23%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	93	1322	16	28	1569	305	294	2	121	6	0	17	3773
PEAK HR FACTOR :	0.897			0.965			0.914			0.821			0.962

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET: Lincoln Blvd  
 North/South  
 East/West Mindanao Wy  
 Day: Tuesday Date: April 26, 2016 Weather: SUNNY  
 Hours: 7-10 & 3-6 Chekrs: NDS  
 School Day: YES District:  I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	117	87	22	32
BIKES	41	21	18	19
BUSES	50	47	14	27

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	554	8.15	328	8.15	164	8.15	231	8.45
PM PK 15 MIN	464	17.45	483	17.00	191	15.15	284	17.45
AM PK HOUR	2119	7.45	1223	7.45	605	8.15	873	8.30
PM PK HOUR	1687	17.00	1796	17.00	692	15.15	1090	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	139	1551	411	2101
8-9	194	1399	478	2071
9-10	169	1362	348	1879
15-16	109	1041	242	1392
16-17	75	1111	299	1485
17-18	95	1276	316	1687
TOTAL	781	7740	2094	10615

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	67	836	16	919
8-9	148	1021	32	1201
9-10	103	939	40	1082
15-16	163	1316	64	1543
16-17	141	1432	81	1654
17-18	184	1547	65	1796
TOTAL	806	7091	298	8195

TOTAL

N-S
3020
3272
2961
2935
3139
3483
18810

XING S/L

Ped	Sch
5	2
18	5
24	6
32	5
17	2
25	3
121	23

XING N/L

Ped	Sch
21	4
36	8
24	5
42	3
52	7
39	6
214	33

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	392	32	424
8-9	0	534	61	595
9-10	1	463	70	534
15-16	0	514	172	686
16-17	1	491	176	668
17-18	1	497	143	641
TOTAL	3	2891	654	3548

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	249	344	48	641
8-9	310	452	91	853
9-10	295	408	107	810
15-16	378	435	97	910
16-17	446	478	75	999
17-18	459	551	80	1090
TOTAL	2137	2668	498	5303

TOTAL

E-W
1065
1448
1344
1596
1667
1731
8851

XING W/L

Ped	Sch
14	1
22	4
36	5
28	2
22	4
23	2
145	18

XING E/L

Ped	Sch
19	4
36	7
33	4
49	6
67	5
59	5
263	31

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-010

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 0	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL
7:00 AM	34	444	75	11	145	6	0	70	7	45	71	11	919
7:15 AM	29	426	93	11	198	3	0	89	6	55	69	13	992
7:30 AM	30	316	115	22	213	2	0	99	6	67	91	12	973
7:45 AM	46	365	128	23	280	5	0	134	13	82	113	12	1201
8:00 AM	39	353	114	26	249	5	0	118	12	88	109	23	1136
8:15 AM	63	364	127	48	270	10	0	150	14	63	94	18	1221
8:30 AM	47	361	112	31	266	10	0	132	20	80	122	25	1206
8:45 AM	45	321	125	43	236	7	0	134	15	79	127	25	1157
9:00 AM	44	311	87	28	230	9	0	119	21	70	99	26	1044
9:15 AM	50	397	99	22	257	7	0	96	10	86	106	28	1158
9:30 AM	34	276	76	25	237	9	1	136	21	69	110	31	1025
9:45 AM	41	378	86	28	215	15	0	112	18	70	93	22	1078
TOTAL VOLUMES :	502	4312	1237	318	2796	88	1	1389	163	854	1204	246	13110
APPROACH %'s :	8.30%	71.26%	20.44%	9.93%	87.32%	2.75%	0.06%	89.44%	10.50%	37.07%	52.26%	10.68%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	195	1443	481	128	1065	30	0	534	59	313	438	78	4764
PEAK HR FACTOR :	0.956			0.932			0.904			0.913			0.975

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-010

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

NS/EW Streets:		PM													
		Lincoln Blvd			Lincoln Blvd			Mindanao Wy			Mindanao Wy				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 1	NT 3	NR 1	SL 1	ST 3	SR 0	EL 0	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	
3:00 PM		26	249	74	44	338	18	0	113	31	93	79	30	1095	
3:15 PM		27	267	46	38	311	18	0	143	48	98	108	21	1125	
3:30 PM		26	255	63	42	332	11	0	135	49	85	135	27	1160	
3:45 PM		30	270	59	39	335	17	0	123	44	102	113	19	1151	
4:00 PM		32	272	89	33	355	26	1	104	45	100	127	25	1209	
4:15 PM		16	301	78	41	379	23	0	128	38	120	107	16	1247	
4:30 PM		17	251	60	37	304	11	0	122	47	117	124	17	1107	
4:45 PM		10	287	72	30	394	21	0	137	46	109	120	17	1243	
5:00 PM		19	314	73	61	406	16	0	127	24	119	118	22	1299	
5:15 PM		31	301	78	42	327	20	1	139	42	111	136	23	1251	
5:30 PM		19	300	88	41	398	13	0	121	40	115	147	15	1297	
5:45 PM		26	361	77	40	416	16	0	110	37	114	150	20	1367	
TOTAL VOLUMES :		NL 279	NT 3428	NR 857	SL 488	ST 4295	SR 210	EL 2	ET 1502	ER 491	WL 1283	WT 1464	WR 252	TOTAL 14551	
APPROACH %'s :		6.11%	75.11%	18.78%	9.77%	86.02%	4.21%	0.10%	75.29%	24.61%	42.78%	48.82%	8.40%		
PEAK HR START TIME :		500 PM													TOTAL
PEAK HR VOL :		95	1276	316	184	1547	65	1	497	143	459	551	80	5214	
PEAK HR FACTOR :		0.909			0.930			0.880			0.960			0.954	

CONTROL : Signalized





Lincoln Blvd

Fiji Wy

School Day: YES District: \_\_\_\_\_ I/S CODE \_\_\_\_\_

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	777	8.15	374	8.30	194	8.30	27	9.15
PM PK 15 MIN	574	17.30	605	17.30	299	17.15	37	17.00
AM PK HOUR	2887	7.30	1396	8.30	675	8.15	89	9.00
PM PK HOUR	2191	17.00	2244	17.00	1156	16.45	125	16.30

## XING N/L

Ped	Sch
1	0
1	0
8	2
6	0
9	2
5	1

30	5
----	---

## XING E/L

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0

0	0
---	---

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-011

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Fiji Wy			Fiji Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 1	WL 0	WT 2	WR 0	TOTAL
7:00 AM	190	521	10	6	188	10	18	3	80	4	6	3	1039
7:15 AM	223	497	2	8	248	11	12	1	85	2	5	1	1095
7:30 AM	211	492	4	8	291	10	12	4	88	1	4	3	1128
7:45 AM	229	483	12	9	318	10	24	11	130	5	6	7	1244
8:00 AM	200	472	7	12	340	11	14	7	126	2	6	10	1207
8:15 AM	244	528	5	9	288	12	20	6	132	8	6	9	1267
8:30 AM	202	486	17	14	353	7	20	4	170	6	4	10	1293
8:45 AM	207	466	12	16	298	17	20	5	148	9	1	5	1204
9:00 AM	230	470	15	29	320	9	9	2	139	7	3	12	1245
9:15 AM	198	453	16	23	296	14	11	9	121	5	9	13	1168
9:30 AM	180	406	15	11	297	21	16	4	93	2	7	8	1060
9:45 AM	179	424	10	23	226	18	12	1	95	6	4	13	1011
TOTAL VOLUMES :	2493	5698	125	168	3463	150	188	57	1407	57	61	94	13961
APPROACH %'s :	29.98%	68.52%	1.50%	4.44%	91.59%	3.97%	11.38%	3.45%	85.17%	26.89%	28.77%	44.34%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	875	1969	41	44	1299	40	78	28	558	21	22	36	5011
PEAK HR FACTOR :	0.928			0.924			0.856			0.859			0.969

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-011

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

PM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Fiji Wy			Fiji Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 2	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 1	WL 0	WT 2	WR 0	TOTAL
3:00 PM	119	332	11	22	396	16	26	4	194	11	4	8	1143
3:15 PM	102	361	11	17	402	17	15	5	193	11	2	8	1144
3:30 PM	151	350	6	10	421	22	26	4	228	3	4	11	1236
3:45 PM	137	364	10	11	481	18	27	3	192	8	2	9	1262
4:00 PM	120	362	11	18	486	25	26	3	229	9	6	11	1306
4:15 PM	155	402	5	9	429	13	24	5	216	6	6	7	1277
4:30 PM	156	377	8	12	495	23	28	4	232	8	8	18	1369
4:45 PM	127	373	6	16	516	27	17	4	249	5	4	16	1360
5:00 PM	158	347	5	11	478	21	24	6	266	16	7	14	1353
5:15 PM	134	410	4	14	510	19	25	8	266	15	3	11	1419
5:30 PM	145	422	7	13	558	34	15	5	271	12	4	14	1500
5:45 PM	138	411	10	16	539	31	17	6	241	8	1	16	1434
TOTAL VOLUMES :	1642	4511	94	169	5711	266	270	57	2777	112	51	143	15803
APPROACH %'s :	26.28%	72.21%	1.50%	2.75%	92.92%	4.33%	8.70%	1.84%	89.47%	36.60%	16.67%	46.73%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	575	1590	26	54	2085	105	81	25	1044	51	15	55	5706
PEAK HR FACTOR :	0.954			0.927			0.962			0.818			0.951

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Lincoln Blvd

**East/West** Jefferson Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	158	108	26	71
<b>BIKES</b>	43	36	14	10
<b>BUSES</b>	52	53	2	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	793	7.00	525	8.45	198	9.15	385	7.45
<i>PM PK 15 MIN</i>	535	15.45	882	17.45	108	16.15	436	17.00
<i>AM PK HOUR</i>	2944	7.00	2008	8.45	677	9.00	1329	7.45
<i>PM PK HOUR</i>	2032	15.45	3276	17.00	395	15.30	1713	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	13	2634	297	2944
8-9	16	2426	338	2780
9-10	27	1877	443	2347
15-16	22	1573	337	1932
16-17	38	1636	301	1975
17-18	33	1602	342	1977
<b>TOTAL</b>	149	11748	2058	13955

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	294	872	172	1338
8-9	577	1137	208	1922
9-10	664	1019	183	1866
15-16	517	1685	448	2650
16-17	527	1828	499	2854
17-18	528	2118	630	3276
<b>TOTAL</b>	3107	8659	2140	13906

**TOTAL**

N-S
4282
4702
4213
4582
4829
5253
27861

**XING S/L**

Ped	Sch
13	2
12	3
15	3
20	4
10	1
27	2
97	15

**XING N/L**

Ped	Sch
6	0
1	0
1	0
7	0
29	4
5	1
49	5

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	239	238	38	515
8-9	217	298	56	571
9-10	185	422	70	677
15-16	72	188	105	365
16-17	86	195	92	373
17-18	81	203	76	360
<b>TOTAL</b>	880	1544	437	2861

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	279	104	711	1094
8-9	289	124	879	1292
9-10	291	95	660	1046
15-16	452	209	612	1273
16-17	471	245	597	1313
17-18	572	373	768	1713
<b>TOTAL</b>	2354	1150	4227	7731

**TOTAL**

E-W
1609
1863
1723
1638
1686
2073
10592

**XING W/L**

Ped	Sch
7	0
4	1
1	0
7	3
20	3
8	1
47	8

**XING E/L**

Ped	Sch
9	2
13	1
12	2
20	1
8	0
16	2
78	8

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-012

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Jefferson Blvd			Jefferson Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 4	NR 1	SL 2	ST 4	SR 0	EL 1	ET 3	ER 0	WL 2	WT 2	WR 2	TOTAL
7:00 AM	1	713	79	42	168	29	49	39	4	37	12	109	1282
7:15 AM	5	634	78	73	203	34	70	46	5	68	30	164	1410
7:30 AM	5	667	61	69	235	42	52	62	10	60	27	202	1492
7:45 AM	2	620	79	110	266	67	68	91	19	114	35	236	1707
8:00 AM	3	613	79	140	311	43	76	85	19	95	33	197	1694
8:15 AM	5	691	86	106	289	37	42	52	9	67	24	216	1624
8:30 AM	6	593	93	141	265	65	60	60	15	59	27	226	1610
8:45 AM	2	529	80	190	272	63	39	101	13	68	40	240	1637
9:00 AM	8	568	116	197	276	51	32	103	15	65	20	188	1639
9:15 AM	9	433	110	153	259	36	58	124	16	76	32	170	1476
9:30 AM	4	438	117	183	277	51	54	100	17	73	17	171	1502
9:45 AM	6	438	100	131	207	45	41	95	22	77	26	131	1319
<b>TOTAL VOLUMES :</b>	56	6937	1078	1535	3028	563	641	958	164	859	323	2250	18392
<b>APPROACH %'s :</b>	0.69%	85.95%	13.36%	29.95%	59.07%	10.98%	36.36%	54.34%	9.30%	25.03%	9.41%	65.56%	
<b>PEAK HR START TIME :</b>	745 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	16	2517	337	497	1131	212	246	288	62	335	119	875	6635
<b>PEAK HR FACTOR :</b>	0.918			0.931			0.828			0.863			0.972

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-012

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Lincoln Blvd			Lincoln Blvd			Jefferson Blvd			Jefferson Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 4	NR 1	SL 2	ST 4	SR 0	EL 1	ET 3	ER 0	WL 2	WT 2	WR 2	TOTAL
3:00 PM	3	345	71	128	394	104	15	40	28	108	53	163	1452
3:15 PM	6	364	77	116	403	105	23	51	27	113	52	154	1491
3:30 PM	6	419	106	136	441	118	21	47	29	114	49	146	1632
3:45 PM	7	445	83	137	447	121	13	50	21	117	55	149	1645
4:00 PM	9	398	81	129	439	119	20	57	29	132	70	148	1631
4:15 PM	8	390	79	142	410	116	21	62	25	130	59	160	1602
4:30 PM	8	449	75	144	485	149	23	38	21	100	54	152	1698
4:45 PM	13	399	66	112	494	115	22	38	17	109	62	137	1584
5:00 PM	12	393	75	131	494	152	16	39	13	141	112	183	1761
5:15 PM	6	395	96	128	546	147	20	59	11	139	81	207	1835
5:30 PM	9	389	93	115	510	171	21	61	26	135	95	185	1810
5:45 PM	6	425	78	154	568	160	24	44	26	157	85	193	1920
<b>TOTAL VOLUMES :</b>	93	4811	980	1572	5631	1577	239	586	273	1495	827	1977	20061
<b>APPROACH %'s :</b>	1.58%	81.76%	16.66%	17.90%	64.13%	17.96%	21.77%	53.37%	24.86%	34.78%	19.24%	45.99%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	33	1602	342	528	2118	630	81	203	76	572	373	768	7326
<b>PEAK HR FACTOR :</b>	0.971			0.929			0.833			0.982			0.954

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Del Rey Ave

**East/West** Maxella Ave

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	0	25	35	38
<b>BIKES</b>	0	19	53	58
<b>BUSES</b>	0	0	23	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	0	0.00	34	9.45	141	8.15	99	8.45
<i>PM PK 15 MIN</i>	0	0.00	74	17.30	150	17.45	144	16.30
<i>AM PK HOUR</i>	0	0.00	107	9.00	510	7.45	361	8.45
<i>PM PK HOUR</i>	0	0.00	274	16.45	536	17.00	504	16.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	24	0	41	65
8-9	38	0	63	101
9-10	34	0	73	107
15-16	78	0	147	225
16-17	63	0	163	226
17-18	85	0	182	267
<b>TOTAL</b>	322	0	669	991

**TOTAL**

N-S
65
101
107
225
226
267
991

**XING S/L**

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0

**XING N/L**

Ped	Sch
45	7
77	10
91	17
83	21
90	21
99	15
485	91

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	133	232	0	365
8-9	152	318	0	470
9-10	140	347	0	487
15-16	65	358	0	423
16-17	95	409	0	504
17-18	78	458	0	536
<b>TOTAL</b>	663	2122	0	2785

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	186	39	225
8-9	2	274	73	349
9-10	0	266	79	345
15-16	0	378	90	468
16-17	1	381	91	473
17-18	2	409	78	489
<b>TOTAL</b>	5	1894	450	2349

**TOTAL**

E-W
590
819
832
891
977
1025
5134

**XING W/L**

Ped	Sch
3	1
5	2
5	1
1	0
7	1
2	0
23	5

**XING E/L**

Ped	Sch
1	0
3	1
1	0
2	0
7	1
2	0
16	2

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-013

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		AM													
		Del Rey Ave			Del Rey Ave			Maxella Ave			Maxella Ave				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL	
7:00 AM		0	0	0	6	0	11	31	38	0	0	35	10	131	
7:15 AM		0	0	0	5	0	8	26	43	0	0	42	6	130	
7:30 AM		0	0	0	4	0	7	32	70	0	0	49	10	172	
7:45 AM		0	0	0	9	0	15	44	81	0	0	60	13	222	
8:00 AM		0	0	0	9	0	14	34	88	0	0	63	19	227	
8:15 AM		0	0	0	11	0	19	47	94	0	2	69	12	254	
8:30 AM		0	0	0	9	0	15	45	77	0	0	73	12	231	
8:45 AM		0	0	0	9	0	15	26	59	0	0	69	30	208	
9:00 AM		0	0	0	7	0	18	40	85	0	0	56	18	224	
9:15 AM		0	0	0	9	0	12	33	85	0	0	73	21	233	
9:30 AM		0	0	0	11	0	16	33	84	0	0	76	18	238	
9:45 AM		0	0	0	7	0	27	34	93	0	0	61	22	244	
TOTAL VOLUMES :		NL 0	NT 0	NR 0	SL 96	ST 0	SR 177	EL 425	ET 897	ER 0	WL 2	WT 726	WR 191	TOTAL 2514	
APPROACH %'s :		#DIV/0!	#DIV/0!	#DIV/0!	35.16%	0.00%	64.84%	32.15%	67.85%	0.00%	0.22%	79.00%	20.78%		
PEAK HR START TIME :		900 AM													TOTAL
PEAK HR VOL :		0	0	0	34	0	73	140	347	0	0	266	79	939	
PEAK HR FACTOR :		0.000			0.787			0.959			0.918			0.962	

CONTROL : 1-Way Stop (SB)



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-013

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Del Rey Ave			Del Rey Ave			Maxella Ave			Maxella Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
3:00 PM	0	0	0	12	0	40	16	90	0	0	91	19	268
3:15 PM	0	0	0	18	0	41	18	99	0	0	103	25	304
3:30 PM	0	0	0	25	0	28	21	74	0	0	96	23	267
3:45 PM	0	0	0	23	0	38	10	95	0	0	88	23	277
4:00 PM	0	0	0	15	0	39	22	92	0	1	100	21	290
4:15 PM	0	0	0	9	0	32	23	117	0	0	76	18	275
4:30 PM	0	0	0	17	0	44	29	101	0	0	119	25	335
4:45 PM	0	0	0	22	0	48	21	99	0	0	86	27	303
5:00 PM	0	0	0	19	0	48	24	96	0	1	115	19	322
5:15 PM	0	0	0	30	0	33	17	106	0	0	92	20	298
5:30 PM	0	0	0	21	0	53	21	122	0	1	106	23	347
5:45 PM	0	0	0	15	0	48	16	134	0	0	96	16	325
<b>TOTAL VOLUMES :</b>	NL 0	NT 0	NR 0	SL 226	ST 0	SR 492	EL 238	ET 1225	ER 0	WL 3	WT 1168	WR 259	TOTAL 3611
<b>APPROACH %'s :</b>	#DIV/0!	#DIV/0!	#DIV/0!	31.48%	0.00%	68.52%	16.27%	83.73%	0.00%	0.21%	81.68%	18.11%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	0	0	0	85	0	182	78	458	0	2	409	78	1292
<b>PEAK HR FACTOR :</b>	0.000			0.902			0.893			0.906			0.931

CONTROL : 1-Way Stop (SB)



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Hotel Dwy

**East/West** Maxella Ave

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	12	0	27	36
<b>BIKES</b>	7	0	46	50
<b>BUSES</b>	0	0	23	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	34	8.00	0	0.00	100	8.15	85	8.45
<i>PM PK 15 MIN</i>	31	16.00	0	0.00	137	17.45	124	16.30
<i>AM PK HOUR</i>	113	7.45	0	0.00	354	7.45	301	8.45
<i>PM PK HOUR</i>	108	17.00	0	0.00	510	17.00	452	16.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	40	0	44	84
8-9	48	0	60	108
9-10	46	0	48	94
15-16	56	0	34	90
16-17	52	0	50	102
17-18	61	0	47	108
TOTAL	303	0	283	586

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

**TOTAL**

N-S
84
108
94
90
102
108
586

**XING S/L**

Ped	Sch
10	1
30	2
38	2
36	0
26	0
43	2
183	7

**XING N/L**

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0
0	0

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	202	28	230
8-9	0	293	41	334
9-10	0	294	51	345
15-16	0	366	64	430
16-17	0	394	79	473
17-18	2	422	86	510
TOTAL	2	1971	349	2322

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	12	160	0	172
8-9	32	267	0	299
9-10	31	260	0	291
15-16	36	359	0	395
16-17	47	382	0	429
17-18	47	377	0	424
TOTAL	205	1805	0	2010

**TOTAL**

E-W
402
633
636
825
902
934
4332

**XING W/L**

Ped	Sch
1	0
4	0
3	0
3	0
4	0
2	0
17	0

**XING E/L**

Ped	Sch
20	0
55	3
67	3
131	2
110	0
144	3
527	11

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-014

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Hotel Dwy			Hotel Dwy			Maxella Ave			Maxella Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 0	NR 1	SL 0	ST 0	SR 0	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL
7:00 AM	5	0	13	0	0	0	0	29	8	3	37	0	95
7:15 AM	7	0	14	0	0	0	0	42	3	0	32	0	98
7:30 AM	14	0	4	0	0	0	0	54	13	4	42	0	131
7:45 AM	14	0	13	0	0	0	0	77	4	5	49	0	162
8:00 AM	16	0	18	0	0	0	0	73	17	9	62	0	195
8:15 AM	14	0	13	0	0	0	0	91	9	8	63	0	198
8:30 AM	8	0	17	0	0	0	0	74	9	8	64	0	180
8:45 AM	10	0	12	0	0	0	0	55	6	7	78	0	168
9:00 AM	14	0	5	0	0	0	0	75	12	5	58	0	169
9:15 AM	14	0	17	0	0	0	0	71	10	9	70	0	191
9:30 AM	8	0	12	0	0	0	0	77	7	6	68	0	178
9:45 AM	10	0	14	0	0	0	0	71	22	11	64	0	192
TOTAL VOLUMES :	134	0	152	0	0	0	0	789	120	75	687	0	1957
APPROACH %'s :	46.85%	0.00%	53.15%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	86.80%	13.20%	9.84%	90.16%	0.00%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	48	0	60	0	0	0	0	293	41	32	267	0	741
PEAK HR FACTOR :	0.794			0.000			0.835			0.879			0.936

CONTROL : 1-Way Stop (NB)

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-014

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM											TOTAL	
		Hotel Dwy			Hotel Dwy			Maxella Ave			Maxella Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 0	NR 1	SL 0	ST 0	SR 0	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	
3:00 PM	15	0	8	0	0	0	0	95	17	7	82	0	224	
3:15 PM	17	0	7	0	0	0	0	90	17	14	99	0	244	
3:30 PM	14	0	8	0	0	0	0	79	11	9	95	0	216	
3:45 PM	10	0	11	0	0	0	0	102	19	6	83	0	231	
4:00 PM	13	0	18	0	0	0	0	85	23	7	94	0	240	
4:15 PM	8	0	14	0	0	0	0	98	21	15	74	0	230	
4:30 PM	14	0	10	0	0	0	0	106	14	11	113	0	268	
4:45 PM	17	0	8	0	0	0	0	105	21	14	101	0	266	
5:00 PM	14	0	15	0	0	0	1	93	14	8	109	0	254	
5:15 PM	15	0	8	0	0	0	0	104	25	11	85	0	248	
5:30 PM	18	0	11	0	0	0	0	111	25	11	96	0	272	
5:45 PM	14	0	13	0	0	0	1	114	22	17	87	0	268	
TOTAL VOLUMES :		NL 169	NT 0	NR 131	SL 0	ST 0	SR 0	EL 2	ET 1182	ER 229	WL 130	WT 1118	WR 0	TOTAL 2961
APPROACH %'s :		56.33%	0.00%	43.67%	#DIV/0!	#DIV/0!	#DIV/0!	0.14%	83.65%	16.21%	10.42%	89.58%	0.00%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		61	0	47	0	0	0	2	422	86	47	377	0	1042
PEAK HR FACTOR :		0.931			0.000			0.931			0.906			0.958

CONTROL : 1-Way Stop (NB)

# ITM Peak Hour Summary

Prepared by:

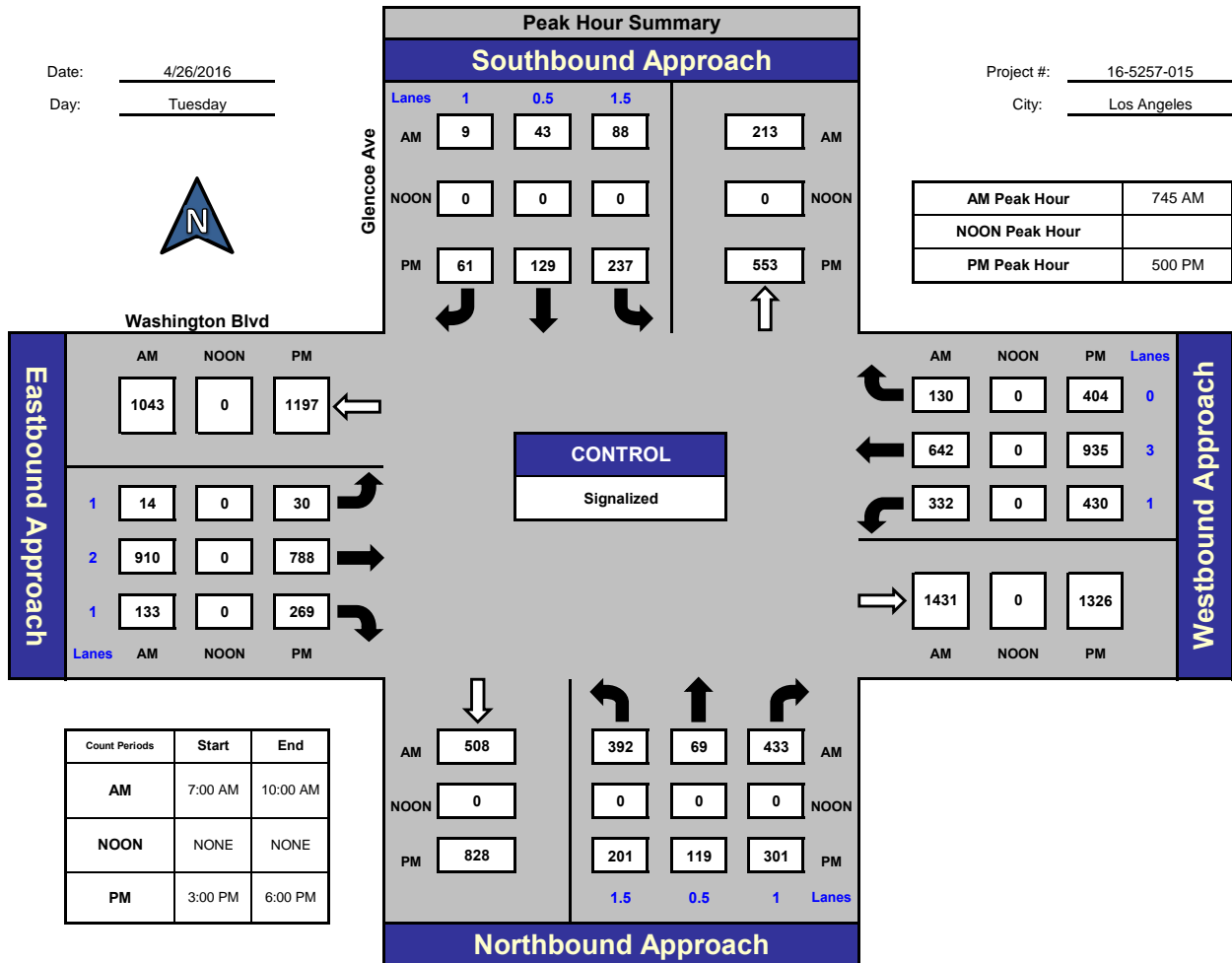


National Data & Surveying Services

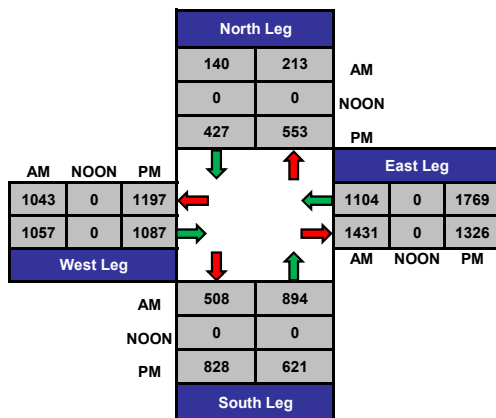
## Glencoe Ave and Washington Blvd, Los Angeles

Date: 4/26/2016  
Day: Tuesday

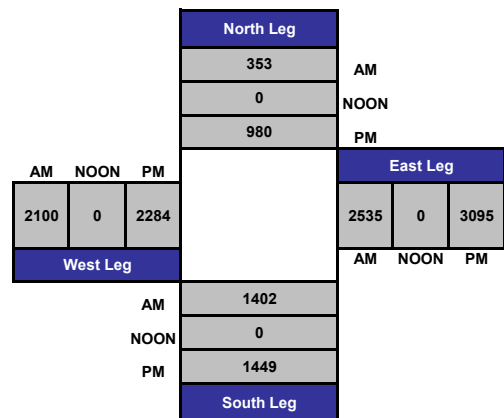
Project #: 16-5257-015  
City: Los Angeles



### Total Ins & Outs



### Total Volume Per Leg



Prepared by:  
**National Data & Surveying Services**

## National Data & Surveying Services

**Day:** Tuesday

**Date:** 4/26/2016

[illegible]

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-015

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

PM														
NS/EW Streets:	Glencoe Ave			Glencoe Ave			Washington Blvd			Washington Blvd				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL 1.5	NT 0.5	NR 1	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 1	WL 1	WT 3	WR 0	TOTAL	
3:00 PM	45	30	84	76	18	12	3	209	45	92	177	83	874	
3:15 PM	47	27	81	68	21	16	13	204	67	102	210	102	958	
3:30 PM	46	28	64	57	24	12	3	190	61	97	192	86	860	
3:45 PM	48	31	69	63	27	17	3	217	66	96	200	90	927	
4:00 PM	41	26	53	72	33	20	7	217	64	99	195	92	919	
4:15 PM	44	33	64	60	15	15	7	192	72	106	193	118	919	
4:30 PM	45	32	71	63	27	17	8	205	56	101	221	90	936	
4:45 PM	49	26	73	58	22	16	9	195	58	107	214	95	922	
5:00 PM	42	21	75	61	38	16	9	218	70	110	248	100	1008	
5:15 PM	37	26	71	65	26	19	7	176	59	109	217	101	913	
5:30 PM	63	34	84	58	34	14	8	190	73	111	220	98	987	
5:45 PM	59	38	71	53	31	12	6	204	67	100	250	105	996	
TOTAL VOLUMES : APPROACH %'s :	566 31.83%	352 19.80%	860 48.37%	754 60.03%	316 25.16%	186 14.81%	83 2.55%	2417 74.19%	758 23.27%	1230 24.96%	2537 51.49%	1160 23.54%	11219	
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	201	119	301	237	129	61	30	788	269	430	935	404	3904	
PEAK HR FACTOR :	0.858			0.928			0.915			0.966			0.968	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NB	SB	EB	WB
0	0	1	0



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Glencoe Ave

**East/West** Maxella Ave

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	57	57	26	19
<b>BIKES</b>	45	36	38	56
<b>BUSES</b>	12	9	23	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	225	7.30	182	8.30	94	8.30	72	9.45
<i>PM PK 15 MIN</i>	147	15.15	237	17.30	116	16.30	94	16.30
<i>AM PK HOUR</i>	796	7.30	663	8.15	354	7.45	257	9.00
<i>PM PK HOUR</i>	538	16.30	859	15.15	452	16.30	343	16.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	62	668	46	776
8-9	103	542	54	699
9-10	101	550	54	705
15-16	101	390	42	533
16-17	116	338	62	516
17-18	112	340	66	518
<b>TOTAL</b>	595	2828	324	3747

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	10	276	30	316
8-9	54	506	78	638
9-10	68	417	86	571
15-16	46	676	133	855
16-17	33	678	115	826
17-18	45	659	121	825
<b>TOTAL</b>	256	3212	563	4031

**TOTAL**

N-S
1092
1337
1276
1388
1342
1343
<b>7778</b>

**XING S/L**

Ped	Sch
16	4
22	3
28	2
32	2
27	2
91	1
<b>216</b>	<b>14</b>

**XING N/L**

Ped	Sch
26	2
39	3
87	1
37	8
52	0
35	6
<b>276</b>	<b>20</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	86	66	86	238
8-9	108	95	127	330
9-10	103	89	130	322
15-16	129	96	186	411
16-17	129	127	186	442
17-18	132	140	178	450
<b>TOTAL</b>	687	613	893	2193

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	48	65	55	168
8-9	56	88	71	215
9-10	55	81	121	257
15-16	85	110	54	249
16-17	104	145	64	313
17-18	87	143	103	333
<b>TOTAL</b>	435	632	468	1535

**TOTAL**

E-W
406
545
579
660
755
783
<b>3728</b>

**XING W/L**

Ped	Sch
16	8
42	6
48	9
46	12
53	16
69	20
<b>274</b>	<b>71</b>

**XING E/L**

Ped	Sch
20	1
11	1
33	2
21	0
16	0
25	0
<b>126</b>	<b>4</b>



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-016

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Glencoe Ave			Glencoe Ave			Maxella Ave			Maxella Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	16	129	7	1	49	5	13	11	14	5	18	2	270
7:15 AM	13	156	9	0	55	7	17	11	23	11	10	17	329
7:30 AM	15	193	17	4	78	7	21	19	20	16	18	16	424
7:45 AM	18	190	13	5	94	11	35	25	29	16	19	20	475
8:00 AM	23	133	12	9	120	13	29	24	30	8	26	18	445
8:15 AM	22	150	10	9	119	26	33	26	29	13	20	18	475
8:30 AM	26	132	16	24	136	22	25	25	44	21	11	18	500
8:45 AM	32	127	16	12	131	17	21	20	24	14	31	17	462
9:00 AM	31	138	12	25	126	16	25	25	33	14	18	27	490
9:15 AM	26	117	5	12	95	26	17	26	37	10	21	39	431
9:30 AM	18	127	16	20	95	21	31	18	31	16	22	18	433
9:45 AM	26	168	21	11	101	23	30	20	29	15	20	37	501
<b>TOTAL VOLUMES :</b>	266	1760	154	132	1199	194	297	250	343	159	234	247	5235
<b>APPROACH %'s :</b>	12.20%	80.73%	7.06%	8.66%	78.62%	12.72%	33.37%	28.09%	38.54%	24.84%	36.56%	38.59%	
<b>PEAK HR START TIME :</b>	815 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	111	547	54	70	512	81	104	96	130	62	80	80	1927
<b>PEAK HR FACTOR :</b>	0.978			0.911			0.878			0.895			0.964

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-016

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

NS/EW Streets:		PM												
		Glencoe Ave			Glencoe Ave			Maxella Ave			Maxella Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 2	WR 0	TOTAL	
3:00 PM	20	93	8	12	165	32	32	28	54	26	25	17	512	
3:15 PM	27	109	11	11	168	32	29	15	43	20	43	14	522	
3:30 PM	22	92	12	8	177	39	33	26	43	18	26	13	509	
3:45 PM	32	96	11	15	166	30	35	27	46	21	16	10	505	
4:00 PM	24	85	16	5	179	29	33	31	45	16	31	9	503	
4:15 PM	23	83	14	11	166	23	27	21	53	31	34	12	498	
4:30 PM	36	86	17	7	168	34	31	37	48	30	43	21	558	
4:45 PM	33	84	15	10	165	29	38	38	40	27	37	22	538	
5:00 PM	32	82	13	10	160	32	29	35	40	19	43	19	514	
5:15 PM	29	91	20	13	147	20	34	30	52	24	33	25	518	
5:30 PM	26	83	21	12	194	31	37	32	46	22	33	30	567	
5:45 PM	25	84	12	10	158	38	32	43	40	22	34	29	527	
TOTAL VOLUMES :	NL 329	NT 1068	NR 170	SL 124	ST 2013	SR 369	EL 390	ET 363	ER 550	WL 276	WT 398	WR 221	TOTAL 6271	
APPROACH %'s :	21.00%	68.16%	10.85%	4.95%	80.33%	14.72%	29.93%	27.86%	42.21%	30.84%	44.47%	24.69%		
PEAK HR START TIME :	445 PM													TOTAL
PEAK HR VOL :	120	340	69	45	666	112	138	135	178	92	146	96	2137	
PEAK HR FACTOR :	0.945			0.868			0.972			0.971			0.942	

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Glencoe Ave

**East/West** Mindanao Wy

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chckrs:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	27	48	56	15
<b>BIKES</b>	23	24	29	39
<b>BUSES</b>	0	23	15	26

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	75	8.00	202	8.30	299	7.45	142	8.00
<i>PM PK 15 MIN</i>	113	17.00	262	17.30	161	16.15	162	17.30
<i>AM PK HOUR</i>	261	7.30	685	8.15	1081	7.30	478	7.45
<i>PM PK HOUR</i>	350	17.00	932	15.30	610	16.15	596	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	21	177	10	208
8-9	57	179	13	249
9-10	37	187	14	238
15-16	50	149	12	211
16-17	87	169	12	268
17-18	117	207	26	350
<b>TOTAL</b>	369	1068	87	1524

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	41	79	259	379
8-9	74	133	458	665
9-10	73	117	373	563
15-16	113	203	607	923
16-17	123	192	607	922
17-18	128	205	592	925
<b>TOTAL</b>	552	929	2896	4377

**TOTAL**

N-S
587
914
801
1134
1190
1275
5901

**XING S/L**

Ped	Sch
12	0
27	1
29	2
25	1
47	4
25	0
165	8

**XING N/L**

Ped	Sch
28	1
9	0
15	0
17	0
15	0
15	0
99	1

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	454	409	50	913
8-9	397	515	84	996
9-10	405	342	74	821
15-16	272	250	39	561
16-17	252	292	38	582
17-18	216	332	43	591
<b>TOTAL</b>	1996	2140	328	4464

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	6	283	77	366
8-9	11	335	96	442
9-10	17	251	84	352
15-16	11	331	94	436
16-17	8	402	89	499
17-18	10	494	92	596
<b>TOTAL</b>	63	2096	532	2691

**TOTAL**

E-W
1279
1438
1173
997
1081
1187
7155

**XING W/L**

Ped	Sch
12	4
16	0
25	0
10	0
22	0
27	0
112	4

**XING E/L**

Ped	Sch
8	1
7	0
13	1
7	0
11	0
16	0
62	2

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-017

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Glencoe Ave			Glencoe Ave			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	4	37	2	7	19	45	87	52	8	0	59	14	334
7:15 AM	7	34	0	13	14	55	116	78	11	1	65	16	410
7:30 AM	7	54	6	10	20	71	135	115	12	3	61	17	511
7:45 AM	3	52	2	11	26	88	116	164	19	2	98	30	611
8:00 AM	11	60	4	19	39	102	90	146	20	2	111	29	633
8:15 AM	15	42	5	22	29	101	108	133	23	1	88	18	585
8:30 AM	14	41	2	18	39	145	98	119	19	3	72	24	594
8:45 AM	17	36	2	15	26	110	101	117	22	5	64	25	540
9:00 AM	11	58	2	25	39	116	98	106	29	5	62	19	570
9:15 AM	8	39	3	20	27	77	83	79	15	7	69	23	450
9:30 AM	11	42	6	13	26	101	98	73	19	2	64	17	472
9:45 AM	7	48	3	15	25	79	126	84	11	3	56	25	482
TOTAL VOLUMES :	115	543	37	188	329	1090	1256	1266	208	34	869	257	6192
APPROACH %'s :	16.55%	78.13%	5.32%	11.70%	20.47%	67.83%	46.01%	46.37%	7.62%	2.93%	74.91%	22.16%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	43	195	13	70	133	436	412	562	81	8	369	101	2423
PEAK HR FACTOR :	0.837			0.791			0.882			0.842			0.957

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-017

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Glencoe Ave			Glencoe Ave			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
3:00 PM	16	30	5	22	55	149	65	59	11	4	69	20	505
3:15 PM	6	38	3	29	45	152	78	57	9	2	85	25	529
3:30 PM	12	37	3	34	52	163	53	59	10	4	96	27	550
3:45 PM	16	44	1	28	51	143	76	75	9	1	81	22	547
4:00 PM	20	36	8	27	45	153	58	60	10	1	99	23	540
4:15 PM	21	39	1	35	45	156	68	82	11	1	100	22	581
4:30 PM	27	51	2	27	56	150	58	86	12	5	103	25	602
4:45 PM	19	43	1	34	46	148	68	64	5	1	100	19	548
5:00 PM	54	52	7	32	50	133	54	87	15	1	112	30	627
5:15 PM	27	56	5	28	55	127	59	77	7	3	130	18	592
5:30 PM	18	53	7	30	54	178	45	94	11	4	134	24	652
5:45 PM	18	46	7	38	46	154	58	74	10	2	118	20	591
<b>TOTAL VOLUMES :</b>	254	525	50	364	600	1806	740	874	120	29	1227	275	6864
<b>APPROACH %'s :</b>	30.64%	63.33%	6.03%	13.14%	21.66%	65.20%	42.68%	50.40%	6.92%	1.89%	80.14%	17.96%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	117	207	26	128	205	592	216	332	43	10	494	92	2462
<b>PEAK HR FACTOR :</b>	0.774			0.883			0.947			0.920			0.944

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** SR-90 WB Ramps

**East/West** Mindanao Wy

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	182	0	32	53
<b>BIKES</b>	2	1	27	28
<b>BUSES</b>	4	0	14	23

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	715	8.45	0	0.00	145	7.45	228	8.30
<i>PM PK 15 MIN</i>	474	17.15	0	0.00	131	17.00	355	17.30
<i>AM PK HOUR</i>	2547	8.30	0	0.00	546	7.30	851	8.00
<i>PM PK HOUR</i>	1813	17.00	0	0.00	479	16.15	1380	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	479	1190	649	2318
8-9	639	1218	681	2538
9-10	521	1230	601	2352
15-16	481	856	347	1684
16-17	468	921	332	1721
17-18	530	951	332	1813
<b>TOTAL</b>	3118	6366	2942	12426

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**TOTAL**

N-S
2318
2538
2352
1684
1721
1813
12426

**XING S/L**

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0

**XING N/L**

Ped	Sch
3	0
8	0
2	0
7	0
23	0
12	0
55	0

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	4	434	0	438
8-9	7	526	0	533
9-10	12	414	0	426
15-16	16	386	0	402
16-17	32	402	0	434
17-18	16	431	0	447
<b>TOTAL</b>	87	2593	0	2680

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	566	12	578
8-9	0	829	22	851
9-10	0	674	20	694
15-16	0	1054	29	1083
16-17	0	1240	38	1278
17-18	0	1340	40	1380
<b>TOTAL</b>	0	5703	161	5864

**TOTAL**

E-W
1016
1384
1120
1485
1712
1827
8544

**XING W/L**

Ped	Sch
8	0
21	0
21	1
22	0
18	2
21	0
111	3

**XING E/L**

Ped	Sch
4	0
7	0
15	0
12	0
13	0
14	0
65	0

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-018

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	SR-90 WB Ramps			SR-90 WB Ramps			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 1.5	NR 1	SL 0	ST 0	SR 0	EL 1	ET 2	ER 0	WL 0	WT 3	WR 0	TOTAL
7:00 AM	118	249	115	0	0	0	1	75	0	0	117	4	679
7:15 AM	86	295	153	0	0	0	1	87	0	0	130	1	753
7:30 AM	118	323	175	0	0	0	1	128	0	0	140	5	890
7:45 AM	157	323	206	0	0	0	1	144	0	0	179	2	1012
8:00 AM	144	264	175	0	0	0	2	125	0	0	207	6	923
8:15 AM	150	278	172	0	0	0	2	143	0	0	203	6	954
8:30 AM	170	321	149	0	0	0	1	125	0	0	225	3	994
8:45 AM	175	355	185	0	0	0	2	133	0	0	194	7	1051
9:00 AM	126	291	166	0	0	0	3	113	0	0	188	10	897
9:15 AM	154	320	135	0	0	0	0	99	0	0	148	2	858
9:30 AM	111	287	141	0	0	0	5	91	0	0	189	2	826
9:45 AM	130	332	159	0	0	0	4	111	0	0	149	6	891
<b>TOTAL VOLUMES :</b>	1639	3638	1931	0	0	0	23	1374	0	0	2069	54	10728
<b>APPROACH %'s :</b>	22.74%	50.47%	26.79%	#DIV/0!	#DIV/0!	#DIV/0!	1.65%	98.35%	0.00%	0.00%	97.46%	2.54%	
<b>PEAK HR START TIME :</b>	800 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	639	1218	681	0	0	0	7	526	0	0	829	22	3922
<b>PEAK HR FACTOR :</b>	0.887			0.000			0.919			0.933			0.933

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-018

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	SR-90 WB Ramps			SR-90 WB Ramps			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 1.5	NR 1	SL 0	ST 0	SR 0	EL 1	ET 2	ER 0	WL 0	WT 3	WR 0	TOTAL
3:00 PM	115	208	84	0	0	0	4	99	0	0	239	6	755
3:15 PM	124	189	83	0	0	0	5	99	0	0	251	7	758
3:30 PM	124	231	88	0	0	0	1	86	0	0	293	9	832
3:45 PM	118	228	92	0	0	0	6	102	0	0	271	7	824
4:00 PM	117	206	73	0	0	0	5	81	0	0	321	9	812
4:15 PM	107	230	78	0	0	0	10	117	0	0	317	5	864
4:30 PM	124	241	100	0	0	0	5	99	0	0	312	9	890
4:45 PM	120	244	81	0	0	0	12	105	0	0	290	15	867
5:00 PM	113	205	83	0	0	0	4	127	0	0	331	14	877
5:15 PM	140	256	78	0	0	0	3	94	0	0	318	10	899
5:30 PM	142	239	88	0	0	0	6	116	0	0	346	9	946
5:45 PM	135	251	83	0	0	0	3	94	0	0	345	7	918
<b>TOTAL VOLUMES :</b>	1479	2728	1011	0	0	0	64	1219	0	0	3634	107	10242
<b>APPROACH %'s :</b>	28.34%	52.28%	19.38%	#DIV/0!	#DIV/0!	#DIV/0!	4.99%	95.01%	0.00%	0.00%	97.14%	2.86%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	530	951	332	0	0	0	16	431	0	0	1340	40	3640
<b>PEAK HR FACTOR :</b>	0.956			0.000			0.853			0.972			0.962

CONTROL : Signalized





City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** SR-90 EB Ramps

**East/West** Mindanao Wy

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	0	126	49	73
<b>BIKES</b>	0	0	28	31
<b>BUSES</b>	0	1	14	26

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	0	0.00	314	8.45	329	8.15	387	8.30
<i>PM PK 15 MIN</i>	0	0.00	314	17.15	298	17.00	502	17.30
<i>AM PK HOUR</i>	0	0.00	1226	8.00	1241	7.45	1470	8.00
<i>PM PK HOUR</i>	0	0.00	1168	16.30	1111	16.45	1858	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	18	879	7	904
8-9	29	1178	19	1226
9-10	26	971	15	1012
15-16	18	1090	17	1125
16-17	20	1108	12	1140
17-18	14	1119	20	1153
<b>TOTAL</b>	125	6345	90	6560

**TOTAL**

N-S
904
1226
1012
1125
1140
1153
6560

**XING S/L**

Ped	Sch
0	0
0	0
0	0
0	0
0	0
1	0
1	0

**XING N/L**

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0
0	0

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	437	568	1005
8-9	0	506	723	1229
9-10	0	386	616	1002
15-16	0	386	614	1000
16-17	0	437	634	1071
17-18	0	415	636	1051
<b>TOTAL</b>	0	2567	3791	6358

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	298	733	0	1031
8-9	468	1002	0	1470
9-10	382	816	0	1198
15-16	567	960	0	1527
16-17	678	1048	0	1726
17-18	733	1125	0	1858
<b>TOTAL</b>	3126	5684	0	8810

**TOTAL**

E-W
2036
2699
2200
2527
2797
2909
15168

**XING W/L**

Ped	Sch
6	0
17	0
17	0
23	2
14	0
18	0
95	2

**XING E/L**

Ped	Sch
4	0
7	0
8	0
14	1
13	0
7	0
53	1

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-019

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	SR-90 EB Ramps			SR-90 EB Ramps			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1.5	ER 1.5	WL 2	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	2	140	1	0	68	119	78	159	0	567
7:15 AM	0	0	0	6	218	0	0	91	119	52	155	0	641
7:30 AM	0	0	0	3	247	4	0	134	150	66	197	0	801
7:45 AM	0	0	0	7	274	2	0	144	180	102	222	0	931
8:00 AM	0	0	0	5	292	5	0	111	172	124	240	0	949
8:15 AM	0	0	0	8	292	1	0	129	200	119	245	0	994
8:30 AM	0	0	0	7	294	8	0	126	179	119	268	0	1001
8:45 AM	0	0	0	9	300	5	0	140	172	106	249	0	981
9:00 AM	0	0	0	9	249	1	0	95	160	121	204	0	839
9:15 AM	0	0	0	5	241	2	0	94	159	71	223	0	795
9:30 AM	0	0	0	6	254	7	0	93	153	98	210	0	821
9:45 AM	0	0	0	6	227	5	0	104	144	92	179	0	757
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 73	ST 3028	SR 41	EL 0	ET 1329	ER 1907	WL 1148	WT 2551	WR 0	TOTAL 10077
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	2.32%	96.37%	1.30%	0.00%	41.07%	58.93%	31.04%	68.96%	0.00%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	0	0	0	29	1178	19	0	506	723	468	1002	0	3925
PEAK HR FACTOR :	0.000			0.976			0.934			0.950			0.980

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-019

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

PM													
NS/EW Streets:	SR-90 EB Ramps			SR-90 EB Ramps			Mindanao Wy			Mindanao Wy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 0	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1.5	ER 1.5	WL 2	WT 2	WR 0	TOTAL
3:00 PM	0	0	0	4	267	3	0	107	167	146	217	0	911
3:15 PM	0	0	0	7	276	3	0	89	131	139	223	0	868
3:30 PM	0	0	0	4	271	7	0	83	181	155	275	0	976
3:45 PM	0	0	0	3	276	4	0	107	135	127	245	0	897
4:00 PM	0	0	0	3	276	5	0	86	174	190	260	0	994
4:15 PM	0	0	0	10	293	1	0	121	157	165	243	0	990
4:30 PM	0	0	0	3	274	4	0	99	162	167	281	0	990
4:45 PM	0	0	0	4	265	2	0	131	141	156	264	0	963
5:00 PM	0	0	0	2	294	6	0	108	190	178	256	0	1034
5:15 PM	0	0	0	5	305	4	0	99	179	179	273	0	1044
5:30 PM	0	0	0	6	267	5	0	119	144	186	316	0	1043
5:45 PM	0	0	0	1	253	5	0	89	123	190	280	0	941
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 52	ST 3317	SR 49	EL 0	ET 1238	ER 1884	WL 1978	WT 3133	WR 0	TOTAL 11651
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	1.52%	97.05%	1.43%	0.00%	39.65%	60.35%	38.70%	61.30%	0.00%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	0	0	0	17	1131	17	0	457	654	699	1109	0	4084
PEAK HR FACTOR :	0.000			0.928			0.932			0.900			0.978

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Beethoven Wy

**East/West** Venice Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	13	30	110	109
<b>BIKES</b>	45	17	161	159
<b>BUSES</b>	0	0	65	60

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	153	7.30	97	7.45	463	8.00	414	7.30
<i>PM PK 15 MIN</i>	74	15.00	144	15.45	428	16.15	394	17.45
<i>AM PK HOUR</i>	525	8.15	327	7.45	1731	7.45	1508	7.30
<i>PM PK HOUR</i>	263	15.00	550	15.45	1524	17.00	1477	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	83	338	29	450
8-9	66	424	16	506
9-10	60	335	40	435
15-16	66	149	48	263
16-17	43	144	33	220
17-18	36	163	29	228
<b>TOTAL</b>	354	1553	195	2102

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	88	126	21	235
8-9	97	167	22	286
9-10	57	103	23	183
15-16	151	315	29	495
16-17	150	370	22	542
17-18	143	362	25	530
<b>TOTAL</b>	686	1443	142	2271

**TOTAL**

N-S
685
792
618
758
762
758
4373

**XING S/L**

Ped	Sch
65	31
46	4
18	2
27	141
31	34
31	29
218	241

**XING N/L**

Ped	Sch
26	0
31	0
19	0
18	4
15	0
26	0
135	4

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	148	1044	31	1223
8-9	182	1489	33	1704
9-10	79	1121	20	1220
15-16	58	1325	79	1462
16-17	56	1328	59	1443
17-18	37	1413	74	1524
<b>TOTAL</b>	560	7720	296	8576

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	67	1211	104	1382
8-9	76	1286	114	1476
9-10	70	1169	104	1343
15-16	169	1072	49	1290
16-17	222	1041	56	1319
17-18	261	1137	79	1477
<b>TOTAL</b>	865	6916	506	8287

**TOTAL**

E-W
2605
3180
2563
2752
2762
3001
16863

**XING W/L**

Ped	Sch
87	18
48	11
14	0
17	9
16	3
27	8
209	49

**XING E/L**

Ped	Sch
17	0
39	0
13	0
14	5
20	5
31	0
134	10

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-020

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Beethoven Wy			Beethoven Wy			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM	12	59	14	8	12	2	7	184	1	5	247	18	569
7:15 AM	19	69	9	19	25	7	26	230	8	17	274	27	730
7:30 AM	24	123	6	25	31	9	41	287	11	21	360	33	971
7:45 AM	28	87	0	36	58	3	74	343	11	24	330	26	1020
8:00 AM	11	95	2	18	46	8	59	392	12	17	337	35	1032
8:15 AM	18	106	8	33	47	4	38	359	4	19	280	26	942
8:30 AM	21	116	5	27	41	6	46	386	7	19	301	28	1003
8:45 AM	16	107	1	19	33	4	39	352	10	21	368	25	995
9:00 AM	11	106	10	18	32	7	33	296	3	21	261	29	827
9:15 AM	13	101	6	13	26	3	17	325	9	12	280	23	828
9:30 AM	15	83	17	14	16	7	15	258	0	16	295	30	766
9:45 AM	21	45	7	12	29	6	14	242	8	21	333	22	760
TOTAL VOLUMES :	209	1097	85	242	396	66	409	3654	84	213	3666	322	10443
APPROACH %'s :	15.03%	78.86%	6.11%	34.38%	56.25%	9.38%	9.86%	88.11%	2.03%	5.07%	87.26%	7.66%	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	78	404	15	114	192	21	217	1480	34	79	1248	115	3997
PEAK HR FACTOR :	0.875			0.843			0.935			0.927			0.968

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-020

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM												
		Beethoven Wy			Beethoven Wy			Venice Blvd			Venice Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	
3:00 PM	22	34	18	32	72	8	22	352	21	32	263	14	890	
3:15 PM	15	46	12	29	81	5	17	345	20	48	269	9	896	
3:30 PM	14	35	4	38	77	9	9	327	20	42	285	14	874	
3:45 PM	15	34	14	52	85	7	10	301	18	47	255	12	850	
4:00 PM	16	47	7	41	85	3	17	330	13	49	246	10	864	
4:15 PM	7	25	8	35	94	4	21	384	23	53	253	9	916	
4:30 PM	13	33	9	48	89	7	12	319	13	62	298	23	926	
4:45 PM	7	39	9	26	102	8	6	295	10	58	244	14	818	
5:00 PM	12	33	13	41	80	9	12	322	14	67	260	18	881	
5:15 PM	9	44	6	45	87	3	11	392	16	72	289	23	997	
5:30 PM	8	39	2	34	96	3	8	350	19	60	275	19	913	
5:45 PM	7	47	8	23	99	10	6	349	25	62	313	19	968	
TOTAL VOLUMES :		NL 145	NT 456	NR 110	SL 444	ST 1047	SR 76	EL 151	ET 4066	ER 212	WL 652	WT 3250	WR 184	TOTAL 10793
APPROACH %'s :		20.39%	64.14%	15.47%	28.33%	66.82%	4.85%	3.41%	91.80%	4.79%	15.96%	79.54%	4.50%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		36	163	29	143	362	25	37	1413	74	261	1137	79	3759
PEAK HR FACTOR :		0.919			0.981			0.909			0.937			0.943

CONTROL : Signalized

# ITM Peak Hour Summary

Prepared by:

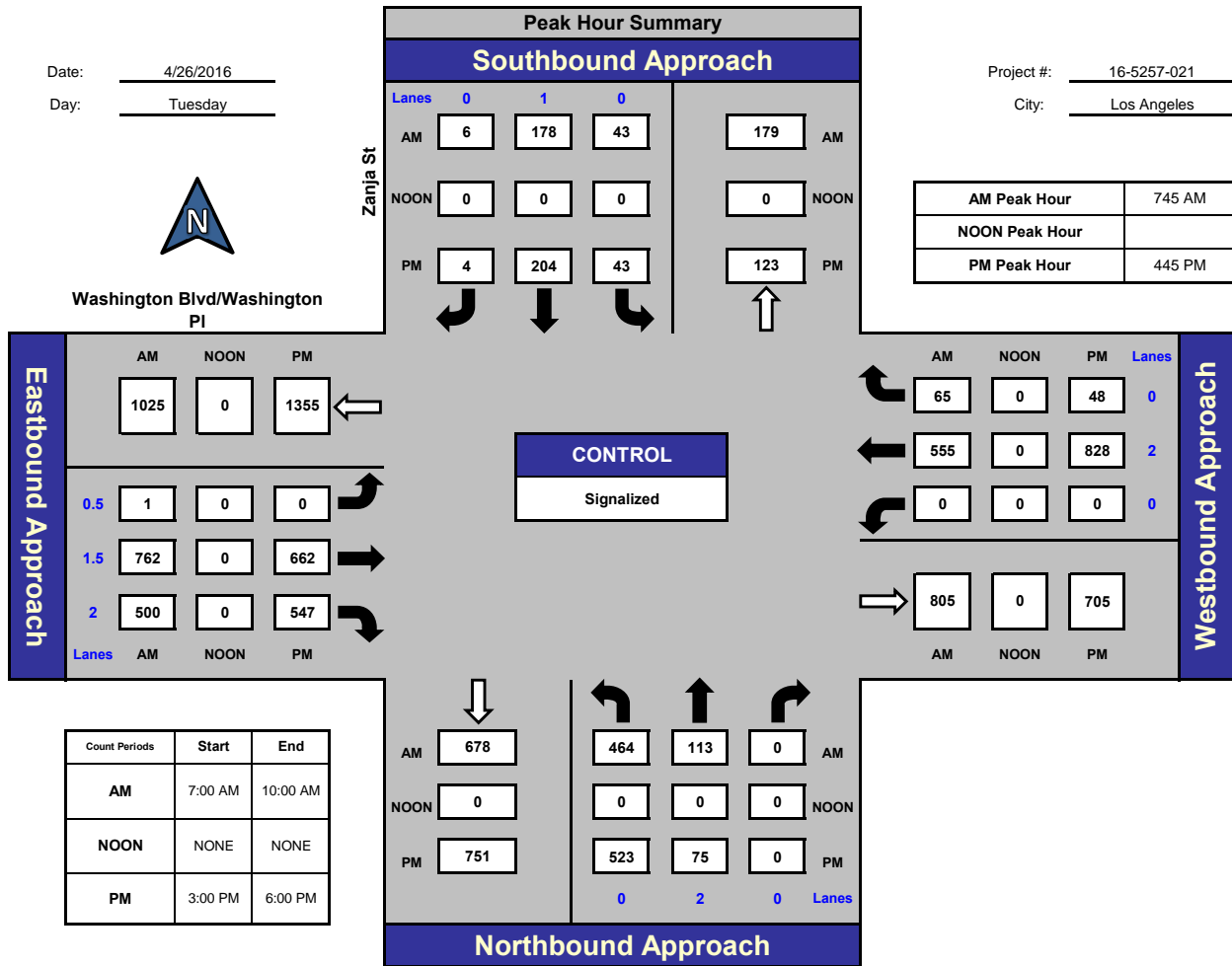


National Data & Surveying Services

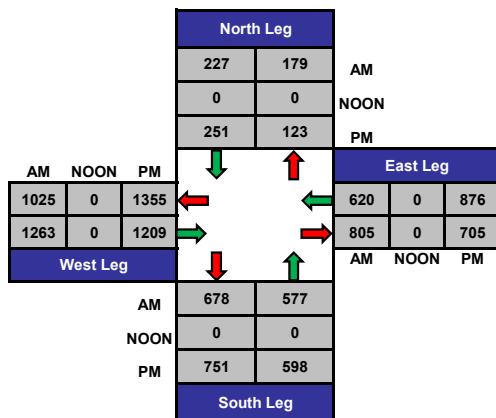
## Zanja St and Washington Blvd/Washington PI, Los Angeles

Date: 4/26/2016  
Day: Tuesday

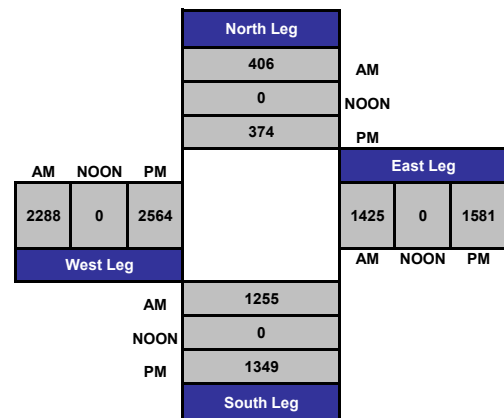
Project #: 16-5257-021  
City: Los Angeles



### Total Ins & Outs



### Total Volume Per Leg



# Intersection Turning Movement

Prepared by:  
National Data & Surveying Services

Project ID: 16-5257-021

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

AM															
NS/EW Streets:		Zanja St			Zanja St			Washington Blvd/Washington Pl			Washington Blvd/Washington Pl				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 0	NT 2	NR 0	SL 0	ST 1	SR 0	EL 0.5	ET 1.5	ER 2	WL 0	WT 2	WR 0	TOTAL	
7:00 AM		62	25	0	2	18	0	0	116	56	0	76	14	369	
7:15 AM		89	39	0	9	27	0	0	129	61	0	74	16	444	
7:30 AM		105	56	0	2	30	1	0	177	106	0	119	24	620	
7:45 AM		136	42	0	14	45	0	0	164	139	0	124	21	685	
8:00 AM		101	20	0	12	37	1	0	181	101	0	128	16	597	
8:15 AM		114	22	0	10	47	2	1	202	120	0	155	16	689	
8:30 AM		113	29	0	7	49	3	0	215	140	0	148	12	716	
8:45 AM		116	23	0	8	34	4	0	144	100	0	173	19	621	
9:00 AM		119	27	0	7	35	3	0	162	102	0	136	13	604	
9:15 AM		106	16	0	3	33	0	0	150	114	0	139	10	571	
9:30 AM		86	20	0	6	23	2	0	158	73	0	185	9	562	
9:45 AM		146	25	0	8	23	0	0	133	77	0	177	12	601	
TOTAL VOLUMES : APPROACH %'s :		NL 1293 78.99%	NT 344 21.01%	NR 0 0.00%	SL 88 17.43%	ST 401 79.41%	SR 16 3.17%	EL 1 0.03%	ET 1931 61.87%	ER 1189 38.10%	WL 0 0.00%	WT 1634 89.98%	WR 182 10.02%	TOTAL 7079	
PEAK HR START TIME :		745 AM													TOTAL
PEAK HR VOL :		464	113	0	43	178	6	1	762	500	0	555	65	2687	
PEAK HR FACTOR :		0.810			0.962			0.889			0.906			0.938	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	1	0



# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-021

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

PM														
NS/EW Streets:		Zanja St			Zanja St			Washington Blvd/Washington Pl			Washington Blvd/Washington Pl			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 0	NT 2	NR 0	SL 0	ST 1	SR 0	EL 0.5	ET 1.5	ER 2	WL 0	WT 2	WR 0	TOTAL
3:00 PM		130	34	0	13	50	2	0	178	139	0	172	11	729
3:15 PM		126	24	0	9	56	0	1	182	148	0	180	9	735
3:30 PM		131	18	0	8	50	1	0	157	133	0	192	12	702
3:45 PM		138	25	0	7	42	2	0	167	126	0	184	15	706
4:00 PM		112	19	0	14	48	0	0	171	135	0	163	18	680
4:15 PM		122	14	0	11	46	0	0	152	138	0	175	19	677
4:30 PM		130	16	0	16	52	2	0	144	139	0	199	14	712
4:45 PM		126	21	0	17	50	1	0	167	138	0	204	15	739
5:00 PM		124	14	0	9	61	0	0	160	140	0	200	13	721
5:15 PM		143	18	0	5	50	0	0	160	139	0	194	11	720
5:30 PM		130	22	0	12	43	3	0	175	130	0	230	9	754
5:45 PM		135	15	0	9	48	1	0	157	122	0	229	14	730
TOTAL VOLUMES : APPROACH %'s :		1547 86.57%	240 13.43%	0 0.00%	130 17.62%	596 80.76%	12 1.63%	1 0.03%	1970 54.75%	1627 45.22%	0 0.00%	2322 93.55%	160 6.45%	8605
PEAK HR START TIME :		445 PM												TOTAL
PEAK HR VOL :		523	75	0	43	204	4	0	662	547	0	828	48	2934
PEAK HR FACTOR :		0.929			0.896			0.991			0.916			0.973

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NB	SB	EB	WB
0	0	1	0



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Centinela Ave

**East/West** Venice Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	85	80	132	120
<b>BIKES</b>	32	53	169	118
<b>BUSES</b>	22	24	63	65

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	364	7.00	290	8.45	519	8.30	444	7.30
<i>PM PK 15 MIN</i>	261	15.15	376	17.15	502	15.15	422	17.45
<i>AM PK HOUR</i>	1365	7.00	1051	8.00	1975	8.00	1658	7.30
<i>PM PK HOUR</i>	945	15.00	1405	15.00	1759	15.15	1585	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	76	1241	48	1365
8-9	81	1035	87	1203
9-10	77	998	108	1183
15-16	73	744	128	945
16-17	72	699	106	877
17-18	65	751	81	897
<b>TOTAL</b>	444	5468	558	6470

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	63	488	73	624
8-9	108	857	86	1051
9-10	124	676	96	896
15-16	136	1205	64	1405
16-17	117	1150	57	1324
17-18	103	1186	59	1348
<b>TOTAL</b>	651	5562	435	6648

**TOTAL**

N-S
1989
2254
2079
2350
2201
2245
13118

**XING S/L**

Ped	Sch
63	34
70	18
74	16
107	37
121	13
98	13
533	131

**XING N/L**

Ped	Sch
36	1
52	2
58	0
60	0
69	2
49	4
324	9

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	245	1024	112	1381
8-9	273	1530	172	1975
9-10	234	1219	134	1587
15-16	204	1280	207	1691
16-17	171	1306	249	1726
17-18	174	1316	202	1692
<b>TOTAL</b>	1301	7675	1076	10052

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	111	1194	150	1455
8-9	178	1181	191	1550
9-10	152	1258	179	1589
15-16	192	1100	95	1387
16-17	214	1175	80	1469
17-18	240	1259	86	1585
<b>TOTAL</b>	1087	7167	781	9035

**TOTAL**

E-W
2836
3525
3176
3078
3195
3277
19087

**XING W/L**

Ped	Sch
54	19
59	8
62	6
47	9
87	4
64	5
373	51

**XING E/L**

Ped	Sch
16	0
36	0
36	0
57	1
67	2
48	3
260	6

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-022

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Centinela Ave			Centinela Ave			Venice Blvd			Venice Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL
7:00 AM	20	325	19	12	80	7	51	153	17	26	206	27	943
7:15 AM	17	326	10	14	104	14	53	227	23	22	259	28	1097
7:30 AM	25	284	8	20	113	26	70	302	33	25	377	42	1325
7:45 AM	14	306	11	17	191	26	71	342	39	38	352	53	1460
8:00 AM	20	270	21	23	192	15	88	388	41	44	279	66	1447
8:15 AM	21	260	22	23	202	35	66	360	39	52	296	34	1410
8:30 AM	20	249	28	27	226	18	61	411	47	38	274	52	1451
8:45 AM	20	256	16	35	237	18	58	371	45	44	332	39	1471
9:00 AM	29	258	36	23	163	19	66	348	31	33	292	50	1348
9:15 AM	15	246	24	32	178	28	47	313	27	42	302	50	1304
9:30 AM	17	234	26	36	166	25	71	315	29	36	320	43	1318
9:45 AM	16	260	22	33	169	24	50	243	47	41	344	36	1285
<b>TOTAL VOLUMES :</b>	234	3274	243	295	2021	255	752	3773	418	441	3633	520	15859
<b>APPROACH %'s :</b>	6.24%	87.28%	6.48%	11.47%	78.61%	9.92%	15.21%	76.33%	8.46%	9.60%	79.08%	11.32%	
<b>PEAK HR START TIME :</b>	800 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	81	1035	87	108	857	86	273	1530	172	178	1181	191	5779
<b>PEAK HR FACTOR :</b>	0.967			0.906			0.951			0.934			0.982

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-022

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM												
		Centinela Ave			Centinela Ave			Venice Blvd			Venice Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	
3:00 PM	18	190	32	44	294	14	36	265	47	55	290	23	1308	
3:15 PM	19	194	48	30	305	19	64	390	48	43	260	26	1446	
3:30 PM	16	195	32	33	305	17	41	298	58	49	294	28	1366	
3:45 PM	20	165	16	29	301	14	63	327	54	45	256	18	1308	
4:00 PM	17	164	27	30	283	10	49	303	64	60	303	21	1331	
4:15 PM	22	170	31	33	293	17	46	358	58	51	260	22	1361	
4:30 PM	17	189	21	26	286	16	40	308	74	60	311	17	1365	
4:45 PM	16	176	27	28	288	14	36	337	53	43	301	20	1339	
5:00 PM	21	179	21	26	308	14	30	318	47	64	297	18	1343	
5:15 PM	19	177	20	40	318	18	54	361	60	58	299	21	1445	
5:30 PM	12	216	20	11	281	18	51	319	52	53	332	21	1386	
5:45 PM	13	179	20	26	279	9	39	318	43	65	331	26	1348	
TOTAL VOLUMES :	NL 210	NT 2194	NR 315	SL 356	ST 3541	SR 180	EL 549	ET 3902	ER 658	WL 646	WT 3534	WR 261	TOTAL 16346	
APPROACH %'s :	7.72%	80.69%	11.59%	8.73%	86.85%	4.42%	10.75%	76.38%	12.88%	14.55%	79.58%	5.88%		
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	65	751	81	103	1186	59	174	1316	202	240	1259	86	5522	
PEAK HR FACTOR :	0.904			0.896			0.891			0.939			0.955	

CONTROL : Signalized

# ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

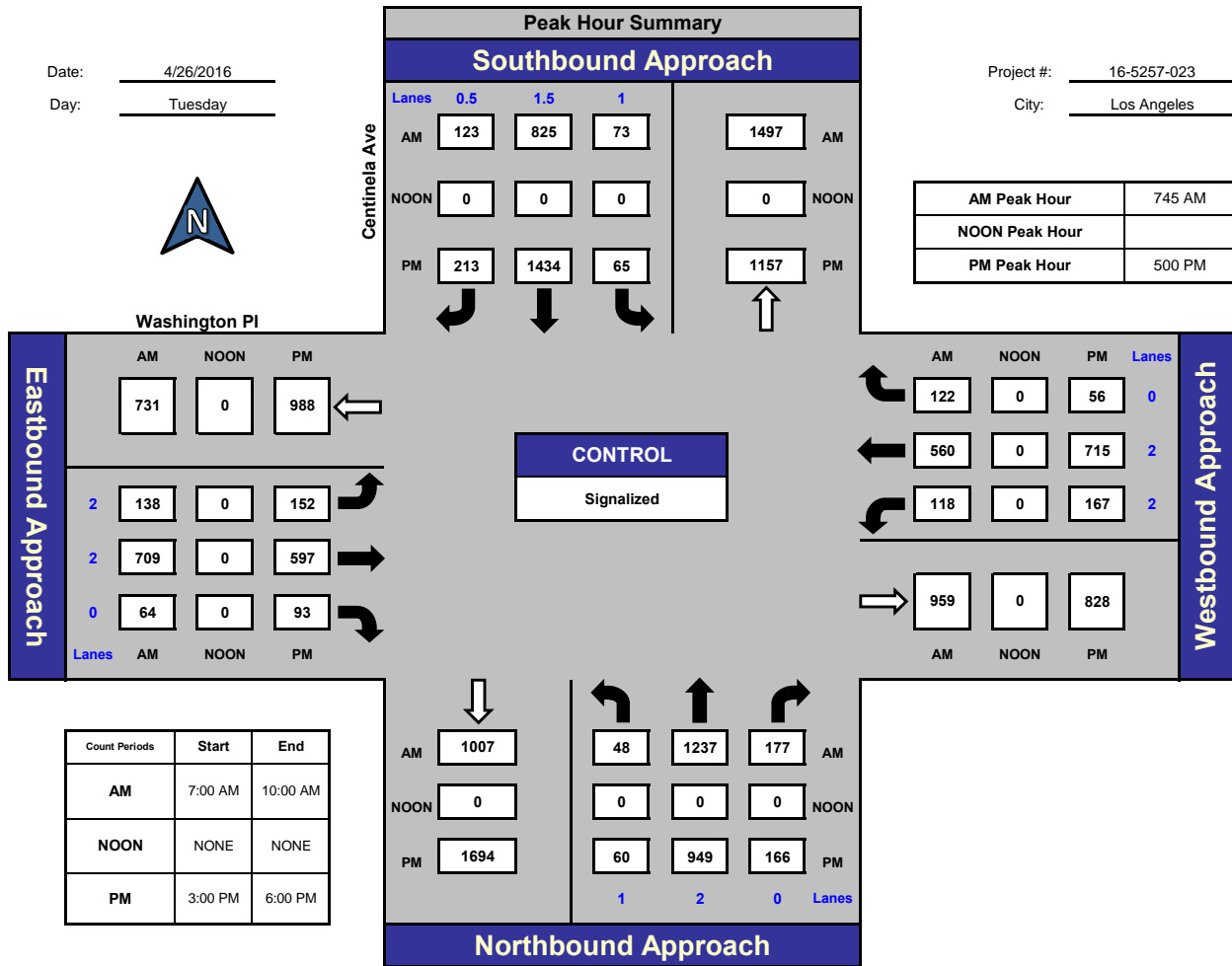
## Centinela Ave and Washington PI, Los Angeles

Date: 4/26/2016

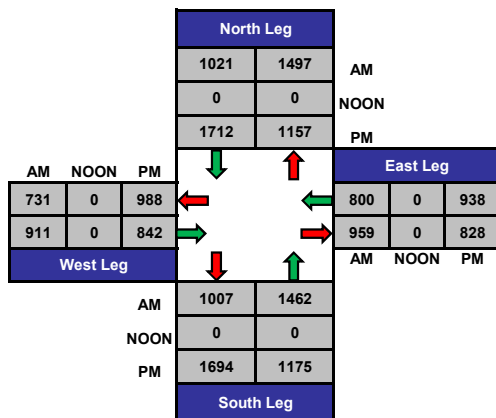
Day: Tuesday

Project #: 16-5257-023

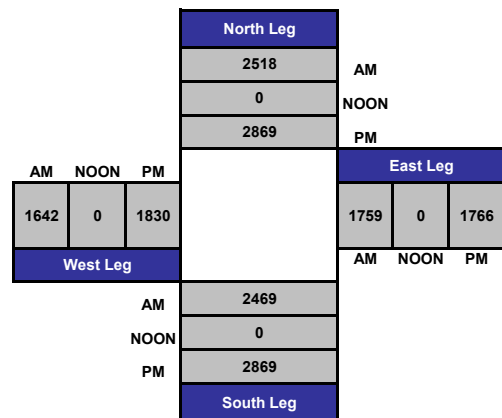
City: Los Angeles



### Total Ins & Outs



### Total Volume Per Leg



Prepared by:  
**National Data & Surveying Services**

## National Data & Surveying Services

**Day:** Tuesday

**Date:** 4/26/2016

[illegible]

**CONTROL :** Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-023

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

PM															
NS/EW Streets:		Centinela Ave			Centinela Ave			Washington Pl			Washington Pl				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 1	NT 2	NR 0	SL 1	ST 1.5	SR 0.5	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	
3:00 PM		13	172	35	19	335	41	49	141	13	45	141	53	1057	
3:15 PM		13	178	34	12	335	38	50	157	28	48	157	49	1099	
3:30 PM		19	182	40	15	362	49	40	138	14	38	150	25	1072	
3:45 PM		13	152	36	13	345	54	41	126	27	34	153	10	1004	
4:00 PM		9	207	34	12	345	47	44	138	31	50	142	12	1071	
4:15 PM		17	198	38	18	372	35	51	134	20	27	149	12	1071	
4:30 PM		13	201	43	14	385	45	33	137	18	49	158	17	1113	
4:45 PM		18	208	42	8	343	40	41	142	23	44	163	20	1092	
5:00 PM		17	241	43	14	363	45	47	156	16	41	155	11	1149	
5:15 PM		14	229	49	28	363	56	39	148	28	34	169	12	1169	
5:30 PM		11	246	37	12	350	60	23	150	22	45	191	18	1165	
5:45 PM		18	233	37	11	358	52	43	143	27	47	200	15	1184	
TOTAL VOLUMES : APPROACH %'s :		NL 175 5.66%	NT 2447 79.19%	NR 468 15.15%	SL 176 3.52%	ST 4256 85.22%	SR 562 11.25%	EL 501 20.22%	ET 1710 69.01%	ER 267 10.77%	WL 502 18.70%	WT 1928 71.83%	WR 254 9.46%	TOTAL 13246	
PEAK HR START TIME :		500 PM													TOTAL
PEAK HR VOL :		60	949	166	65	1434	213	152	597	93	167	715	56	4667	
PEAK HR FACTOR :		0.976			0.957			0.961			0.895			0.985	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0

NB	SB	EB	WB
0	0	1	1

# ITM Peak Hour Summary

Prepared by:

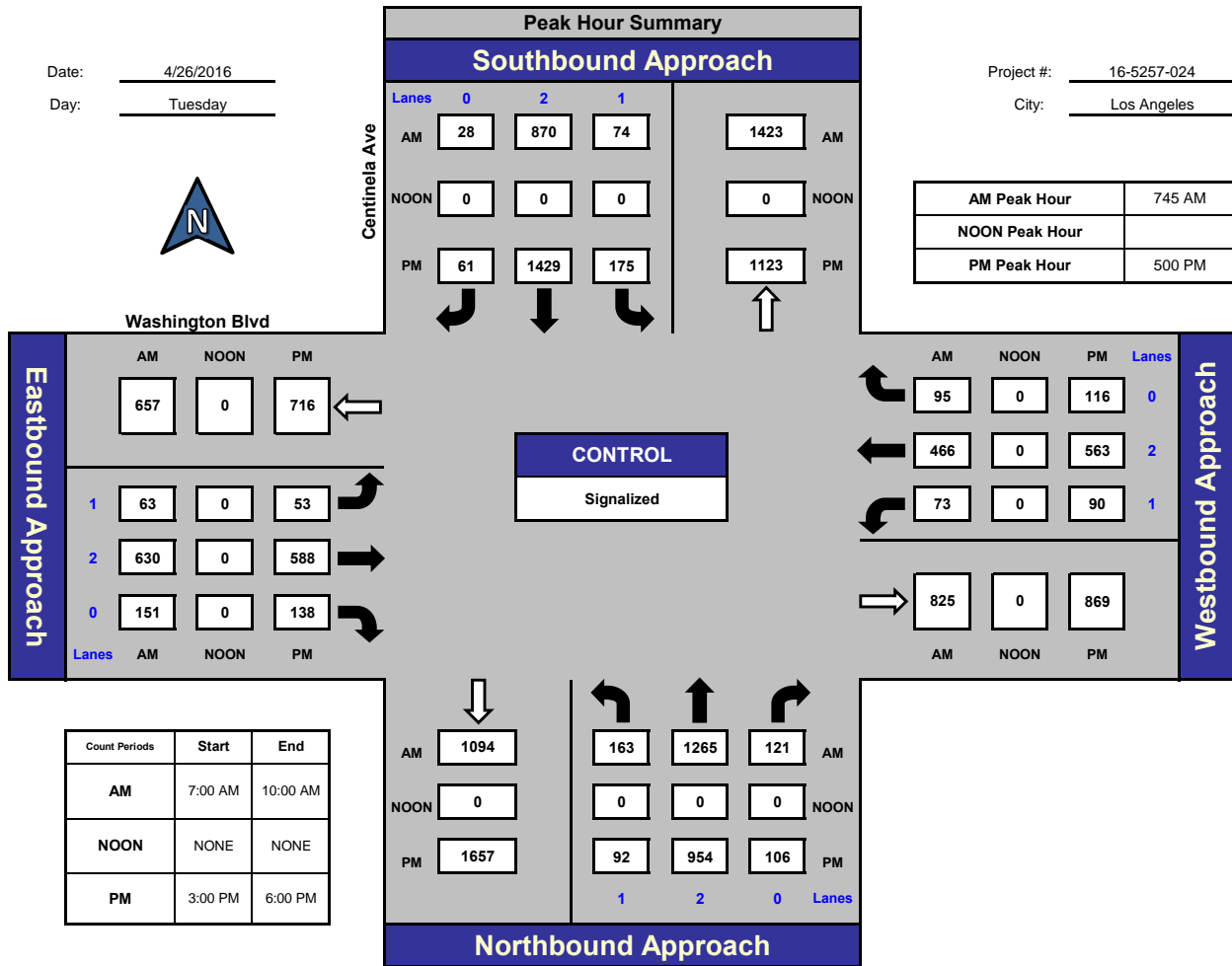


National Data & Surveying Services

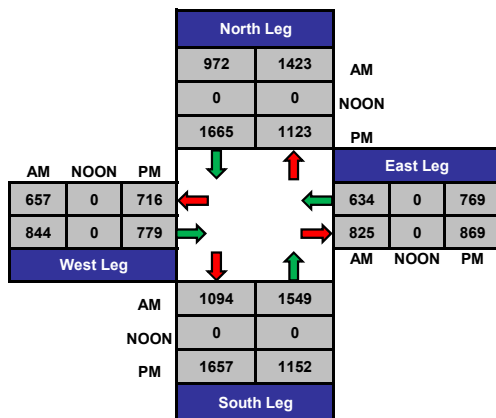
## Centinel Ave and Washington Blvd, Los Angeles

Date: 4/26/2016  
Day: Tuesday

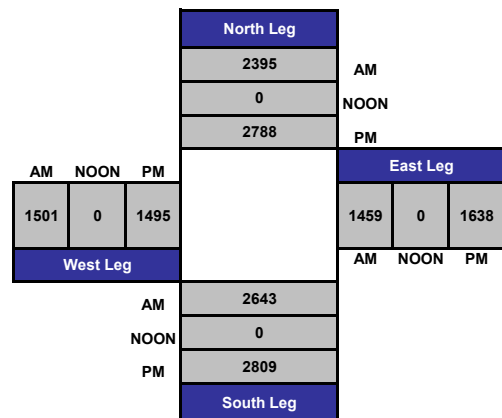
Project #: 16-5257-024  
City: Los Angeles



### Total Ins & Outs



### Total Volume Per Leg





# Intersection Turning Movement

Prepared by:  
National Data & Surveying Services

Project ID: 16-5257-024

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

AM														
NS/EW Streets:		Centinela Ave			Centinela Ave			Washington Blvd			Washington Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM		22	302	14	12	101	6	13	65	18	8	71	22	654
7:15 AM		29	351	14	14	108	5	12	93	22	12	107	24	791
7:30 AM		35	356	25	14	176	6	16	133	23	13	141	16	954
7:45 AM		49	315	22	23	228	6	18	176	39	21	145	19	1061
8:00 AM		43	307	36	17	210	6	14	139	35	20	89	26	942
8:15 AM		39	341	34	14	214	6	16	147	34	14	116	20	995
8:30 AM		32	302	29	20	218	10	15	168	43	18	116	30	1001
8:45 AM		42	297	26	26	230	16	15	127	37	15	114	30	975
9:00 AM		30	318	23	14	202	12	21	101	28	25	117	27	918
9:15 AM		28	306	31	19	175	10	18	120	40	18	97	21	883
9:30 AM		41	301	22	26	179	4	9	91	22	18	90	22	825
9:45 AM		39	276	17	18	164	14	11	95	16	16	143	24	833
TOTAL VOLUMES : APPROACH %'s :		NL 429 9.55%	NT 3772 83.93%	NR 293 6.52%	SL 217 8.60%	ST 2205 87.40%	SR 101 4.00%	EL 178 8.94%	ET 1455 73.12%	ER 357 17.94%	WL 198 10.85%	WT 1346 73.75%	WR 281 15.40%	TOTAL 10832
PEAK HR START TIME :		745 AM												TOTAL
PEAK HR VOL :		163	1265	121	74	870	28	63	630	151	73	466	95	3999
PEAK HR FACTOR :		0.935			0.946			0.906			0.857			0.942

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NB	SB	EB	WB
0	0	2	1

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-024

Day: Tuesday

City: Los Angeles

Date: 4/26/2016

PM															
NS/EW Streets:		Centinela Ave			Centinela Ave			Washington Blvd			Washington Blvd				
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:		NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
3:00 PM		25	200	18	33	339	16	14	154	29	20	138	24	1010	
3:15 PM		25	174	24	43	331	15	8	192	44	17	136	22	1031	
3:30 PM		24	182	18	25	373	18	12	150	35	27	117	28	1009	
3:45 PM		33	150	28	35	322	20	12	134	43	25	154	25	981	
4:00 PM		21	197	15	37	357	16	17	142	35	23	117	26	1003	
4:15 PM		28	171	18	45	324	16	14	150	53	27	123	40	1009	
4:30 PM		19	199	23	39	381	13	10	160	34	21	147	38	1084	
4:45 PM		29	182	15	41	341	20	18	159	43	23	158	29	1058	
5:00 PM		25	254	29	36	360	14	25	157	37	18	133	24	1112	
5:15 PM		22	217	30	55	350	19	10	163	40	24	149	29	1108	
5:30 PM		24	255	23	45	361	14	13	122	28	26	117	24	1052	
5:45 PM		21	228	24	39	358	14	5	146	33	22	164	39	1093	
TOTAL VOLUMES : APPROACH %'s :		296 9.97%	2409 81.11%	265 8.92%	473 9.72%	4197 86.27%	195 4.01%	158 6.47%	1829 74.93%	454 18.60%	273 12.01%	1653 72.69%	348 15.30%	12550	
PEAK HR START TIME :		500 PM													TOTAL
PEAK HR VOL :		92	954	106	175	1429	61	53	588	138	90	563	116	4365	
PEAK HR FACTOR :		0.935			0.982			0.889			0.854			0.981	

CONTROL : Signalized

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0

NB	SB	EB	WB
1	0	3	0



Centinela Ave

Short Ave

School Day: YES District: \_\_\_\_\_ I/S CODE \_\_\_\_\_

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	397	7.15	296	7.45	107	8.00	0	0.00
PM PK 15 MIN	312	17.00	408	15.30	93	17.45	0	0.00
AM PK HOUR	1501	7.15	1096	7.45	399	7.30	0	0.00
PM PK HOUR	1209	17.00	1571	15.15	337	17.00	0	0.00

## XING N/L

Ped	Sch
8	1
4	0
4	1
6	1
8	0
6	0

36	3
----	---

## XING E/L

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0

0	0
---	---

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-025

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Centinela Ave			Centinela Ave			Short Ave			Short Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	10	305	0	0	116	9	29	0	20	0	0	0	489
7:15 AM	23	374	0	0	131	15	34	0	24	0	0	0	601
7:30 AM	25	355	0	0	182	14	61	0	45	0	0	0	682
7:45 AM	30	327	0	0	274	22	56	0	39	0	0	0	748
8:00 AM	33	334	0	0	250	16	54	0	53	0	0	0	740
8:15 AM	30	357	0	0	227	23	55	0	36	0	0	0	728
8:30 AM	27	318	0	0	265	19	52	0	41	0	0	0	722
8:45 AM	44	326	0	0	278	17	36	0	32	0	0	0	733
9:00 AM	26	343	0	0	241	16	36	0	31	0	0	0	693
9:15 AM	24	334	0	0	231	13	34	0	25	0	0	0	661
9:30 AM	24	328	0	0	219	16	32	0	29	0	0	0	648
9:45 AM	26	300	0	0	185	12	28	0	27	0	0	0	578
TOTAL VOLUMES :	322	4001	0	0	2599	192	507	0	402	0	0	0	8023
APPROACH %'s :	7.45%	92.55%	0.00%	0.00%	93.12%	6.88%	55.78%	0.00%	44.22%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	745 AM												TOTAL
PEAK HR VOL :	120	1336	0	0	1016	80	217	0	169	0	0	0	2938
PEAK HR FACTOR :	0.941			0.926			0.902			0.000			0.982

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-025

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM												
		Centinela Ave			Centinela Ave			Short Ave			Short Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL	
3:00 PM	27	181	0	0	351	23	39	0	36	0	0	0	657	
3:15 PM	31	228	0	0	369	18	27	0	47	0	0	0	720	
3:30 PM	29	209	0	0	385	23	29	0	49	0	0	0	724	
3:45 PM	20	195	0	0	372	12	29	0	44	0	0	0	672	
4:00 PM	39	180	0	0	377	15	28	0	35	0	0	0	674	
4:15 PM	41	234	0	0	364	19	27	0	41	0	0	0	726	
4:30 PM	31	203	0	0	371	10	27	0	46	0	0	0	688	
4:45 PM	34	227	0	0	348	3	26	0	43	0	0	0	681	
5:00 PM	33	279	0	0	376	12	41	0	47	0	0	0	788	
5:15 PM	43	257	0	0	345	11	38	0	41	0	0	0	735	
5:30 PM	32	261	0	0	341	15	32	0	45	0	0	0	726	
5:45 PM	29	275	0	0	375	17	39	0	54	0	0	0	789	
TOTAL VOLUMES :		389	2729	0	0	4374	178	382	0	528	0	0	8580	
APPROACH %'s :		12.48%	87.52%	0.00%	0.00%	96.09%	3.91%	41.98%	0.00%	58.02%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		137	1072	0	0	1437	55	150	0	187	0	0	0	3038
PEAK HR FACTOR :		0.969			0.952			0.906			0.000			0.963

CONTROL : Signalized



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Centinela Ave

**East/West** Culver Blvd

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
DUAL-WHEELED	61	111	40	29
BIKES	45	54	37	56
BUSES	34	36	17	16

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	303	9.15	338	7.45	364	8.00	220	8.45
PM PK 15 MIN	305	17.45	455	16.00	207	17.30	324	16.30
AM PK HOUR	1120	8.45	1286	7.45	1401	7.15	801	8.00
PM PK HOUR	1159	17.00	1781	15.15	778	16.45	1218	16.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	9	934	91	1034
8-9	12	906	130	1048
9-10	11	902	182	1095
15-16	14	689	127	830
16-17	19	753	109	881
17-18	17	984	158	1159
TOTAL	82	5168	797	6047

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	170	662	82	914
8-9	202	966	108	1276
9-10	158	830	105	1093
15-16	171	1393	195	1759
16-17	187	1324	236	1747
17-18	175	1329	241	1745
TOTAL	1063	6504	967	8534

**TOTAL**

N-S
1948
2324
2188
2589
2628
2904
14581

**XING S/L**

Ped	Sch
25	2
7	1
13	2
20	0
10	1
18	0
93	6

**XING N/L**

Ped	Sch
34	1
24	1
25	0
25	1
28	0
42	2
178	5

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	402	909	22	1333
8-9	403	930	40	1373
9-10	382	699	22	1103
15-16	124	407	31	562
16-17	172	496	18	686
17-18	156	583	27	766
TOTAL	1639	4024	160	5823

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	136	296	157	589
8-9	218	388	195	801
9-10	163	260	162	585
15-16	170	651	196	1017
16-17	189	765	156	1110
17-18	203	826	161	1190
TOTAL	1079	3186	1027	5292

**TOTAL**

E-W
1922
2174
1688
1579
1796
1956
11115

**XING W/L**

Ped	Sch
27	3
6	1
7	0
13	1
5	0
20	1
78	6

**XING E/L**

Ped	Sch
30	0
20	2
8	0
19	0
8	0
19	0
104	2

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-026

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

AM													
NS/EW Streets:	Centinela Ave			Centinela Ave			Culver Blvd			Culver Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	1	232	30	32	127	9	73	220	3	15	60	23	825
7:15 AM	1	246	30	36	132	11	124	232	5	27	41	37	922
7:30 AM	3	230	18	46	160	23	102	234	3	37	79	57	992
7:45 AM	4	226	13	56	243	39	103	223	11	57	116	40	1131
8:00 AM	1	227	30	60	232	32	102	250	12	51	90	54	1141
8:15 AM	3	247	24	43	231	25	98	207	11	49	95	46	1079
8:30 AM	7	208	37	53	242	30	102	240	7	50	108	38	1122
8:45 AM	1	224	39	46	261	21	101	233	10	68	95	57	1156
9:00 AM	3	217	52	33	235	26	119	203	9	62	80	43	1082
9:15 AM	2	246	55	38	218	34	78	177	4	43	67	47	1009
9:30 AM	2	238	41	46	200	29	87	161	1	25	62	31	923
9:45 AM	4	201	34	41	177	16	98	158	8	33	51	41	862
TOTAL VOLUMES :	32	2742	403	530	2458	295	1187	2538	84	517	944	514	12244
APPROACH %'s :	1.01%	86.31%	12.68%	16.14%	74.87%	8.99%	31.16%	66.63%	2.21%	26.18%	47.80%	26.03%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	12	906	130	202	966	108	403	930	40	218	388	195	4498
PEAK HR FACTOR :	0.956			0.973			0.943			0.910			0.973

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-026

Day: Tuesday

City: Los Angeles

TOTALS

Date: 4/26/2016

NS/EW Streets:		PM												
		Centinela Ave			Centinela Ave			Culver Blvd			Culver Blvd			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	
3:00 PM	4	158	33	42	353	38	35	113	11	38	132	35	992	
3:15 PM	1	211	43	39	345	53	35	104	6	45	153	61	1096	
3:30 PM	3	166	24	45	347	58	23	95	5	36	185	51	1038	
3:45 PM	6	154	27	45	348	46	31	95	9	51	181	49	1042	
4:00 PM	2	163	29	47	350	58	44	113	5	38	157	35	1041	
4:15 PM	3	212	29	51	310	55	42	132	3	39	193	36	1105	
4:30 PM	11	182	27	37	334	70	36	118	5	55	227	42	1144	
4:45 PM	3	196	24	52	330	53	50	133	5	57	188	43	1134	
5:00 PM	2	240	38	37	351	55	38	147	7	47	206	38	1206	
5:15 PM	5	249	38	46	317	57	39	146	6	55	222	38	1218	
5:30 PM	7	233	42	47	321	65	38	162	7	47	204	47	1220	
5:45 PM	3	262	40	45	340	64	41	128	7	54	194	38	1216	
TOTAL VOLUMES :	NL 50	NT 2426	NR 394	SL 533	ST 4046	SR 672	EL 452	ET 1486	ER 76	WL 562	WT 2242	WR 513	TOTAL 13452	
APPROACH %'s :	1.74%	84.53%	13.73%	10.15%	77.05%	12.80%	22.44%	73.78%	3.77%	16.94%	67.59%	15.47%		
PEAK HR START TIME :	500 PM													TOTAL
PEAK HR VOL :	17	984	158	175	1329	241	156	583	27	203	826	161	4860	
PEAK HR FACTOR :	0.950			0.972			0.925			0.944			0.996	

CONTROL : Signalized





City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Inglewood Blvd

**East/West** Washington Pl

**Day:** Tuesday **Date:** April 26, 2016 **Weather:** SUNNY

**Hours:** 7-10 & 3-6 **Chekr:** NDS

**School Day:** YES **District:**  **I/S CODE**

	N/B	S/B	E/B	W/B
DUAL-WHEELED	20	17	66	40
BIKES	26	24	33	32
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	192	7.45	114	8.15	289	8.15	224	7.45
PM PK 15 MIN	100	17.30	153	16.00	232	17.15	303	17.45
AM PK HOUR	736	7.30	368	7.45	1019	7.45	814	7.30
PM PK HOUR	375	16.45	600	16.00	883	17.00	1073	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	39	532	78	649
8-9	41	570	87	698
9-10	44	382	81	507
15-16	28	241	71	340
16-17	20	253	66	339
17-18	29	263	75	367
TOTAL	201	2241	458	2900

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	33	134	20	187
8-9	62	243	55	360
9-10	47	196	40	283
15-16	47	441	60	548
16-17	49	493	58	600
17-18	45	492	58	595
TOTAL	283	1999	291	2573

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
836	9	0	20	5
1058	21	4	12	0
790	15	0	13	0
888	9	0	15	3
939	9	0	6	0
962	18	0	14	0
5473	81	4	80	8

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	33	659	40	732
8-9	45	887	55	987
9-10	33	719	38	790
15-16	30	731	78	839
16-17	33	761	56	850
17-18	27	807	49	883
TOTAL	201	4564	316	5081

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	68	538	65	671
8-9	69	621	92	782
9-10	72	620	62	754
15-16	102	679	38	819
16-17	115	713	51	879
17-18	153	870	50	1073
TOTAL	579	4041	358	4978

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
1403	7	0	12	3
1769	16	5	10	0
1544	16	0	5	0
1658	18	1	7	1
1729	6	0	5	0
1956	19	0	17	0
10059	82	6	56	4

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-027

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

AM													
NS/EW Streets:	Inglewood Blvd			Inglewood Blvd			Washington Pl			Washington Pl			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
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
7:00 AM	8	96	22	4	17	1	1	109	9	7	112	4	390
7:15 AM	9	124	9	7	18	7	6	157	8	10	114	13	482
7:30 AM	10	157	22	7	36	8	12	172	9	22	142	23	620
7:45 AM	12	155	25	15	63	4	14	221	14	29	170	25	747
8:00 AM	11	149	26	16	68	11	21	195	12	10	163	37	719
8:15 AM	12	136	21	14	75	25	8	264	17	20	152	21	765
8:30 AM	9	156	20	15	48	14	9	232	12	20	150	14	699
8:45 AM	9	129	20	17	52	5	7	196	14	19	156	20	644
9:00 AM	11	105	22	13	57	10	11	170	14	17	153	24	607
9:15 AM	12	100	23	13	40	5	9	212	14	12	139	13	592
9:30 AM	12	86	22	14	50	14	6	170	5	24	150	12	565
9:45 AM	9	91	14	7	49	11	7	167	5	19	178	13	570
<b>TOTAL VOLUMES :</b>	124	1484	246	142	573	115	111	2265	133	209	1779	219	7400
<b>APPROACH %'s :</b>	6.69%	80.04%	13.27%	17.11%	69.04%	13.86%	4.42%	90.28%	5.30%	9.47%	80.61%	9.92%	
<b>PEAK HR START TIME :</b>	745 AM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	44	596	92	60	254	54	52	912	55	79	635	97	2930
<b>PEAK HR FACTOR :</b>	0.953			0.807			0.881			0.905			0.958

CONTROL : Signalized

# Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5257-027

Day: Tuesday

City: Los Angeles

**TOTALS**

Date: 4/26/2016

PM													
NS/EW Streets:	Inglewood Blvd			Inglewood Blvd			Washington PI			Washington PI			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
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
3:00 PM	7	51	20	15	118	16	9	184	23	30	179	11	663
3:15 PM	8	66	21	14	97	17	8	201	16	20	176	7	651
3:30 PM	7	62	17	12	116	16	8	179	23	26	155	7	628
3:45 PM	6	62	13	6	110	11	5	167	16	26	169	13	604
4:00 PM	4	63	21	12	124	17	5	205	12	27	170	14	674
4:15 PM	5	59	15	19	123	9	10	177	14	35	184	11	661
4:30 PM	4	63	14	11	128	12	12	195	16	30	171	14	670
4:45 PM	7	68	16	7	118	20	6	184	14	23	188	12	663
5:00 PM	10	67	20	16	125	12	9	201	12	30	191	4	697
5:15 PM	6	61	20	7	120	18	9	207	16	35	220	17	736
5:30 PM	7	70	23	9	125	14	2	202	14	45	212	16	739
5:45 PM	6	65	12	13	122	14	7	197	7	43	247	13	746
<b>TOTAL VOLUMES :</b>	77	757	212	141	1426	176	90	2299	183	370	2262	139	8132
<b>APPROACH %'s :</b>	7.36%	72.37%	20.27%	8.09%	81.81%	10.10%	3.50%	89.39%	7.12%	13.35%	81.63%	5.02%	
<b>PEAK HR START TIME :</b>	500 PM												<b>TOTAL</b>
<b>PEAK HR VOL :</b>	29	263	75	45	492	58	27	807	49	153	870	50	2918
<b>PEAK HR FACTOR :</b>	0.918			0.972			0.952			0.885			0.978

CONTROL : Signalized

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Walgrove Ave & Venice Blvd  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-001  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Walgrove Ave				Walgrove Ave				Venice Blvd				Venice Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	1	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	7	105	20	0	10	26	12	0	24	117	3	2	5	135	24	21	511
7:15 AM	8	96	16	0	13	37	5	0	29	163	6	2	6	186	48	30	645
7:30 AM	2	93	33	0	20	35	6	0	43	236	6	4	5	226	38	35	782
7:45 AM	6	90	37	0	30	45	7	0	48	299	9	8	10	247	29	38	903
8:00 AM	12	83	16	0	18	58	12	0	41	231	10	5	7	279	36	24	832
8:15 AM	11	119	12	0	27	83	9	0	37	227	6	7	15	214	25	7	799
8:30 AM	11	83	13	0	28	85	8	0	14	296	9	6	8	269	20	2	852
8:45 AM	20	117	4	0	24	80	14	0	17	213	12	4	13	270	10	3	801
9:00 AM	17	89	9	0	22	69	8	0	38	235	10	11	10	298	33	2	851
9:15 AM	13	122	4	0	17	60	10	0	32	225	11	5	7	267	41	2	816
9:30 AM	11	104	7	0	15	72	13	0	19	202	3	3	14	268	23	5	759
9:45 AM	7	73	4	0	21	66	22	0	7	192	4	5	14	306	21	3	745
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	125	1174	175	0	245	716	126	0	349	2636	89	62	114	2965	348	172	9296
	8.48%	79.65%	11.87%	0.00%	22.54%	65.87%	11.59%	0.00%	11.13%	84.06%	2.84%	1.98%	3.17%	82.38%	9.67%	4.78%	
PEAK HR :	07:45 AM - 08:45 AM				07:45 AM	40	37	48	140	1053	34	26	40	1009	110	71	TOTAL
PEAK HR VOL :	40	375	78	0	103	271	36	0	0.729	0.880	0.850	0.813	0.667	0.904	0.764	0.467	3386
PEAK HR FACTOR :	0.833	0.788	0.527	0.000	0.858	0.797	0.750	0.000	0.729	0.880	0.850	0.813	0.667	0.904	0.764	0.467	0.937
		0.868				0.847				0.861				0.889			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	1	0	0	0	1	0	0	1	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	8	55	44	0	26	91	9	0	19	271	21	2	11	206	25	27	815
3:15 PM	6	94	34	0	38	78	13	0	35	264	24	6	20	215	17	24	868
3:30 PM	7	50	11	0	47	95	9	0	39	250	24	2	17	229	13	8	801
3:45 PM	4	68	12	0	38	101	13	0	28	175	7	2	18	214	18	10	708
4:00 PM	1	62	12	0	37	99	12	0	14	258	19	1	16	273	23	11	838
4:15 PM	5	78	15	0	36	119	6	0	16	237	25	1	23	185	13	3	762
4:30 PM	8	80	17	0	35	96	8	0	15	274	14	5	29	239	22	1	843
4:45 PM	6	85	15	0	23	111	9	0	29	269	11	2	13	209	13	3	798
5:00 PM	9	104	14	0	21	121	7	0	30	218	18	2	30	206	22	6	808
5:15 PM	8	81	5	0	42	86	11	0	28	298	20	4	16	271	19	12	901
5:30 PM	9	107	14	0	32	119	11	0	16	246	22	1	24	180	14	8	803
5:45 PM	10	92	12	0	38	76	5	0	33	291	30	2	22	257	21	10	899
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	81	956	205	0	413	1192	113	0	302	3051	235	30	239	2684	220	123	9844
	6.52%	76.97%	16.51%	0.00%	24.04%	69.38%	6.58%	0.00%	8.35%	84.33%	6.50%	0.83%	7.32%	82.18%	6.74%	3.77%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	36	384	45	0	133	402	34	0	107	1053	90	9	92	914	76	36	3411
PEAK HR FACTOR :	0.900	0.897	0.804	0.000	0.792	0.831	0.773	0.000	0.811	0.883	0.750	0.563	0.767	0.843	0.864	0.750	0.946
		0.894				0.878				0.884				0.879			



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Walgrove Ave

**East/West** Venice Blvd

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chckrs:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	19	33	94	102
<b>BIKES</b>	46	41	212	266
<b>BUSES</b>	0	10	59	62

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	142	8.15	122	8.30	365	7.45	353	8.00
<i>PM PK 15 MIN</i>	134	15.15	162	16.15	358	17.45	327	16.00
<i>AM PK HOUR</i>	517	8.45	459	8.15	1259	7.45	1327	9.00
<i>PM PK HOUR</i>	465	17.00	614	15.30	1269	17.00	1136	15.15

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	23	384	106	513
8-9	54	402	45	501
9-10	48	388	24	460
15-16	25	267	101	393
16-17	20	305	59	384
17-18	36	384	45	465
<b>TOTAL</b>	206	2130	380	2716

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	75	143	30	248
8-9	98	306	43	447
9-10	77	267	53	397
15-16	151	365	44	560
16-17	133	425	35	593
17-18	134	402	34	570
<b>TOTAL</b>	668	1908	239	2815

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
761	26	44	59	69
948	19	25	17	20
857	11	12	8	8
953	19	102	19	46
977	21	30	11	16
1035	16	20	21	22
<b>5531</b>	<b>112</b>	<b>233</b>	<b>135</b>	<b>181</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	160	825	24	1009
8-9	131	974	37	1142
9-10	120	861	28	1009
15-16	133	974	76	1183
16-17	83	1049	69	1201
17-18	116	1063	90	1269
<b>TOTAL</b>	743	5746	324	6813

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	150	803	140	1093
8-9	79	1044	93	1216
9-10	57	1150	120	1327
15-16	135	870	75	1080
16-17	99	914	72	1085
17-18	128	920	78	1126
<b>TOTAL</b>	648	5701	578	6927

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
2102	9	10	43	80
2358	5	5	19	24
2336	8	10	3	3
2263	6	48	14	25
2286	9	24	15	22
2395	13	20	13	14
<b>13740</b>	<b>50</b>	<b>117</b>	<b>107</b>	<b>168</b>

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Walgrove Ave/James Import Dwy & Washington Blvd  
**City:** Los Angeles  
**Control:** 1-Way Stop(SB)

**Project ID:** 17-05515-002  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Walgrove Ave/James Import Dwy				Walgrove Ave/James Import Dwy				Washington Blvd				Washington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	1	0	0	0	0	0	22	0	79	157	0	1	0	149	33	0	442
7:15 AM	0	0	0	0	0	0	36	0	108	186	0	1	0	172	29	2	534
7:30 AM	0	0	0	0	0	0	43	0	93	244	0	0	1	238	51	1	671
7:45 AM	0	0	0	0	2	0	55	0	79	253	0	1	1	276	32	0	699
8:00 AM	0	0	0	0	2	0	44	0	75	272	1	0	1	285	38	4	722
8:15 AM	0	0	0	0	5	0	68	0	64	268	1	1	1	244	37	3	692
8:30 AM	0	0	1	0	1	0	71	0	63	295	0	0	0	242	40	0	713
8:45 AM	0	0	0	0	5	0	63	0	78	308	0	0	0	290	44	4	792
9:00 AM	0	0	0	0	5	0	38	0	79	254	0	0	0	292	37	1	706
9:15 AM	0	0	0	0	5	0	55	0	77	251	0	1	0	244	35	3	671
9:30 AM	0	0	0	0	1	0	45	0	52	250	0	1	0	242	27	2	620
9:45 AM	1	0	0	0	9	0	51	0	39	244	0	0	1	257	22	0	624
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	2	0	1	0	35	0	591	0	886	2982	2	6	5	2931	425	20	7886
	66.67%	0.00%	33.33%	0.00%	5.59%	0.00%	94.41%	0.00%	22.86%	76.93%	0.05%	0.15%	0.15%	86.69%	12.57%	0.59%	
PEAK HR :	08:00 AM - 09:00 AM				08:00 AM	41	37	48	280	1143	2	1	2	1061	159	11	TOTAL
PEAK HR VOL :	0	0	1	0	13	0	246	0	0.897	0.928	0.500	0.250	0.500	0.915	0.903	0.688	2919
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.650	0.000	0.866	0.000	0.897	0.928	0.500	0.250	0.500	0.915	0.903	0.688	0.921
			0.250				0.887				0.924				0.912		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	0	0	1	0	10	0	65	0	63	296	0	1	0	267	20	0	723
3:15 PM	0	0	1	0	9	0	76	0	65	251	0	0	1	287	15	0	705
3:30 PM	0	0	1	0	9	0	88	0	44	247	1	0	0	264	11	0	665
3:45 PM	0	0	2	0	13	0	73	0	47	252	1	1	2	270	15	0	676
4:00 PM	0	0	1	0	12	0	78	0	49	269	0	1	0	270	17	0	697
4:15 PM	0	0	2	0	13	0	79	0	53	259	1	0	1	284	13	1	706
4:30 PM	0	0	4	0	6	0	90	0	66	264	1	0	0	274	17	1	723
4:45 PM	1	0	2	0	9	0	81	0	49	261	0	0	0	284	11	1	699
5:00 PM	0	0	1	0	9	0	83	0	67	278	0	1	0	288	16	1	744
5:15 PM	0	0	0	0	13	0	74	0	54	278	0	0	0	271	20	0	710
5:30 PM	0	0	1	0	22	0	86	0	71	273	1	0	0	262	15	0	731
5:45 PM	0	0	0	0	5	0	76	0	55	289	0	0	1	299	29	0	754
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1	0	16	0	130	0	949	0	683	3217	5	4	5	3320	199	4	8533
	5.88%	0.00%	94.12%	0.00%	12.05%	0.00%	87.95%	0.00%	17.47%	82.30%	0.13%	0.10%	0.14%	94.10%	5.64%	0.11%	
PEAK HR :	05:00 PM - 06:00 PM				05:00 PM	49	319	0	247	1118	1	1	1	1120	80	1	TOTAL
PEAK HR VOL :	0	0	2	0	49	0	319	0	247	1118	1	1	1	1120	80	1	2939
PEAK HR FACTOR :	0.000	0.000	0.500	0.000	0.557	0.000	0.927	0.000	0.870	0.967	0.250	0.250	0.250	0.936	0.690	0.250	0.974
			0.500				0.852				0.988				0.913		



Walgrove Ave/James Import Dwy

Washington Blvd

School Day: YES I/S CODE

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	1	7.00	73	8.15	387	8.45	338	8.45
PM PK 15 MIN	4	16.30	108	17.30	361	15.00	330	17.45
AM PK HOUR	1	7.00	259	8.00	1431	8.00	1241	8.15
PM PK HOUR	10	16.00	377	16.45	1372	17.00	1207	17.00

## XING N/L

Ped	Sch
9	11
29	32
35	37
28	39
31	34
25	25

157	178
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## XING E/L

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0

0	0
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# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Redwood Ave & Washington Blvd  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-003  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Redwood Ave				Redwood Ave				Washington Blvd				Washington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	3 ET	0 ER	0 EU	1 WL	3 WT	0 WR	0 WU	
7:00 AM	20	20	16	0	4	6	0	0	6	139	3	0	8	159	3	0	384
7:15 AM	24	40	15	0	9	14	1	0	3	178	7	0	12	188	11	0	502
7:30 AM	29	47	14	0	12	16	7	0	7	227	8	0	11	259	22	0	659
7:45 AM	28	46	4	0	19	25	3	0	10	255	8	0	23	286	24	0	731
8:00 AM	36	34	10	0	16	21	6	0	9	250	9	0	19	284	10	0	704
8:15 AM	38	28	18	0	6	21	3	0	2	264	7	1	18	245	7	0	658
8:30 AM	41	28	18	0	6	20	6	0	2	275	11	0	10	245	3	0	665
8:45 AM	33	26	14	0	9	18	4	0	11	292	14	0	18	309	5	0	753
9:00 AM	28	31	14	0	9	16	5	0	14	232	7	0	20	293	11	0	680
9:15 AM	25	36	21	0	6	21	4	0	3	248	14	0	21	243	8	0	650
9:30 AM	22	31	13	0	6	23	2	0	6	226	14	0	21	260	4	0	628
9:45 AM	26	23	15	0	7	14	4	0	6	217	17	0	25	247	4	0	605
TOTAL VOLUMES :	NL 350	NT 390	NR 172	NU 0	SL 109	ST 215	SR 45	SU 0	EL 79	ET 2803	ER 119	EU 1	WL 206	WT 3018	WR 112	WU 0	TOTAL 7619
APPROACH %'s :	38.38%	42.76%	18.86%	0.00%	29.54%	58.27%	12.20%	0.00%	2.63%	93.37%	3.96%	0.03%	6.18%	90.47%	3.36%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM				08:00 AM	41	37	48	24	1081	41	1	65	1083	25	0	TOTAL 2780
PEAK HR VOL :	148	116	60	0	37	80	19	0	0.545	0.926	0.732	0.250	0.855	0.876	0.625	0.000	0.923
PEAK HR FACTOR :	0.902	0.853	0.833	0.000	0.578	0.952	0.792	0.000	0.545	0.926	0.732	0.250	0.855	0.876	0.625	0.000	0.923
			0.931				0.791				0.905				0.883		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	1 EL	3 ET	0 ER	0 EU	1 WL	3 WT	0 WR	0 WU	
3:00 PM	20	21	16	0	15	22	6	0	8	266	19	0	18	260	6	0	677
3:15 PM	11	14	13	0	21	60	9	0	5	246	9	0	24	277	4	0	693
3:30 PM	23	14	10	0	13	49	4	0	4	238	12	0	18	257	7	0	649
3:45 PM	10	10	10	0	7	48	5	0	4	255	12	0	24	270	4	0	659
4:00 PM	16	24	13	0	6	52	3	0	6	267	13	0	24	271	3	2	700
4:15 PM	19	24	21	0	8	59	5	0	6	250	13	1	16	258	6	1	687
4:30 PM	12	20	11	0	12	65	7	0	5	259	13	0	23	272	2	0	701
4:45 PM	16	31	13	0	15	52	6	0	2	256	10	1	17	275	7	1	702
5:00 PM	20	25	12	0	11	70	5	0	5	268	13	1	30	274	3	0	737
5:15 PM	9	27	13	0	13	62	9	0	3	274	11	1	36	267	4	1	730
5:30 PM	19	18	14	0	11	69	6	0	8	266	29	0	31	253	5	1	730
5:45 PM	20	28	12	0	9	60	6	0	10	282	13	0	28	307	8	0	783
TOTAL VOLUMES :	NL 195	NT 256	NR 158	NU 0	SL 141	ST 668	SR 71	SU 0	EL 66	ET 3127	ER 167	EU 4	WL 289	WT 3241	WR 59	WU 6	TOTAL 8448
APPROACH %'s :	32.02%	42.04%	25.94%	0.00%	16.02%	75.91%	8.07%	0.00%	1.96%	92.95%	4.96%	0.12%	8.04%	90.15%	1.64%	0.17%	
PEAK HR :	05:00 PM - 06:00 PM				44	261	26	0	26	1090	66	2	125	1101	20	2	TOTAL 2980
PEAK HR VOL :	68	98	51	0	0.846	0.932	0.722	0.000	0.650	0.966	0.569	0.500	0.868	0.897	0.625	0.500	0.951
PEAK HR FACTOR :	0.850	0.875	0.911	0.000	0.846	0.932	0.722	0.000	0.650	0.966	0.569	0.500	0.868	0.897	0.625	0.500	0.951
			0.904				0.962				0.970				0.910		





City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Redwood Ave

**East/West** Washington Blvd

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**  **Chekr:** NDS

**School Day:** YES **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	17	11	114	105
<b>BIKES</b>	35	29	56	78
<b>BUSES</b>	0	0	33	41

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	90	7.30	47	7.45	318	8.45	335	7.45
<i>PM PK 15 MIN</i>	64	16.15	90	15.15	307	17.45	345	17.45
<i>AM PK HOUR</i>	332	7.30	155	7.30	1152	8.00	1219	8.45
<i>PM PK HOUR</i>	224	16.15	331	17.00	1189	17.00	1254	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	101	153	49	303
8-9	148	116	60	324
9-10	101	121	63	285
15-16	64	59	49	172
16-17	63	99	58	220
17-18	68	98	51	217
<b>TOTAL</b>	545	646	330	1521

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	44	61	11	116
8-9	37	80	19	136
9-10	28	74	15	117
15-16	56	179	24	259
16-17	41	228	21	290
17-18	44	261	26	331
<b>TOTAL</b>	250	883	116	1249

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
419	21	27	20	21
460	25	27	18	18
402	27	30	14	14
431	47	57	36	36
510	33	42	9	9
548	36	40	23	23
<b>2770</b>	<b>189</b>	<b>223</b>	<b>120</b>	<b>121</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	26	805	26	857
8-9	25	1086	41	1152
9-10	29	929	52	1010
15-16	21	1011	52	1084
16-17	21	1037	49	1107
17-18	28	1095	66	1189
<b>TOTAL</b>	150	5963	286	6399

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	54	900	60	1014
8-9	65	1088	25	1178
9-10	87	1051	27	1165
15-16	84	1071	21	1176
16-17	84	1083	18	1185
17-18	127	1107	20	1254
<b>TOTAL</b>	501	6300	171	6972

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
1871	21	31	6	8
2330	16	19	5	5
2175	10	15	11	12
2260	24	58	31	49
2292	13	19	11	16
2443	24	41	19	21
<b>13371</b>	<b>108</b>	<b>183</b>	<b>83</b>	<b>111</b>

National Data & Surveying Services

# Intersection Turning Movement Count

Location: Redwood Ave & Maxella Ave  
City: Los Angeles  
Control: 4-Way Stop

Project ID: 17-05515-004  
Date: 8/29/2017

**Total**

NS/EW Streets:	Redwood Ave				Redwood Ave				Maxella Ave				Maxella Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	1 WR	0 WU	
7:00 AM	4	26	2	0	1	13	5	0	3	13	0	0	4	8	9	0	88
7:15 AM	6	71	5	0	2	26	10	0	13	23	1	0	6	12	13	0	188
7:30 AM	5	68	13	0	9	26	6	0	17	25	2	0	7	18	11	0	207
7:45 AM	12	92	13	0	10	36	22	0	16	37	9	0	3	20	11	0	281
8:00 AM	11	66	8	0	9	46	18	0	11	34	2	1	7	39	16	0	268
8:15 AM	3	73	9	0	6	33	18	0	11	30	3	0	10	31	6	0	233
8:30 AM	5	70	13	0	5	35	10	0	16	40	6	0	9	29	13	0	251
8:45 AM	17	70	10	0	5	25	19	0	17	27	1	0	9	26	9	0	235
9:00 AM	8	50	6	0	2	29	11	0	10	24	3	1	6	26	11	0	187
9:15 AM	8	65	4	0	8	29	18	0	15	16	3	0	4	22	9	0	201
9:30 AM	5	42	9	0	4	31	17	0	5	24	6	0	10	27	15	0	195
9:45 AM	8	32	3	0	8	27	18	0	11	17	2	0	9	27	12	0	174
TOTAL VOLUMES :	NL 92	NT 725	NR 95	NU 0	SL 69	ST 356	SR 172	SU 0	EL 145	ET 310	ER 38	EU 2	WL 84	WT 285	WR 135	WU 0	TOTAL 2508
APPROACH %'s :	10.09%	79.50%	10.42%	0.00%	11.56%	59.63%	28.81%	0.00%	29.29%	62.63%	7.68%	0.40%	16.67%	56.55%	26.79%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM				07:45 AM	40	37	48	54	141	20	1	29	119	46	0	TOTAL 1033
PEAK HR VOL :	31	301	43	0	30	150	68	0	54	141	20	1	29	119	46	0	
PEAK HR FACTOR :	0.646	0.818	0.827	0.000	0.750	0.815	0.773	0.000	0.844	0.881	0.556	0.250	0.725	0.763	0.719	0.000	0.919
	0.801				0.849				0.871				0.782				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	2 WT	1 WR	0 WU	
3:00 PM	9	19	8	0	4	43	24	0	18	40	2	0	6	32	7	0	212
3:15 PM	6	24	3	0	11	55	13	0	12	25	5	1	9	32	6	0	202
3:30 PM	7	27	5	0	9	54	22	0	9	28	10	0	5	43	3	0	222
3:45 PM	13	19	5	0	9	51	19	0	4	30	1	0	4	44	8	0	207
4:00 PM	6	40	3	0	15	49	23	0	10	41	6	0	8	30	11	0	242
4:15 PM	9	23	2	0	10	52	20	0	8	41	2	0	3	45	9	0	224
4:30 PM	9	28	4	0	13	58	24	0	9	35	4	0	6	36	20	0	246
4:45 PM	8	35	8	0	14	45	24	0	12	34	8	1	5	44	17	0	255
5:00 PM	25	31	4	0	9	65	26	0	15	42	2	0	11	36	9	0	275
5:15 PM	9	31	8	0	12	63	25	0	9	45	4	0	10	53	9	0	278
5:30 PM	20	38	7	0	12	73	22	0	17	52	7	0	12	53	10	0	323
5:45 PM	11	27	9	0	8	59	26	0	14	24	3	0	10	65	8	0	264
TOTAL VOLUMES :	NL 132	NT 342	NR 66	NU 0	SL 126	ST 667	SR 268	SU 0	EL 137	ET 437	ER 54	EU 2	WL 89	WT 513	WR 117	WU 0	TOTAL 2950
APPROACH %'s :	24.44%	63.33%	12.22%	0.00%	11.88%	62.87%	25.26%	0.00%	21.75%	69.37%	8.57%	0.32%	12.38%	71.35%	16.27%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM				41	260	99	0	55	163	16	0	43	207	36	0	TOTAL 1140
PEAK HR VOL :	65	127	28	0	41	260	99	0	55	163	16	0	43	207	36	0	
PEAK HR FACTOR :	0.650	0.836	0.778	0.000	0.854	0.890	0.952	0.000	0.809	0.784	0.571	0.000	0.896	0.796	0.900	0.000	0.882
	0.846				0.935				0.770				0.861				



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Redwood Ave

**East/West** Maxella Ave

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chekr:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	7	19	19	12
<b>BIKES</b>	15	23	46	62
<b>BUSES</b>	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	117	7.45	73	8.00	62	7.45	62	8.00
<i>PM PK 15 MIN</i>	65	17.30	107	17.30	76	17.30	83	17.45
<i>AM PK HOUR</i>	375	7.45	248	7.45	216	7.45	204	8.00
<i>PM PK HOUR</i>	224	16.45	400	17.00	248	16.45	286	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	27	257	33	317
8-9	36	279	40	355
9-10	29	189	22	240
15-16	35	89	21	145
16-17	32	126	17	175
17-18	65	127	28	220
<b>TOTAL</b>	224	1067	161	1452

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	22	101	43	166
8-9	25	139	65	229
9-10	22	116	64	202
15-16	33	203	78	314
16-17	52	204	91	347
17-18	41	260	99	400
<b>TOTAL</b>	195	1023	440	1658

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
483	26	26	13	13
584	27	29	22	22
442	16	17	18	19
459	16	19	9	9
522	23	25	8	8
620	17	20	16	16
<b>3110</b>	<b>125</b>	<b>136</b>	<b>86</b>	<b>87</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	49	98	12	159
8-9	56	131	12	199
9-10	42	81	14	137
15-16	44	123	18	185
16-17	40	151	20	211
17-18	55	163	16	234
<b>TOTAL</b>	286	747	92	1125

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	20	58	44	122
8-9	35	125	44	204
9-10	29	102	47	178
15-16	24	151	24	199
16-17	22	155	57	234
17-18	43	207	36	286
<b>TOTAL</b>	173	798	252	1223

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
281	13	13	4	4
403	20	24	1	1
315	12	14	5	5
384	9	18	1	1
445	13	16	1	1
520	18	20	3	3
<b>2348</b>	<b>85</b>	<b>105</b>	<b>15</b>	<b>15</b>

## Intersection Turning Movement Count

**Location:** Alla Rd & SR 90 WB Ramps  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-005  
**Date:** 8/29/2017

Total

NS/EW Streets:		Alla Rd				Alla Rd				SR 90 WB Ramps				SR 90 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	0 NT	0 NR	0 NU	2 SL	0 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1 WL	2 WT	1 WR	0 WU		
7:00 AM	0	0	0	0	25	0	1	0	0	0	0	0	0	43	91	0	160	
7:15 AM	0	0	0	0	29	0	3	0	0	0	0	0	0	42	179	0	253	
7:30 AM	0	0	0	0	48	0	1	0	0	0	0	0	0	38	251	0	338	
7:45 AM	0	0	0	0	58	0	3	0	0	0	0	0	2	32	269	0	364	
8:00 AM	0	0	0	0	66	0	5	0	0	0	0	0	3	55	226	2	357	
8:15 AM	0	0	0	0	61	0	3	0	0	0	0	0	0	46	218	1	329	
8:30 AM	0	0	2	0	41	0	6	0	0	0	0	0	0	42	259	0	350	
8:45 AM	0	0	0	0	50	0	5	0	0	0	0	0	0	61	245	0	361	
9:00 AM	0	0	0	0	48	0	3	0	0	0	0	0	2	46	268	0	367	
9:15 AM	0	0	0	0	52	0	3	0	0	0	0	0	1	34	231	0	321	
9:30 AM	0	0	0	0	35	0	8	0	0	0	0	0	1	53	210	0	307	
9:45 AM	0	0	0	0	35	0	2	0	0	0	0	0	0	65	181	0	283	
TOTAL VOLUMES : APPROACH %'s :	NL 0	NT 0	NR 2	NU 0	SL 548	ST 0	SR 43	SU 0	EL 0	ET 0	ER 0	EU 0	WL 9	WT 557	WR 2628	WU 3	TOTAL 3790	
	0.00%	0.00%	100.00%	0.00%	92.72%	0.00%	7.28%	0.00%					0.28%	17.42%	82.20%	0.09%		
PEAK HR :	08:15 AM - 09:15 AM				08:15 AM	42	37	48					2	195	990	1	TOTAL 1407	
PEAK HR VOL :	0	0	2	0	200	0	17	0	0	0	0	0	2	195	990	1		
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.820	0.000	0.708	0.000	0.000	0.000	0.000	0.000	0.250	0.799	0.924	0.250	0.958	
	0.250				0.848				0.940									

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
	0 NL	0 NT	0 NR	0 NU	2 SL	0 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	1 WL	2 WT	1 WR	0 WU					
3:00 PM	0	0	1	0	120	0	8	0	0	0	0	0	0	43	103	0	275				
3:15 PM	0	0	4	0	104	0	7	0	0	0	0	0	2	56	85	0	258				
3:30 PM	0	0	0	0	138	0	9	0	0	0	0	0	0	46	91	0	284				
3:45 PM	0	0	0	0	95	0	11	0	0	0	0	0	0	41	106	1	254				
4:00 PM	0	0	0	0	134	0	7	0	0	0	0	0	0	58	97	0	296				
4:15 PM	0	0	0	0	117	0	4	0	0	0	0	0	0	54	114	1	290				
4:30 PM	0	0	0	0	121	0	9	0	0	0	0	0	0	70	121	0	321				
4:45 PM	0	0	0	0	117	0	6	0	0	0	0	0	0	52	118	1	294				
5:00 PM	0	0	1	0	173	0	9	0	0	0	0	0	0	36	114	0	333				
5:15 PM	0	0	0	0	172	0	6	0	0	0	0	0	0	51	137	0	366				
5:30 PM	0	0	0	0	152	0	4	0	0	0	0	0	0	54	134	0	344				
5:45 PM	0	0	0	0	152	0	6	0	0	0	0	0	0	71	132	0	361				
TOTAL VOLUMES : APPROACH %'s :	NL 0	NT 0	NR 6	NU 0	SL 1595	ST 0.00%	SR 86	SU 0	EL 0	ET 0	ER 0	EU 0	WL 2	WT 632	WR 1352	WU 3	TOTAL 3676				
PEAK HR : PEAK HR VOL : PEAK HR FACTOR :	05:00 PM - 06:00 PM				6490250				00006940000				000000000000				0000212517000007460.94300000.898				TOTAL 14040.959



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Alla Rd

**East/West** SR 90 WB Ramps

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**  **Chekr:** NDS

**School Day:** YES **I/S CODE**

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	0	25	0	67
<b>BIKES</b>	0	13	3	16
<b>BUSES</b>	0	11	0	10

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	2	8.30	73	8.00	0	0.00	316	9.00
<i>PM PK 15 MIN</i>	4	15.15	183	17.00	0	0.00	203	17.45
<i>AM PK HOUR</i>	2	8.30	248	7.30	0	0.00	1190	8.15
<i>PM PK HOUR</i>	5	15.00	676	17.00	0	0.00	731	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	2	2
9-10	0	0	0	0
15-16	0	0	5	5
16-17	0	0	0	0
17-18	0	0	1	1
<b>TOTAL</b>	0	0	8	8

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	163	0	8	171
8-9	221	0	19	240
9-10	171	0	16	187
15-16	458	0	35	493
16-17	490	0	26	516
17-18	651	0	25	676
<b>TOTAL</b>	2154	0	129	2283

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
171	0	0	2	2
242	0	0	1	1
187	0	0	0	0
498	0	0	0	0
516	0	0	1	1
677	0	0	0	0
<b>2291</b>	0	0	4	4

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	2	155	791	948
8-9	6	204	950	1160
9-10	4	198	891	1093
15-16	3	186	386	575
16-17	2	234	453	689
17-18	0	212	519	731
<b>TOTAL</b>	17	1189	3990	5196

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
948	0	0	0	0
1160	0	0	0	0
1093	4	4	0	0
575	0	0	0	0
689	0	0	0	0
731	0	0	0	0
<b>5196</b>	4	4	0	0

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Culver Blvd & SR 90 WB Ramps  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-006  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Culver Blvd				Culver Blvd				SR 90 WB Ramps				SR 90 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	1 SR	0 SU	1 EL	0 ET	1 ER	0 EU	1.5 WL	1 WT	0.5 WR	0 WU	
7:00 AM	63	279	0	0	0	39	23	0	7	0	19	0	50	50	17	0	547
7:15 AM	93	356	0	0	0	40	38	0	6	0	21	0	54	88	18	0	714
7:30 AM	114	328	0	0	0	87	61	0	12	0	29	0	60	117	26	0	834
7:45 AM	101	313	0	0	0	100	79	0	26	0	39	0	62	126	58	0	904
8:00 AM	99	264	0	0	0	120	90	0	22	0	48	0	56	93	23	0	815
8:15 AM	108	248	0	0	0	90	69	0	21	0	40	0	58	91	30	0	755
8:30 AM	125	292	0	0	0	91	89	0	11	0	31	0	54	83	42	0	818
8:45 AM	122	283	0	0	0	94	103	0	16	0	33	0	54	82	27	0	814
9:00 AM	122	259	0	0	0	83	77	0	19	0	28	0	52	118	29	0	787
9:15 AM	131	224	0	0	0	55	38	0	17	0	36	0	56	93	34	0	684
9:30 AM	135	249	0	0	0	56	44	0	7	0	30	0	48	91	40	0	700
9:45 AM	130	218	0	0	0	56	41	0	8	0	24	0	55	70	30	0	632
TOTAL VOLUMES :	1343	3313	0	0	0	911	752	0	172	0	378	0	659	1102	374	0	9004
APPROACH %'s :	28.84%	71.16%	0.00%	0.00%	0.00%	54.78%	45.22%	0.00%	31.27%	0.00%	68.73%	0.00%	30.87%	51.62%	17.52%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM				07:30 AM	39	37	48	81	0	156	0	236	427	137	0	TOTAL
PEAK HR VOL :	422	1153	0	0	0	397	299	0	0	0	0.813	0	0.952	0.847	0.591	0.000	3308
PEAK HR FACTOR :	0.925	0.879	0.000	0.000	0.000	0.827	0.831	0.000	0.779	0.000	0.846	0.000	0.952	0.847	0.591	0.000	0.915
				0.891			0.829									0.813	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	0 SL	2 ST	1 SR	0 SU	1 EL	0 ET	1 ER	0 EU	1.5 WL	1 WT	0.5 WR	0 WU	
3:00 PM	53	109	0	0	0	204	49	0	27	0	98	0	62	41	5	0	648
3:15 PM	59	153	0	0	0	190	54	0	19	0	90	0	55	30	10	0	660
3:30 PM	44	161	0	1	0	188	59	0	21	0	117	0	46	35	11	0	683
3:45 PM	55	136	0	0	0	207	49	0	17	0	78	0	36	44	6	0	628
4:00 PM	46	174	0	0	0	191	62	0	35	0	96	0	49	47	14	0	714
4:15 PM	62	164	0	0	0	178	58	0	26	0	86	1	39	51	14	0	679
4:30 PM	60	159	0	0	0	181	59	0	39	0	86	1	42	67	8	0	702
4:45 PM	46	148	0	0	0	169	59	0	30	0	91	0	37	66	14	0	660
5:00 PM	52	170	0	0	0	197	42	0	41	0	124	0	36	58	9	0	729
5:15 PM	50	154	0	0	0	181	60	0	37	0	133	0	38	78	11	0	742
5:30 PM	62	211	0	0	0	146	66	0	36	0	121	0	36	59	12	0	749
5:45 PM	58	212	0	0	0	157	76	0	36	0	124	0	33	66	12	0	774
TOTAL VOLUMES :	647	1951	0	1	0	2189	693	0	364	0	1244	2	509	642	126	0	8368
APPROACH %'s :	24.89%	75.07%	0.00%	0.04%	0.00%	75.95%	24.05%	0.00%	22.61%	0.00%	77.27%	0.12%	39.86%	50.27%	9.87%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM				0	681	244	0	150	0	502	0	143	261	44	0	TOTAL
PEAK HR VOL :	222	747	0	0	0	681	244	0	0	0	0.944	0	0.941	0.837	0.917	0.000	2994
PEAK HR FACTOR :	0.895	0.881	0.000	0.000	0.000	0.864	0.803	0.000	0.915	0.000	0.944	0.000	0.941	0.837	0.917	0.000	0.967
				0.887			0.960				0.959					0.882	



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Culver Blvd

**East/West** SR 90 WB Ramps

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chckrs:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	64	37	22	41
<b>BIKES</b>	13	14	8	8
<b>BUSES</b>	0	11	11	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	449	7.15	210	8.00	72	8.00	246	7.45
<i>PM PK 15 MIN</i>	273	17.30	257	15.45	170	17.15	127	17.15
<i>AM PK HOUR</i>	1668	7.15	748	8.00	240	7.30	800	7.30
<i>PM PK HOUR</i>	969	17.00	1002	15.00	654	17.00	464	16.30

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	371	1276	0	1647
8-9	454	1087	0	1541
9-10	518	950	0	1468
15-16	212	559	0	771
16-17	214	645	0	859
17-18	222	747	0	969
<b>TOTAL</b>	1991	5264	0	7255

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	266	202	468
8-9	0	395	353	748
9-10	0	250	201	451
15-16	0	789	213	1002
16-17	0	719	241	960
17-18	0	681	246	927
<b>TOTAL</b>	0	3100	1456	4556

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
2115	0	0	2	2
2289	0	0	2	2
1919	0	0	1	1
1773	0	0	0	0
1819	0	0	1	1
1896	0	0	0	0
<b>11811</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	54	0	108	162
8-9	73	0	152	225
9-10	52	0	118	170
15-16	85	0	383	468
16-17	133	0	359	492
17-18	152	0	502	654
<b>TOTAL</b>	549	0	1622	2171

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	226	381	119	726
8-9	222	349	122	693
9-10	211	372	133	716
15-16	199	150	32	381
16-17	167	231	50	448
17-18	143	261	44	448
<b>TOTAL</b>	1168	1744	500	3412

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
888	0	0	0	0
918	0	0	0	0
886	0	0	0	0
849	0	0	1	1
940	0	0	0	0
1102	0	0	0	0
<b>5583</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Culver Blvd & SR 90 EB Off Ramp  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-007  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Culver Blvd				Culver Blvd				SR 90 EB Off Ramp				SR 90 EB Off Ramp				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	2	0	1	2	0	0	1	1.5	0.5	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	334	253	0	22	84	0	0	10	0	13	0	0	0	0	0	716
7:15 AM	0	424	261	0	13	103	0	0	20	0	6	0	0	0	0	0	827
7:30 AM	0	436	289	0	14	158	0	0	19	0	5	0	0	0	0	0	921
7:45 AM	0	381	256	0	21	182	0	0	37	0	8	0	0	0	0	0	885
8:00 AM	0	345	291	0	22	203	0	0	17	1	6	0	0	0	0	0	885
8:15 AM	0	343	264	0	30	161	0	0	16	0	9	0	0	0	0	0	823
8:30 AM	0	390	246	0	27	151	0	0	16	0	13	0	0	0	0	0	843
8:45 AM	0	390	260	0	28	153	0	0	16	0	18	0	0	0	0	0	865
9:00 AM	0	377	260	0	23	135	0	0	9	0	9	0	0	0	0	0	813
9:15 AM	0	345	269	0	25	126	0	0	9	1	5	0	0	0	0	0	780
9:30 AM	0	363	193	0	17	119	0	0	17	1	7	0	0	0	0	0	717
9:45 AM	0	334	201	0	21	105	0	0	9	0	11	0	0	0	0	0	681
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	4462	3043	0	263	1680	0	0	195	3	110	0	0	0	0	0	9756
	0.00%	59.45%	40.55%	0.00%	13.54%	86.46%	0.00%	0.00%	63.31%	0.97%	35.71%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM				07:15 AM	38	37	48	93	1	25	0	0	0	0	0	TOTAL
PEAK HR VOL :	0	1586	1097	0	70	646	0	0	0.628	0.250	0.781	0.000	0.000	0.000	0.000	0.000	3518
PEAK HR FACTOR :	0.000	0.909	0.942	0.000	0.795	0.796	0.000	0.000	0.628	0.250	0.781	0.000	0.000	0.000	0.000	0.000	0.955
		0.925				0.796				0.661							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	3	2	0	1	2	0	0	1	1.5	0.5	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	0	146	104	0	76	285	0	0	14	3	15	0	0	0	0	0	643
3:15 PM	0	188	115	0	72	272	0	0	20	0	11	0	0	0	0	0	678
3:30 PM	0	189	110	0	67	273	0	0	21	0	17	0	0	0	0	0	677
3:45 PM	0	166	100	0	44	281	0	0	19	2	13	0	0	0	0	0	625
4:00 PM	0	207	95	0	67	260	0	0	15	0	14	0	0	0	0	0	658
4:15 PM	0	203	113	0	63	250	0	0	23	0	5	0	0	0	0	0	657
4:30 PM	0	195	81	0	69	237	0	0	23	0	11	0	0	0	0	0	616
4:45 PM	0	183	79	0	58	249	0	0	19	1	15	0	0	0	0	0	604
5:00 PM	0	193	87	0	82	263	0	0	22	2	17	0	0	0	0	0	666
5:15 PM	0	187	82	0	89	268	0	0	21	3	14	0	0	0	0	0	664
5:30 PM	0	233	49	0	74	239	0	0	36	2	6	0	0	0	0	0	639
5:45 PM	0	245	53	0	88	222	0	0	33	4	11	0	0	0	0	0	656
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	2335	1068	0	849	3099	0	0	266	17	149	0	0	0	0	0	7783
	0.00%	68.62%	31.38%	0.00%	21.50%	78.50%	0.00%	0.00%	61.57%	3.94%	34.49%	0.00%					
PEAK HR :	03:15 PM - 04:15 PM				250	1086	0	0	75	2	55	0	0	0	0	0	TOTAL
PEAK HR VOL :	0	750	420	0	0.868	0.966	0.000	0.000	0.893	0.250	0.809	0.000	0.000	0.000	0.000	0.000	2638
PEAK HR FACTOR :	0.000	0.906	0.913	0.000	0.868	0.966	0.000	0.000	0.893	0.250	0.809	0.000	0.000	0.000	0.000	0.000	0.973
		0.965				0.971				0.868							





City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Culver Blvd

**East/West** SR 90 EB Off Ramp

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chekr:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	76	45	14	0
<b>BIKES</b>	11	14	4	2
<b>BUSES</b>	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	725	7.30	225	8.00	45	7.45	0	0.00
PM PK 15 MIN	316	16.15	361	15.00	48	17.45	0	0.00
AM PK HOUR	2683	7.15	797	7.45	123	7.45	0	0.00
PM PK HOUR	1183	15.30	1370	15.00	171	17.00	0	0.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	1575	1059	2634
8-9	0	1468	1061	2529
9-10	0	1419	923	2342
15-16	0	689	429	1118
16-17	0	788	368	1156
17-18	0	858	271	1129
<b>TOTAL</b>	0	6797	4111	10908

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	70	527	0	597
8-9	107	668	0	775
9-10	86	485	0	571
15-16	259	1111	0	1370
16-17	257	996	0	1253
17-18	333	992	0	1325
<b>TOTAL</b>	1112	4779	0	5891

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
3231	0	0	0	0
3304	0	0	0	0
2913	0	0	0	0
2488	0	0	1	1
2409	0	0	0	0
2454	0	0	0	0
<b>16799</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	86	0	32	118
8-9	65	1	46	112
9-10	44	2	32	78
15-16	74	5	56	135
16-17	80	1	45	126
17-18	112	11	48	171
<b>TOTAL</b>	461	20	259	740

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
118	0	0	0	0
112	0	0	0	0
78	0	0	0	0
135	1	1	0	0
126	0	0	0	0
171	0	0	0	0
<b>740</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Centinela Ave & SR 90 WB Ramps - Sanford St  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-008  
**Date:** 8/29/2017

### Total

NS/EW Streets:	Centinela Ave				Centinela Ave					SR 90 WB Ramps - Sanford St				SR 90 WB Ramps - Sanford St				
AM	NORTHBOUND				SOUTHBOUND					EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	1 NR	0 NU	0 SL	2.5 ST	0.5 SR	0 SU	0 ST2	0 EL	1 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
7:00 AM	1	119	18	0	0	170	1	0	10	1	0	14	0	48	2	150	0	534
7:15 AM	1	146	28	0	0	162	3	0	12	5	0	9	0	70	2	182	0	620
7:30 AM	2	168	49	1	0	241	2	0	15	3	0	9	0	73	1	165	0	729
7:45 AM	0	180	33	0	0	323	2	0	30	2	0	8	0	92	0	208	0	878
8:00 AM	5	149	26	0	0	396	3	0	15	2	0	11	0	94	2	121	0	824
8:15 AM	3	147	32	0	0	374	2	0	14	6	0	9	0	93	0	146	0	826
8:30 AM	2	158	28	0	0	361	2	0	12	6	0	4	0	112	1	117	0	803
8:45 AM	4	172	35	0	0	359	0	0	18	5	0	7	0	156	2	147	0	905
9:00 AM	3	183	27	0	0	392	1	0	15	5	0	5	0	167	1	143	0	942
9:15 AM	5	154	36	0	0	287	4	0	12	3	0	12	0	175	0	181	0	869
9:30 AM	4	141	36	1	0	258	4	0	8	4	0	7	0	119	0	140	0	722
9:45 AM	2	121	21	1	0	249	1	0	18	4	0	7	0	132	3	108	0	667
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	ST2	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	32	1838	369	3	0	3572	25	0	179	46	0	102	0	1331	14	1808	0	9319
	1.43%	81.98%	16.46%	0.13%	0.00%	94.60%	0.66%	0.00%	4.74%	31.08%	0.00%	68.92%	0.00%	42.21%	0.44%	57.34%	0.00%	
PEAK HR :	08:30 AM - 09:30 AM				08:30 AM	43	37	48										TOTAL
PEAK HR VOL :	14	667	126	0	0	1399	7	0	57	19	0	28	0	610	4	588	0	3519
PEAK HR FACTOR :	0.700	0.911	0.875	0.000	0.000	0.892	0.438	0.000	0.792	0.792	0.000	0.583	0.000	0.871	0.500	0.812	0.000	0.934
	0.947				0.896					0.783				0.844				

PM	NORTHBOUND				SOUTHBOUND					EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	1 NR	0 NU	0 SL	2.5 ST	0.5 SR	0 SU	0 ST2	0 EL	1 ET	0 ER	0 EU	1.3 WL	0.3 WT	1.3 WR	0 WU	
3:00 PM	0	132	24	0	0	378	5	0	5	3	0	4	0	49	2	76	0	678
3:15 PM	2	106	16	0	0	372	4	0	6	3	0	5	0	49	2	85	0	650
3:30 PM	1	111	21	0	0	386	4	0	5	1	0	5	0	37	1	50	0	622
3:45 PM	3	108	16	0	0	409	5	0	7	2	0	5	0	57	2	67	0	681
4:00 PM	8	122	17	0	0	380	2	0	8	3	0	4	0	42	3	95	0	684
4:15 PM	1	126	26	0	0	373	6	0	11	2	0	5	0	52	4	92	0	698
4:30 PM	3	132	24	0	0	400	4	0	9	4	0	6	0	42	0	83	0	707
4:45 PM	4	148	23	0	0	421	7	0	6	4	0	1	0	52	6	109	0	781
5:00 PM	3	171	43	0	0	462	3	0	9	1	0	3	0	49	4	116	0	864
5:15 PM	3	148	54	0	0	429	2	0	8	0	0	8	0	79	2	125	0	858
5:30 PM	4	183	52	0	0	450	4	0	9	2	0	4	0	43	2	96	0	849
5:45 PM	0	202	56	1	0	413	6	0	8	4	0	4	0	71	4	144	0	913
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	ST2	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	32	1689	372	1	0	4873	52	0	91	29	0	54	0	622	32	1138	0	8985
	1.53%	80.66%	17.77%	0.05%	0.00%	97.15%	1.04%	0.00%	1.81%	34.94%	0.00%	65.06%	0.00%	34.71%	1.79%	63.50%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																	TOTAL
PEAK HR VOL :	10	704	205	1	0	1754	15	0	34	7	0	19	0	242	12	481	0	3484
PEAK HR FACTOR :	0.625	0.871	0.915	0.250	0.000	0.949	0.625	0.000	0.944	0.438	0.000	0.594	0.000	0.766	0.750	0.835	0.000	0.954
	0.888				0.951					0.813				0.839				



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Centinela Ave

**East/West** SR 90 WB Ramps - Sanford St

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chekr:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	59	117	3	67
<b>BIKES</b>	62	97	2	1
<b>BUSES</b>	33	37	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	220	7.30	400	8.00	15	7.00	356	9.15
<i>PM PK 15 MIN</i>	261	17.45	467	17.00	10	16.30	219	17.45
<i>AM PK HOUR</i>	812	8.30	1501	8.00	51	7.00	1231	8.45
<i>PM PK HOUR</i>	926	17.00	1784	16.45	31	15.45	735	17.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	5	618	128	751
8-9	14	631	121	766
9-10	16	604	120	740
15-16	6	463	77	546
16-17	16	534	90	640
17-18	11	710	205	926
<b>TOTAL</b>	68	3560	741	4369

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	903	8	911
8-9	0	1494	7	1501
9-10	0	1191	10	1201
15-16	0	1553	18	1571
16-17	0	1580	19	1599
17-18	0	1761	15	1776
<b>TOTAL</b>	0	8482	77	8559

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
1662	0	0	2	2
2267	0	0	5	6
1941	0	0	1	1
2117	0	0	0	1
2239	0	0	1	1
2702	0	0	1	1
<b>12928</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>12</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	11	0	40	51
8-9	19	0	31	50
9-10	16	0	31	47
15-16	9	0	19	28
16-17	13	0	16	29
17-18	7	0	19	26
<b>TOTAL</b>	75	0	156	231

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	283	5	705	993
8-9	455	5	531	991
9-10	593	4	572	1169
15-16	192	7	278	477
16-17	188	13	379	580
17-18	242	12	481	735
<b>TOTAL</b>	1953	46	2946	4945

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
1044	4	4	1	1
1041	3	5	0	1
1216	3	3	0	0
505	7	8	1	3
609	4	4	0	0
761	4	4	1	2
<b>5176</b>	<b>25</b>	<b>28</b>	<b>3</b>	<b>7</b>

**Location:** Centinela Ave & SR 90 EB Ramps  
**City:** Los Angeles  
**Control:** Signalized

**Project ID:** 17-05515-009  
**Date:** 8/29/2017

**Total**

NS/EW Streets:	Centinela Ave				Centinela Ave				SR 90 EB Ramps				SR 90 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	2 SL	0 ST	0 SR	0 SU	0.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	129	65	0	93	123	0	0	1	0	15	0	0	0	0	0	426
7:15 AM	0	176	85	0	84	153	0	0	1	0	21	0	0	0	0	0	520
7:30 AM	0	201	83	0	109	188	0	0	2	0	34	0	0	0	0	0	617
7:45 AM	0	226	79	0	138	245	0	0	7	0	36	0	0	0	0	0	731
8:00 AM	0	162	103	0	177	293	0	0	6	0	57	0	0	0	0	0	798
8:15 AM	0	180	95	0	185	300	0	0	7	0	60	0	0	0	0	0	827
8:30 AM	0	176	71	0	137	316	0	0	5	0	55	0	0	0	0	0	760
8:45 AM	0	200	78	0	115	403	0	0	15	0	95	0	0	0	0	0	906
9:00 AM	0	209	74	0	112	424	0	0	14	0	78	0	0	0	0	0	911
9:15 AM	0	170	60	0	98	382	0	0	22	0	77	0	0	0	0	0	809
9:30 AM	0	189	50	0	76	335	0	0	5	0	69	0	0	0	0	0	724
9:45 AM	0	144	48	0	109	238	0	0	3	0	52	0	0	0	0	0	594
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	2162	891	0	1433	3400	0	0	88	0	649	0	0	0	0	0	8623
	0.00%	70.82%	29.18%	0.00%	29.65%	70.35%	0.00%	0.00%	11.94%	0.00%	88.06%	0.00%					
PEAK HR:	08:15 AM - 09:15 AM				08:15 AM				42	37	48						TOTAL
PEAK HR VOL:	0	765	318	0	549	1443	0	0	41	0	288	0	0	0	0	0	3404
PEAK HR FACTOR:	0.000	0.915	0.837	0.000	0.742	0.851	0.000	0.000	0.683	0.000	0.758	0.000	0.000	0.000	0.000	0.000	0.934
		0.957				0.929					0.748						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	1 NR	0 NU	2 SL	0 ST	0 SR	0 SU	0.3 EL	0.3 ET	1.3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:00 PM	0	144	63	0	157	241	0	0	8	0	25	0	0	0	0	0	638
3:15 PM	0	135	64	0	186	255	0	0	4	0	46	0	0	0	0	0	690
3:30 PM	0	117	52	0	169	232	0	0	5	2	40	0	0	0	0	0	617
3:45 PM	0	137	30	0	162	298	0	0	6	0	42	0	0	0	0	0	675
4:00 PM	0	133	49	0	155	274	0	0	3	0	47	0	0	0	0	0	661
4:15 PM	0	149	42	0	150	256	0	0	6	0	64	0	0	0	0	0	667
4:30 PM	0	160	29	0	143	306	0	0	7	1	61	0	0	0	0	0	707
4:45 PM	0	166	40	0	127	364	0	0	7	1	61	0	0	0	0	0	766
5:00 PM	0	204	54	0	161	324	0	0	2	0	52	0	0	0	0	0	797
5:15 PM	0	199	40	0	152	375	0	0	3	0	56	0	0	0	0	0	825
5:30 PM	0	221	37	0	123	346	0	0	9	0	67	0	0	0	0	0	803
5:45 PM	0	246	43	0	119	372	0	0	14	1	81	0	0	0	0	0	876
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	78.74%	21.26%	0.00%	33.12%	66.88%	0.00%	0.00%	10.26%	0.69%	89.04%	0.00%	0	0	0	0	8722
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	870	174	0	555	1417	0	0	28	1	256	0	0	0	0	0	3301
PEAK HR FACTOR :	0.000	0.884	0.806	0.000	0.862	0.945	0.000	0.000	0.500	0.250	0.790	0.000	0.000	0.000	0.000	0.000	0.942



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:  
**North/South** Centinela Ave

**East/West** SR 90 EB Ramps

**Day:** Tuesday **Date:** 08/29/2017 **Weather:** SUNNY

**Hours:**                      **Chekr:** NDS

**School Day:** YES **I/S CODE**                     

	N/B	S/B	E/B	W/B
<b>DUAL-WHEELED</b>	76	136	12	0
<b>BIKES</b>	62	95	0	0
<b>BUSES</b>	33	37	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	306	7.45	537	9.00	110	8.45	0	0.00
<i>PM PK 15 MIN</i>	290	17.45	528	17.15	96	17.45	0	0.00
<i>AM PK HOUR</i>	1134	7.30	1996	8.15	375	8.45	0	0.00
<i>PM PK HOUR</i>	1049	17.00	1979	16.45	285	17.00	0	0.00

**NORTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	738	312	1050
8-9	0	722	347	1069
9-10	0	717	232	949
15-16	0	539	209	748
16-17	0	615	160	775
17-18	0	875	174	1049
<b>TOTAL</b>	0	4206	1434	5640

**SOUTHBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	424	715	0	1139
8-9	614	1317	0	1931
9-10	395	1384	0	1779
15-16	674	1034	0	1708
16-17	575	1206	0	1781
17-18	555	1424	0	1979
<b>TOTAL</b>	3237	7080	0	10317

**TOTAL**

**XING S/L**

**XING N/L**

N-S	Ped	Sch	Ped	Sch
2189	0	0	0	0
3000	0	0	0	0
2728	0	0	0	0
2456	0	0	0	0
2556	0	0	0	0
3028	0	0	0	0
<b>15957</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	11	0	106	117
8-9	33	0	267	300
9-10	44	0	276	320
15-16	23	2	153	178
16-17	23	2	233	258
17-18	28	1	256	285
<b>TOTAL</b>	162	5	1291	1458

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
<b>TOTAL</b>	0	0	0	0

**TOTAL**

**XING W/L**

**XING E/L**

E-W	Ped	Sch	Ped	Sch
117	1	2	0	0
300	2	3	0	0
320	6	6	0	0
178	5	6	2	2
258	4	4	1	1
285	3	3	0	0
<b>1458</b>	<b>21</b>	<b>24</b>	<b>3</b>	<b>3</b>

National Data & Surveying Services

# Intersection Turning Movement Count

Location: Centinela Ave & Jefferson Blvd  
City: Los Angeles  
Control: Signalized

Project ID: 17-05515-010  
Date: 8/29/2017

**Total**

NS/EW Streets:	Centinela Ave				Centinela Ave				Jefferson Blvd				Jefferson Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	1 NR	0 NU	2 SL	2 ST	1 SR	0 SU	2 EL	3 ET	1 ER	0 EU	2 WL	3 WT	1 WR	0 WU	
7:00 AM	2	18	27	0	39	17	75	0	90	177	5	0	27	238	73	0	788
7:15 AM	1	40	34	0	47	17	116	0	87	190	9	0	19	228	103	0	891
7:30 AM	6	51	28	0	59	29	105	0	121	246	6	0	18	258	94	0	1021
7:45 AM	4	47	36	0	80	37	153	0	105	217	8	0	13	248	80	0	1028
8:00 AM	4	48	45	0	82	49	175	0	115	261	13	0	19	251	77	0	1139
8:15 AM	7	65	37	0	103	65	188	0	96	245	9	0	13	272	64	0	1164
8:30 AM	8	59	37	0	68	73	213	0	101	278	18	0	32	323	74	0	1284
8:45 AM	10	63	38	0	91	119	237	0	115	222	27	0	29	329	82	0	1362
9:00 AM	6	58	31	0	87	107	241	0	116	217	22	0	26	342	57	0	1310
9:15 AM	15	60	39	0	74	135	202	0	72	199	23	0	23	279	64	0	1185
9:30 AM	11	41	29	0	70	100	184	0	67	214	25	0	34	353	92	0	1220
9:45 AM	9	32	22	0	78	70	168	0	66	171	17	0	28	297	71	0	1029
TOTAL VOLUMES :	83	582	403	0	878	818	2057	0	1151	2637	182	0	281	3418	931	0	13421
APPROACH %'s :	7.77%	54.49%	37.73%	0.00%	23.39%	21.80%	54.81%	0.00%	28.99%	66.42%	4.58%	0.00%	6.07%	73.82%	20.11%	0.00%	
PEAK HR :	08:30 AM - 09:30 AM				08:30 AM	43	37	48	404	916	90	0	110	1273	277	0	TOTAL
PEAK HR VOL :	39	240	145	0	320	434	893	0	0.871	0.824	0.833	0.000	0.859	0.931	0.845	0.000	5141
PEAK HR FACTOR :	0.650	0.952	0.929	0.000	0.879	0.804	0.926	0.000	0.871	0.824	0.833	0.000	0.859	0.931	0.845	0.000	0.944
		0.930				0.921				0.888				0.943			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	1 NR	0 NU	2 SL	2 ST	1 SR	0 SU	2 EL	3 ET	1 ER	0 EU	2 WL	3 WT	1 WR	0 WU	
3:00 PM	13	44	57	0	92	28	126	0	104	329	7	0	8	202	60	0	1070
3:15 PM	11	32	47	0	116	47	132	0	85	259	15	0	19	212	52	0	1027
3:30 PM	8	25	74	0	124	32	109	0	70	322	6	0	18	202	61	0	1051
3:45 PM	14	27	36	0	136	36	154	0	68	229	6	0	21	196	54	0	977
4:00 PM	13	39	50	0	134	36	139	0	78	287	6	0	17	211	60	0	1070
4:15 PM	9	33	43	0	151	41	122	0	85	289	8	0	21	219	50	0	1071
4:30 PM	13	42	41	0	147	49	135	0	82	339	10	0	22	220	61	0	1161
4:45 PM	9	57	58	0	171	66	161	0	86	325	14	0	26	215	59	0	1247
5:00 PM	26	68	71	0	148	45	138	0	110	358	18	0	28	242	64	0	1316
5:15 PM	27	85	76	0	178	72	188	0	72	403	15	0	31	220	65	0	1432
5:30 PM	25	65	64	0	138	79	157	0	102	355	9	0	33	232	73	0	1332
5:45 PM	19	94	84	0	171	95	183	0	85	347	9	0	42	222	81	0	1432
TOTAL VOLUMES :	187	611	701	0	1706	626	1744	0	1027	3842	123	0	286	2593	740	0	14186
APPROACH %'s :	12.47%	40.76%	46.76%	0.00%	41.85%	15.36%	42.79%	0.00%	20.57%	76.96%	2.46%	0.00%	7.90%	71.65%	20.45%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM				635	291	666	0	369	1463	51	0	134	916	283	0	TOTAL
PEAK HR VOL :	97	312	295	0	0.892	0.766	0.886	0.000	0.839	0.908	0.708	0.000	0.798	0.946	0.873	0.000	5512
PEAK HR FACTOR :	0.898	0.830	0.878	0.000	0.892	0.766	0.886	0.000	0.839	0.908	0.708	0.000	0.798	0.946	0.873	0.000	0.962
		0.893				0.886				0.961				0.966			



City Of Los Angeles  
Department Of Transportation  
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Centinela Ave

East/West

Jefferson Blvd

Day: Tuesday Date: 08/29/2017 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	41	89	149	128
BIKES	22	31	14	24
BUSES	32	37	29	31

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	115	9.15	448	8.45	397	8.30	481	9.30
PM PK 15 MIN	199	17.45	451	17.45	491	17.15	347	17.45
AM PK HOUR	429	8.30	1653	8.30	1504	8.00	1719	8.45
PM PK HOUR	710	17.00	1599	17.00	1886	17.00	1338	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	14	160	125	299
8-9	31	238	157	426
9-10	44	193	121	358
15-16	48	132	214	394
16-17	45	175	192	412
17-18	99	316	295	710
TOTAL	281	1214	1104	2599

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	228	103	449	780
8-9	345	310	813	1468
9-10	311	415	795	1521
15-16	470	149	521	1140
16-17	605	196	557	1358
17-18	638	295	666	1599
TOTAL	2597	1468	3801	7866

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1079	1	1	18	22
1894	9	9	27	28
1879	9	9	25	26
1534	7	15	13	14
1770	9	10	8	10
2309	6	6	20	25
10465	41	50	111	125

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	403	832	30	1265
8-9	427	1008	69	1504
9-10	321	810	88	1219
15-16	327	1142	35	1504
16-17	331	1242	40	1613
17-18	369	1465	52	1886
TOTAL	2178	6499	314	8991

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	77	974	350	1401
8-9	93	1178	299	1570
9-10	111	1278	287	1676
15-16	66	815	229	1110
16-17	86	867	232	1185
17-18	134	919	285	1338
TOTAL	567	6031	1682	8280

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
2666	5	7	7	7
3074	9	9	9	9
2895	14	15	18	18
2614	7	8	23	26
2798	11	11	4	5
3224	9	11	4	4
17271	55	61	65	69

## APPENDIX B

### CMA AND LEVELS OF SERVICE EXPLANATION CMA DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS



## CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Critical Movement Analysis Characteristics		
Level of Service	Load Factor	Equivalent CMA
A (free flow)	0.0	0.00 - 0.60
B (rural design)	0.0 - 0.1	0.61 - 0.70
C (urban design)	0.1 - 0.3	0.71 - 0.80
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90
E (capacity)	0.7 - 1.0	0.91 - 1.00
F (force flow)	Not Applicable	Not Applicable

### SERVICE LEVEL A

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

### SERVICE LEVEL B

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

### SERVICE LEVEL C

At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

### SERVICE LEVEL D

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

### SERVICE LEVEL E



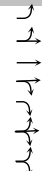
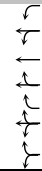


This represents near capacity and capacity operation. At capacity (CMA = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

### SERVICE LEVEL F

Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Abbot Kinney Boulevard			Year of Count:		2017		Ambient Growth: (%):		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA01		East-West Street:		Venice Boulevard			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2			2			2			2			2			2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			
Override Capacity				2			2			2			2			2			2			
				0			0			0			0			0			0			
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	115	1	115	2	117	117	6	128	1	128	2	130	1	130	0	130	1	130		
		Left-Through		0							0			0				0				
		Through	734	0	806	12	746	818	10	789	0	873	12	801	0	885	0	801	0	885		
		Through-Right		1						1				1				1				
		Right	72	0	0	0	72	0	8	84	0	0	0	84	0	0	0	84	0	0		
SOUTHBOUND		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	141	1	141	0	141	141	43	193	1	193	0	193	1	193	0	193	1	193		
		Left-Through		0						0				0				0				
		Through	362	0	391	3	365	394	4	388	0	419	3	391	0	422	0	391	0	422		
EASTBOUND		Through-Right		1						1				1				1				
		Right	29	0	0	0	29	0	0	31	0	0	0	31	0	0	0	31	0	0		
		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	77	1	77	0	77	77	0	82	1	82	0	82	1	82	0	82	1	82		
WESTBOUND		Left-Through		0						0				0				0				
		Through	559	2	280	1	560	280	12	605	2	303	1	606	2	303	0	606	2	303		
		Through-Right		0						0				0				0				
		Right	41	1	0	1	42	0	2	46	1	0	1	47	1	0	0	47	1	0		
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES		Left-Right		0						0				0				0				
		Left	114	1	114	0	114	114	2	123	1	123	0	123	1	123	0	123	1	123		
		Left-Through		0						0				0				0				
		Through	444	2	222	2	446	223	11	482	2	241	2	484	2	242	0	484	2	242		
		Through-Right		0						0				0				0				
VOLUME/CAPACITY (V/C) RATIO:		Right	217	1	147	0	217	147	38	268	1	172	0	268	1	172	0	268	1	172		
		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
CRITICAL VOLUMES			North-South: 947			North-South: 959			North-South: 1066			North-South: 1078			North-South: 1078							
			East-West: 394			East-West: 394			East-West: 426			East-West: 426			East-West: 426							
			SUM: 1341			SUM: 1353			SUM: 1492			SUM: 1504			SUM: 1504							
VOLUME/CAPACITY (V/C) RATIO:			0.894			0.902			0.995			1.003			1.003							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.794			0.802			0.895			0.903			0.903							
LEVEL OF SERVICE (LOS):			C			D			D			E			E							

REMARKS:

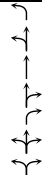
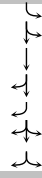

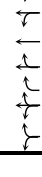

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.008	Δv/c after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Abbot Kinney Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA01		East-West Street:		Venice Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2			2				2				2				2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0				0				0				0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0				NB-- 0 SB-- 0 EB-- 0 WB-- 0				NB-- 0 SB-- 0 EB-- 0 WB-- 0				NB-- 0 SB-- 0 EB-- 0 WB-- 0			
ATSAC-1 or ATSAC+ATCS-2?				2			2				2				2				2			
Override Capacity				0			0				0				0				0			
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	91	1	91	0	91	91	4	101	1	101	0	101	1	101	0	101	1	101		
		Left-Through		0							0				0				0			
		Through	378	0	445	-2	376	443	10	411	0	485	-2	409	0	483	0	409	0	483		
		Through-Right		1							1				1				1			
		Right	67	0	0	0	67	0	3	74	0	0	0	74	0	0	0	74	0	0		
SOUTHBOUND		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	196	1	196	0	196	196	37	245	1	245	0	245	1	245	0	245	1	245		
		Left-Through		0							0				0				0			
		Through	611	0	645	6	617	651	9	658	0	694	6	664	0	700	0	664	0	700		
EASTBOUND		Through-Right		1							1				1				1			
		Right	34	0	0	0	34	0	0	36	0	0	0	36	0	0	0	36	0	0		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	44	1	44	0	44	44	0	47	1	47	0	47	1	47	0	47	1	47		
WESTBOUND		Left-Through		0							0				0				0			
		Through	659	2	330	1	660	330	7	707	2	354	1	708	2	354	0	708	2	354		
		Through-Right		0							0				0				0			
		Right	144	1	99	1	145	100	5	158	1	108	1	159	1	109	0	159	1	109		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES		Left-Right		0							0				0				0			
		Left	165	1	165	0	165	165	10	185	1	185	0	185	1	185	0	185	1	185		
		Left-Through		0							0				0				0			
		Through	513	2	257	0	513	257	7	552	2	276	0	552	2	276	0	552	2	276		
		Through-Right		0							0				0				0			
VOLUME/CAPACITY (V/C) RATIO:				0.821			0.825				0.889				0.893				0.893			
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.721			0.725				0.789				0.793				0.793			
LEVEL OF SERVICE (LOS):				C			C				C				C				C			

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

CMA02

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Abbot Kinney Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			2			2			2			2			2			2		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3					
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2		
		Override Capacity			0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0						0			0			0			0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0						0			0			0			0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0						0			0			0			0			
SOUTHBOUND		Left	592	1	408	7	599	411	12	640	1	446	7	647	1	449	0	647	1	449		
		Left-Through		0						0			0			0			0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0						0			0			0			0			
		Right	223	0	408	0	223	411	14	251	0	446	0	251	0	449	0	251	0	449		
		Left-Through-Right		0						0			0			0			0			
EASTBOUND		Left	128	1	128	0	128	128	8	144	1	144	0	144	1	144	0	144	1	144		
		Left-Through		0						0			0			0			0			
		Through	667	2	334	2	669	335	45	753	2	377	2	755	2	378	0	755	2	378		
		Through-Right		0						0			0			0			0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through-Right		0						0			0			0			0			
WESTBOUND		Left	3	1	3	0	3	3	0	3	1	3	0	3	1	3	0	3	1	3		
		Left-Through		0						0			0			0			0			
		Through	813	2	407	-1	812	406	56	919	2	460	-1	918	2	459	0	918	2	459		
		Through-Right		0						0			0			0			0			
		Right	387	1	0	-2	385	0	8	419	1	0	-2	417	1	0	0	417	1	0		
		Left-Through-Right		0						0			0			0			0			
CRITICAL VOLUMES			North-South: 408 East-West: 535 SUM: 943			North-South: 411 East-West: 534 SUM: 945			North-South: 446 East-West: 604 SUM: 1050			North-South: 449 East-West: 603 SUM: 1052			North-South: 449 East-West: 603 SUM: 1052							
VOLUME/CAPACITY (V/C) RATIO:			0.629			0.630			0.700			0.701			0.701							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.529			0.530			0.600			0.601			0.601							
LEVEL OF SERVICE (LOS):			A			A			A			B			B							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Admiralty Way			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		1/3/2018	
		East-West Street:		Mindanao Way			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3					
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2					
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0					
		ATSAC-1 or ATSAC+ATCS-2?			0			0			0			0			0					
		Override Capacity			0			0			0			0			0					
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	16	1	16	0	16	16	0	17	1	17	0	17	1	17	0	17	1	17		
		Left-Through		0						0				0				0				
		Through	973	1	509	0	973	510	59	1092	1	568	0	1092	1	568	0	1092	1	568		
		Through-Right		1						1				1				1				
		Right	45	0	45	1	46	46	-5	43	0	43	1	44	0	44	0	44	0	44		
SOUTHBOUND		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	447	2	246	2	449	247	1	475	2	261	2	477	2	262	0	477	2	262		
		Left-Through		0						0				0				0				
		Through	731	1	373	0	731	373	50	826	1	421	0	826	1	421	0	826	1	421		
EASTBOUND		Through-Right		1						1				1				1				
		Right	14	0	14	0	14	14	0	15	0	15	0	15	0	15	0	15	0	15		
		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	7	1	7	0	7	7	0	7	1	7	0	7	1	7	0	7	1	7		
WESTBOUND		Left-Through		0						0				0				0				
		Through	12	0	24	0	12	24	6	19	0	32	0	19	0	32	0	19	0	32		
		Through-Right		1						1				1				1				
		Right	12	0	0	0	12	0	0	13	0	0	0	13	0	0	0	13	0	0		
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES		Left-Right		0						0				0				0				
		Left	128	1	85	2	130	86	18	154	1	101	2	156	1	102	0	156	1	102		
		Left-Through		1						1				1				1				
		Through	42	0	85	0	42	86	2	47	0	101	0	47	0	102	0	47	0	102		
		Through-Right		0						0				0				0				
VOLUME/CAPACITY (V/C) RATIO:					0.728						0.817						0.824					
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.628						0.717						0.724					
LEVEL OF SERVICE (LOS):					B						C						C					

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.007	Δv/c after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Admiralty Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		1/3/2018	
		East-West Street:		Mindanao Way			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3			3				
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2			2				
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0				
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3				
		Override Capacity			2			2			2			2			2			2				
					0			0			0			0			0			0				
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	8	1	8	0	8	8	0	8	1	8	0	8	1	8	0	8	1	8				
		Left-Through		0							0				0				0					
		Through	671	1	408	0	671	408	81	793	1	468	0	793	1	468	0	793	1	468				
		Through-Right		1							1				1				1					
		Right	144	0	144	1	145	145	-11	142	0	142	1	143	0	143	0	143	0	143				
		Left-Through-Right		0							0				0				0					
SOUTHBOUND		Left	329	2	181	5	334	184	-6	343	2	189	5	348	2	191	0	348	2	191				
		Left-Through		0							0				0				0					
		Through	1099	1	559	0	1099	559	36	1203	1	611	0	1203	1	611	0	1203	1	611				
		Through-Right		1							1				1				1					
		Right	18	0	18	0	18	18	0	19	0	19	0	19	0	19	0	19	0	19				
		Left-Through-Right		0							0				0				0					
EASTBOUND		Left	25	1	25	0	25	25	0	27	1	27	0	27	1	27	0	27	1	27				
		Left-Through		0							0				0				0					
		Through	37	0	58	0	37	58	4	43	0	65	0	43	0	65	0	43	0	65				
		Through-Right		1							1				1				1					
		Right	21	0	0	0	21	0	0	22	0	0	0	22	0	0	0	22	0	0				
		Left-Through-Right		0							0				0				0					
WESTBOUND		Left	255	1	144	0	255	144	22	293	1	166	0	293	1	166	0	293	1	166				
		Left-Through		1							1				1				1					
		Through	32	0	144	0	32	144	5	39	0	166	0	39	0	166	0	39	0	166				
		Through-Right		0							0				0				0					
		Right	436	1	255	-2	434	250	35	498	1	309	-2	496	1	305	0	496	1	305				
		Left-Through-Right		0							0				0				0					
CRITICAL VOLUMES				North-South: 589		North-South: 592		North-South: 657		North-South: 659		North-South: 659												
				East-West: 313		East-West: 308		East-West: 374		East-West: 370		East-West: 370												
				SUM: 902		SUM: 900		SUM: 1031		SUM: 1029		SUM: 1029												
VOLUME/CAPACITY (V/C) RATIO:				0.633		0.632		0.724		0.722		0.722												
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.533		0.532		0.624		0.622		0.622												
LEVEL OF SERVICE (LOS):				A		A		B		B		B												

REMARKS:

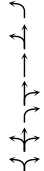


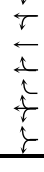
Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	-0.002	Δv/c after mitigation:	-0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Lincoln Boulevard	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	10/10/2017											
CMA04	East-West Street:	Rose Avenue	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project											
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0												
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	108	1	108	2	110	110	14	129	1	129	2	131	1	131	0	131	1	131	
		Left-Through		0								0				0				0	
		Through	1649	1	839	13	1662	847	116	1866	1	967	13	1879	1	974	0	1879	1	974	
		Through-Right		1							1				1				1		
		Right	29	0	29	2	31	31	36	67	0	67	2	69	0	69	0	69	0	69	
SOUTHBOUND		Left	68	1	68	0	68	68	0	72	1	72	0	72	1	72	0	72	1	72	
		Left-Through		0								0				0				0	
		Through	1287	2	644	2	1289	645	152	1518	2	759	2	1520	2	760	0	1520	2	760	
		Through-Right		0							0				0				0		
		Right	136	1	80	0	136	80	2	146	1	86	0	146	1	86	0	146	1	86	
EASTBOUND		Left	113	1	113	0	113	113	1	121	1	121	0	121	1	121	0	121	1	121	
		Left-Through		0								0				0				0	
		Through	263	1	263	0	263	263	0	279	1	279	0	279	1	279	0	279	1	279	
		Through-Right		0							0				0				0		
		Right	120	1	66	1	121	66	13	140	1	76	1	141	1	76	0	141	1	76	
WESTBOUND		Left	32	1	32	1	33	33	40	74	1	74	1	75	1	75	0	75	1	75	
		Left-Through		0								0				0				0	
		Through	282	1	282	0	282	282	1	300	1	300	0	300	1	300	0	300	1	300	
		Through-Right		0							0				0				0		
		Right	204	1	170	0	204	170	0	217	1	181	0	217	1	181	0	217	1	181	
CRITICAL VOLUMES			North-South: 907 East-West: 395 SUM: 1302			North-South: 915 East-West: 395 SUM: 1310			North-South: 1039 East-West: 421 SUM: 1460				North-South: 1046 East-West: 421 SUM: 1467				North-South: 1046 East-West: 421 SUM: 1467				
VOLUME/CAPACITY (V/C) RATIO:			0.868			0.873			0.973				0.978				0.978				
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.768			0.773			0.873				0.878				0.878				
LEVEL OF SERVICE (LOS):			C			C			D				D				D				

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.005	Δv/c after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Rose Avenue			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			2			2			2			2			2			2		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2		
		Override Capacity			0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	90	1	90	0	90	90	9	105	1	105	0	105	1	105	0	105	1	105		
		Left-Through			0						0				0				0			
		Through	1115	1	578	-2	1113	577	161	1345	1	715	-2	1343	1	714	0	1343	1	714		
		Through-Right			1						1				1				1			
		Right	41	0	41	0	41	41	41	85	0	85	0	85	0	85	0	85	0	85		
		Left-Through-Right			0						0				0				0			
SOUTHBOUND		Left	184	1	184	0	184	184	0	195	1	195	0	195	1	195	0	195	1	195		
		Left-Through			0						0				0				0			
		Through	1520	2	760	6	1526	763	115	1729	2	865	6	1735	2	868	0	1735	2	868		
		Through-Right			0						0				0				0			
		Right	132	1	60	0	132	60	4	144	1	66	0	144	1	66	0	144	1	66		
		Left-Through-Right			0						0				0				0			
EASTBOUND		Left	144	1	144	0	144	144	3	156	1	156	0	156	1	156	0	156	1	156		
		Left-Through			0						0				0				0			
		Through	423	1	423	0	423	423	1	450	1	450	0	450	1	450	0	450	1	450		
		Through-Right			0						0				0				0			
		Right	99	1	54	1	100	55	10	115	1	63	1	116	1	64	0	116	1	64		
		Left-Through-Right			0						0				0				0			
WESTBOUND		Left	39	1	39	1	40	40	33	74	1	74	1	75	1	75	0	75	1	75		
		Left-Through			0						0				0				0			
		Through	195	1	195	0	195	195	1	208	1	208	0	208	1	208	0	208	1	208		
		Through-Right			0						0				0				0			
		Right	84	1	0	0	84	0	0	89	1	0	0	89	1	0	0	89	1	0		
		Left-Through-Right			0						0				0				0			
CRITICAL VOLUMES			North-South: 850 East-West: 462 SUM: 1312			North-South: 853 East-West: 463 SUM: 1316			North-South: 970 East-West: 524 SUM: 1494			North-South: 973 East-West: 525 SUM: 1498			North-South: 973 East-West: 525 SUM: 1498							
VOLUME/CAPACITY (V/C) RATIO:			0.875			0.877			0.996			0.999			0.999							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.775			0.777			0.896			0.899			0.899							
LEVEL OF SERVICE (LOS):			C			C			D			D			D							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA05		East-West Street:		Venice Boulevard		Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				4		4		4		4		4		4		4		4		4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3		NB-- 0 SB-- 0 EB-- 3 WB-- 3			
ATSAC-1 or ATSAC+ATCS-2?				2		2		2		2		2		2		2		2		2	
Override Capacity				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	115	2	63	2	117	64	69	191	2	105	2	193	2	106	0	193	2	106	
		Left-Through		0							0				0				0		
		Through	1353	1	723	17	1370	734	174	1610	1	864	17	1627	1	875	0	1627	1	875	
		Through-Right		1							1				1				1		
		Right	93	0	93	5	98	98	18	117	0	117	5	122	0	122	0	122	0	122	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	273	2	150	0	273	150	0	290	2	160	0	290	2	160	0	290	2	160	
		Left-Through		0							0				0				0		
		Through	1313	1	673	4	1317	675	200	1594	1	818	4	1598	1	820	0	1598	1	820	
		Through-Right		1							1				1				1		
		Right	32	0	32	0	32	32	8	42	0	42	0	42	0	42	0	42	0	42	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	104	2	57	0	104	57	4	114	2	63	0	114	2	63	0	114	2	63	
		Left-Through		0							0				0				0		
		Through	848	3	283	0	848	283	7	907	3	302	0	907	3	302	0	907	3	302	
		Through-Right		0							0				0				0		
		Right	116	1	53	1	117	53	50	173	1	68	1	174	1	68	0	174	1	68	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	216	2	119	1	217	119	5	234	2	129	1	235	2	129	0	235	2	129	
		Left-Through		0							0				0				0		
		Through	672	2	336	0	672	336	13	726	2	363	0	726	2	363	0	726	2	363	
		Through-Right		0							0				0				0		
		Right	307	1	157	0	307	157	0	326	1	166	0	326	1	166	0	326	1	166	
		Left-Through-Right		0							0				0				0		
CRITICAL VOLUMES				North-South: 873 East-West: 402 SUM: 1275		North-South: 884 East-West: 402 SUM: 1286		North-South: 1024 East-West: 431 SUM: 1455		North-South: 1035 East-West: 431 SUM: 1466		North-South: 1035 East-West: 431 SUM: 1466		North-South: 1035 East-West: 431 SUM: 1466		North-South: 1035 East-West: 431 SUM: 1466					
VOLUME/CAPACITY (V/C) RATIO:				0.927		0.935		1.058		1.066		1.066		1.066		1.066		1.066			
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.827		0.835		0.958		0.966		0.966		0.966		0.966		0.966			
LEVEL OF SERVICE (LOS):				D		D		E		E		E		E		E		E			

REMARKS:

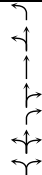
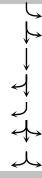

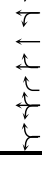
Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.008	Δv/c after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA05		East-West Street:		Venice Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases						4				4				4						4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		0 0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?				EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		3 3		
ATSAC-1 or ATSAC+ATCS-2?						2				2				2				2		2		
Override Capacity						0				0				0				0		0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	156	2	86	0	156	86	53	219	2	120	0	219	2	120	0	219	2	120		
		Left-Through		0							0				0				0			
		Through	1173	1	664	-2	1171	663	210	1455	1	809	-2	1453	1	808	0	1453	1	808		
		Through-Right		1							1				1				1			
		Right	155	0	155	-1	154	154	-2	163	0	163	-1	162	0	162	0	162	0	162		
		Left-Through-Right		0							0				0				0			
SOUTHBOUND		Left	253	2	139	0	253	139	0	269	2	148	0	269	2	148	0	269	2	148		
		Left-Through		0							0				0				0			
		Through	1037	1	547	8	1045	551	162	1263	1	662	8	1271	1	666	0	1271	1	666		
		Through-Right		1							1				1				1			
		Right	56	0	56	0	56	56	2	61	0	61	0	61	0	61	0	61	0	61		
		Left-Through-Right		0							0				0				0			
EASTBOUND		Left	91	2	50	0	91	50	14	111	2	61	0	111	2	61	0	111	2	61		
		Left-Through		0							0				0				0			
		Through	1031	3	344	0	1031	344	19	1113	3	371	0	1113	3	371	0	1113	3	371		
		Through-Right		0							0				0				0			
		Right	218	1	132	1	219	133	72	303	1	183	1	304	1	184	0	304	1	184		
		Left-Through-Right		0							0				0				0			
WESTBOUND		Left	217	2	119	2	219	120	6	236	2	130	2	238	2	131	0	238	2	131		
		Left-Through		0							0				0				0			
		Through	598	2	299	0	598	299	10	645	2	323	0	645	2	323	0	645	2	323		
		Through-Right		0							0				0				0			
		Right	191	1	52	0	191	52	0	203	1	55	0	203	1	55	0	203	1	55		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 803			North-South: 802			North-South: 957			North-South: 956			North-South: 956							
			East-West: 463			East-West: 464			East-West: 501			East-West: 502			East-West: 502							
			SUM: 1266			SUM: 1266			SUM: 1458			SUM: 1458			SUM: 1458							
VOLUME/CAPACITY (V/C) RATIO:			0.921			0.921			1.060			1.060			1.060							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.821			0.821			0.960			0.960			0.960							
LEVEL OF SERVICE (LOS):			D			D			E			E			E							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA06		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases						4				4				4						4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		0 0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?				EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		EB-- 3 WB-- 3		3 3		3 3		
ATSAC-1 or ATSAC+ATCS-2?						2				2				2				2		2		
Override Capacity						0				0				0				0		0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	709	2	390	0	709	390	20	773	2	425	0	773	2	425	0	773	2	425		
		Left-Through		0							0				0				0			
		Through	1321	2	474	19	1340	480	221	1623	2	574	19	1642	2	580	0	1642	2	580		
		Through-Right		1							1				1				1			
		Right	100	0	100	0	100	100	-8	98	0	98	0	98	0	98	0	98	0	98		
		Left-Through-Right		0							0				0				0			
SOUTHBOUND		Left	226	2	124	1	227	125	23	263	2	145	1	264	2	145	0	264	2	145		
		Left-Through		0							0				0				0			
		Through	1417	2	507	5	1422	508	232	1736	2	616	5	1741	2	617	0	1741	2	617		
		Through-Right		1							1				1				1			
		Right	103	0	103	0	103	103	2	111	0	111	0	111	0	111	0	111	0	111		
		Left-Through-Right		0							0				0				0			
EASTBOUND		Left	83	2	46	0	83	46	6	94	2	52	0	94	2	52	0	94	2	52		
		Left-Through		0							0				0				0			
		Through	776	2	388	5	781	391	35	859	2	430	5	864	2	432	0	864	2	432		
		Through-Right		0							0				0				0			
		Right	511	1	121	0	511	121	21	563	1	138	0	563	1	138	0	563	1	138		
		Left-Through-Right		0							0				0				0			
WESTBOUND		Left	120	2	66	0	120	66	-4	123	2	68	0	123	2	68	0	123	2	68		
		Left-Through		0							0				0				0			
		Through	724	2	362	19	743	372	37	806	2	403	19	825	2	413	0	825	2	413		
		Through-Right		0							0				0				0			
		Right	179	1	55	5	184	59	44	234	1	89	5	239	1	94	0	239	1	94		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 897 East-West: 454 SUM: 1351			North-South: 898 East-West: 457 SUM: 1355			North-South: 1041 East-West: 498 SUM: 1539			North-South: 1042 East-West: 500 SUM: 1542			North-South: 1042 East-West: 500 SUM: 1542							
VOLUME/CAPACITY (V/C) RATIO:			0.983			0.985			1.119			1.121			1.121							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.883			0.885			1.019			1.021			1.021							
LEVEL OF SERVICE (LOS):			D			D			F			F			F							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA06		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases						4				4				4						4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						0				0				0						0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		0		
				EB-- 3 WB-- 3		3		EB-- 3 WB-- 3		3		EB-- 3 WB-- 3		3		EB-- 3 WB-- 3		3		3		
ATSAC-1 or ATSAC+ATCS-2?						2				2				2						2		
Override Capacity						0				0				0						0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	533	2	293	0	533	293	27	593	2	326	0	593	2	326	0	593	2	326		
		Left-Through		0						0					0				0			
		Through	1230	2	468	-2	1228	467	250	1556	2	571	-2	1554	2	570	0	1554	2	570		
		Through-Right		1						1					1				1			
		Right	174	0	174	0	174	174	-28	157	0	157	0	157	0	157	0	157	0	157		
		Left-Through-Right		0						0					0				0			
SOUTHBOUND		Left	173	2	95	2	175	96	49	233	2	128	2	235	2	129	0	235	2	129		
		Left-Through		0						0					0				0			
		Through	1485	2	531	9	1494	534	193	1769	2	630	9	1778	2	633	0	1778	2	633		
		Through-Right		1						1					1				1			
		Right	109	0	109	0	109	109	5	121	0	121	0	121	0	121	0	121	0	121		
		Left-Through-Right		0						0					0				0			
EASTBOUND		Left	109	2	60	0	109	60	4	120	2	66	0	120	2	66	0	120	2	66		
		Left-Through		0						0					0				0			
		Through	665	2	333	9	674	337	37	743	2	372	9	752	2	376	0	752	2	376		
		Through-Right		0						0					0				0			
		Right	497	1	204	0	497	204	17	545	1	219	0	545	1	219	0	545	1	219		
		Left-Through-Right		0						0					0				0			
WESTBOUND		Left	238	2	131	0	238	131	-26	227	2	125	0	227	2	125	0	227	2	125		
		Left-Through		0						0					0				0			
		Through	746	2	373	-3	743	372	32	824	2	412	-3	821	2	411	0	821	2	411		
		Through-Right		0						0					0				0			
		Right	224	1	129	-1	223	127	17	255	1	127	-1	254	1	125	0	254	1	125		
		Left-Through-Right		0						0					0				0			
CRITICAL VOLUMES			North-South: 824			North-South: 827			North-South: 956			North-South: 959			North-South: 959							
			East-West: 464			East-West: 468			East-West: 497			East-West: 501			East-West: 501							
			SUM: 1288			SUM: 1295			SUM: 1453			SUM: 1460			SUM: 1460							
VOLUME/CAPACITY (V/C) RATIO:			0.937			0.942			1.057			1.062			1.062							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.837			0.842			0.957			0.962			0.962							
LEVEL OF SERVICE (LOS):			D			D			E			E			E							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.005	Δv/c after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Lincoln Boulevard			Year of Count:		2017	Ambient Growth: (%)		1.0	Conducted by:		NDS	Date:		10/10/2017				
	CMA07	East-West Street:	Marina Pointe Drive - Maxella Avenue			Projection Year:		2023	Peak Hour:		AM	Reviewed by:		JAS	Project:		5-16-0265-1 Paseo Marina Project			
No. of Phases			4			4			4			4			4					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2					
Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 3	SB-- 0		NB-- 3	SB-- 0		NB-- 3	SB-- 0		NB-- 3	SB-- 0		NB-- 3	SB-- 0				
			EB-- 3	WB-- 3		EB-- 3	WB-- 3		EB-- 3	WB-- 3		EB-- 3	WB-- 3		EB-- 3	WB-- 3				
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2					
Override Capacity			0			0			0			0			0					
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	113	2	62	0	113	62	0	120	2	66	0	120	2	66	0	120	2	66
		Left-Through		0							0				0				0	
		Through	2011	3	670	0	2011	670	190	2325	3	775	0	2325	3	775	0	2325	3	775
		Through-Right		0							0				0				0	
		Right	269	1	161	14	283	166	11	297	1	169	14	311	1	174	0	311	1	174
		Left-Through-Right		0							0				0				0	
SOUTHBOUND		Left	118	2	65	5	123	68	0	125	2	69	5	130	2	72	0	130	2	72
		Left-Through		0							0				0				0	
		Through	1774	3	458	0	1774	458	251	2134	3	549	0	2134	3	549	0	2134	3	549
		Through-Right		1							1				1				1	
		Right	58	0	58	0	58	58	0	62	0	62	0	62	0	62	0	62	0	62
		Left-Through-Right		0							0				0				0	
EASTBOUND		Left	74	1	74	0	74	74	0	79	1	79	0	79	1	79	0	79	1	79
		Left-Through		0							0				0				0	
		Through	78	1	78	0	78	78	0	83	1	83	0	83	1	83	0	83	1	83
		Through-Right		0							0				0				0	
		Right	190	1	128	0	190	128	0	202	1	136	0	202	1	136	0	202	1	136
		Left-Through-Right		0							0				0				0	
WESTBOUND		Left	178	1	108	19	197	117	27	216	1	128	19	235	1	137	0	235	1	137
		Left-Through		1							1				1				1	
		Through	37	0	108	0	37	117	0	39	0	128	0	39	0	137	0	39	0	137
		Through-Right		0							0				0				0	
		Right	118	1	53	19	137	69	44	169	1	100	19	188	1	116	0	188	1	116
		Left-Through-Right		0							0				0				0	
CRITICAL VOLUMES			North-South: 735	East-West: 236	SUM: 971	North-South: 738	East-West: 245	SUM: 983	North-South: 844	East-West: 264	SUM: 1108	North-South: 847	East-West: 273	SUM: 1120	North-South: 847	East-West: 273	SUM: 1120			
VOLUME/CAPACITY (V/C) RATIO:			0.706			0.715			0.806			0.815			0.815					
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.606			0.615			0.706			0.715			0.715					
LEVEL OF SERVICE (LOS):			B			B			C			C			C					

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.009	Δv/c after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Lincoln Boulevard			Year of Count:		2017	Ambient Growth: (%)		1.0	Conducted by:		NDS	Date:		10/10/2017			
	CMA07	East-West Street:	Marina Pointe Drive - Maxella Avenue			Projection Year:		2023	Peak Hour:		PM	Reviewed by:		JAS	Project:		5-16-0265-1 Paseo Marina Project		
No. of Phases		4			4		4		4		4		4		4				
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		2			2		2		2		2		2		2				
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0	NB--	3	SB--	0		
		EB--	3	WB--	3	EB--	3	WB--	3	EB--	3	WB--	3	EB--	3	WB--	3		
ATSAC-1 or ATSAC+ATCS-2?		2			2		2		2		2		2		2				
Override Capacity		0			0		0		0		0		0		0				
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	188	2	103	0	188	103	0	200	2	110	0	200	2	110	0	200	2	110
	Left-Through		0							0				0				0	
	Through	1742	3	581	0	1742	581	238	2087	3	696	0	2087	3	696	0	2087	3	696
	Through-Right		0							0				0				0	
	Right	335	1	132	26	361	159	32	388	1	163	26	414	1	191	0	414	1	191
SOUTHBOUND	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left	101	2	56	9	110	61	2	109	2	60	9	118	2	65	0	118	2	65
	Left-Through		0							0				0				0	
	Through	2000	3	529	0	2000	529	183	2306	3	607	0	2306	3	607	0	2306	3	607
EASTBOUND	Through-Right		1							1				1				1	
	Right	114	0	114	0	114	114	0	121	0	121	0	121	0	121	0	121	0	121
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left	84	1	84	0	84	84	0	89	1	89	0	89	1	89	0	89	1	89
WESTBOUND	Left-Through		0							0				0				0	
	Through	63	1	63	0	63	63	0	67	1	67	0	67	1	67	0	67	1	67
	Through-Right		0							0				0				0	
	Right	100	1	0	0	100	0	0	106	1	0	0	106	1	0	0	106	1	0
	Left-Through-Right		0							0				0				0	
CRITICAL VOLUMES	Left-Right		0							0				0				0	
	Left	311	1	203	-3	308	202	18	348	1	225	-3	345	1	223	0	345	1	223
	Left-Through		1							1				1				1	
	Through	95	0	203	0	95	202	0	101	0	225	0	101	0	223	0	101	0	223
	Through-Right		0							0				0				0	
VOLUME/CAPACITY (V/C) RATIO:	Right	186	1	130	-2	184	123	9	206	1	146	-2	204	1	139	0	204	1	139
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left																		
	Left-Through																		
CRITICAL VOLUMES		North-South:	637		North-South:	642		North-South:	756		North-South:	761		North-South:	761		North-South:	761	
		East-West:	287		East-West:	286		East-West:	314		East-West:	312		East-West:	312		East-West:	312	
		SUM:	924		SUM:	928		SUM:	1070		SUM:	1073		SUM:	1073		SUM:	1073	
VOLUME/CAPACITY (V/C) RATIO:			0.672			0.675			0.778			0.780			0.780			0.780	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.572			0.575			0.678			0.680			0.680			0.680	
LEVEL OF SERVICE (LOS):			A			A			B			B			B			B	

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Lincoln Boulevard			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		10/10/2017	
CMA08		East-West Street:			SR-90 Ramps			Projection Year:			2023		Peak Hour:			AM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					3			3			3			3			3			3			3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3						
Override Capacity					2			2			2			2			2			2			2			
					0			0			0			0			0			0			0			
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0						0				0				0			0					
		Through	1383	2	529	5	1388	530	135	1603	2	610	5	1608	2	612	0	1608	2	612						
		Through-Right		1						1				1				1								
		Right	203	0	203	0	203	203	12	227	0	227	0	227	0	227	0	227	0	227	0	227				
		Left-Through-Right		0						0				0				0			0					
SOUTHBOUND		Left	979	2	538	0	979	538	66	1105	2	608	0	1105	2	608	0	1105	2	608						
		Left-Through		0						0				0				0			0					
		Through	1270	3	423	19	1289	430	212	1560	3	520	19	1579	3	526	0	1579	3	526						
		Through-Right		0						0				0				0			0					
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0				0				0			0					
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Left-Through		0						0				0				0			0					
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Through-Right		0						0				0				0			0					
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0				0				0			0					
WESTBOUND		Left	201	2	111	0	201	111	5	218	2	120	0	218	2	120	0	218	2	120						
		Left-Through		0						0				0				0			0					
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Through-Right		0						0				0				0			0					
		Right	1136	2	87	9	1145	92	67	1273	2	92	9	1282	2	97	0	1282	2	97						
		Left-Through-Right		0						0				0				0			0					
CRITICAL VOLUMES			North-South: 1067			North-South: 1068			North-South: 1218			North-South: 1220			North-South: 1220											
			East-West: 111			East-West: 111			East-West: 120			East-West: 120			East-West: 120											
			SUM: 1178			SUM: 1179			SUM: 1338			SUM: 1340			SUM: 1340											
VOLUME/CAPACITY (V/C) RATIO:			0.827			0.827			0.939			0.940			0.940											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.727			0.727			0.839			0.840			0.840											
LEVEL OF SERVICE (LOS):			C			C			D			D			D											

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 Ramps			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3			3				
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0				
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0				
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3				
		Override Capacity			2			2			2			2			2			2				
					0			0			0			0			0			0				
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0					
		Left-Through		0						0				0			0		0					
		Through	1466	2	584	9	1475	587	214	1770	2	693	9	1779	2	696	0	1779	2	696				
		Through-Right		1						1				1				1						
		Right	285	0	285	0	285	285	7	310	0	310	0	310	0	310	0	310	0	310				
		Left-Through-Right		0						0				0				0						
SOUTHBOUND		Left	850	2	468	0	850	468	52	954	2	525	0	954	2	525	0	954	2	525				
		Left-Through		0						0				0				0						
		Through	1700	3	567	-3	1697	566	149	1954	3	651	-3	1951	3	650	0	1951	3	650				
		Through-Right		0						0				0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Left-Through-Right		0						0				0				0						
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Left-Through		0						0				0				0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Through-Right		0						0				0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Left-Through-Right		0						0				0				0						
WESTBOUND		Left	189	2	104	0	189	104	11	212	2	117	0	212	2	117	0	212	2	117				
		Left-Through		0						0				0				0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		Through-Right		0						0				0				0						
		Right	823	2	0	17	840	0	56	930	2	0	17	947	2	0	0	947	2	0				
		Left-Through-Right		0						0				0				0						
CRITICAL VOLUMES			North-South: 1052 East-West: 104 SUM: 1156			North-South: 1055 East-West: 104 SUM: 1159			North-South: 1218 East-West: 117 SUM: 1335			North-South: 1221 East-West: 117 SUM: 1338			North-South: 1221 East-West: 117 SUM: 1338									
VOLUME/CAPACITY (V/C) RATIO:			0.811			0.813			0.937			0.939			0.939									
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.711			0.713			0.837			0.839			0.839									
LEVEL OF SERVICE (LOS):			C			C			D			D			D									

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA09		East-West Street:		Bali Way		Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases						4				4				4						4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						2				2				2						2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		0 0	
ATSAC-1 or ATSAC+ATCS-2?						2				2				2						2	
Override Capacity						0				0				0						0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	153	1	153	0	153	153	2	164	1	164	0	164	1	164	0	164	1	164	
		Left-Through		0							0				0				0		
		Through	1362	2	463	5	1367	465	110	1556	2	529	5	1561	2	530	0	1561	2	530	
		Through-Right		1							1				1				1		
		Right	28	0	28	0	28	28	0	30	0	30	0	30	0	30	0	30	0	30	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	8	1	8	0	8	8	0	8	1	8	0	8	1	8	0	8	1	8	
		Left-Through		0							0				0				0		
		Through	1238	2	494	19	1257	500	214	1528	2	596	19	1547	2	603	0	1547	2	603	
		Through-Right		1							1				1				1		
		Right	244	0	244	0	244	244	2	261	0	261	0	261	0	261	0	261	0	261	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	192	1	98	0	192	98	36	240	1	122	0	240	1	122	0	240	1	122	
		Left-Through		1							1				1				1		
		Through	3	0	98	0	3	98	0	3	0	122	0	3	0	122	0	3	0	122	
		Through-Right		0							0				0				0		
		Right	61	1	0	0	61	0	6	71	1	0	0	71	1	0	0	71	1	0	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	
		Left-Through		0							0				0				0		
		Through	2	0	15	0	2	15	0	2	0	16	0	2	0	16	0	2	0	16	
		Through-Right		0							0				0				0		
		Right	12	0	0	0	12	0	0	13	0	0	0	13	0	0	0	13	0	0	
		Left-Through-Right		1							1				1				1		
CRITICAL VOLUMES				North-South: 647		653		North-South: 653		760		North-South: 767		767		North-South: 767		767			
				East-West: 113		113		East-West: 138		138		East-West: 138		138		East-West: 138		138			
				SUM: 760		766		SUM: 898		898		SUM: 905		905		SUM: 905		905			
VOLUME/CAPACITY (V/C) RATIO:						0.553				0.653				0.658						0.658	
V/C LESS ATSAC/ATCS ADJUSTMENT:						0.453				0.553				0.558						0.558	
LEVEL OF SERVICE (LOS):						A				A				A						A	

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.005	Δv/c after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA09		East-West Street:		Bali Way		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases						4				4				4						4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						2				2				2						2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0		0 0		0 0	
ATSAC-1 or ATSAC+ATCS-2?						2				2				2						2	
Override Capacity						0				0				0						0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	94	1	94	0	94	94	5	105	1	105	0	105	1	105	0	105	1	105	
		Left-Through		0							0				0				0		
		Through	1335	2	450	9	1344	453	188	1605	2	541	9	1614	2	544	0	1614	2	544	
		Through-Right		1							1				1				1		
		Right	16	0	16	0	16	16	0	17	0	17	0	17	0	17	0	17	0	17	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	28	1	28	0	28	28	0	30	1	30	0	30	1	30	0	30	1	30	
		Left-Through		0							0				0				0		
		Through	1585	2	631	-3	1582	630	154	1837	2	723	-3	1834	2	722	0	1834	2	722	
		Through-Right		1							1				1				1		
		Right	308	0	308	0	308	308	5	332	0	332	0	332	0	332	0	332	0	332	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	297	1	150	0	297	150	34	349	1	176	0	349	1	176	0	349	1	176	
		Left-Through		1							1				1				1		
		Through	2	0	150	0	2	150	0	2	0	176	0	2	0	176	0	2	0	176	
		Through-Right		0							0				0				0		
		Right	122	1	75	0	122	75	4	134	1	82	0	134	1	82	0	134	1	82	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	6	0	6	0	6	6	0	6	0	6	0	6	0	6	0	6	0	6	
		Left-Through		0							0				0				0		
		Through	0	0	23	0	0	23	0	0	0	24	0	0	0	24	0	0	0	24	
		Through-Right		0							0				0				0		
		Right	17	0	0	0	17	0	0	18	0	0	0	18	0	0	0	18	0	0	
		Left-Through-Right		1							1				1				1		
CRITICAL VOLUMES				North-South: 725		725		North-South: 724		724		North-South: 828		828		North-South: 827		827			
				East-West: 173		173		East-West: 173		173		East-West: 200		200		East-West: 200		200			
				SUM: 898		897		SUM: 897		897		SUM: 1028		1027		SUM: 1027		1027			
VOLUME/CAPACITY (V/C) RATIO:						0.653				0.652				0.748						0.747	
V/C LESS ATSAC/ATCS ADJUSTMENT:						0.553				0.552				0.648						0.647	
LEVEL OF SERVICE (LOS):						A				A				B						B	

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	-0.001	Δv/c after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Mindanao Way			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases						4						4						4		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						0						0						0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 3 SB-- 0			NB-- 3 SB-- 0			NB-- 3 SB-- 0			NB-- 3 SB-- 0			NB-- 3 SB-- 0			NB-- 3 SB-- 0		
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2		
		Override Capacity						2						2						2		
					0						0						0					
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	197	1	197	0	197	197	5	214	1	214	0	214	1	214	0	214	1	214		
		Left-Through		0							0				0				0			
		Through	1457	3	486	5	1462	487	160	1707	3	569	5	1712	3	571	0	1712	3	571		
		Through-Right		0							0				0				0			
		Right	486	1	312	1	487	312	1	517	1	332	1	518	1	332	0	518	1	332		
		Left-Through-Right		0							0				0				0			
SOUTHBOUND		Left	129	1	129	0	129	129	0	137	1	137	0	137	1	137	0	137	1	137		
		Left-Through		0							0				0				0			
		Through	1076	2	369	19	1095	375	213	1355	2	465	19	1374	2	471	0	1374	2	471		
		Through-Right		1							1				1				1			
		Right	30	0	30	0	30	30	7	39	0	39	0	39	0	39	0	39	0	39		
		Left-Through-Right		0							0				0				0			
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0							0				0				0			
		Through	539	1	300	3	542	301	38	610	1	343	3	613	1	345	0	613	1	345		
		Through-Right		1							1				1				1			
		Right	60	0	60	0	60	60	12	76	0	76	0	76	0	76	0	76	0	76		
		Left-Through-Right		0							0				0				0			
WESTBOUND		Left	316	2	174	2	318	175	2	337	2	185	2	339	2	186	0	339	2	186		
		Left-Through		0							0				0				0			
		Through	442	1	261	12	454	267	38	507	1	296	12	519	1	302	0	519	1	302		
		Through-Right		1							1				1				1			
		Right	79	0	79	0	79	79	0	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 615 East-West: 474 SUM: 1089			North-South: 616 East-West: 476 SUM: 1092			North-South: 706 East-West: 528 SUM: 1234			North-South: 708 East-West: 531 SUM: 1239			North-South: 708 East-West: 531 SUM: 1239							
VOLUME/CAPACITY (V/C) RATIO:			0.792			0.794			0.897			0.901			0.901							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.692			0.694			0.797			0.801			0.801							
LEVEL OF SERVICE (LOS):			B			B			C			D			D							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Mindanao Way		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases				4				4				4						4	
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0						0	
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 3 SB-- 0		0		NB-- 3 SB-- 0		0		NB-- 3 SB-- 0		0		NB-- 3 SB-- 0		0		0	
		ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		2	
		Override Capacity				2				2				2				2		2	
						0				0				0				0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	96	1	96	0	96	96	11	113	1	113	0	113	1	113	0	113	1	113	
		Left-Through			0						0				0				0		
		Through	1289	3	430	9	1298	433	251	1619	3	540	9	1628	3	543	0	1628	3	543	
		Through-Right			0						0				0				0		
		Right	319	1	64	1	320	65	0	339	1	68	1	340	1	69	0	340	1	69	
		Left-Through-Right			0						0				0				0		
SOUTHBOUND		Left	186	1	186	0	186	186	0	197	1	197	0	197	1	197	0	197	1	197	
		Left-Through			0						0				0				0		
		Through	1562	2	543	-3	1559	542	141	1799	2	628	-3	1796	2	627	0	1796	2	627	
		Through-Right			1						1				1				1		
		Right	66	0	66	0	66	66	16	86	0	86	0	86	0	86	0	86	0	86	
		Left-Through-Right			0						0				0				0		
EASTBOUND		Left	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	
		Left-Through			0						0				0				0		
		Through	502	1	323	6	508	326	38	571	1	366	6	577	1	369	0	577	1	369	
		Through-Right			1						1				1				1		
		Right	144	0	144	0	144	144	7	160	0	160	0	160	0	160	0	160	0	160	
		Left-Through-Right			0						0				0				0		
WESTBOUND		Left	464	2	255	0	464	255	0	493	2	271	0	493	2	271	0	493	2	271	
		Left-Through			0						0				0				0		
		Through	557	1	319	-2	555	318	38	629	1	358	-2	627	1	357	0	627	1	357	
		Through-Right			1						1				1				1		
		Right	81	0	81	0	81	81	0	86	0	86	0	86	0	86	0	86	0	86	
		Left-Through-Right			0						0				0				0		
CRITICAL VOLUMES			North-South: 639			North-South: 638			North-South: 741			North-South: 740			North-South: 740						
			East-West: 578			East-West: 581			East-West: 637			East-West: 640			East-West: 640						
			SUM: 1217			SUM: 1219			SUM: 1378			SUM: 1380			SUM: 1380						
VOLUME/CAPACITY (V/C) RATIO:			0.885			0.887			1.002			1.004			1.004						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.785			0.787			0.902			0.904			0.904						
LEVEL OF SERVICE (LOS):			C			C			E			E			E						

REMARKS:

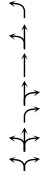
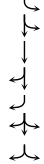

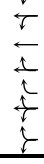
Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Lincoln Boulevard	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	10/10/2017											
CMA11	East-West Street:	Fiji Way	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project											
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0												
			3		3		3		3												
			0		0		0		0												
			0		0		0		0												
			0		0		0		0												
			2		2		2		2												
			0		0		0		0												
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	884	2	486	0	884	486	30	968	2	532	0	968	2	532	0	968	2	532	
		Left-Through		0								0				0				0	
		Through	1989	2	677	6	1995	679	120	2231	2	758	6	2237	2	760	0	2237	2	760	
		Through-Right		1								1				1				1	
		Right	41	0	41	0	41	41	0	44	0	44	0	44	0	44	0	44	0	44	
SOUTHBOUND		Left	44	1	44	0	44	44	0	47	1	47	0	47	1	47	0	47	1	47	
		Left-Through		0								0				0				0	
		Through	1312	2	451	21	1333	458	222	1615	2	554	21	1636	2	561	0	1636	2	561	
		Through-Right		1								1				1				1	
		Right	40	0	40	0	40	40	5	47	0	47	0	47	0	47	0	47	0	47	
EASTBOUND		Left	79	1	79	0	79	79	47	131	1	131	0	131	1	131	0	131	1	131	
		Left-Through		0								0				0				0	
		Through	28	1	28	0	28	28	0	30	1	30	0	30	1	30	0	30	1	30	
		Through-Right		0								0				0				0	
		Right	564	1	321	0	564	321	55	654	1	388	0	654	1	388	0	654	1	388	
WESTBOUND		Left	21	0	21	0	21	21	0	22	0	22	0	22	0	22	0	22	0	22	
		Left-Through		1								1				1				1	
		Through	22	0	50	0	22	50	0	23	0	61	0	23	0	61	0	23	0	61	
		Through-Right		1								1				1				1	
		Right	36	0	50	0	36	50	0	38	0	0	0	38	0	0	0	38	0	0	
CRITICAL VOLUMES	North-South: 937		North-South: 944		North-South: 1086		North-South: 1093		North-South: 1093												
	East-West: 342		East-West: 342		East-West: 410		East-West: 410		East-West: 410												
	SUM: 1279		SUM: 1286		SUM: 1496		SUM: 1503		SUM: 1503												
VOLUME/CAPACITY (V/C) RATIO:			0.898			0.902			1.050			1.055			1.055						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.798			0.802			0.950			0.955			0.955						
LEVEL OF SERVICE (LOS):			C			D			E			E			E						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.005	Δv/c after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017		
CMA11		East-West Street:		Fiji Way			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project		
No. of Phases						3				3						3						3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						0				0						0						0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0				0		NB-- 0 SB-- 0				0	
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0				0		EB-- 0 WB-- 0				0	
Override Capacity						2				2						2						2	
						0				0						0						0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION					
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND		Left	581	2	320	0	581	320	60	677	2	372	0	677	2	372	0	677	2	372			
		Left-Through		0							0				0				0				
		Through	1606	2	544	10	1616	547	216	1921	2	650	10	1931	2	653	0	1931	2	653			
		Through-Right		1							1				1				1				
		Right	26	0	26	0	26	26	0	28	0	28	0	28	0	28	0	28	0	28			
SOUTHBOUND		Left	55	1	55	0	55	55	0	58	1	58	0	58	1	58	0	58	1	58			
		Left-Through		0							0				0				0				
		Through	2106	2	737	-3	2103	736	138	2374	2	833	-3	2371	2	832	0	2371	2	832			
		Through-Right		1							1				1				1				
		Right	106	0	106	0	106	106	11	124	0	124	0	124	0	124	0	124	0	124			
EASTBOUND		Left	82	1	82	0	82	82	45	132	1	132	0	132	1	132	0	132	1	132			
		Left-Through		0							0				0				0				
		Through	25	1	25	0	25	25	0	27	1	27	0	27	1	27	0	27	1	27			
		Through-Right		0							0				0				0				
		Right	1054	1	894	0	1054	894	37	1156	1	970	0	1156	1	970	0	1156	1	970			
WESTBOUND		Left	52	0	52	0	52	52	0	55	0	55	0	55	0	55	0	55	0	55			
		Left-Through		1							1				1				1				
		Through	15	0	71	0	15	71	0	16	0	75	0	16	0	75	0	16	0	75			
		Through-Right		1							1				1				1				
		Right	56	0	0	0	56	0	0	59	0	0	0	59	0	0	0	59	0	0			
CRITICAL VOLUMES		North-South:	1057		North-South:	1056		North-South:	1205		North-South:	1204		North-South:	1204		North-South:	1204		North-South:	1204		
		East-West:	946		East-West:	946		East-West:	1025		East-West:	1025		East-West:	1025		East-West:	1025		East-West:	1025		
		SUM:	2003		SUM:	2002		SUM:	2230		SUM:	2229		SUM:	2229		SUM:	2229		SUM:	2229		
VOLUME/CAPACITY (V/C) RATIO:				1.406		1.405		1.565		1.564		1.564		1.564		1.564		1.564		1.564			
V/C LESS ATSAC/ATCS ADJUSTMENT:				1.306		1.305		1.465		1.464		1.464		1.464		1.464		1.464		1.464			
LEVEL OF SERVICE (LOS):				F		F		F		F		F		F		F		F		F			

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	-0.001	Δv/c after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA12		East-West Street:		Jefferson Boulevard		Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				4		4		4		4		4		4		4		4		4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3		NB-- 3 SB-- 3			
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3		EB-- 0 WB-- 3			
Override Capacity				2		2		2		2		2		2		2		2		2	
				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	16	1	16	0	16	16	0	17	1	17	0	17	1	17	0	17	1	17	
		Left-Through		0							0				0				0		
		Through	2542	4	636	3	2545	636	28	2726	4	682	3	2729	4	682	0	2729	4	682	
		Through-Right		0							0				0				0		
		Right	340	1	154	0	340	154	15	376	1	176	0	376	1	176	0	376	1	176	
SOUTHBOUND		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left	502	2	276	7	509	280	263	796	2	438	7	803	2	442	0	803	2	442	
		Left-Through		0							0				0				0		
		Through	1142	4	286	12	1154	289	33	1245	4	311	12	1257	4	314	0	1257	4	314	
EASTBOUND		Through-Right		0							0				0				0		
		Right	214	1	0	2	216	0	21	248	1	0	2	250	1	0	0	250	1	0	
		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left	248	1	248	1	249	249	21	284	1	284	1	285	1	285	0	285	1	285	
WESTBOUND		Left-Through		0							0				0				0		
		Through	291	2	118	0	291	118	116	425	2	164	0	425	2	164	0	425	2	164	
		Through-Right		1							1				1				1		
		Right	63	0	63	0	63	63	0	67	0	67	0	67	0	67	0	67	0	67	
		Left-Through-Right		0							0				0				0		
CRITICAL VOLUMES		Left-Right		0							0				0				0		
		Left	338	2	186	0	338	186	4	363	2	200	0	363	2	200	0	363	2	200	
		Left-Through		0							0				0				0		
		Through	120	2	60	0	120	60	65	192	2	96	0	192	2	96	0	192	2	96	
		Through-Right		0							0				0				0		
VOLUME/CAPACITY (V/C) RATIO:		Right	884	2	210	2	886	207	157	1095	2	164	2	1097	2	161	0	1097	2	161	
		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left	North-South: 912		916		North-South: 1120		1124		North-South: 1124		1124		North-South: 1124		1124		1124		
		East-West:	458		456		East-West: 448		446		East-West: 446		446		East-West: 446		446		446		
V/C LESS ATSAC/ATCS ADJUSTMENT:		SUM:	1370		1372		SUM: 1568		SUM: 1570		SUM: 1570		SUM: 1570		SUM: 1570		SUM: 1570		SUM: 1570		
		VOLUME/CAPACITY (V/C) RATIO:	0.996		0.998		1.140		1.142		1.142		1.142		1.142		1.142		1.142		
		LEVEL OF SERVICE (LOS):	0.896		0.898		1.040		1.042		1.042		1.042		1.042		1.042		1.042		
			D		D		F		F		F		F		F		F		F		
		REMARKS:																			

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Lincoln Boulevard			Year of Count:		2017		Ambient Growth: (%):		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Jefferson Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			4			4			4			4			4			4		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 3 SB-- 3 EB-- 0 WB-- 3			NB-- 3 SB-- 3 EB-- 0 WB-- 3			NB-- 3 SB-- 3 EB-- 0 WB-- 3			NB-- 3 SB-- 3 EB-- 0 WB-- 3			NB-- 3 SB-- 3 EB-- 0 WB-- 3					
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2		
		Override Capacity			0			0			0			0			0			0		
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	33	1	33	0	33	33	0	35	1	35	0	35	1	35	0	35	1	35		
		Left-Through		0						0				0				0				
		Through	1618	4	405	6	1624	406	21	1739	4	435	6	1745	4	436	0	1745	4	436		
		Through-Right		0						0				0				0				
		Right	345	1	27	0	345	27	4	370	1	24	0	370	1	24	0	370	1	24		
SOUTHBOUND		Left-Through-Right		0					0				0				0					
		Left-Right		0						0				0				0				
		Left	533	2	293	-1	532	293	176	742	2	408	-1	741	2	408	0	741	2	408		
		Left-Through		0						0				0				0				
		Through	2139	4	535	-2	2137	534	22	2293	4	573	-2	2291	4	573	0	2291	4	573		
EASTBOUND		Through-Right		0					0				0				0					
		Right	636	1	554	0	636	553	13	688	1	587	0	688	1	586	0	688	1	586		
		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	82	1	82	1	83	83	14	101	1	101	1	102	1	102	0	102	1	102		
WESTBOUND		Left-Through		0						0				0				0				
		Through	205	2	94	0	205	94	80	298	2	127	0	298	2	127	0	298	2	127		
		Through-Right		1						1				1				1				
		Right	77	0	77	0	77	77	0	82	0	82	0	82	0	82	0	82	0	82		
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES		Left-Right		0						0				0				0				
		Left	578	2	318	0	578	318	15	629	2	346	0	629	2	346	0	629	2	346		
		Left-Through		0						0				0				0				
		Through	377	2	189	0	377	189	129	529	2	265	0	529	2	265	0	529	2	265		
		Through-Right		0						0				0				0				
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		Right	776	2	134	3	779	135	271	1095	2	194	3	1098	2	196	0	1098	2	196		
		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		North-South: East-West: SUM:	698 412 1110			North-South: East-West: SUM:	699 412 1111		North-South: East-West: SUM:	843 473 1316		North-South: East-West: SUM:	844 473 1317		North-South: East-West: SUM:	844 473 1317						
				0.807 0.707 C			0.808 0.708 C			0.957 0.857 D			0.958 0.858 D			0.958 0.858 D						

REMARKS:

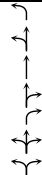

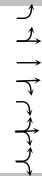
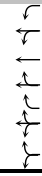
Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Glencoe Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		1/3/2018	
		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			4			4			4			4			4			4		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3					
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0					
		Override Capacity			2			2			2			2			2			2		
					0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	396	1	233	24	420	245	7	427	1	251	24	451	1	263	0	451	1	263		
		Left-Through		1						1				1				1				
		Through	70	0	233	0	70	245	0	74	0	251	0	74	0	263	0	74	0	263		
		Through-Right		0						0				0				0				
		Right	437	1	102	50	487	140	35	499	1	130	50	549	1	168	0	549	1	168		
		Left-Through-Right		0						0				0				0				
SOUTHBOUND		Left	89	1	66	0	89	66	0	94	1	70	0	94	1	70	0	94	1	70		
		Left-Through		1						1				1				1				
		Through	43	0	66	0	43	66	0	46	0	70	0	46	0	70	0	46	0	70		
		Through-Right		0						0				0				0				
		Right	9	1	0	0	9	0	0	10	1	0	0	10	1	0	0	10	1	0		
		Left-Through-Right		0						0				0				0				
EASTBOUND		Left	14	1	14	0	14	14	0	15	1	15	0	15	1	15	0	15	1	15		
		Left-Through		0						0				0				0				
		Through	919	2	460	0	919	460	73	1049	2	525	0	1049	2	525	0	1049	2	525		
		Through-Right		0						0				0				0				
		Right	134	1	0	6	140	0	19	161	1	0	6	167	1	0	0	167	1	0		
		Left-Through-Right		0						0				0				0				
WESTBOUND		Left	335	1	335	12	347	347	13	369	1	369	12	381	1	381	0	381	1	381		
		Left-Through		0						0				0				0				
		Through	648	2	324	0	648	324	48	736	2	368	0	736	2	368	0	736	2	368		
		Through-Right		0						0				0				0				
		Right	131	1	98	0	131	98	0	139	1	104	0	139	1	104	0	139	1	104		
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES			North-South: 299 East-West: 795 SUM: 1094			North-South: 311 East-West: 807 SUM: 1118			North-South: 321 East-West: 894 SUM: 1215			North-South: 333 East-West: 906 SUM: 1239			North-South: 333 East-West: 906 SUM: 1239							
VOLUME/CAPACITY (V/C) RATIO:			0.796			0.813			0.884			0.901			0.901							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.696			0.713			0.784			0.801			0.801							
LEVEL OF SERVICE (LOS):			B			C			C			D			D							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.017	Δv/c after mitigation:	0.017
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Glencoe Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		1/3/2018	
		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			4			4			4			4			4			4		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1			1		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3			NB-- 3 SB-- 3		
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0			EB-- 3 WB-- 0		
		Override Capacity			2			2			2			2			2			2		
					0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	203	1	162	-4	199	160	-32	183	1	155	-4	179	1	153	0	179	1	153		
		Left-Through		1							1				1				1			
		Through	120	0	162	0	120	160	0	127	0	155	0	127	0	153	0	127	0	153		
		Through-Right		0							0				0				0			
		Right	304	1	0	-7	297	0	29	352	1	0	-7	345	1	0	0	345	1	0		
SOUTHBOUND		Left-Through-Right		0						0				0				0				
		Left-Right		0						0				0				0				
		Left	239	1	185	0	239	185	0	254	1	196	0	254	1	196	0	254	1	196		
		Left-Through		1							1				1				1			
		Through	130	0	185	0	130	185	0	138	0	196	0	138	0	196	0	138	0	196		
EASTBOUND		Through-Right		0						0				0				0				
		Right	62	1	32	0	62	32	0	66	1	34	0	66	1	34	0	66	1	34		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	30	1	30	0	30	30	0	32	1	32	0	32	1	32	0	32	1	32		
WESTBOUND		Left-Through		0						0				0				0				
		Through	796	2	398	0	796	398	57	902	2	451	0	902	2	451	0	902	2	451		
		Through-Right		0							0				0				0			
		Right	272	1	110	11	283	123	-37	252	1	97	11	263	1	110	0	263	1	110		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES		Left-Right		0						0				0				0				
		Left	434	1	434	24	458	458	54	515	1	515	24	539	1	539	0	539	1	539		
		Left-Through		0							0				0				0			
		Through	944	2	472	0	944	472	51	1053	2	527	0	1053	2	527	0	1053	2	527		
		Through-Right		0							0				0				0			
VOLUME/CAPACITY (V/C) RATIO:		Right	408	1	316	0	408	316	0	433	1	335	0	433	1	335	0	433	1	335		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left																				
		Left-Through																				
CRITICAL VOLUMES				North-South: 347		347		North-South: 832		832		North-South: 349		349		North-South: 990		990				
				East-West: 832		856		East-West: 966		966		East-West: 990		990		East-West: 990		990				
				SUM: 1179		1201		SUM: 1317		1317		SUM: 1339		1339		SUM: 1339		1339				
VOLUME/CAPACITY (V/C) RATIO:						0.857				0.873				0.974				0.974				
V/C LESS ATSAC/ATCS ADJUSTMENT:						0.757				0.773				0.874				0.874				
LEVEL OF SERVICE (LOS):						C				C				D				D				

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.016	Δv/c after mitigation:	0.016
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Glencoe Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA14		East-West Street:		Maxella Avenue			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2			2			2			2			2			2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			
ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2			2			2			
Override Capacity				0			0			0			0			0			0			
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	112	1	112	0	112	112	1	120	1	120	0	120	1	120	0	120	1	120		
		Left-Through		0						0				0		0		0				
		Through	552	1	552	45	597	597	26	612	1	612	45	657	1	657	0	657	1	657		
		Through-Right		0						0				0		0		0				
		Right	55	1	24	0	55	24	12	70	1	27	0	70	1	27	0	70	1	27		
SOUTHBOUND		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	71	1	71	0	71	71	0	75	1	75	0	75	1	75	0	75	1	75		
		Left-Through		0						0				0		0		0				
		Through	517	1	300	19	536	309	27	576	1	336	19	595	1	345	0	595	1	345		
EASTBOUND		Through-Right		1						1				1		1		1				
		Right	82	0	82	0	82	82	8	95	0	95	0	95	0	95	0	95	0	95		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	105	1	105	29	134	134	16	127	1	127	29	156	1	156	0	156	1	156		
WESTBOUND		Left-Through		0						0				0		0		0				
		Through	97	1	97	10	107	107	8	111	1	111	10	121	1	121	0	121	1	121		
		Through-Right		0						0				0		0		0				
		Right	131	1	75	12	143	87	53	192	1	132	12	204	1	144	0	204	1	144		
		Left-Through-Right		0						0				0		0		0				
CRITICAL VOLUMES		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
VOLUME/CAPACITY (V/C) RATIO:		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
V/C LESS ATSAC/ATCS ADJUSTMENT:		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
LEVEL OF SERVICE (LOS):		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
SUM:		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
SUM:		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
SUM:		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
SUM:		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
SUM:		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
SUM:		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
SUM:		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
SUM:		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
SUM:		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
SUM:		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
		Left-Right		0						0				0		0		0				
		Left	63	1	63	0	63	63	20	87	1	87	0	87	1	87	0	87	1	87		
SUM:		Left-Through		0						0				0		0		0				
		Through	81	1	81	2	83	82	7	93	1	89	2	95	1	90	0	95	1	90		
		Through-Right		1						1				1		1		1				
		Right	81	0	46	0	81	81	-2	84	0	84	0	84	0	84	0	84	0	84		
		Left-Through-Right		0						0				0		0		0				
SUM:																						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.048	Δv/c after mitigation:	0.048
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Glencoe Avenue			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		10/10/2017	
CMA14		East-West Street:			Maxella Avenue			Projection Year:			2023		Peak Hour:			PM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					2			2			2			2			2			2			2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0						
Override Capacity					2			2			2			2			2			2			2			
					0			0			0			0			0			0			0			
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	121	1	121	0	121	121	52	180	1	180	0	180	1	180	0	180	1	180						
		Left-Through		0							0				0				0							
		Through	343	1	343	-15	328	328	-24	340	1	340	-15	325	1	325	0	325	1	325						
		Through-Right		0							0				0				0							
		Right	70	1	24	0	70	24	23	97	1	40	0	97	1	40	0	97	1	40						
		Left-Through-Right		0							0				0				0							
SOUTHBOUND		Left	45	1	45	0	45	45	-5	43	1	43	0	43	1	43	0	43	1	43						
		Left-Through		0							0				0				0							
		Through	673	1	393	24	697	405	2	716	1	429	24	740	1	441	0	740	1	441						
		Through-Right		1							1				1				1							
		Right	113	0	113	0	113	113	21	141	0	141	0	141	0	141	0	141	0	141						
		Left-Through-Right		0							0				0				0							
EASTBOUND		Left	139	1	139	-10	129	129	10	158	1	158	-10	148	1	148	0	148	1	148						
		Left-Through		0							0				0				0							
		Through	136	1	136	-3	133	133	10	154	1	154	-3	151	1	151	0	151	1	151						
		Through-Right		0							0				0				0							
		Right	180	1	120	-4	176	116	15	206	1	116	-4	202	1	112	0	202	1	112						
		Left-Through-Right		0							0				0				0							
WESTBOUND		Left	93	1	93	0	93	93	15	114	1	114	0	114	1	114	0	114	1	114						
		Left-Through		0							0				0				0							
		Through	147	1	122	3	150	124	9	165	1	130	3	168	1	132	0	168	1	132						
		Through-Right		1							1				1				1							
		Right	97	0	97	0	97	97	-8	95	0	95	0	95	0	95	0	95	0	95						
		Left-Through-Right		0							0				0				0							
CRITICAL VOLUMES			North-South: 514			North-South: 526			North-South: 609			North-South: 621			North-South: 621											
			East-West: 261			East-West: 253			East-West: 288			East-West: 280			East-West: 280											
			SUM: 775			SUM: 779			SUM: 897			SUM: 901			SUM: 901											
VOLUME/CAPACITY (V/C) RATIO:			0.517			0.519			0.598			0.601			0.601											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.417			0.419			0.498			0.501			0.501											
LEVEL OF SERVICE (LOS):			A			A			A			A			A											

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017		
		East-West Street:		Glencoe Avenue			Projection Year:			2023		Peak Hour:			AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project		
		No. of Phases		2			2			2			2			2			2					2	
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0			0			0			0					0	
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0					0	
		ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0					0	
		Override Capacity		2			2			2			2			2			2					2	
				0			0			0			0			0			0					0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	416	1	416	13	429	429	16	458	1	458	13	471	1	471	0	471	1	471					
		Left-Through		0							0				0				0						
		Through	568	1	325	0	568	325	12	615	1	362	0	615	1	362	0	615	1	362					
		Through-Right		1							1				1				1						
		Right	82	0	82	0	82	82	21	108	0	108	0	108	0	108	0	108	0	108					
		Left-Through-Right		0							0				0				0						
SOUTHBOUND		Left	8	1	8	0	8	8	30	38	1	38	0	38	1	38	0	38	1	38					
		Left-Through		0							0				0				0						
		Through	373	1	238	0	373	240	20	416	1	263	0	416	1	266	0	416	1	266					
		Through-Right		1							1				1				1						
		Right	102	0	102	5	107	107	2	110	0	110	5	115	0	115	0	115	0	115					
		Left-Through-Right		0							0				0				0						
EASTBOUND		Left	71	1	71	19	90	90	8	83	1	83	19	102	1	102	0	102	1	102					
		Left-Through		0							0				0				0						
		Through	134	1	134	12	146	146	28	170	1	170	12	182	1	182	0	182	1	182					
		Through-Right		0							0				0				0						
		Right	440	1	232	85	525	311	56	523	1	294	85	608	1	373	0	608	1	373					
		Left-Through-Right		0							0				0				0						
WESTBOUND		Left	43	1	43	0	43	43	21	67	1	67	0	67	1	67	0	67	1	67					
		Left-Through		0							0				0				0						
		Through	197	1	105	3	200	107	21	230	1	134	3	233	1	135	0	233	1	135					
		Through-Right		1							1				1				1						
		Right	13	0	13	0	13	13	23	37	0	37	0	37	0	37	0	37	0	37					
		Left-Through-Right		0							0				0				0						
CRITICAL VOLUMES			North-South:		654	North-South:		669	North-South:		721	North-South:		737	North-South:		737								
			East-West:		275	East-West:		354	East-West:		361	East-West:		440	East-West:		440								
			SUM:		929	SUM:		1023	SUM:		1082	SUM:		1177	SUM:		1177								
VOLUME/CAPACITY (V/C) RATIO:					0.619			0.682			0.721			0.785			0.785								
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.519			0.582			0.621			0.685			0.685								
LEVEL OF SERVICE (LOS):					A			A			B			B			B								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.064	Δv/c after mitigation:	0.064
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Glencoe Avenue			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			2			2			2			2			2			2				
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0				
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0				
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2				
		Override Capacity			0			0			0			0			0			0				
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	218	1	218	24	242	242	25	256	1	256	24	280	1	280	0	280	1	280				
		Left-Through		0							0				0				0					
		Through	335	1	189	0	335	189	23	379	1	221	0	379	1	221	0	379	1	221				
		Through-Right		1							1				1				1					
		Right	43	0	43	0	43	43	17	63	0	63	0	63	0	63	0	63	0	63				
		Left-Through-Right		0							0				0				0					
SOUTHBOUND		Left	10	1	10	0	10	10	22	33	1	33	0	33	1	33	0	33	1	33				
		Left-Through		0							0				0				0					
		Through	499	1	296	0	499	301	16	546	1	324	0	546	1	329	0	546	1	329				
		Through-Right		1							1				1				1					
		Right	93	0	93	10	103	103	2	101	0	101	10	111	0	111	0	111	0	111				
		Left-Through-Right		0							0				0				0					
EASTBOUND		Left	129	1	129	-2	127	127	2	139	1	139	-2	137	1	137	0	137	1	137				
		Left-Through		0							0				0				0					
		Through	207	1	207	-1	206	206	16	236	1	236	-1	235	1	235	0	235	1	235				
		Through-Right		0							0				0				0					
		Right	598	1	489	-12	586	465	17	652	1	524	-12	640	1	500	0	640	1	500				
		Left-Through-Right		0							0				0				0					
WESTBOUND		Left	118	1	118	0	118	118	14	139	1	139	0	139	1	139	0	139	1	139				
		Left-Through		0							0				0				0					
		Through	209	1	118	6	215	121	15	237	1	146	6	243	1	149	0	243	1	149				
		Through-Right		1							1				1				1					
		Right	26	0	26	0	26	26	26	54	0	54	0	54	0	54	0	54	0	54				
		Left-Through-Right		0							0				0				0					
CRITICAL VOLUMES			North-South:		514	North-South:		543	North-South:		580	North-South:		609	North-South:		609							
			East-West:		607	East-West:		583	East-West:		663	East-West:		639	East-West:		639							
			SUM:		1121	SUM:		1126	SUM:		1243	SUM:		1248	SUM:		1248							
VOLUME/CAPACITY (V/C) RATIO:					0.747			0.751			0.829			0.832			0.832							
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.647			0.651			0.729			0.732			0.732							
LEVEL OF SERVICE (LOS):					B			B			C			C			C							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA16		East-West Street:		SR-90 WB Ramps		Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				3		3		3		3		3		3		3		3		3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?				2		2		2		2		2		2		2		2		2	
Override Capacity				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	7	1	7	0	7	7	0	7	1	7	0	7	1	7	0	7	1	7	
		Left-Through		0							0				0				0		
		Through	531	2	266	4	535	268	36	600	2	300	4	604	2	302	0	604	2	302	
		Through-Right		0							0				0				0		
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0							0				0				0		
		Through	837	2	286	85	922	315	97	985	2	336	85	1070	2	364	0	1070	2	364	
		Through-Right		1							1				1				1		
		Right	22	0	22	0	22	22	0	23	0	23	0	23	0	23	0	23	0	23	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0							0				0				0		
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0							0				0				0		
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	645	1	625	0	645	628	1	686	1	686	0	686	1	686	0	686	1	686	
		Left-Through		1							1				1				1		
		Through	1230	1	625	9	1239	628	72	1378	1	689	9	1387	1	694	0	1387	1	694	
		Through-Right		0							0				0				0		
		Right	688	1	688	9	697	697	13	743	1	743	9	752	1	752	0	752	1	752	
		Left-Through-Right		0							0				0				0		
CRITICAL VOLUMES			North-South: 293			North-South: 322			North-South: 343			North-South: 371			North-South: 371						
			East-West: 688			East-West: 697			East-West: 743			East-West: 752			East-West: 752						
			SUM: 981			SUM: 1019			SUM: 1086			SUM: 1123			SUM: 1123						
VOLUME/CAPACITY (V/C) RATIO:			0.688			0.715			0.762			0.788			0.788						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.588			0.615			0.662			0.688			0.688						
LEVEL OF SERVICE (LOS):			A			B			B			B			B						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.026	Δv/c after mitigation:	0.026
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA16		East-West Street:		SR-90 WB Ramps			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				3			3			3			3			3			3					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0					
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2			2			2					
Override Capacity				0			0			0			0			0			0					
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	16	1	16	0	16	16	0	17	1	17	0	17	1	17	0	17	1	17				
		Left-Through		0							0				0				0					
		Through	435	2	218	7	442	221	37	499	2	250	7	506	2	253	0	506	2	253				
		Through-Right		0							0				0				0					
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
SOUTHBOUND		Left-Through-Right		0							0				0				0					
		Left-Right		0							0				0				0					
		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0							0				0				0					
		Through	1353	2	464	-12	1341	460	47	1483	2	508	-12	1471	2	504	0	1471	2	504				
EASTBOUND		Through-Right		1							1				1				1					
		Right	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42				
		Left-Through-Right		0							0				0				0					
		Left-Right		0							0				0				0					
		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
WESTBOUND		Left-Through		0							0				0				0					
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Through-Right		0							0				0				0					
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0							0				0				0					
CRITICAL VOLUMES		North-South:	480	North-South:		476	North-South:		525	North-South:		521	North-South:		521									
		East-West:	499	East-West:		504	East-West:		553	East-West:		558	East-West:		558									
		SUM:	979	SUM:		980	SUM:		1078	SUM:		1079	SUM:		1079									
VOLUME/CAPACITY (V/C) RATIO:				0.687			0.688			0.756			0.757			0.757								
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.587			0.588			0.656			0.657			0.657								
LEVEL OF SERVICE (LOS):				A			A			B			B			B								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 EB Ramps			Projection Year:			2023		Peak Hour:			AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3			3				
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0				
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0							
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2				
		Override Capacity			0			0			0			0			0			0				
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0						0				0				0						
		Through	511	1	414	4	515	415	39	581	1	453	4	585	1	454	0	585	1	454				
		Through-Right		1						1				1				1						
		Right	730	1	0	0	730	0	3	778	1	0	0	778	1	0	0	778	1	0				
		Left-Through-Right		0						0				0				0						
Left-Right		0						0				0				0								
SOUTHBOUND		Left	473	2	260	71	544	299	61	563	2	310	71	634	2	349	0	634	2	349				
		Left-Through		0						0				0				0						
		Through	1012	2	506	14	1026	513	40	1114	2	557	14	1128	2	564	0	1128	2	564				
		Through-Right		0						0				0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0				0				0						
Left-Right		0						0				0				0								
EASTBOUND		Left	29	1	29	0	29	29	0	31	1	31	0	31	1	31	0	31	1	31				
		Left-Through		0						0				0				0						
		Through	1190	1	605	0	1190	605	78	1341	1	681	0	1341	1	681	0	1341	1	681				
		Through-Right		1						1				1				1						
		Right	19	0	19	0	19	19	0	20	0	20	0	20	0	20	0	20	0	20				
		Left-Through-Right		0						0				0				0						
Left-Right		0						0				0				0								
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0						0				0				0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Through-Right		0						0				0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0				0				0						
Left-Right		0						0				0				0								
CRITICAL VOLUMES				North-South: 674 East-West: 605 SUM: 1279			North-South: 714 East-West: 605 SUM: 1319			North-South: 763 East-West: 681 SUM: 1444			North-South: 803 East-West: 681 SUM: 1484			North-South: 803 East-West: 681 SUM: 1484								
VOLUME/CAPACITY (V/C) RATIO:				0.898			0.926			1.013			1.041			1.041								
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.798			0.826			0.913			0.941			0.941								
LEVEL OF SERVICE (LOS):				C			D			E			E			E								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.028	Δv/c after mitigation:	0.028
Significant impacted?	YES	Fully mitigated?	NO

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Mindanao Way			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 EB Ramps			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3			3				
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0				
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0			NB-- 2 SB-- 0 EB-- 0 WB-- 0				
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2				
		Override Capacity			0			0			0			0			0			0				
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		Left-Through		0						0				0				0			0			
		Through	462	1	374	7	469	377	39	529	1	411	7	536	1	413	0	536	1	413				
		Through-Right		1						1				1				1			1			
		Right	661	1	0	0	661	0	2	704	1	0	0	704	1	0	0	704	1	0				
		Left-Through-Right		0					0				0				0			0				
		Left-Right		0					0				0				0			0				
SOUTHBOUND		Left	706	2	388	-10	696	383	9	758	2	417	-10	748	2	411	0	748	2	411				
		Left-Through		0						0				0				0			0			
		Through	1120	2	560	-2	1118	559	38	1227	2	614	-2	1225	2	613	0	1225	2	613				
		Through-Right		0						0				0				0			0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0					0				0				0			0				
		Left-Right		0					0				0				0			0				
EASTBOUND		Left	17	1	17	0	17	17	0	18	1	18	0	18	1	18	0	18	1	18				
		Left-Through		0						0				0				0			0			
		Through	1142	1	580	0	1142	580	59	1271	1	645	0	1271	1	645	0	1271	1	645				
		Through-Right		1						1				1				1			1			
		Right	17	0	17	0	17	17	0	18	0	18	0	18	0	18	0	18	0	18				
		Left-Through-Right		0					0				0				0			0				
		Left-Right		0					0				0				0			0				
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0						0				0				0			0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Through-Right		0						0				0				0			0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0					0				0				0			0				
		Left-Right		0					0				0				0			0				
CRITICAL VOLUMES				North-South: 762 East-West: 580 SUM: 1342			North-South: 760 East-West: 580 SUM: 1340			North-South: 828 East-West: 645 SUM: 1473			North-South: 824 East-West: 645 SUM: 1469			North-South: 824 East-West: 645 SUM: 1469								
VOLUME/CAPACITY (V/C) RATIO:				0.942			0.940			1.034			1.031			1.031								
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.842			0.840			0.934			0.931			0.931								
LEVEL OF SERVICE (LOS):				D			D			E			E			E								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	-0.003	Δv/c after mitigation:	-0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Supplemental Level of Service Worksheet (Circular 212 Method)



IS #:   
 CMA17



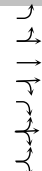
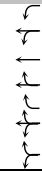
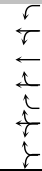
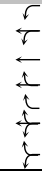
PROJECT TITLE: 5-16-0265-1 Paseo Marina Project  
North-South Street: Mindanao Way East-West Street: SR-90 EB Ramps  
Scenario: Future (2023) with Project with Mitigation  
Count Date: 2017 Analyst: JAS Date: 10/10/2017

No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity		AM PEAK HOUR			PM PEAK HOUR		
		NB --	SB --	Lane Volume	NB --	SB --	Lane Volume
		1	0	3	1	0	3
		0	0	0	0	0	0
		0	0	0	0	0	0
				2			2
				0			0
MOVEMENT		Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	585	2	293	536	2	268
	Through-Right		0			0	
	Right	778	1	0	704	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	634	2	349	748	2	411
	Left-Through		0			0	
	Through	1128	2	564	1225	2	613
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	31	0	31	18	0	18
	Left-Through		1			1	
	Through	1341	1	686	1271	1	645
	Through-Right		0			0	
	Right	20	1	20	18	1	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left [1]	0	1	0	0	1	0
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES		North-South:		642	North-South:		679
		East-West:		686	East-West:		645
		SUM:		1328	SUM:		1324
VOLUME/CAPACITY (V/C) RATIO:				0.932			0.929
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.832			0.829
LEVEL OF SERVICE (LOS):				D			D

[1] Fictitious WB left-turn lane analyzed to complement the reduction in lane volume for the proposed NB free right-turn lane. The WB left-turn lane is included for analysis purposes only and is not a proposed mitigation measure.

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Beethoven Street			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		1/3/2018	
CMA18		East-West Street:			Venice Boulevard			Projection Year:			2023		Peak Hour:			AM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					3			3			3			3			3			3			3			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0						
Override Capacity					2			2			2			2			2			2						
					0			0			0			0			0			0						
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	79	0	79	0	79	79	0	84	0	84	0	84	0	84	0	84	0	84						
		Left-Through		0							0				0			0								
		Through	408	0	502	7	415	509	18	451	0	551	7	458	0	558	0	458	0	558						
		Through-Right		0						0				0			0									
		Right	15	0	0	0	15	0	0	16	0	0	0	16	0	0	0	16	0	0						
SOUTHBOUND		Left-Through-Right		1						1				1			1									
		Left-Right		0						0				0			0									
		Left	115	1	115	0	115	115	3	125	1	125	0	125	1	125	0	125	1	125						
		Left-Through		0						0				0			0									
		Through	194	0	215	2	196	217	23	229	0	253	2	231	0	255	0	231	0	255						
EASTBOUND		Through-Right		1						1				1			1									
		Right	21	0	0	0	21	0	2	24	0	0	0	24	0	0	0	24	0	0						
		Left-Through-Right		0						0				0			0									
		Left-Right		0						0				0			0									
		Left	219	1	219	0	219	219	2	234	1	234	0	234	1	234	0	234	1	234						
WESTBOUND		Left-Through		0						0				0			0									
		Through	1495	2	510	5	1500	511	22	1609	2	548	5	1614	2	550	0	1614	2	550						
		Through-Right		1						1				1			1									
		Right	34	0	34	0	34	34	0	36	0	36	0	36	0	36	0	36	0	36						
		Left-Through-Right		0						0				0			0									
WESTBOUND		Left-Through-Right		0						0				0			0									
		Left-Right		0						0				0			0									
		Left	80	1	80	0	80	80	0	85	1	85	0	85	1	85	0	85	1	85						
		Left-Through		0						0				0			0									
		Through	1260	2	459	1	1261	459	16	1354	2	493	1	1355	2	493	0	1355	2	493						
WESTBOUND		Through-Right		1						1				1			1									
		Right	116	0	116	0	116	116	2	125	0	125	0	125	0	125	0	125	0	125						
		Left-Through-Right		0						0				0			0									
		Left-Right		0						0				0			0									
		CRITICAL VOLUMES			North-South: 617 East-West: 678 SUM: 1295			North-South: 624 East-West: 678 SUM: 1302			North-South: 676 East-West: 727 SUM: 1403			North-South: 683 East-West: 727 SUM: 1410			North-South: 683 East-West: 727 SUM: 1410									
VOLUME/CAPACITY (V/C) RATIO:			0.909			0.914			0.985			0.989			0.989											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.809			0.814			0.885			0.889			0.889											
LEVEL OF SERVICE (LOS):			D			D			D			D			D											

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Beethoven Street			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		1/3/2018	
CMA18		East-West Street:		Venice Boulevard			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				3			3			3			3			3			3					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0					
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2			2			2					
Override Capacity				0			0			0			0			0			0					
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	36	0	36	0	36	36	0	38	0	38	0	38	0	38	0	38	0	38				
		Left-Through		0						0				0				0						
		Through	165	0	230	-1	164	229	16	191	0	260	-1	190	0	259	0	190	0	259				
		Through-Right		0						0				0				0						
		Right	29	0	0	0	29	0	0	31	0	0	0	31	0	0	0	31	0	0				
SOUTHBOUND		Left-Through-Right		1						1				1				1						
		Left-Right		0						0				0				0						
		Left	144	1	144	0	144	144	3	156	1	156	0	156	1	156	0	156	1	156				
		Left-Through		0						0				0				0						
		Through	366	0	391	3	369	394	16	405	0	433	3	408	0	436	0	408	0	436				
EASTBOUND		Through-Right		1						1				1				1						
		Right	25	0	0	0	25	0	1	28	0	0	0	28	0	0	0	28	0	0				
		Left-Through-Right		0						0				0				0						
		Left-Right		0						0				0				0						
		Left	37	1	37	0	37	37	0	39	1	39	0	39	1	39	0	39	1	39				
WESTBOUND		Left-Through		0						0				0				0						
		Through	1427	2	501	-1	1426	500	15	1530	2	537	-1	1529	2	536	0	1529	2	536				
		Through-Right		1						1				1				1						
		Right	75	0	75	0	75	75	0	80	0	80	0	80	0	80	0	80	0	80				
		Left-Through-Right		0						0				0				0						
CRITICAL VOLUMES		Left-Right		0						0				0				0						
		Left	264	1	264	0	264	264	0	280	1	280	0	280	1	280	0	280	1	280				
		Left-Through		0						0				0				0						
		Through	1148	2	409	2	1150	410	14	1233	2	440	2	1235	2	441	0	1235	2	441				
		Through-Right		1						1				1				1						
VOLUME/CAPACITY (V/C) RATIO:		Right	80	0	80	0	80	80	3	88	0	88	0	88	0	88	0	88	0	88				
		Left-Through-Right		0						0				0				0						
		Left-Right		0						0				0				0						
		Left																						
		Left-Through																						
W/C LESS ATSAC/ATCS ADJUSTMENT:				0.736			0.738			0.804				0.805				0.805						
LEVEL OF SERVICE (LOS):				C			C			D				D				D						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Zanja Street			Year of Count:			2017			Ambient Growth: (%)			1.0			Conducted by:			NDS			Date:		10/10/2017		
CMA19		East-West Street:			Washington Boulevard - Washington			Projection Year:			2023			Peak Hour:			AM			Reviewed by:			JAS			Project:		5-16-0265-1 Paseo Marina Project		
No. of Phases					3			3			3			3			3			3			3							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					1			1			1			1			1			1			1							
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0							
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0							
Override Capacity					2			2			2			2			2			2			2							
					0			0			0			0			0			0			0							
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION											
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume								
NORTHBOUND		Left	469	1	292	1	470	292	27	525	1	323	1	526	1	324	0	526	1	324										
		Left-Through		1						1				1				1												
		Through	114	0	292	0	114	292	0	121	0	323	0	121	0	324	0	121	0	324										
		Through-Right		0						0				0				0												
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
		Left-Through-Right		0						0				0				0												
SOUTHBOUND		Left	43	0	43	0	43	43	0	46	0	46	0	46	0	46	0	46	0	46										
		Left-Through		0						0				0				0												
		Through	180	0	229	0	180	229	0	191	0	243	0	191	0	243	0	191	0	243										
		Through-Right		0						0				0				0												
		Right	6	0	0	0	6	0	0	6	0	0	0	6	0	0	0	6	0	0										
		Left-Through-Right		1						1				1				1												
EASTBOUND		Left	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1										
		Left-Through		1						1				1				1												
		Through	770	1	387	34	804	404	36	853	1	429	34	887	1	446	0	887	1	446										
		Through-Right		0						0				0				0												
		Right	505	2	132	5	510	135	31	567	2	151	5	572	2	153	0	572	2	153										
		Left-Through-Right		0						0				0				0												
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
		Left-Through		0						0				0				0												
		Through	561	1	314	8	569	318	33	629	1	350	8	637	1	354	0	637	1	354										
		Through-Right		1						1				1				1												
		Right	66	0	66	0	66	66	0	70	0	70	0	70	0	70	0	70	0	70										
		Left-Through-Right		0						0				0				0												
CRITICAL VOLUMES			North-South: 521 East-West: 387 SUM: 908			North-South: 521 East-West: 404 SUM: 925			North-South: 566 East-West: 429 SUM: 995			North-South: 567 East-West: 446 SUM: 1013			North-South: 567 East-West: 446 SUM: 1013															
VOLUME/CAPACITY (V/C) RATIO:			0.637			0.649			0.698			0.711			0.711															
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.537			0.549			0.598			0.611			0.611															
LEVEL OF SERVICE (LOS):			A			A			A			B			B															

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.013	Δv/c after mitigation:	0.013
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Zanja Street			Year of Count:			2017			Ambient Growth: (%)			1.0			Conducted by:			NDS			Date:		10/10/2017		
CMA19		East-West Street:			Washington Boulevard - Washington			Projection Year:			2023			Peak Hour:			PM			Reviewed by:			JAS			Project:		5-16-0265-1 Paseo Marina Project		
No. of Phases					3			3			3			3			3			3			3							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					1			1			1			1			1			1			1							
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0										
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0										
Override Capacity					2			2			2			2			2			2										
					0			0			0			0			0			0										
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION											
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume								
NORTHBOUND		Left	528	1	302	2	530	303	27	587	1	334	2	589	1	335	0	589	1	335										
		Left-Through		1						1					1				1											
		Through	76	0	302	0	76	303	0	81	0	334	0	81	0	335	0	81	0	335										
		Through-Right		0						0					0				0											
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
		Left-Through-Right		0						0					0				0											
SOUTHBOUND		Left	43	0	43	0	43	43	0	46	0	46	0	46	0	46	0	46	0	46										
		Left-Through		0						0					0				0											
		Through	206	0	253	0	206	253	0	219	0	269	0	219	0	269	0	219	0	269										
		Through-Right		0						0					0				0											
		Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0	0	4	0	0										
		Left-Through-Right		1						1					1				1											
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
		Left-Through		1						1					1				1											
		Through	669	1	335	-4	665	333	37	747	1	374	-4	743	1	372	0	743	1	372										
		Through-Right		0						0					0				0											
		Right	552	2	153	-1	551	152	32	618	2	173	-1	617	2	172	0	617	2	172										
		Left-Through-Right		0						0					0				0											
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
		Left-Through		0						0					0				0											
		Through	836	1	442	16	852	450	34	921	1	486	16	937	1	494	0	937	1	494										
		Through-Right		1						1					1				1											
		Right	48	0	48	0	48	48	0	51	0	51	0	51	0	51	0	51	0	51										
		Left-Through-Right		0						0					0				0											
CRITICAL VOLUMES			North-South: 555			North-South: 556			North-South: 603			North-South: 604			North-South: 604															
			East-West: 442			East-West: 450			East-West: 486			East-West: 494			East-West: 494															
			SUM: 997			SUM: 1006			SUM: 1089			SUM: 1098			SUM: 1098															
VOLUME/CAPACITY (V/C) RATIO:			0.700			0.706			0.764			0.771			0.771															
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.600			0.606			0.664			0.671			0.671															
LEVEL OF SERVICE (LOS):			A			B			B			B			B															

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.007	Δv/c after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA20		East-West Street:		Venice Boulevard		Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				4		4		4		4		4		4		4		4		4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0	
Override Capacity				2		2		2		2		2		2		2		2		2	
				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	82	1	82	0	82	82	7	94	1	94	0	94	1	94	0	94	1	94	
		Left-Through		0							0				0				0		
		Through	1045	1	567	12	1057	575	48	1157	1	638	12	1169	1	647	0	1169	1	647	
		Through-Right		1							1				1				1		
		Right	88	0	88	5	93	93	26	119	0	119	5	124	0	124	0	124	0	124	
SOUTHBOUND		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left	109	1	109	0	109	109	0	116	1	116	0	116	1	116	0	116	1	116	
		Left-Through		0							0				0				0		
		Through	866	2	433	3	869	435	55	974	2	487	3	977	2	489	0	977	2	489	
EASTBOUND		Through-Right		0							0				0				0		
		Right	87	1	0	0	87	0	5	97	1	0	0	97	1	0	0	97	1	0	
		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left	276	1	276	0	276	276	8	301	1	301	0	301	1	301	0	301	1	301	
WESTBOUND		Left-Through		0							0				0				0		
		Through	1545	3	515	5	1550	517	8	1648	3	549	5	1653	3	551	0	1653	3	551	
		Through-Right		0							0				0				0		
		Right	174	1	133	0	174	133	3	188	1	141	0	188	1	141	0	188	1	141	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left-Right		0							0				0				0		
		Left	180	1	180	1	181	181	35	226	1	226	1	227	1	227	0	227	1	227	
		Left-Through		0							0				0				0		
		Through	1193	2	462	1	1194	462	6	1272	2	492	1	1273	2	493	0	1273	2	493	
		Through-Right		1							1				1				1		
WESTBOUND		Right	193	0	193	0	193	193	0	205	0	205	0	205	0	205	0	205	0	205	
		Left-Through-Right		0							0				0				0		
		Left-Right		0							0				0				0		
		Left																			
		Left-Through																			
CRITICAL VOLUMES			North-South: 676 East-West: 738 SUM: 1414			North-South: 684 East-West: 738 SUM: 1422			North-South: 754 East-West: 793 SUM: 1547			North-South: 763 East-West: 794 SUM: 1557			North-South: 763 East-West: 794 SUM: 1557						
VOLUME/CAPACITY (V/C) RATIO:			1.028			1.034			1.125			1.132			1.132						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.928			0.934			1.025			1.032			1.032						
LEVEL OF SERVICE (LOS):			E			E			F			F			F						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.007	Δv/c after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Centinela Avenue			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		10/10/2017	
CMA20		East-West Street:			Venice Boulevard			Projection Year:			2023		Peak Hour:			PM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					4			4			4			4			4			4			4			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0						
Override Capacity					2			2			2			2			2			2			2			
					0			0			0			0			0			0			0			
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	66	1	66	0	66	66	5	75	1	75	0	75	1	75	0	75	1	75						
		Left-Through		0						0				0				0								
		Through	759	1	421	-1	758	420	62	868	1	497	-1	867	1	496	0	867	1	496						
		Through-Right		1						1				1				1								
		Right	82	0	82	-1	81	81	38	125	0	125	-1	124	0	124	0	124	0	124						
		Left-Through-Right		0						0				0				0								
SOUTHBOUND		Left	104	1	104	0	104	104	0	110	1	110	0	110	1	110	0	110	1	110						
		Left-Through		0						0				0				0								
		Through	1198	2	599	6	1204	602	53	1325	2	663	6	1331	2	666	0	1331	2	666						
		Through-Right		0						0				0				0								
		Right	60	1	0	0	60	0	6	70	1	0	0	70	1	0	0	70	1	0						
		Left-Through-Right		0						0				0				0								
EASTBOUND		Left	176	1	176	0	176	176	5	192	1	192	0	192	1	192	0	192	1	192						
		Left-Through		0						0				0				0								
		Through	1329	3	443	-1	1328	443	3	1414	3	471	-1	1413	3	471	0	1413	3	471						
		Through-Right		0						0				0				0								
		Right	204	1	171	0	204	171	9	226	1	189	0	226	1	189	0	226	1	189						
		Left-Through-Right		0						0				0				0								
WESTBOUND		Left	242	1	242	2	244	244	27	284	1	284	2	286	1	286	0	286	1	286						
		Left-Through		0						0				0				0								
		Through	1272	2	453	2	1274	454	4	1354	2	482	2	1356	2	483	0	1356	2	483						
		Through-Right		1						1				1				1								
		Right	87	0	87	0	87	87	0	92	0	92	0	92	0	92	0	92	0	92						
		Left-Through-Right		0						0				0				0								
CRITICAL VOLUMES			North-South: 665 East-West: 685 SUM: 1350			North-South: 668 East-West: 687 SUM: 1355			North-South: 738 East-West: 755 SUM: 1493			North-South: 741 East-West: 757 SUM: 1498			North-South: 741 East-West: 757 SUM: 1498			North-South: 741 East-West: 757 SUM: 1498								
VOLUME/CAPACITY (V/C) RATIO:			0.982			0.985			1.086			1.089			1.089			1.089								
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.882			0.885			0.986			0.989			0.989			0.989								
LEVEL OF SERVICE (LOS):			D			D			E			E			E			E								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue			Year of Count:			2017		Ambient Growth: (%):			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Washington Place			Projection Year:			2023		Peak Hour:			AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases		3			3			3			3			3						3		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
		ATSAC-1 or ATSAC+ATCS-2?		2			2			2			2			2			2			2		
		Override Capacity		0			0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	48	1	48	0	48	48	1	52	1	52	0	52	1	52	0	52	1	52				
		Left-Through		0					0		0			0		0			0					
		Through	1249	1	714	0	1249	714	68	1394	1	812	0	1394	1	812	0	1394	1	812				
		Through-Right		1					1		1			1		1			1					
		Right	179	0	179	0	179	179	39	229	0	229	0	229	0	229	0	229	0	229				
		Left-Through-Right		0					0		0			0		0			0					
SOUTHBOUND		Left	74	1	74	0	74	74	3	82	1	82	0	82	1	82	0	82	1	82				
		Left-Through		0					0		0			0		0			0					
		Through	833	2	417	0	833	417	90	974	2	487	0	974	2	487	0	974	2	487				
		Through-Right		0					0		0			0		0			0					
		Right	124	1	86	4	128	85	3	135	1	92	4	139	1	92	0	139	1	92				
		Left-Through-Right		0					0		0			0		0			0					
EASTBOUND		Left	139	2	76	17	156	86	8	156	2	86	17	173	2	95	0	173	2	95				
		Left-Through		0					0		0			0		0			0					
		Through	716	1	391	17	733	399	27	787	1	429	17	804	1	437	0	804	1	437				
		Through-Right		1					1		1			1		1			1					
		Right	65	0	65	0	65	65	1	70	0	70	0	70	0	70	0	70	0	70				
		Left-Through-Right		0					0		0			0		0			0					
WESTBOUND		Left	119	2	65	0	119	65	78	204	2	112	0	204	2	112	0	204	2	112				
		Left-Through		0					0		0			0		0			0					
		Through	566	2	283	4	570	285	26	627	2	314	4	631	2	316	0	631	2	316				
		Through-Right		0					0		0			0		0			0					
		Right	123	1	86	0	123	86	7	138	1	97	0	138	1	97	0	138	1	97				
		Left-Through-Right		0					0		0			0		0			0					
CRITICAL VOLUMES			North-South: 788 East-West: 456 SUM: 1244			North-South: 788 East-West: 464 SUM: 1252			North-South: 894 East-West: 541 SUM: 1435			North-South: 894 East-West: 549 SUM: 1443			North-South: 894 East-West: 549 SUM: 1443			North-South: 894 East-West: 549 SUM: 1443						
VOLUME/CAPACITY (V/C) RATIO:			0.873			0.879			1.007			1.013			1.013			1.013						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.773			0.779			0.907			0.913			0.913			0.913						
LEVEL OF SERVICE (LOS):			C			C			E			E			E			E						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.006	Δv/c after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA21		East-West Street:		Washington Place		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				3		3		3		3		3		3		3		3		3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0	
Override Capacity				2		2		2		2		2		2		2		2		2	
				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	61	1	61	0	61	61	1	66	1	66	0	66	1	66	0	66	1	66	
		Left-Through		0						0					0				0		
		Through	958	1	563	0	958	563	97	1114	1	690	0	1114	1	690	0	1114	1	690	
		Through-Right		1						1					1				1		
		Right	168	0	168	0	168	168	88	266	0	266	0	266	0	266	0	266	0	266	
		Left-Through-Right		0						0					0				0		
SOUTHBOUND		Left	66	1	66	0	66	66	8	78	1	78	0	78	1	78	0	78	1	78	
		Left-Through		0						0					0				0		
		Through	1448	2	724	0	1448	724	74	1611	2	806	0	1611	2	806	0	1611	2	806	
		Through-Right		0						0					0				0		
		Right	215	1	173	8	223	181	9	237	1	191	8	245	1	200	0	245	1	200	
		Left-Through-Right		0						0					0				0		
EASTBOUND		Left	154	2	85	-2	152	84	5	168	2	92	-2	166	2	91	0	166	2	91	
		Left-Through		0						0					0				0		
		Through	603	1	349	-2	601	348	32	672	1	387	-2	670	1	386	0	670	1	386	
		Through-Right		1						1					1				1		
		Right	94	0	94	0	94	94	1	101	0	101	0	101	0	101	0	101	0	101	
		Left-Through-Right		0						0					0				0		
WESTBOUND		Left	169	2	93	0	169	93	59	238	2	131	0	238	2	131	0	238	2	131	
		Left-Through		0						0					0				0		
		Through	722	2	361	8	730	365	24	790	2	395	8	798	2	399	0	798	2	399	
		Through-Right		0						0					0				0		
		Right	57	1	24	0	57	24	5	66	1	27	0	66	1	27	0	66	1	27	
		Left-Through-Right		0						0					0				0		
CRITICAL VOLUMES				North-South: 785		North-South: 785		North-South: 872		North-South: 872		North-South: 872		North-South: 872		North-South: 872		North-South: 872			
				East-West: 446		East-West: 449		East-West: 518		East-West: 518		East-West: 517		East-West: 517		East-West: 517		East-West: 517			
				SUM: 1231		SUM: 1234		SUM: 1390		SUM: 1389		SUM: 1389		SUM: 1389		SUM: 1389		SUM: 1389			
VOLUME/CAPACITY (V/C) RATIO:				0.864		0.866		0.975		0.975		0.975		0.975		0.975		0.975			
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.764		0.766		0.875		0.875		0.875		0.875		0.875		0.875			
LEVEL OF SERVICE (LOS):				C		C		D		D		D		D		D		D			

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Washington Boulevard			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases				2				2				2						2		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0						0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		0		
		ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		0		
		Override Capacity				2				2				2						2		
						0				0				0						0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	165	1	165	0	165	165	-5	170	1	170	0	170	1	170	0	170	1	170		
		Left-Through			0						0				0				0			
		Through	1278	1	700	0	1278	700	106	1463	1	816	0	1463	1	816	0	1463	1	816		
		Through-Right			1						1				1				1			
		Right	122	0	122	0	122	122	38	168	0	168	0	168	0	168	0	168	0	168		
SOUTHBOUND		Left-Through-Right			0					0				0				0				
		Left-Right			0					0				0				0				
		Left	75	1	75	0	75	75	11	91	1	91	0	91	1	91	0	91	1	91		
		Left-Through			0						0				0				0			
		Through	879	1	454	0	879	454	161	1094	1	562	0	1094	1	562	0	1094	1	562		
EASTBOUND		Through-Right			1					1				1				1				
		Right	28	0	28	0	28	28	0	30	0	30	0	30	0	30	0	30	0	30		
		Left-Through-Right			0						0				0				0			
		Left-Right			0						0				0				0			
		Left	64	1	64	0	64	64	0	68	1	68	0	68	1	68	0	68	1	68		
WESTBOUND		Left-Through			0					0				0				0				
		Through	636	1	395	5	641	397	27	702	1	431	5	707	1	433	0	707	1	433		
		Through-Right			1						1				1				1			
		Right	153	0	153	0	153	153	-3	159	0	159	0	159	0	159	0	159	0	159		
		Left-Through-Right			0						0				0				0			
CRITICAL VOLUMES		Left-Right			0					0				0				0				
		Left	74	1	74	0	74	74	54	133	1	133	0	133	1	133	0	133	1	133		
		Left-Through			0						0				0				0			
		Through	471	1	284	1	472	284	28	528	1	323	1	529	1	324	0	529	1	324		
		Through-Right			1						1				1				1			
VOLUME/CAPACITY (V/C) RATIO:		Right	96	0	96	0	96	96	16	118	0	118	0	118	0	118	0	118	0	118		
		Left-Through-Right			0						0				0				0			
		Left-Right			0						0				0				0			
		Left	775	1	775	0	775	775	907	907	1	907	0	907	1	907	0	907	1	907		
		East-West:	469	1	471	0	471	471	564	564	1	564	0	566	1	566	0	566	1	566		
		SUM:		1244		1246		1471		1471		1473		1473		1473		1473				
		VOLUME/CAPACITY (V/C) RATIO:		0.829		0.831		0.981		0.982		0.982		0.982								
		V/C LESS ATSAC/ATCS ADJUSTMENT:		0.729		0.731		0.881		0.882		0.882		0.882								
		LEVEL OF SERVICE (LOS):		C		C		D		D		D		D								

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA22		East-West Street:		Washington Boulevard		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2		2		2		2		2		2		2		2		2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0	
Override Capacity				2		2		2		2		2		2		2		2		2	
				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	93	1	93	0	93	93	-11	88	1	88	0	88	1	88	0	88	1	88	
		Left-Through		0							0				0				0		
		Through	964	1	536	0	964	536	195	1218	1	687	0	1218	1	687	0	1218	1	687	
		Through-Right		1							1				1				1		
		Right	107	0	107	0	107	107	42	156	0	156	0	156	0	156	0	156	0	156	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	177	1	177	0	177	177	24	212	1	212	0	212	1	212	0	212	1	212	
		Left-Through		0							0				0				0		
		Through	1443	1	753	0	1443	753	146	1678	1	872	0	1678	1	872	0	1678	1	872	
		Through-Right		1							1				1				1		
		Right	62	0	62	0	62	62	0	66	0	66	0	66	0	66	0	66	0	66	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	54	1	54	0	54	54	0	57	1	57	0	57	1	57	0	57	1	57	
		Left-Through		0							0				0				0		
		Through	594	1	367	-1	593	366	22	653	1	396	-1	652	1	395	0	652	1	395	
		Through-Right		1							1				1				1		
		Right	139	0	139	0	139	139	-10	138	0	138	0	138	0	138	0	138	0	138	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	91	1	91	0	91	91	28	125	1	125	0	125	1	125	0	125	1	125	
		Left-Through		0							0				0				0		
		Through	569	1	343	2	571	344	15	619	1	382	2	621	1	383	0	621	1	383	
		Through-Right		1							1				1				1		
		Right	117	0	117	0	117	117	21	145	0	145	0	145	0	145	0	145	0	145	
		Left-Through-Right		0							0				0				0		
CRITICAL VOLUMES		North-South: 846		846		North-South: 846		846		North-South: 960		960		North-South: 960		960		North-South: 960		960	
		East-West: 458		457		East-West: 457		521		East-West: 520		520		East-West: 520		520		East-West: 520		520	
		SUM: 1304		1303		SUM: 1303		1481		SUM: 1480		1480		SUM: 1480		1480		SUM: 1480		1480	
VOLUME/CAPACITY (V/C) RATIO:				0.869				0.869				0.987				0.987				0.987	
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.769				0.769				0.887				0.887				0.887	
LEVEL OF SERVICE (LOS):				C				C				D				D				D	

REMARKS:

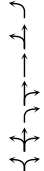
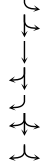

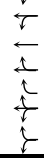
Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	10/10/2017											
CMA23	East-West Street:	Short Avenue	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project											
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0												
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	121	1	121	5	126	126	6	134	1	134	5	139	1	139	0	139	1	139	
		Left-Through		0								0				0				0	
		Through	1349	2	675	0	1349	675	94	1526	2	763	0	1526	2	763	0	1526	2	763	
		Through-Right		0								0				0				0	
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0								0				0				0	
		Through	1026	1	554	0	1026	554	148	1237	1	694	0	1237	1	694	0	1237	1	694	
		Through-Right		1								1				1				1	
		Right	81	0	81	0	81	81	64	150	0	150	0	150	0	150	0	150	0	150	
EASTBOUND		Left	219	1	219	0	219	219	49	281	1	281	0	281	1	281	0	281	1	281	
		Left-Through		0								0				0				0	
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0								0				0				0	
		Right	171	1	111	19	190	127	12	194	1	127	19	213	1	144	0	213	1	144	
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0								0				0				0	
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0								0				0				0	
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES			North-South: 675 East-West: 219 SUM: 894			North-South: 680 East-West: 219 SUM: 899			North-South: 828 East-West: 281 SUM: 1109				North-South: 833 East-West: 281 SUM: 1114				North-South: 833 East-West: 281 SUM: 1114				
VOLUME/CAPACITY (V/C) RATIO:			0.596			0.599			0.739				0.743				0.743				
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.496			0.499			0.639				0.643				0.643				
LEVEL OF SERVICE (LOS):			A			A			B				B				B				

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Centinela Avenue			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		10/10/2017	
CMA23		East-West Street:			Short Avenue			Projection Year:			2023		Peak Hour:			PM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					2			2			2			2			2			2			2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0						
Override Capacity					2			2			2			2			2			2			2			
					0			0			0			0			0			0			0			
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	138	1	138	10	148	148	3	149	1	149	10	159	1	159	0	159	1	159						
		Left-Through		0						0		0			0			0		0						
		Through	1083	2	542	0	1083	542	164	1314	2	657	0	1314	2	657	0	1314	2	657						
		Through-Right		0						0		0			0			0		0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Left-Through-Right		0						0		0			0			0		0						
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Left-Through		0						0		0			0			0		0						
		Through	1451	1	754	0	1451	754	119	1659	1	882	0	1659	1	882	0	1659	1	882						
		Through-Right		1						1		1			1			1		1						
		Right	56	0	56	0	56	56	46	105	0	105	0	105	0	105	0	105	0	105						
		Left-Through-Right		0						0		0			0			0		0						
EASTBOUND		Left	152	1	152	0	152	152	60	221	1	221	0	221	1	221	0	221	1	221						
		Left-Through		0						0		0			0			0		0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Through-Right		0						0		0			0			0		0						
		Right	189	1	120	-2	187	113	4	205	1	131	-2	203	1	124	0	203	1	124						
		Left-Through-Right		0						0		0			0			0		0						
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Left-Through		0						0		0			0			0		0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Through-Right		0						0		0			0			0		0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
		Left-Through-Right		0						0		0			0			0		0						
CRITICAL VOLUMES			North-South: 892			North-South: 902			North-South: 1031			North-South: 1041			North-South: 1041											
			East-West: 152			East-West: 152			East-West: 221			East-West: 221			East-West: 221											
			SUM: 1044			SUM: 1054			SUM: 1252			SUM: 1262			SUM: 1262											
VOLUME/CAPACITY (V/C) RATIO:			0.696			0.703			0.835			0.841			0.841											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.596			0.603			0.735			0.741			0.741											
LEVEL OF SERVICE (LOS):			A			B			C			C			C											

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.006	Δv/c after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA24		East-West Street:		Culver Boulevard			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				4			4			4			4			4			4			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0						
ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2			2			2			
Override Capacity				0			0			0			0			0			0			
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	12	1	12	0	12	12	40	53	1	53	0	53	1	53	0	53	1	53		
		Left-Through		0							0				0				0			
		Through	915	2	458	3	918	459	63	1034	2	517	3	1037	2	519	0	1037	2	519		
		Through-Right		0							0				0				0			
		Right	131	1	21	0	131	21	48	187	1	27	0	187	1	27	0	187	1	27		
SOUTHBOUND		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	204	1	204	9	213	213	16	233	1	233	9	242	1	242	0	242	1	242		
		Left-Through		0							0				0				0			
		Through	976	2	488	10	986	493	112	1148	2	574	10	1158	2	579	0	1158	2	579		
EASTBOUND		Through-Right		0							0				0				0			
		Right	109	1	0	0	109	0	10	126	1	0	0	126	1	0	0	126	1	0		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	407	1	407	0	407	407	8	440	1	440	0	440	1	440	0	440	1	440		
WESTBOUND		Left-Through		0							0				0				0			
		Through	939	1	490	0	939	490	40	1037	1	556	0	1037	1	556	0	1037	1	556		
		Through-Right		1							1				1				1			
		Right	40	0	40	0	40	40	33	75	0	75	0	75	0	75	0	75	0	75		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES		Left-Right		0							0				0				0			
		Left	220	1	220	0	220	220	86	320	1	320	0	320	1	320	0	320	1	320		
		Left-Through		0							0				0				0			
		Through	392	1	295	0	392	296	46	462	1	342	0	462	1	343	0	462	1	343		
		Through-Right		1							1				1				1			
VOLUME/CAPACITY (V/C) RATIO:		Right	197	0	197	2	199	199	12	221	0	221	2	223	0	223	0	223	0	223		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left																				
		Left-Through																				
CRITICAL VOLUMES				North-South: 662 East-West: 710 SUM: 1372			North-South: 672 East-West: 710 SUM: 1382			North-South: 750 East-West: 876 SUM: 1626				North-South: 761 East-West: 876 SUM: 1637				North-South: 761 East-West: 876 SUM: 1637				
VOLUME/CAPACITY (V/C) RATIO:				0.998			1.005			1.183				1.191				1.191				
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.898			0.905			1.083				1.091				1.091				
LEVEL OF SERVICE (LOS):				D			E			F				F				F				

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.008	Δv/c after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Culver Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases						4						4						4		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						0						0						0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0			0			NB-- 0 SB-- 0			0			NB-- 0 SB-- 0			0		
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 0 WB-- 0			0			EB-- 0 WB-- 0			0			EB-- 0 WB-- 0			0		
		Override Capacity			2			2			2			2			2			2		
					0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	17	1	17	0	17	17	22	40	1	40	0	40	1	40	0	40	1	40		
		Left-Through		0							0				0				0			
		Through	994	2	497	5	999	500	130	1185	2	593	5	1190	2	595	0	1190	2	595		
		Through-Right		0							0				0				0			
		Right	160	1	58	0	160	58	90	260	1	124	0	260	1	124	0	260	1	124		
SOUTHBOUND		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	177	1	177	-1	176	176	13	201	1	201	-1	200	1	200	0	200	1	200		
		Left-Through		0							0				0				0			
		Through	1342	2	671	-1	1341	671	91	1516	2	758	-1	1515	2	758	0	1515	2	758		
EASTBOUND		Through-Right		0							0				0				0			
		Right	243	1	164	0	243	164	10	268	1	179	0	268	1	179	0	268	1	179		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	158	1	158	0	158	158	11	179	1	179	0	179	1	179	0	179	1	179		
WESTBOUND		Left-Through		0							0				0				0			
		Through	589	1	308	0	589	308	33	658	1	357	0	658	1	357	0	658	1	357		
		Through-Right		1							1				1				1			
		Right	27	0	27	0	27	27	27	56	0	56	0	56	0	56	0	56	0	56		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES		Left-Right		0							0				0				0			
		Left	205	1	205	0	205	205	54	272	1	272	0	272	1	272	0	272	1	272		
		Left-Through		0							0				0				0			
		Through	834	1	499	0	834	501	27	912	1	550	0	912	1	553	0	912	1	553		
		Through-Right		1							1				1				1			
VOLUME/CAPACITY (V/C) RATIO:		Right	163	0	163	5	168	168	15	188	0	188	5	193	0	193	0	193	0	193		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left																				
		Left-Through																				
		CRITICAL VOLUMES			North-South: 688			North-South: 688			North-South: 798			North-South: 798			North-South: 798					
		East-West: 657			East-West: 659			East-West: 729			East-West: 732			East-West: 732								
		SUM: 1345			SUM: 1347			SUM: 1527			SUM: 1530			SUM: 1530								
		VOLUME/CAPACITY (V/C) RATIO:			0.978			0.980			1.111			1.113			1.113					
		V/C LESS ATSAC/ATCS ADJUSTMENT:			0.878			0.880			1.011			1.013			1.013					
		LEVEL OF SERVICE (LOS):			D			D			F			F			F					

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Inglewood Boulevard	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	10/10/2017									
CMA25	East-West Street:	Washington Place	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project									
No. of Phases		2	2		2		2		2										
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0										
Right Turns: FREE-1, NRTOR-2 or OLA-3?		EB-- 0 WB-- 0	EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0										
ATSAC-1 or ATSAC+ATCS-2?		2	2		2		2		2										
Override Capacity		0	0		0		0		0										
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	44	0	44	0	44	44	5	52	0	52	0	52	0	52	0	52	0	52
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	602	0	739	0	602	739	44	683	0	870	0	683	0	870	0	683	0	870
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	93	0	0	0	93	0	36	135	0	0	0	135	0	0	0	135	0	0
SOUTHBOUND	Left-Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	61	0	61	0	61	61	0	65	0	65	0	65	0	65	0	65	0	65
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	257	0	373	0	257	374	77	350	0	478	0	350	0	479	0	350	0	479
EASTBOUND	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	55	0	0	1	56	0	5	63	0	0	1	64	0	0	0	64	0	0
	Left-Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	53	1	53	5	58	58	11	67	1	67	5	72	1	72	0	72	1	72
WESTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	921	1	489	12	933	495	54	1032	1	547	12	1044	1	553	0	1044	1	553
	Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Right	56	0	56	0	56	56	3	62	0	62	0	62	0	62	0	62	0	62
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	80	1	80	0	80	80	49	134	1	134	0	134	1	134	0	134	1	134
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	641	1	370	3	644	371	63	743	1	424	3	746	1	426	0	746	1	426
	Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
VOLUME/CAPACITY (V/C) RATIO:	Right	98	0	98	0	98	98	1	105	0	105	0	105	0	105	0	105	0	105
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	North-South:	800	800	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935
	East-West:	569	575	681	687	687	687	687	687	687	687	687	687	687	687	687	687	687	687
V/C LESS ATSAC/ATCS ADJUSTMENT:	SUM:	1369	1375	1616	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622
	0.913	0.917	1.077	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	
	0.813	0.817	0.977	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	0.981	
	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
	LEVEL OF SERVICE (LOS):	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Inglewood Boulevard			Year of Count:			2017			Ambient Growth: (%):			1.0			Conducted by:			NDS			Date:			10/10/2017		
CMA25		East-West Street:			Washington Place			Projection Year:			2023			Peak Hour:			PM			Reviewed by:			JAS			Project:			5-16-0265-1 Paseo Marina Project		
No. of Phases					2			2			2			2			2			2			2								
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0								
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0											
ATSAC-1 or ATSAC+ATCS-2?					EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0											
Override Capacity					2			2			2			2			2			2											
					0			0			0			0			0			0											
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION												
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume									
NORTHBOUND		Left	29	0	29	0	29	29	5	36	0	36	0	36	0	36	0	36	0	36											
		Left-Through		0						0		0		0		0		0		0											
		Through	266	0	371	0	266	371	85	367	0	535	0	367	0	535	0	367	0	535											
		Through-Right		0						0		0		0		0		0		0											
		Right	76	0	0	0	76	0	51	132	0	0	0	132	0	0	0	132	0	0											
SOUTHBOUND		Left-Through-Right		1						1		1		1		1		1		1											
		Left-Right		0						0		0		0		0		0		0											
		Left	45	0	45	0	45	45	1	49	0	49	0	49	0	49	0	49	0	49											
		Left-Through		0						0		0		0		0		0		0											
		Through	497	0	601	0	497	603	53	581	0	707	0	581	0	709	0	581	0	709											
EASTBOUND		Through-Right		0						0		0		0		0		0		0											
		Right	59	0	0	2	61	0	14	77	0	0	2	79	0	0	0	79	0	0											
		Left-Through-Right		1						1		1		1		1		1		1											
		Left-Right		0						0		0		0		0		0		0											
		Left	27	1	27	-1	26	26	11	40	1	40	-1	39	1	39	0	39	1	39											
WESTBOUND		Left-Through		0						0		0		0		0		0		0											
		Through	815	1	432	-1	814	432	74	939	1	499	-1	938	1	499	0	938	1	499											
		Through-Right		1						1		1		1		1		1		1											
		Right	49	0	49	0	49	49	7	59	0	59	0	59	0	59	0	59	0	59											
		Left-Through-Right		0						0		0		0		0		0		0											
CRITICAL VOLUMES		Left-Right		0						0		0		0		0		0		0											
		Left	155	1	155	0	155	155	38	203	1	203	0	203	1	203	0	203	1	203											
		Left-Through		0						0		0		0		0		0		0											
		Through	879	1	465	6	885	468	61	994	1	525	6	1000	1	528	0	1000	1	528											
		Through-Right		1						1		1		1		1		1		1											
VOLUME/CAPACITY (V/C) RATIO:		Right	51	0	51	0	51	51	1	55	0	55	0	55	0	55	0	55	0	55											
		Left-Through-Right		0						0		0		0		0		0		0											
		Left-Right		0						0		0		0		0		0		0											
CRITICAL VOLUMES			North-South: 630			North-South: 632			North-South: 743			North-South: 745			North-South: 745																
			East-West: 587			East-West: 587			East-West: 702			East-West: 702			East-West: 702																
			SUM: 1217			SUM: 1219			SUM: 1445			SUM: 1447			SUM: 1447																
VOLUME/CAPACITY (V/C) RATIO:			0.811			0.813			0.963			0.965			0.965																
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.711			0.713			0.863			0.865			0.865																
LEVEL OF SERVICE (LOS):			C			C			D			D			D																

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

I/S #:		North-South Street:			Walgrove Avenue			Year of Count:			2017		Ambient Growth: (%)				1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:			Venice Boulevard			Projection Year:			2023		Peak Hour:				AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?						3			3							3						3		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0				NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		NB-- 0 SB-- 0 EB-- 0 WB-- 0				
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2				2		2		2				
		Override Capacity			0			0			0			0				0		0		0				
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION										
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume							
NORTHBOUND		Left	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42						
		Left-Through		0						0				0				0								
		Through	375	0	493	0	375	493	2	400	0	525	0	400	0	525	0	400	0	525						
		Through-Right		0						0				0				0								
		Right	78	0	0	0	78	0	0	83	0	0	0	83	0	0	0	83	0	0						
SOUTHBOUND		Left-Through-Right		1					1				1				1									
		Left-Right		0						0				0				0								
		Left	103	0	103	0	103	103	1	110	0	110	0	110	0	110	0	110	0	110						
		Left-Through		0						0				0				0								
		Through	271	0	410	0	271	410	2	290	0	440	0	290	0	440	0	290	0	440						
EASTBOUND		Through-Right		0					0				0				0									
		Right	36	0	0	0	36	0	2	40	0	0	0	40	0	0	0	40	0	0						
		Left-Through-Right		1						1				1				1								
		Left-Right		0						0				0				0								
		Left	166	1	166	0	166	166	2	178	1	178	0	178	1	178	0	178	1	178						
WESTBOUND		Left-Through		0					0				0				0									
		Through	1053	2	362	5	1058	364	24	1142	2	393	5	1147	2	394	0	1147	2	394						
		Through-Right		1						1				1				1								
		Right	34	0	34	0	34	34	0	36	0	36	0	36	0	36	0	36	0	36						
		Left-Through-Right		0						0				0				0								
CRITICAL VOLUMES		Left-Through-Right		0					0				0				0									
		Left	111	1	111	0	111	111	0	118	1	118	0	118	1	118	0	118	1	118						
		Left-Through		0						0				0				0								
		Through	1009	2	373	1	1010	373	16	1087	2	402	1	1088	2	402	0	1088	2	402						
		Through-Right		1						1				1				1								
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		Right	110	0	110	0	110	110	1	118	0	118	0	118	0	118	0	118	0	118						
		Left-Through-Right		0						0				0				0								
		Left																								
		Left-Through																								
		Through																								

REMARKS:

**Version: 1i Beta; 8/4/2011**

## PROJECT IMPACT

Change in v/c due to project:	0.000	$\Delta$ v/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Walgrove Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		Venice Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases				3				3				3						3		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0						0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		0		
		ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		0		
		Override Capacity				2				2				2						2		
						0				0				0						0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	36	0	36	0	36	36	0	38	0	38	0	38	0	38	0	38	0	38		
		Left-Through		0						0		0		0		0		0		0		
		Through	384	0	465	0	384	465	4	412	0	498	0	412	0	498	0	412	0	498		
		Through-Right		0						0		0		0		0		0		0		
		Right	45	0	0	0	45	0	0	48	0	0	0	48	0	0	0	48	0	0		
SOUTHBOUND		Left-Through-Right		1					1		1		1		1		1		1			
		Left-Right		0						0		0		0		0		0		0		
		Left	133	0	133	0	133	133	1	142	0	142	0	142	0	142	0	142	0	142		
		Left-Through		0						0		0		0		0		0		0		
		Through	402	0	569	0	402	569	2	429	0	610	0	429	0	610	0	429	0	610		
EASTBOUND		Through-Right		0						0		0		0		0		0		0		
		Right	34	0	0	0	34	0	3	39	0	0	0	39	0	0	0	39	0	0		
		Left-Through-Right		1						1		1		1		1		1		1		
		Left-Right		0						0		0		0		0		0		0		
		Left	116	1	116	0	116	116	2	125	1	125	0	125	1	125	0	125	1	125		
WESTBOUND		Left-Through		0						0		0		0		0		0		0		
		Through	1053	2	381	-1	1052	381	16	1134	2	410	-1	1133	2	410	0	1133	2	410		
		Through-Right		1						1		1		1		1		1		1		
		Right	90	0	90	0	90	90	0	96	0	96	0	96	0	96	0	96	0	96		
		Left-Through-Right		0						0		0		0		0		0		0		
CRITICAL VOLUMES		Left-Right		0						0		0		0		0		0		0		
		Left	128	1	128	0	128	128	0	136	1	136	0	136	1	136	0	136	1	136		
		Left-Through		0						0		0		0		0		0		0		
		Through	914	2	330	2	916	331	14	984	2	355	2	986	2	356	0	986	2	356		
		Through-Right		1						1		1		1		1		1		1		
VOLUME/CAPACITY (V/C) RATIO:		Right	76	0	76	0	76	76	0	81	0	81	0	81	0	81	0	81	0	81		
		Left-Through-Right		0						0		0		0		0		0		0		
		Left-Right		0						0		0		0		0		0		0		
		Left	605	1	605	0	605	605	0	648	1	648	0	648	1	648	0	648	1	648		
		Left-Through	509	2	254.5	2	509	254.5	14	523	2	261.5	2	527	2	263.5	0	527	2	263.5		
SUM:		1114		4		278.5		-1		1113		277.5		30		1143		4		285.5		
VOLUME/CAPACITY (V/C) RATIO:				0.782				0.782				0.838				0.838				0.838		
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.682				0.682				0.738				0.738				0.738		
LEVEL OF SERVICE (LOS):				B				B				C				C				C		

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Redwood Avenue	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	10/10/2017									
CMA27	East-West Street:	Washington Boulevard	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project									
No. of Phases		2	2		2		2		2										
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0										
Right Turns: FREE-1, NRTOR-2 or OLA-3?		EB-- 0 WB-- 0	EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0										
ATSAC-1 or ATSAC+ATCS-2?		2	2		2		2		2										
Override Capacity		0	0		0		0		0										
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	148	0	148	0	148	148	0	157	0	157	0	157	0	157	0	157	0	157
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	116	0	324	0	116	324	0	123	0	347	0	123	0	347	0	123	0	347
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	60	0	0	0	60	0	3	67	0	0	0	67	0	0	0	67	0	0
SOUTHBOUND	Left-Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	37	0	37	0	37	37	0	39	0	39	0	39	0	39	0	39	0	39
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	80	0	136	0	80	137	0	85	0	144	0	85	0	145	0	85	0	145
EASTBOUND	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	19	0	0	1	20	0	0	20	0	0	1	21	0	0	0	21	0	0
	Left-Through-Right	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	25	1	25	4	29	29	0	27	1	27	4	31	1	31	0	31	1	31
WESTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1081	2	541	46	1127	564	67	1215	2	608	46	1261	2	631	0	1261	2	631
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	41	1	41	0	41	41	0	44	1	44	0	44	1	44	0	44	1	44
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	65	1	65	0	65	65	1	70	1	70	0	70	1	70	0	70	1	70
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1083	2	542	11	1094	547	58	1208	2	604	11	1219	2	610	0	1219	2	610
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUME/CAPACITY (V/C) RATIO:	Right	25	1	25	0	25	25	0	27	1	27	0	27	1	27	0	27	1	27
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	361	361	361	361	361	361	386	386	386	386	386	386	386	386	386	386	386	386
	East-West:	606	629	678	701	701	701	701	701	701	701	701	701	701	701	701	701	701	701
V/C LESS ATSAC/ATCS ADJUSTMENT:	SUM:	967	990	1064	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087
	0.645	0.660	0.709	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725
	0.545	0.560	0.609	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625
	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.016	Δv/c after mitigation:	0.016
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Redwood Avenue			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA27		East-West Street:		Washington Boulevard			Projection Year:			2023		Peak Hour:			PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2			2			2			2			2			2			2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0			0			0			0			0			0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0					
ATSAC-1 or ATSAC+ATCS-2?				EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0			EB-- 0 WB-- 0					
Override Capacity				2			2			2			2			2			2			2		
				0			0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	68	0	68	0	68	68	0	72	0	72	0	72	0	72	0	72	0	72				
		Left-Through		0						0		0		0		0		0		0				
		Through	98	0	217	0	98	217	0	104	0	231	0	104	0	231	0	104	0	231				
		Through-Right		0						0		0		0		0		0		0				
		Right	51	0	0	0	51	0	1	55	0	0	0	55	0	0	0	55	0	0				
SOUTHBOUND		Left-Through-Right		1					1		1		1		1		1		1					
		Left-Right		0						0		0		0		0		0		0				
		Left	44	0	44	0	44	44	0	47	0	47	0	47	0	47	0	47	0	47				
		Left-Through		0						0		0		0		0		0		0				
		Through	261	0	331	0	261	334	0	277	0	352	0	277	0	355	0	277	0	355				
EASTBOUND		Through-Right		0						0		0		0		0		0		0				
		Right	26	0	0	3	29	0	0	28	0	0	3	31	0	0	0	31	0	0				
		Left-Through-Right		1						1		1		1		1		1		1				
		Left-Right		0						0		0		0		0		0		0				
		Left	28	1	28	-1	27	27	0	30	1	30	-1	29	1	29	0	29	1	29				
WESTBOUND		Left-Through		0						0		0		0		0		0		0				
		Through	1090	2	545	-6	1084	542	69	1226	2	613	-6	1220	2	610	0	1220	2	610				
		Through-Right		0						0		0		0		0		0		0				
		Right	66	1	66	0	66	66	0	70	1	70	0	70	1	70	0	70	1	70				
		Left-Through-Right		0						0		0		0		0		0		0				
CRITICAL VOLUMES		Left-Right		0						0		0		0		0		0		0				
		Left	127	1	127	0	127	127	3	138	1	138	0	138	1	138	0	138	1	138				
		Left-Through		0						0		0		0		0		0		0				
		Through	1101	2	551	21	1122	561	61	1230	2	615	21	1251	2	626	0	1251	2	626				
		Through-Right		0						0		0		0		0		0		0				
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		Right	20	1	20	0	20	20	0	21	1	21	0	21	1	21	0	21	1	21				
		Left-Through-Right		0						0		0		0		0		0		0				
		Left-Right		0						0		0		0		0		0		0				
CRITICAL VOLUMES			North-South: 399 East-West: 672 SUM: 1071			North-South: 402 East-West: 669 SUM: 1071			North-South: 424 East-West: 751 SUM: 1175			North-South: 427 East-West: 748 SUM: 1175			North-South: 427 East-West: 748 SUM: 1175									
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.714 0.614 B			0.714 0.614 B			0.783 0.683 B			0.783 0.683 B			0.783 0.683 B									

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Alla Road			Year of Count:		2017		Ambient Growth: (%):		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 WB On-Ramp			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			2			2			2			2			2			2		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0			NB-- 0 SB-- 0					
		ATSAC-1 or ATSAC+ATCS-2?			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3			EB-- 0 WB-- 3					
		Override Capacity			2			2			2			2			2			2		
		0			0			0			0			0			0			0		
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0						0				0				0				
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0						0				0				0				
SOUTHBOUND		Left	200	2	110	12	212	117	179	391	2	215	12	403	2	222	0	403	2	222		
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0						0				0				0				
		Right	17	1	17	0	17	17	49	67	1	67	0	67	1	67	0	67	1	67	67	
		Left-Through-Right		0						0				0				0				
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0						0				0				0				
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0						0				0				0				
WESTBOUND		Left	3	0	0	0	3	0	0	3	0	0	0	3	0	0	0	3	0	0	0	
		Left-Through		0						0				0				0				
		Through	195	2	98	0	195	98	1	208	2	104	0	208	2	104	0	208	2	104	104	
		Through-Right		0						0				0				0				
		Right	990	1	880	3	993	876	278	1329	1	1114	3	1332	1	1110	0	1332	1	1110	1110	
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES			North-South:		110	North-South:		117	North-South:		215	North-South:		222	North-South:		222					
			East-West:		880	East-West:		876	East-West:		1114	East-West:		1110	East-West:		1110					
			SUM:		990	SUM:		993	SUM:		1329	SUM:		1332	SUM:		1332					
VOLUME/CAPACITY (V/C) RATIO:					0.660			0.662			0.886			0.888			0.888					
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.560			0.562			0.786			0.788			0.788					
LEVEL OF SERVICE (LOS):					A			A			C			C			C					

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Alla Road			Year of Count:		2017		Ambient Growth: (%):		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 WB On-Ramp			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			2			2			2			2			2			2		
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0		
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3			NB-- 0 SB-- 0 EB-- 0 WB-- 3					
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2		
		Override Capacity			0			0			0			0			0			0		
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0						0				0				0				
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through-Right		0						0				0				0				
SOUTHBOUND		Left	649	2	357	-1	648	356	146	835	2	459	-1	834	2	459	0	834	2	459		
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0						0				0				0				
		Right	25	1	25	0	25	25	40	67	1	67	0	67	1	67	0	67	1	67		
		Left-Through-Right		0						0				0				0				
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0						0				0				0				
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0						0				0				0				
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through-Right		0						0				0				0				
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0						0				0				0				
		Through	212	2	106	0	212	106	3	228	2	114	0	228	2	114	0	228	2	114		
		Through-Right		0						0				0				0				
		Right	517	1	160	6	523	167	151	700	1	241	6	706	1	247	0	706	1	247		
		Left-Through-Right		0						0				0				0				
CRITICAL VOLUMES		North-South: 357 East-West: 160 SUM: 517			North-South: 356 East-West: 167 SUM: 523			North-South: 459 East-West: 241 SUM: 700				North-South: 459 East-West: 247 SUM: 706				North-South: 459 East-West: 247 SUM: 706						
VOLUME/CAPACITY (V/C) RATIO:		0.345			0.349			0.467				0.471				0.471						
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.245			0.249			0.367				0.371				0.371						
LEVEL OF SERVICE (LOS):		A			A			A				A				A						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.004	Δv/c after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:	Culver Boulevard			Year of Count:		2017	Ambient Growth: (%)			1.0	Conducted by:		NDS	Date:	10/10/2017				
		East-West Street:	SR-90 WB Off-Ramp			Projection Year:		2023	Peak Hour:			AM	Reviewed by:		JAS	Project:	5-16-0265-1 Paseo Marina Project				
		No. of Phases		3			3			3			3					3			
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		2			2			2			2					2			
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--		
				0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--		
		ATSAC-1 or ATSAC+ATCS-2?		2			2			2			2			2			2		
		Override Capacity		0			0			0			0			0			0		
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION					
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	422	1	422	2	424	424	119	567	1	567	2	569	1	569	0	569	1	569		
	Left-Through		0							0				0				0			
	Through	1153	2	577	0	1153	577	18	1242	2	621	0	1242	2	621	0	1242	2	621		
	Through-Right		0							0				0				0			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right		0							0				0				0			
Left-Right		0							0				0				0				
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through		0							0				0				0			
	Through	397	2	199	0	397	199	17	438	2	219	0	438	2	219	0	438	2	219		
	Through-Right		0							0				0				0			
	Right	299	1	259	1	300	257	80	397	1	322	1	398	1	320	0	398	1	320		
	Left-Through-Right		0							0				0				0			
Left-Right		0							0				0				0				
EASTBOUND	Left	81	1	81	5	86	86	65	151	1	151	5	156	1	156	0	156	1	156		
	Left-Through		0							0				0				0			
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right		0							0				0				0			
	Right	156	1	0	7	163	0	114	280	1	0	7	287	1	3	0	287	1	3		
	Left-Through-Right		0							0				0				0			
Left-Right		0							0				0				0				
WESTBOUND	Left	236	1	130	0	236	130	0	251	1	138	0	251	1	138	0	251	1	138		
	Left-Through		1							1				1				1			
	Through	427	0	564	0	427	564	79	532	0	677	0	532	0	677	0	532	0	677		
	Through-Right		1							1				1				1			
	Right	137	0	137	0	137	137	0	145	0	145	0	145	0	145	0	145	0	145		
	Left-Through-Right		0							0				0				0			
Left-Right		0							0				0				0				
CRITICAL VOLUMES		North-South: 681 East-West: 645 SUM: 1326			North-South: 681 East-West: 650 SUM: 1331			North-South: 889 East-West: 828 SUM: 1717				North-South: 889 East-West: 833 SUM: 1722				North-South: 889 East-West: 833 SUM: 1722					
VOLUME/CAPACITY (V/C) RATIO:		0.931			0.934			1.205				1.208				1.208					
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.831			0.834			1.105				1.108				1.108					
LEVEL OF SERVICE (LOS):		D			D			F				F				F					

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.003	Δv/c after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Culver Boulevard			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:		SR-90 WB Off-Ramp			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases			3			3			3			3			3					
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2			2			2					
		Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
		ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2					
		Override Capacity			0			0			0			0			0					
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	222	1	222	3	225	225	65	301	1	301	3	304	1	304	0	304	1	304		
		Left-Through		0							0				0				0			
		Through	747	2	374	0	747	374	23	816	2	408	0	816	2	408	0	816	2	408		
		Through-Right		0							0				0				0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through-Right		0							0				0				0			
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0							0				0				0			
		Through	681	2	341	0	681	341	19	742	2	371	0	742	2	371	0	742	2	371		
		Through-Right		0							0				0				0			
		Right	244	1	169	3	247	172	46	305	1	199	3	308	1	202	0	308	1	202		
		Left-Through-Right		0							0				0				0			
EASTBOUND		Left	150	1	150	0	150	150	53	212	1	212	0	212	1	212	0	212	1	212		
		Left-Through		0							0				0				0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0							0				0				0			
		Right	502	1	391	-1	501	389	93	626	1	476	-1	625	1	473	0	625	1	473		
		Left-Through-Right		0							0				0				0			
WESTBOUND		Left	143	1	79	0	143	79	0	152	1	84	0	152	1	84	0	152	1	84		
		Left-Through		1							1				1				1			
		Through	261	0	305	0	261	305	43	320	0	367	0	320	0	367	0	320	0	367		
		Through-Right		1							1				1				1			
		Right	44	0	44	0	44	44	0	47	0	47	0	47	0	47	0	47	0	47		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 563 East-West: 696 SUM: 1259			North-South: 566 East-West: 694 SUM: 1260			North-South: 672 East-West: 843 SUM: 1515			North-South: 675 East-West: 840 SUM: 1515			North-South: 675 East-West: 840 SUM: 1515							
VOLUME/CAPACITY (V/C) RATIO:			0.884			0.884			1.063			1.063			1.063							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.784			0.784			0.963			0.963			0.963							
LEVEL OF SERVICE (LOS):			C			C			E			E			E							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

I/S #:		North-South Street:			Culver Boulevard			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:		NDS		Date:		10/10/2017	
		East-West Street:			SR-90 EB Ramps			Projection Year:			2023		Peak Hour:			AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2			2			2			2			2			2			2		
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0			NB-- 0 SB-- 0 EB-- 0 WB-- 0					
ATSAC-1 or ATSAC+ATCS-2?					2			2			2			2			2			2			2		
Override Capacity					0			0			0			0			0			0			0		
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION						
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume			
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		Left-Through		0						0					0				0						
		Through	1586	3	529	2	1588	529	75	1759	3	586	2	1761	3	587	0	1761	3	587					
		Through-Right		0						0					0				0						
		Right	1097	2	603	0	1097	603	0	1164	2	640	0	1164	2	640	0	1164	2	640	0	640			
		Left-Through-Right		0						0					0				0						
SOUTHBOUND		Left	70	1	70	0	70	70	65	139	1	139	0	139	1	139	0	139	1	139					
		Left-Through		0						0					0				0						
		Through	646	2	323	7	653	327	66	752	2	376	7	759	2	380	0	759	2	380					
		Through-Right		0						0					0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0					0				0						
EASTBOUND		Left	93	1	93	0	93	93	63	162	1	162	0	162	1	162	0	162	1	162					
		Left-Through		0						0					0				0						
		Through	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0	1	1	1					
		Through-Right		1						1					1				1						
		Right	25	0	25	0	25	25	0	27	0	27	0	27	0	27	0	27	0	27	0	27			
		Left-Through-Right		0						0					0				0						
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through		0						0					0				0						
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Through-Right		0						0					0				0						
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Left-Through-Right		0						0					0				0						
CRITICAL VOLUMES			North-South: 673 East-West: 93 SUM: 766			North-South: 673 East-West: 93 SUM: 766			North-South: 779 East-West: 162 SUM: 941			North-South: 779 East-West: 162 SUM: 941			North-South: 779 East-West: 162 SUM: 941										
VOLUME/CAPACITY (V/C) RATIO:			0.511			0.511			0.627			0.627			0.627										
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.411			0.411			0.527			0.527			0.527										
LEVEL OF SERVICE (LOS):			A			A			A			A			A										

REMARKS:

**Version: 1i Beta; 8/4/2011**

## PROJECT IMPACT

Change in v/c due to project:	0.000	$\Delta$ v/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Culver Boulevard		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		10/10/2017	
CMA30		East-West Street:		SR-90 EB Ramps		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				2		2		2		2		2		2		2		2		2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0		0		0		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0	
ATSAC-1 or ATSAC+ATCS-2?				0		0		0		0		0		0		0		0		0	
Override Capacity				2		2		2		2		2		2		2		2		2	
				0		0		0		0		0		0		0		0		0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0							0			0				0			
		Through	750	3	250	3	753	251	53	849	3	283	3	852	3	284	0	852	3	284	
		Through-Right		0							0			0				0			
		Right	420	2	231	0	420	231	0	446	2	245	0	446	2	245	0	446	2	245	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	250	1	250	0	250	250	53	318	1	318	0	318	1	318	0	318	1	318	
		Left-Through		0							0			0				0			
		Through	1086	2	543	-1	1085	543	59	1212	2	606	-1	1211	2	606	0	1211	2	606	
		Through-Right		0							0			0				0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	75	1	75	0	75	75	34	114	1	114	0	114	1	114	0	114	1	114	
		Left-Through		0							0			0				0			
		Through	2	1	2	0	2	2	0	2	1	2	0	2	1	2	0	2	1	2	
		Through-Right		1							1			1				1			
		Right	55	0	55	0	55	55	0	58	0	58	0	58	0	58	0	58	0	58	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0							0			0				0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0							0			0				0			
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through-Right		0							0				0				0		
CRITICAL VOLUMES		North-South: 543		North-South: 543		North-South: 606		North-South: 606		North-South: 606		North-South: 606		North-South: 606		North-South: 606		North-South: 606			
		East-West: 75		East-West: 75		East-West: 114		East-West: 114		East-West: 114		East-West: 114		East-West: 114		East-West: 114		East-West: 114			
		SUM: 618		SUM: 618		SUM: 720		SUM: 720		SUM: 720		SUM: 720		SUM: 720		SUM: 720		SUM: 720			
VOLUME/CAPACITY (V/C) RATIO:		0.412		0.412		0.480		0.480		0.480		0.480		0.480		0.480		0.480			
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.312		0.312		0.380		0.380		0.380		0.380		0.380		0.380		0.380			
LEVEL OF SERVICE (LOS):		A		A		A		A		A		A		A		A		A			

REMARKS:

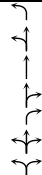
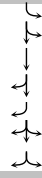

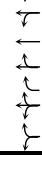


Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		1/3/2018	
CMA31		East-West Street:		Sanford Street - SR-90 WB Off-Ramp			Projection Year:		2023		Peak Hour:		AM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases				4			4			4			4			4			4			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2			2			2			2			2			
Right Turns: FREE-1, NRTOR-2 or OLA-3?				NB-- 1 SB-- 0			NB-- 1 SB-- 0			NB-- 1 SB-- 0			NB-- 1 SB-- 0			NB-- 1 SB-- 0			NB-- 1 SB-- 0			
				EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			EB-- 0 WB-- 2			
ATSAC-1 or ATSAC+ATCS-2?				2			2			2			2			2			2			
Override Capacity				0			0			0			0			0			0			
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION				
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	14	1	14	0	14	14	0	15	1	15	0	15	1	15	0	15	1	15		
		Left-Through		0							0				0				0			
		Through	667	2	334	1	668	334	134	842	2	421	1	843	2	422	0	843	2	422		
		Through-Right		0							0				0				0			
		Right	126	1	0	0	126	0	41	175	1	0	0	175	1	0	0	175	1	0		
SOUTHBOUND		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0							0				0				0			
		Through	1399	2	469	10	1409	472	227	1712	2	573	10	1722	2	576	0	1722	2	576		
EASTBOUND		Through-Right		1							1				1				1			
		Right	7	0	7	0	7	7	0	7	0	7	0	7	0	7	0	7	0	7		
		Left-Through-Right		0							0				0				0			
		Left-Right		0							0				0				0			
		Left	19	0	19	0	19	19	0	20	0	20	0	20	0	20	0	20	0	20		
WESTBOUND		Left-Through		0							0				0				0			
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Through-Right		0							0				0				0			
		Right	28	0	47	0	28	47	0	30	0	50	0	30	0	50	0	30	0	50		
		Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES		Left-Right		1							1				1				1			
		Left	610	1	401	0	610	401	65	713	1	454	0	713	1	454	0	713	1	454		
		Left-Through		0							0				0				0			
		Through	4	0	401	0	4	401	0	4	0	454	0	4	0	454	0	4	0	454		
		Through-Right		0							0				0				0			
VOLUME/CAPACITY (V/C) RATIO:		Right	588	1	0	2	590	0	20	644	1	0	2	646	1	0	0	646	1	0		
		Left-Through-Right		1							1				1				1			
		Left-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 483			North-South: 486			North-South: 588			North-South: 591			North-South: 591							
			East-West: 448			East-West: 448			East-West: 504			East-West: 504			East-West: 504							
SUM:			931			934			1092			1095			1095							
VOLUME/CAPACITY (V/C) RATIO:			0.677			0.679			0.794			0.796			0.796							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.577			0.579			0.694			0.696			0.696							
LEVEL OF SERVICE (LOS):			A			A			B			B			B							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:		Centinela Avenue		Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:		1/3/2018	
		East-West Street:		Sanford Street - SR-90 WB Off-Ramp		Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:		5-16-0265-1 Paseo Marina Project	
		No. of Phases				4				4				4						4	
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2				2				2						2	
		Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 1 SB-- 0		2		NB-- 1 SB-- 0		2		NB-- 1 SB-- 0		2		NB-- 1 SB-- 0		2		2	
		ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		EB-- 0 WB-- 2		2		2	
		Override Capacity				0				0				0						0	
MOVEMENT				EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
				Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	11	1	11	0	11	11	0	12	1	12	0	12	1	12	0	12	1	12	
		Left-Through		0							0				0				0		
		Through	704	2	352	2	706	353	220	967	2	484	2	969	2	485	0	969	2	485	
		Through-Right		0							0				0				0		
		Right	205	1	0	0	205	0	75	293	1	0	0	293	1	0	0	293	1	0	
		Left-Through-Right		0							0				0				0		
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0							0				0				0		
		Through	1754	2	590	-1	1753	589	173	2035	2	684	-1	2034	2	683	0	2034	2	683	
		Through-Right		1							1				1				1		
		Right	15	0	15	0	15	15	0	16	0	16	0	16	0	16	0	16	0	16	
		Left-Through-Right		0							0				0				0		
EASTBOUND		Left	7	0	7	0	7	7	0	7	0	7	0	7	0	7	0	7	0	7	
		Left-Through		0							0				0				0		
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0							0				0				0		
		Right	19	0	26	0	19	26	0	20	0	27	0	20	0	27	0	20	0	27	
		Left-Through-Right		0							0				0				0		
WESTBOUND		Left	242	1	242	0	242	242	37	294	1	281	0	294	1	282	0	294	1	282	
		Left-Through		0							0				0				0		
		Through	12	0	247	0	12	248	0	13	0	281	0	13	0	282	0	13	0	282	
		Through-Right		0							0				0				0		
		Right	481	1	0	3	484	0	26	537	1	0	3	540	1	0	0	540	1	0	
		Left-Through-Right		1							1				1				1		
CRITICAL VOLUMES		North-South:		601	North-South:		600	North-South:		696	North-South:		695	North-South:		695					
		East-West:		273	East-West:		274	East-West:		308	East-West:		309	East-West:		309					
		SUM:		874	SUM:		874	SUM:		1004	SUM:		1004	SUM:		1004					
VOLUME/CAPACITY (V/C) RATIO:			0.636		0.636		0.730		0.730		0.730		0.730		0.730						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.536		0.536		0.630		0.630		0.630		0.630		0.630						
LEVEL OF SERVICE (LOS):			A		A		B		B		B		B		B						

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.000	Δv/c after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A



# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Centinela Avenue	Year of Count:	2017	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	1/3/2018									
CMA32	East-West Street:	SR-90 EB Ramps	Projection Year:	2023	Peak Hour:	AM	Reviewed by:	JAS	Project:	5-16-0265-1 Paseo Marina Project									
No. of Phases		3	3		3		3		3										
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0										
Right Turns: FREE-1, NRTOR-2 or OLA-3?		EB-- 0 WB-- 0	EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0										
ATSAC-1 or ATSAC+ATCS-2?		2	2		2		2		2										
Override Capacity		0	0		0		0		0										
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through																		
	Through	765	2	361	1	766	361	170	982	2	449	1	983	2	450	0	983	2	450
	Through-Right		1							1				1				1	
	Right	318	0	318	0	318	318	28	366	0	366	0	366	0	366	0	366	0	366
SOUTHBOUND	Left	549	2	302	5	554	305	22	605	2	333	5	610	2	336	0	610	2	336
	Left-Through		0							0				0				0	
	Through	1443	2	722	5	1448	724	270	1802	2	901	5	1807	2	904	0	1807	2	904
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	41	0	41	0	41	41	3	47	0	47	0	47	0	47	0	47	0	47
	Left-Through		0							0				0				0	
	Through	0	0	41	0	0	41	0	0	0	47	0	0	0	47	0	0	0	47
	Through-Right		0							0				0				0	
	Right	288	1	288	0	288	288	73	379	1	379	0	379	1	379	0	379	1	379
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 722 East-West: 288 SUM: 1010	North-South: 724 East-West: 288 SUM: 1012	North-South: 901 East-West: 379 SUM: 1280	North-South: 904 East-West: 379 SUM: 1283	North-South: 904 East-West: 379 SUM: 1283													
VOLUME/CAPACITY (V/C) RATIO:		0.709	0.710	0.898	0.900	0.900													
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.609	0.610	0.798	0.800	0.800													
LEVEL OF SERVICE (LOS):		B	B	C	D	D													

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.002	Δv/c after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

CMA32

# Level of Service Worksheet (Circular 212 Method)



I/S #:		North-South Street:			Centinela Avenue - Campus Center D			Year of Count:			2017		Ambient Growth: (%)			1.0		Conducted by:			NDS		Date:		1/3/2018	
CMA33		East-West Street:			Jefferson Boulevard			Projection Year:			2023		Peak Hour:			AM		Reviewed by:			JAS		Project:		5-16-0265-1 Paseo Marina Project	
No. of Phases					4			4			4			4			4			4			4			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0			0			0			0			0			0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?					NB-- 0 SB-- 3			NB-- 0 SB-- 3			NB-- 0 SB-- 3			NB-- 0 SB-- 3			NB-- 0 SB-- 3			NB-- 0 SB-- 3						
ATSAC-1 or ATSAC+ATCS-2?					EB-- 3 WB-- 3			EB-- 3 WB-- 3			EB-- 3 WB-- 3			EB-- 3 WB-- 3			EB-- 3 WB-- 3			EB-- 3 WB-- 3						
Override Capacity					2			2			2			2			2			2			2			
					0			0			0			0			0			0			0			
MOVEMENT					EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION							
					Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume				
NORTHBOUND		Left	39	2	21	0	39	21	11	52	2	29	0	52	2	29	0	52	2	29						
		Left-Through		0						0				0				0								
		Through	240	3	80	1	241	80	84	339	3	113	1	340	3	113	0	340	3	113						
		Through-Right		0						0				0				0								
		Right	145	1	115	0	145	115	12	166	1	129	0	166	1	129	0	166	1	129						
		Left-Through-Right		0						0				0				0								
SOUTHBOUND		Left	320	2	176	0	320	176	60	400	2	220	0	400	2	220	0	400	2	220						
		Left-Through		0						0				0				0								
		Through	434	2	217	5	439	220	129	590	2	295	5	595	2	298	0	595	2	298						
		Through-Right		0						0				0				0								
		Right	893	1	671	0	893	671	134	1082	1	820	0	1082	1	820	0	1082	1	820						
		Left-Through-Right		0						0				0				0								
EASTBOUND		Left	404	2	222	0	404	222	47	476	2	262	0	476	2	262	0	476	2	262						
		Left-Through		0						0				0				0								
		Through	916	3	305	7	923	308	53	1025	3	342	7	1032	3	344	0	1032	3	344						
		Through-Right		0						0				0				0								
		Right	90	1	69	0	90	69	13	109	1	80	0	109	1	80	0	109	1	80						
		Left-Through-Right		0						0				0				0								
WESTBOUND		Left	110	2	61	0	110	61	20	137	2	75	0	137	2	75	0	137	2	75						
		Left-Through		0						0				0				0								
		Through	1273	3	424	2	1275	425	140	1491	3	497	2	1493	3	498	0	1493	3	498						
		Through-Right		0						0				0				0								
		Right	277	1	101	0	277	101	53	347	1	127	0	347	1	127	0	347	1	127						
		Left-Through-Right		0						0				0				0								
CRITICAL VOLUMES					North-South: 692			North-South: 692			North-South: 849			North-South: 849			North-South: 849									
					East-West: 646			East-West: 647			East-West: 759			East-West: 760			East-West: 760									
					SUM: 1338			SUM: 1339			SUM: 1608			SUM: 1609			SUM: 1609									
VOLUME/CAPACITY (V/C) RATIO:					0.973			0.974			1.169			1.170			1.170									
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.873			0.874			1.069			1.070			1.070									
LEVEL OF SERVICE (LOS):					D			D			F			F			F									

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	0.001	Δv/c after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

# Level of Service Worksheet (Circular 212 Method)



I/S #:	North-South Street:	Centinela Avenue - Campus Center D			Year of Count:		2017		Ambient Growth: (%)		1.0		Conducted by:		NDS		Date:	1/3/2018			
	CMA33	East-West Street:	Jefferson Boulevard			Projection Year:		2023		Peak Hour:		PM		Reviewed by:		JAS		Project:	5-16-0265-1 Paseo Marina Project		
No. of Phases		4			4		4		4		4		4		4		4		4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0		0		0		0		0		0		0		0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3	NB--	0	SB--	3
		EB--	3	WB--	3	EB--	3	WB--	3	EB--	3	WB--	3	EB--	3	WB--	3	EB--	3	WB--	3
ATSAC-1 or ATSAC+ATCS-2?		2			2		2		2		2		2		2		2		2		
Override Capacity		0			0		0		0		0		0		0		0		0		
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION					
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	97	2	53	0	97	53	8	111	2	61	0	111	2	61	0	111	2	61		
	Left-Through		0							0				0				0			
	Through	312	3	104	2	314	105	129	460	3	153	2	462	3	154	0	462	3	154		
	Through-Right		0							0				0				0			
	Right	295	1	258	0	295	258	23	336	1	293	0	336	1	293	0	336	1	293		
	Left-Through-Right		0							0				0				0			
SOUTHBOUND	Left-Right		0							0				0				0			
	Left	635	2	349	0	635	349	50	724	2	398	0	724	2	398	0	724	2	398		
	Left-Through		0							0				0				0			
	Through	291	2	146	-1	290	145	91	400	2	200	-1	399	2	200	0	399	2	200		
	Through-Right		0							0				0				0			
	Right	666	1	463	0	666	463	63	770	1	471	0	770	1	471	0	770	1	471		
EASTBOUND	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
	Left	369	2	203	0	369	203	152	544	2	299	0	544	2	299	0	544	2	299		
	Left-Through		0							0				0				0			
	Through	1463	3	488	-1	1462	487	174	1727	3	576	-1	1726	3	575	0	1726	3	575		
	Through-Right		0							0				0				0			
WESTBOUND	Right	51	1	0	0	51	0	9	63	1	2	0	63	1	2	0	63	1	2		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
	Left	134	2	74	0	134	74	15	157	2	86	0	157	2	86	0	157	2	86		
	Left-Through		0							0				0				0			
	Through	916	3	305	3	919	306	56	1028	3	343	3	1031	3	344	0	1031	3	344		
CRITICAL VOLUMES	Through-Right		0							0				0				0			
	Right	283	1	0	0	283	0	53	353	1	0	0	353	1	0	0	353	1	0		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
	CRITICAL VOLUMES		North-South:	607	North-South:	607	North-South:	691	North-South:	691	North-South:	691	North-South:	691	North-South:	691					
		East-West:	562	East-West:	561	East-West:	662	East-West:	661	East-West:	661	East-West:	661	East-West:	661						
		SUM:	1169	SUM:	1168	SUM:	1353	SUM:	1352	SUM:	1352	SUM:	1352	SUM:	1352						
VOLUME/CAPACITY (V/C) RATIO:		0.850			0.849			0.984			0.983			0.983							
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.750			0.749			0.884			0.883			0.883							
LEVEL OF SERVICE (LOS):		C			C			D			D			D							

REMARKS:

Version: 1i Beta; 8/4/2011

## PROJECT IMPACT

Change in v/c due to project:	-0.001	Δv/c after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

## APPENDIX C

### ICU AND LEVELS OF SERVICE EXPLANATION ICU DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

## INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing. The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics		
Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

### SERVICE LEVEL A

There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

### SERVICE LEVEL B

This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

### SERVICE LEVEL C

At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

### SERVICE LEVEL D

This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

### SERVICE LEVEL E

This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

### SERVICE LEVEL F

Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

**INTERSECTION CAPACITY UTILIZATION**

N-S St: Admiralty Way  
 E-W St: Mindanao Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU3

Admiralty Way @ Mindanao Way  
 Peak hr: AM  
 Annual Growth: 1.00%

Date: 01/03/2018  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2017 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	16	1600	0.010	0	16	1600	0.010	1	17	1600	0.011	0	17	1600	0.011	0	17	1600	0.011
Nb Thru	973	3200	0.318 *	0	973	3200	0.318 *	119	1092	3200	0.355 *	0	1092	3200	0.355 *	0	1092	3200	0.355 *
Nb Right	45	0	-	1	46	0	-	-2	43	0	-	1	44	0	-	0	44	0	-
Sb Left	447	2880	0.155 *	2	449	2880	0.156 *	28	475	2880	0.165 *	2	477	2880	0.166 *	0	477	2880	0.166 *
Sb Thru	731	3200	0.233	0	731	3200	0.233	95	826	3200	0.263	0	826	3200	0.263	0	826	3200	0.263
Sb Right	14	0	-	0	14	0	-	1	15	0	-	0	15	0	-	0	15	0	-
Eb Left	7	1600	0.004	0	7	1600	0.004 *	0	7	1600	0.005	0	7	1600	0.005	0	7	1600	0.005
Eb Thru	12	1600	0.015 *	0	12	1600	0.015	7	19	3200	0.010 *	0	19	3200	0.010 *	0	19	3200	0.010 *
Eb Right	12	0	-	0	12	0	-	1	13	0	-	0	13	0	-	0	13	0	-
Wb Left	128	1600	0.080	2	130	1600	0.081	26	154	1600	0.096 *	2	156	1600	0.097 *	0	156	1600	0.097 *
Wb Thru	42	1600	0.026	0	42	1600	0.026	5	47	0	0.000	0	47	0	0.000	0	47	0	0.000
Wb Right [3	504	1600	0.160 *	10	514	1600	0.165 *	60	564	3200	0.011	10	574	3200	0.014	0	574	3200	0.014
Yellow Allowance:				0.100 *				0.100 *				0.100 *				0.100 *			
ICU	0.748			0.755				0.726				0.728				0.728			
LOS	C			C				C				C				C			

\* Key conflicting movement as a part of ICU

1 Counts conducted by:

2 Capacity expressed in National Data and Surveying Services

3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.

4 Eastbound and westbound operate with split phasing.

12:53 PM

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Admiralty Way  
 E-W St: Mindanao Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU3

Admiralty Way @ Mindanao Way  
 Peak hr: PM  
 Annual Growth: 1.00%

Date: 01/03/2018  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2023 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005
Nb Thru	671	3200	0.255 *	0	671	3200	0.255 *	122	793	3200	0.292 *	0	793	3200	0.293 *	0	793	3200	0.293 *
Nb Right	144	0	-	1	145	0	-	-2	142	0	-	1	143	0	-	0	143	0	-
Sb Left	329	2880	0.114 *	5	334	2880	0.116 *	14	343	2880	0.119 *	5	348	2880	0.121 *	0	348	2880	0.121 *
Sb Thru	1099	3200	0.349	0	1099	3200	0.349	104	1203	3200	0.382	0	1203	3200	0.382	0	1203	3200	0.382
Sb Right	18	0	-	0	18	0	-	1	19	0	-	0	19	0	-	0	19	0	-
Eb Left	25	1600	0.016	0	25	1600	0.016	2	27	1600	0.017	0	27	1600	0.017	0	27	1600	0.017
Eb Thru	37	1600	0.036 *	0	37	1600	0.036 *	6	43	3200	0.020 *	0	43	3200	0.020 *	0	43	3200	0.020 *
Eb Right	21	0	-	0	21	0	-	1	22	0	-	0	22	0	-	0	22	0	-
Wb Left	255	1600	0.159 *	0	255	1600	0.159 *	38	293	1600	0.183 *	0	293	1600	0.183 *	0	293	1600	0.183 *
Wb Thru	32	1600	0.020	0	32	1600	0.020	7	39	0	0.000	0	39	0	0.000	0	39	0	0.000
Wb Right [3	436	1600	0.158	-2	434	1600	0.155	62	498	3200	0.036	-2	496	3200	0.034	0	496	3200	0.034
Yellow Allowance:				0.100 *			0.100 *				0.100 *				0.100 *				0.100 *
ICU		0.665				0.667				0.715				0.717				0.717	
LOS		B				B				C				C				C	

- \* Key conflicting movement as a part of ICU  
 1 Counts conducted by:  
 2 Capacity expressed in National Data and Surveying Services  
 3 The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.  
 4 Eastbound and westbound operate with split phasing.

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Bali Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU9

Lincoln Boulevard @ Bali Way  
 Peak hr: AM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2017 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	153	1600	0.096 *	0	153	1600	0.096 *	11	164	1600	0.103 *	0	164	1600	0.103 *	0	164	1600	0.103 *
Nb Thru	1362	4800	0.290	5	1367	4800	0.291	194	1556	4800	0.330	5	1561	4800	0.331	0	1561	4800	0.331
Nb Right	28	0	-	0	28	0	-	2	30	0	-	0	30	0	-	0	30	0	-
Sb Left	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005	0	8	1600	0.005
Sb Thru	1238	4800	0.309 *	19	1257	4800	0.313 *	290	1528	4800	0.373 *	19	1547	4800	0.377 *	0	1547	4800	0.377 *
Sb Right	244	0	-	0	244	0	-	17	261	0	-	0	261	0	-	0	261	0	-
Eb Left	192	2880	0.067 *	0	192	2880	0.067 *	48	240	2880	0.083 *	0	240	2880	0.083 *	0	240	2880	0.083 *
Eb Thru	3	0	0.000	0	3	0	0.000	0	3	0	0.000	0	3	0	0.000	0	3	0	0.000
Eb Right	61	1600	0.038	0	61	1600	0.038	10	71	1600	0.044	0	71	1600	0.044	0	71	1600	0.044
Wb Left	1	0	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001
Wb Thru	2	1600	0.009 *	0	2	1600	0.009 *	0	2	1600	0.010 *	0	2	1600	0.010 *	0	2	1600	0.010 *
Wb Right	12	0	-	0	12	0	-	1	13	0	-	0	13	0	-	0	13	0	-
Yellow Allowance:				0.100 *				0.100 *				0.100 *				0.100 *			
ICU	0.580			0.584				0.669				0.673				0.673			
LOS	A			A				B				B				B			

03:25 PM

- \* Key conflicting movement as a part of ICU  
 1 Counts conducted by National Data and Surveying Services  
 2 Capacity expressed in veh/hour of green  
 3 Eastbound and westbound operate with split phasing.

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Bali Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU9

Lincoln Boulevard @ Bali Way  
 Peak hr: PM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2023 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	94	1600	0.059 *	0	94	1600	0.059 *	11	105	1600	0.065 *	0	105	1600	0.065 *	0	105	1600	0.065 *
Nb Thru	1335	4800	0.281	9	1344	4800	0.283	270	1605	4800	0.338	9	1614	4800	0.340	0	1614	4800	0.340
Nb Right	16	0	-	0	16	0	-	1	17	0	-	0	17	0	-	0	17	0	-
Sb Left	28	1600	0.018	0	28	1600	0.018	2	30	1600	0.019	0	30	1600	0.019	0	30	1600	0.019
Sb Thru	1585	4800	0.394 *	-3	1582	4800	0.394 *	252	1837	4800	0.452 *	-3	1834	4800	0.451 *	0	1834	4800	0.451 *
Sb Right	308	0	-	0	308	0	-	24	332	0	-	0	332	0	-	0	332	0	-
Eb Left	297	2880	0.103 *	0	297	2880	0.103 *	52	349	2880	0.121 *	0	349	2880	0.121 *	0	349	2880	0.121 *
Eb Thru	2	0	0.000	0	2	0	0.000	0	2	0	0.000	0	2	0	0.000	0	2	0	0.000
Eb Right	122	1600	0.076	0	122	1600	0.076	12	134	1600	0.083	0	134	1600	0.083	0	134	1600	0.083
Wb Left	6	0	0.004	0	6	0	0.004	0	6	0	0.004	0	6	0	0.004	0	6	0	0.004
Wb Thru	0	1600	0.014 *	0	0	1600	0.014 *	0	0	1600	0.015 *	0	0	1600	0.015 *	0	0	1600	0.015 *
Wb Right	17	0	-	0	17	0	-	1	18	0	-	0	18	0	-	0	18	0	-
Yellow Allowance:				0.100 *			0.100 *				0.100 *				0.100 *				0.100 *
ICU		0.671				0.670				0.754				0.753				0.753	
LOS		B				B				C				C				C	

03:25 PM

- \* Key conflicting movement as a part of ICU
- 1 Counts conducted by National Data and Surveying Services
- 2 Capacity expressed in veh/hour of green
- 3 Eastbound and westbound operate with split phasing.

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Mindanao Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU10

Lincoln Boulevard @ Mindanao Way  
 Peak hr: AM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2017 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	197	1600	0.123	0	197	1600	0.123	17	214	1600	0.134	0	214	1600	0.134	0	214	1600	0.134
Nb Thru	1457	4800	0.304 *	5	1462	4800	0.305 *	250	1707	4800	0.356 *	5	1712	4800	0.357 *	0	1712	4800	0.357 *
Nb Right [3]	486	1600	0.194	1	487	1600	0.194	31	517	1600	0.206	1	518	1600	0.206	0	518	1600	0.206
Sb Left	129	1600	0.081 *	0	129	1600	0.081 *	8	137	1600	0.086 *	0	137	1600	0.086 *	0	137	1600	0.086 *
Sb Thru	1076	4800	0.230	19	1095	4800	0.234	279	1355	4800	0.290	19	1374	4800	0.294	0	1374	4800	0.294
Sb Right	30	0	-	0	30	0	-	9	39	0	-	0	39	0	-	0	39	0	-
Eb Left	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	539	3200	0.187 *	3	542	3200	0.188 *	71	610	3200	0.214 *	3	613	3200	0.215 *	0	613	3200	0.215 *
Eb Right	60	0	-	0	60	0	-	16	76	0	-	0	76	0	-	0	76	0	-
Wb Left	316	2880	0.110 *	2	318	2880	0.110 *	21	337	2880	0.117 *	2	339	2880	0.118 *	0	339	2880	0.118 *
Wb Thru	442	3200	0.163	12	454	3200	0.167	65	507	3200	0.185	12	519	3200	0.188	0	519	3200	0.188
Wb Right	79	0	-	0	79	0	-	5	84	0	-	0	84	0	-	0	84	0	-
Yellow Allowance:				0.100 *				0.100 *				0.100 *				0.100 *			
ICU	0.781			0.784				0.873				0.875				0.875			
LOS	C			C				D				D				D			

03:30 PM

- \* Key conflicting movement as a part of ICU  
 1 Counts conducted by National Data and Surveying Services  
 2 Capacity expressed in veh/hour of green  
 3 The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Mindanao Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU10

Lincoln Boulevard @ Mindanao Way  
 Peak hr: PM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2023 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
	1	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	96	1600	0.060 *	0	96	1600	0.060 *	17	113	1600	0.071 *	0	113	1600	0.071 *	0	113	1600	0.071 *
Nb Thru	1289	4800	0.269	9	1298	4800	0.270	330	1619	4800	0.337	9	1628	4800	0.339	0	1628	4800	0.339
Nb Right [3]	319	1600	0.038	1	320	1600	0.039	20	339	1600	0.041	1	340	1600	0.041	0	340	1600	0.041
Sb Left	186	1600	0.116	0	186	1600	0.116	11	197	1600	0.123	0	197	1600	0.123	0	197	1600	0.123
Sb Thru	1562	4800	0.339 *	-3	1559	4800	0.339 *	237	1799	4800	0.393 *	-3	1796	4800	0.392 *	0	1796	4800	0.392 *
Sb Right	66	0	-	0	66	0	-	20	86	0	-	0	86	0	-	0	86	0	-
Eb Left	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
Eb Thru	502	3200	0.202 *	6	508	3200	0.204 *	69	571	3200	0.229 *	6	577	3200	0.231 *	0	577	3200	0.231 *
Eb Right	144	0	-	0	144	0	-	16	160	0	-	0	160	0	-	0	160	0	-
Wb Left	464	2880	0.161 *	0	464	2880	0.161 *	29	493	2880	0.171 *	0	493	2880	0.171 *	0	493	2880	0.171 *
Wb Thru	557	3200	0.199	-2	555	3200	0.199	72	629	3200	0.224	-2	627	3200	0.223	0	627	3200	0.223
Wb Right	81	0	-	0	81	0	-	5	86	0	-	0	86	0	-	0	86	0	-
Yellow Allowance:				0.100 *			0.100 *				0.100 *				0.100 *				0.100 *
ICU		0.862				0.864				0.963				0.964				0.964	
LOS		D				D				E				E				E	

03:30 PM

- \* Key conflicting movement as a part of ICU  
 1 Counts conducted by National Data and Surveying Services  
 2 Capacity expressed in veh/hour of green  
 3 The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Fiji Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU11

Lincoln Boulevard @ Fiji Way  
 Peak hr: AM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

2017 EXIST. TRAFFIC				2017 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
1	2	V/C		Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	884	2880	0.307 *	0	884	2880	0.307 *	84	968	2880	0.336 *	0	968	2880	0.336 *	0	968	2880	0.336 *
Nb Thru	1989	4800	0.423	6	1995	4800	0.424	242	2231	4800	0.474	6	2237	4800	0.475	0	2237	4800	0.475
Nb Right	41	0	-	0	41	0	-	3	44	0	-	0	44	0	-	0	44	0	-
Sb Left	44	1600	0.028	0	44	1600	0.028	3	47	1600	0.029	0	47	1600	0.029	0	47	1600	0.029
Sb Thru	1312	4800	0.282 *	21	1333	4800	0.286 *	303	1615	4800	0.346 *	21	1636	4800	0.351 *	0	1636	4800	0.351 *
Sb Right	40	0	-	0	40	0	-	7	47	0	-	0	47	0	-	0	47	0	-
Eb Left	79	1600	0.049 *	0	79	1600	0.049 *	52	131	1600	0.082 *	0	131	1600	0.082 *	0	131	1600	0.082 *
Eb Thru	28	1600	0.018	0	28	1600	0.018	2	30	1600	0.019	0	30	1600	0.019	0	30	1600	0.019
Eb Right [3]	564	1600	0.046	0	564	1600	0.046	90	654	1600	0.072	0	654	1600	0.072	0	654	1600	0.072
Wb Left	21	0	0.007	0	21	0	0.007	1	22	0	0.007	0	22	0	0.007	0	22	0	0.007
Wb Thru	22	3200	0.025 *	0	22	3200	0.025 *	1	23	3200	0.026 *	0	23	3200	0.026 *	0	23	3200	0.026 *
Wb Right	36	0	-	0	36	0	-	2	38	0	-	0	38	0	-	0	38	0	-
Yellow Allowance:				0.100 *				0.100 *				0.100 *				0.100 *			
ICU	0.763			0.767				0.891				0.895				0.895			
LOS	C			C				D				D				D			

03:33 PM

- \* Key conflicting movement as a part of ICU  
 1 Counts conducted by National Data and Surveying Services  
 2 Capacity expressed in veh/hour of green  
 3 Free-flow movement

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**INTERSECTION CAPACITY UTILIZATION**

N-S St: Lincoln Boulevard  
 E-W St: Fiji Way  
 Project: Paseo Marina Project / 5-16-0265-1  
 File: ICU11

Lincoln Boulevard @ Fiji Way  
 Peak hr: PM  
 Annual Growth: 1.00%

Date: 10/10/2017  
 Date of Count: 2017  
 Projection Year: 2023

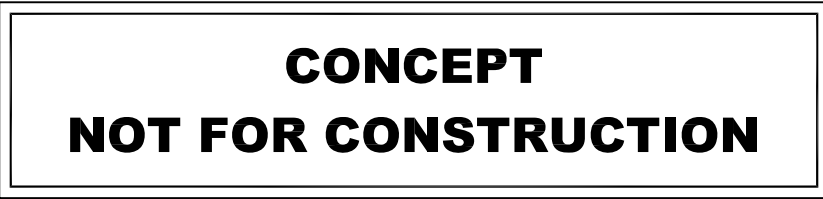
2017 EXIST. TRAFFIC				2023 W/ PROJECT				2023 FORECAST YEAR				2023 W/ PROJECT				2023 W/ PROJECT MITIGATION			
1	2	V/C		Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	581	2880	0.202 *	0	581	2880	0.202 *	96	677	2880	0.235 *	0	677	2880	0.235 *	0	677	2880	0.235 *
Nb Thru	1606	4800	0.340	10	1616	4800	0.342	315	1921	4800	0.406	10	1931	4800	0.408	0	1931	4800	0.408
Nb Right	26	0	-	0	26	0	-	2	28	0	-	0	28	0	-	0	28	0	-
Sb Left	55	1600	0.034	0	55	1600	0.034	3	58	1600	0.036	0	58	1600	0.036	0	58	1600	0.036
Sb Thru	2106	4800	0.461 *	-3	2103	4800	0.460 *	268	2374	4800	0.520 *	-3	2371	4800	0.520 *	0	2371	4800	0.520 *
Sb Right	106	0	-	0	106	0	-	18	124	0	-	0	124	0	-	0	124	0	-
Eb Left	82	1600	0.051	0	82	1600	0.051	50	132	1600	0.083	0	132	1600	0.083	0	132	1600	0.083
Eb Thru	25	1600	0.016	0	25	1600	0.016	2	27	1600	0.017	0	27	1600	0.017	0	27	1600	0.017
Eb Right [3]	1054	1600	0.457 *	0	1054	1600	0.457 *	102	1156	1600	0.487 *	0	1156	1600	0.487 *	0	1156	1600	0.487 *
Wb Left	52	0	0.016 *	0	52	0	0.016 *	3	55	0	0.017 *	0	55	0	0.017 *	0	55	0	0.017 *
Wb Thru	15	3200	0.038	0	15	3200	0.038	1	16	3200	0.041	0	16	3200	0.041	0	16	3200	0.041
Wb Right	56	0	-	0	56	0	-	3	59	0	-	0	59	0	-	0	59	0	-
Yellow Allowance:				0.100 *			0.100 *				0.100 *				0.100 *				0.100 *
ICU		1.236					1.235				1.360				1.359				1.359
LOS		F					F				F				F				F

03:33 PM

- \* Key conflicting movement as a part of ICU
- 1 Counts conducted by National Data and Surveying Services
- 2 Capacity expressed in veh/hour of green
- 3 Free-flow movement

## APPENDIX D

### CONCEPTUAL MITIGATION DRAWING MINDANAO WAY / SR-90 EB RAMPS



REVIEWED _____ 20 ____ _____ Transportation Engineer	ACCEPTED _____ 20 ____ _____ Senior Transportation Engineer	
INSTALLATION DATES MARKOUT BEGAN: _____ MARKOUT COMPLETED: _____ STRIPING COMPLETED: _____ References: A-4163.dwg	CITY OF LOS ANGELES <b>DEPARTMENT OF TRANSPORTATION</b> SELETA J. REYNOLDS, General Manager  MINDANAO WAY MARINA FWY EB RAMPS TO MARINA FWY WB RAMPS	
Thomas Guide      District 672 B7      W	PROJECT NO. —	DRAWING NO. —
		<div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 50px; height: 50px; display: flex; align-items: center; justify-content: center;">1</div> </div>

[illegible]



# APPENDIX E

## LADOT TRAFFIC SIGNAL WARRANT WORKSHEETS

## Traffic Signal Warrants Worksheet

Major St: Maxella Avenue

Minor St: Del Rey Avenue

DATE 9/22/2017

CALC JAS

CHK \_\_\_\_\_

Critical Approach Speed 25 mph

or

Speed Limit 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

In built up area of isolated community of < 10,000 population..... ☐

☐ or ☒

**RURAL (R)**

**URBAN (U)**

### WARRANT 1 - Eight Hour Vehicular Volume

SATISFIED YES ☐ NO ☐

- a. Condition A or Condition B or combination of A and B must be satisfied.
- b. 6 hour manual count may be used in lieu of 8 hour count.
- c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.
- d. A reduction for right turning vehicles that turn within 45 seconds may be applied.
- e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.
- f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

### Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)								
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)								

### Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)								
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)								

## Traffic Signal Warrants Worksheet

### WARRANT 2 - Four Hour Vehicular Volume

**SATISFIED**   YES ☐   NO ☒

- a. Record hourly vehicle volumes for any four hours of an average day.
- b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 5PM	B 4PM	C 3PM	D 9AM	Hour
Both Approaches - Major Street		✓	1063	1015	929	897	
Higher Approach - Minor Street	✓		268	226	225	107	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

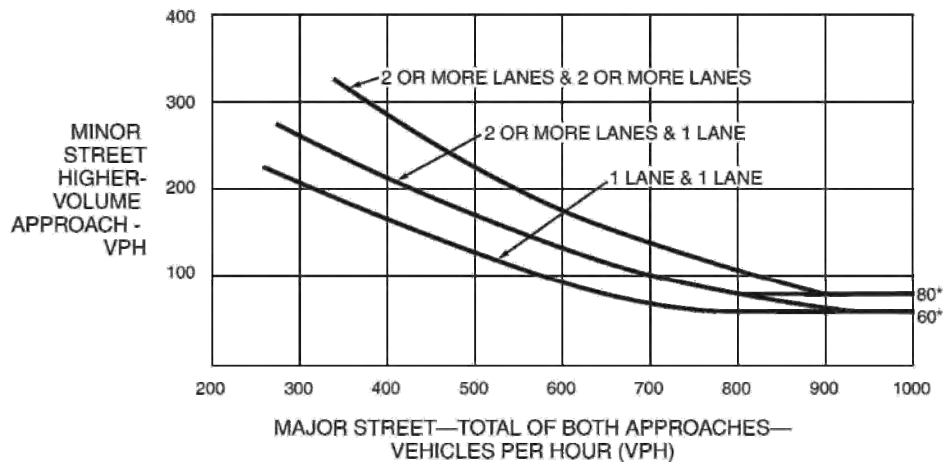
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

## Traffic Signal Warrants Worksheet

### WARRANT 3 - Peak Hour

SATISFIED YES ☐ NO ☒

- a. Part A or Part B must be satisfied.
- b. A reduction for right turning vehicle that turn within 45 seconds may be applied.
- c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
- d. See Section 4C.102(CA) for bicycle signal guidelines.

#### PART A

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

#### PART B

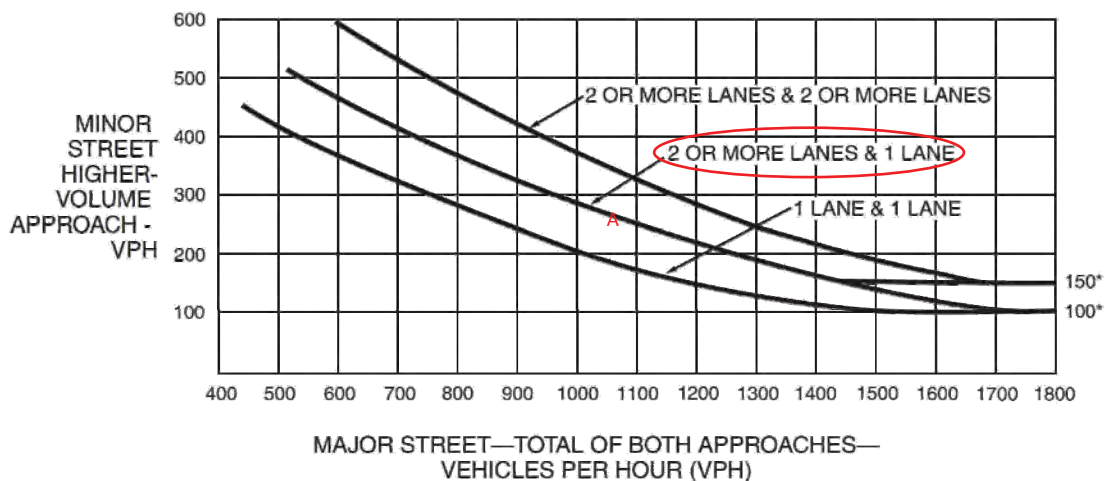
SATISFIED YES ☐ NO ☒

APPROACH LANES	One	2 or More	5PM Hour
Both Approaches - Major Street	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1063
Higher Approach - Minor Street	<input checked="" type="checkbox"/>	<input type="checkbox"/>	268

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

## Traffic Signal Warrants Worksheet

Major St: Maxella Avenue

Minor St: Del Rey Avenue

DATE 9/22/2017

CALC JAS

CHK \_\_\_\_\_

Critical Approach Speed 25 mph

or

Speed Limit 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

In built up area of isolated community of < 10,000 population..... ☐

☐ or ☒

}

**RURAL (R)**

**URBAN (U)**

### WARRANT 1 - Eight Hour Vehicular Volume

SATISFIED YES ☐ NO ☐

- a. Condition A or Condition B or combination of A and B must be satisfied.
- b. 6 hour manual count may be used in lieu of 8 hour count.
- c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.
- d. A reduction for right turning vehicles that turn within 45 seconds may be applied.
- e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.
- f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

### Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)								
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)								

### Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)								
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)								

## Traffic Signal Warrants Worksheet

### WARRANT 2 - Four Hour Vehicular Volume

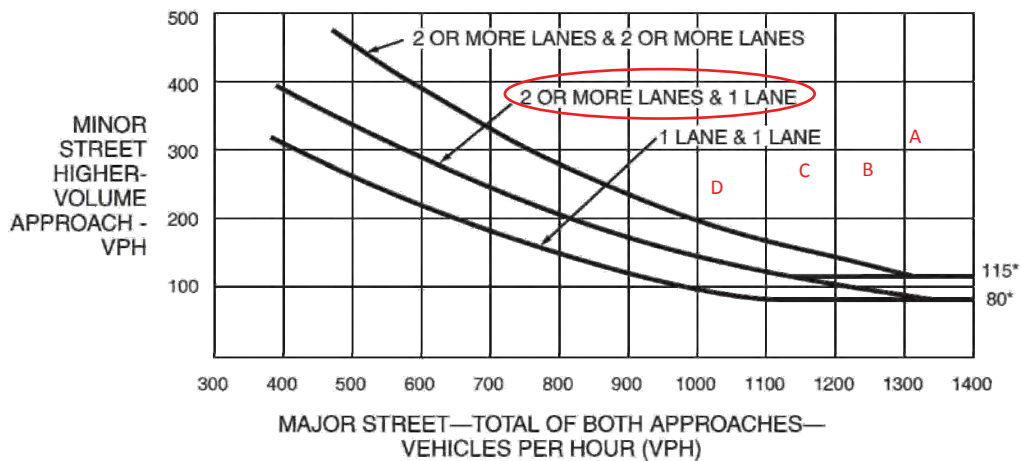
**SATISFIED**   YES ☒   NO ☐

- a. Record hourly vehicle volumes for any four hours of an average day.
- b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 5PM	B 4PM	C 3PM	D 9AM	Hour
Both Approaches - Major Street		✓	1302	1248	1151	1022	
Higher Approach - Minor Street	✓		329	285	284	240	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

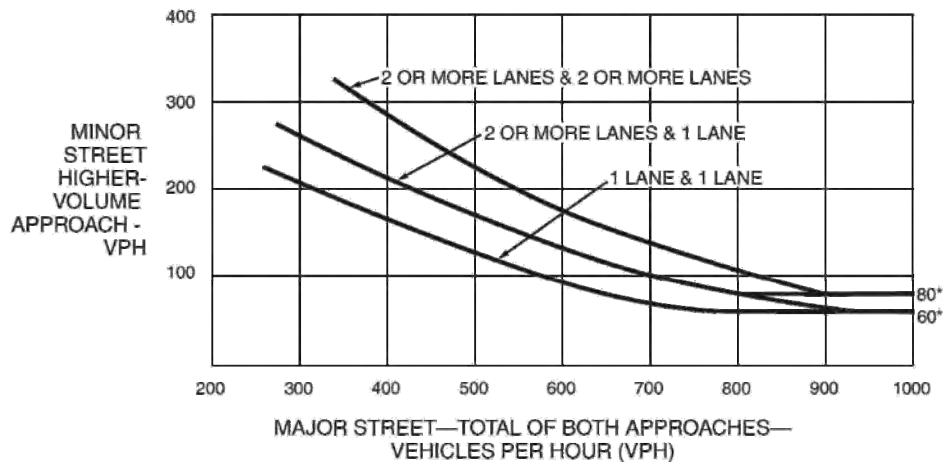
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT



## Traffic Signal Warrants Worksheet

### WARRANT 3 - Peak Hour

SATISFIED YES ☒ NO ☐

- a. Part A or Part B must be satisfied.
- b. A reduction for right turning vehicle that turn within 45 seconds may be applied.
- c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
- d. See Section 4C.102(CA) for bicycle signal guidelines.

#### PART A

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

#### PART B

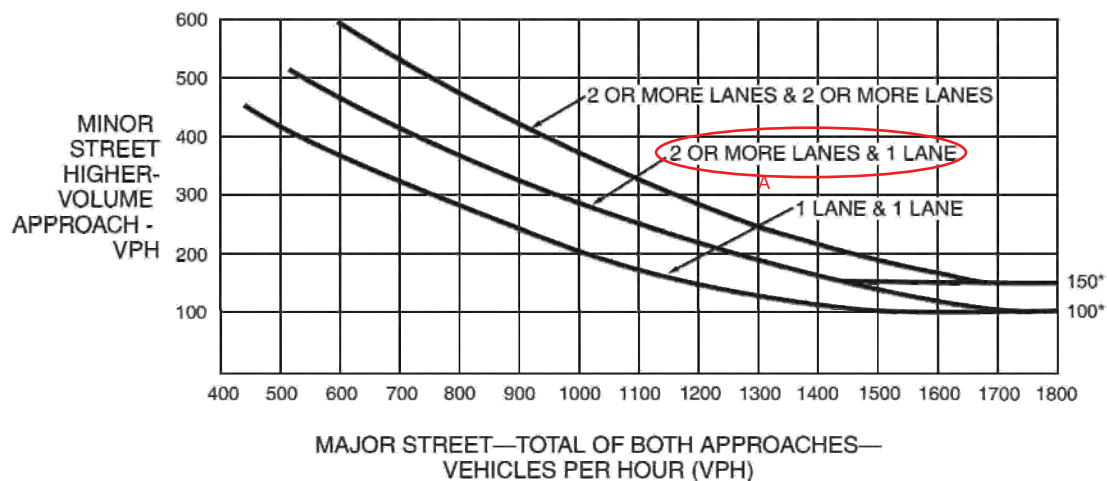
SATISFIED YES ☒ NO ☐

APPROACH LANES	One	2 or More	5PM Hour
Both Approaches - Major Street	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1302
Higher Approach - Minor Street	<input checked="" type="checkbox"/>	<input type="checkbox"/>	329

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

## Traffic Signal Warrants Worksheet

Major St: Washington Boulevard

Minor St: Walgrove Avenue

DATE 10/3/2017

CALC JAS

CHK \_\_\_\_\_

Critical Approach Speed 35 mph

or

Speed Limit 35 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

In built up area of isolated community of < 10,000 population..... ☐

☐ or ☒

}

**RURAL (R)**

**URBAN (U)**

### WARRANT 1 - Eight Hour Vehicular Volume

**SATISFIED** YES ☐ NO ☐

- a. Condition A or Condition B or combination of A and B must be satisfied.
- b. 6 hour manual count may be used in lieu of 8 hour count.
- c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.
- d. A reduction for right turning vehicles that turn within 45 seconds may be applied.
- e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.
- f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

### Condition A - Minimum Vehicle Volume

**100% SATISFIED** YES ☐ NO ☐

**80% SATISFIED** YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					80% SATISFIED										YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
		U	R	U	R													
APPROACH LANES	1		2 or More												Hour			
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)														
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)														

### Condition B - Interruption of Continuous Traffic

**100% SATISFIED** YES ☐ NO ☐

**80% SATISFIED** YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					80% SATISFIED								YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
					U	R	U	R								
APPROACH LANES	1		2 or More										Hour			
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)												
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)												



## Traffic Signal Warrants Worksheet

### WARRANT 2 - Four Hour Vehicular Volume

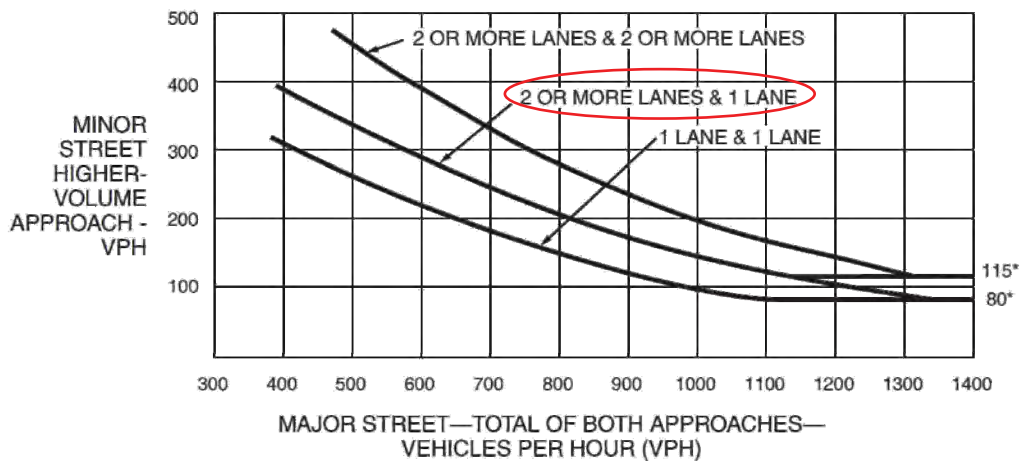
**SATISFIED**   YES ☒   NO ☐

- a. Record hourly vehicle volumes for any four hours of an average day.
- b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 5PM	B 8AM	C 4PM	D 3PM	Hour
Both Approaches - Major Street		<input checked="" type="checkbox"/>	2566	2644	2441	2416	
Higher Approach - Minor Street	<input checked="" type="checkbox"/>		368	259	368	343	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

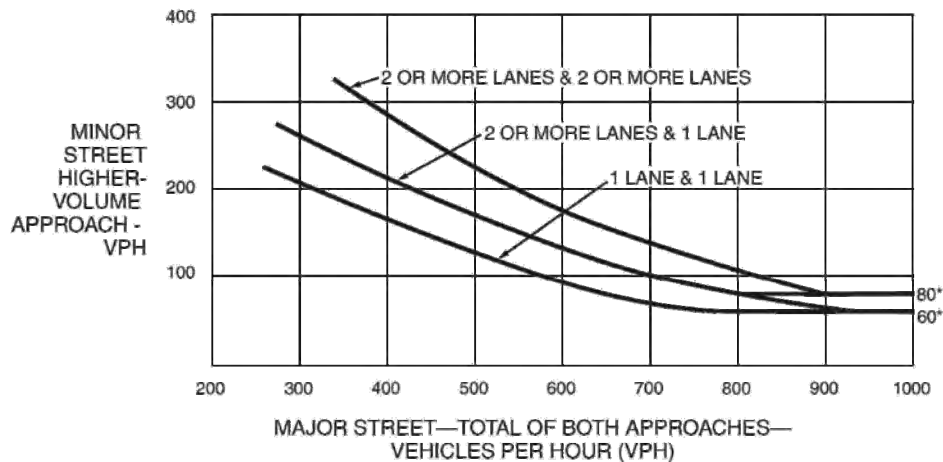
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

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## Traffic Signal Warrants Worksheet

### WARRANT 3 - Peak Hour

SATISFIED YES ☒ NO ☐

- Part A or Part B must be satisfied.
- A reduction for right turning vehicle that turn within 45 seconds may be applied.
- Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
- See Section 4C.102(CA) for bicycle signal guidelines.

#### PART A

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

#### PART B

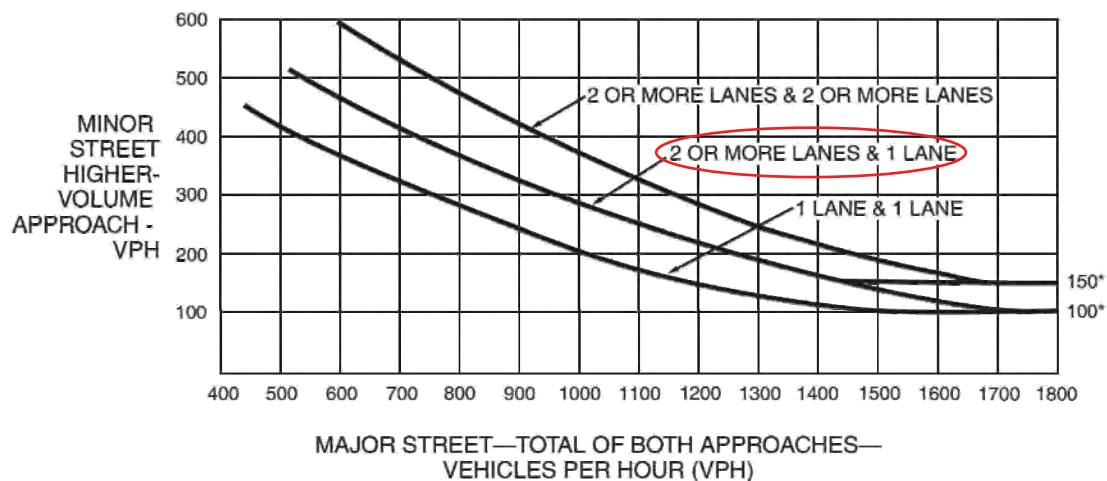
SATISFIED YES ☒ NO ☐

APPROACH LANES	One	2 or More	5PM Hour
Both Approaches - Major Street	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2566
Higher Approach - Minor Street	<input checked="" type="checkbox"/>	<input type="checkbox"/>	368

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

## Traffic Signal Warrants Worksheet

Major St: Redwood Avenue

Minor St: Maxella Avenue

DATE 9/15/2017

CALC JAS

CHK \_\_\_\_\_

Critical Approach Speed 25 mph

or

Speed Limit 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

In built up area of isolated community of < 10,000 population..... ☐

☐ or ☒

}

**RURAL (R)**

**URBAN (U)**

### WARRANT 1 - Eight Hour Vehicular Volume

SATISFIED YES ☐ NO ☐

- a. Condition A or Condition B or combination of A and B must be satisfied.
- b. 6 hour manual count may be used in lieu of 8 hour count.
- c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.
- d. A reduction for right turning vehicles that turn within 45 seconds may be applied.
- e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.
- f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

### Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)								
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)								

### Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)								
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)								

## Traffic Signal Warrants Worksheet

### WARRANT 2 - Four Hour Vehicular Volume

**SATISFIED**   YES ☐   NO ☒

- a. Record hourly vehicle volumes for any four hours of an average day.
- b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 5PM	B 8AM	C 4PM	D 3PM	Hour
Both Approaches - Major Street	✓		620	584	522	459	
Higher Approach - Minor Street		✓	289	206	237	202	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

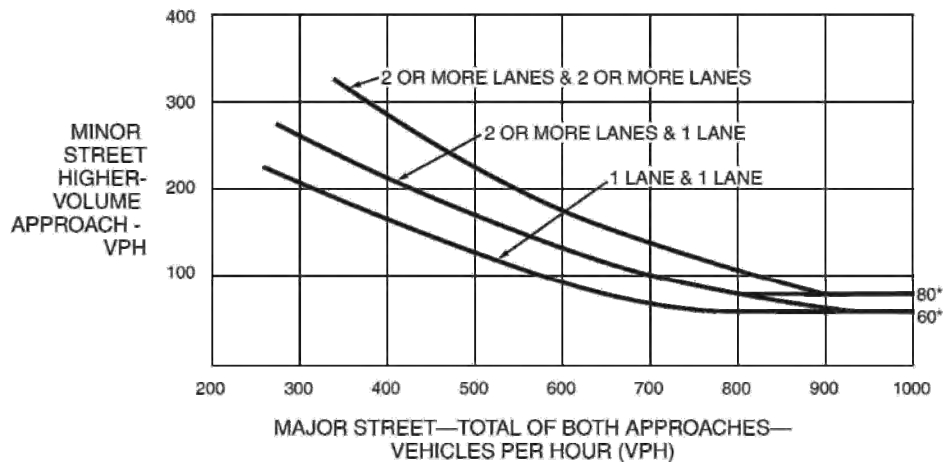
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

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## Traffic Signal Warrants Worksheet

### WARRANT 3 - Peak Hour

SATISFIED YES ☐ NO ☒

- Part A or Part B must be satisfied.
- A reduction for right turning vehicle that turn within 45 seconds may be applied.
- Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
- See Section 4C.102(CA) for bicycle signal guidelines.

#### PART A

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

#### PART B

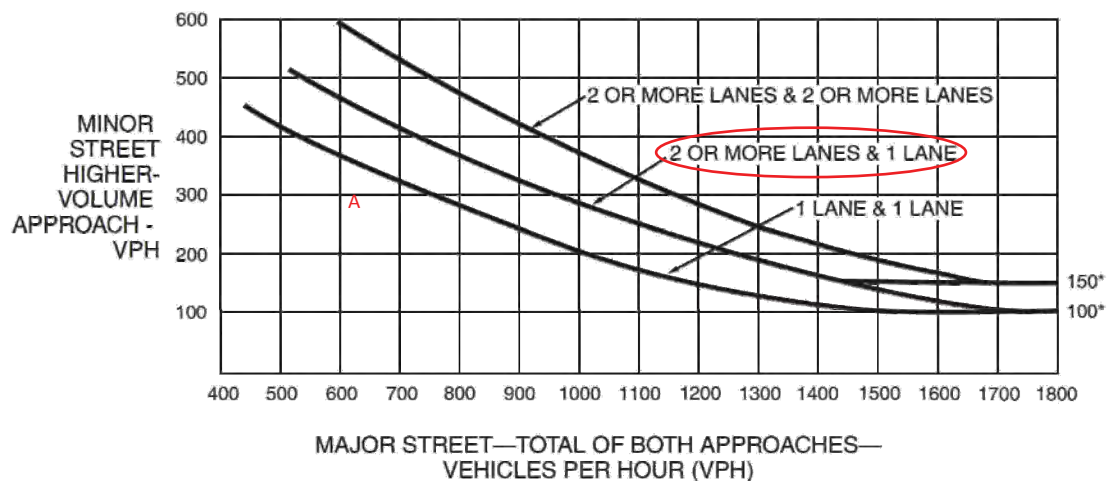
SATISFIED YES ☐ NO ☒

APPROACH LANES	One	2 or More	5PM Hour
Both Approaches - Major Street	✓		620
Higher Approach - Minor Street		✓	289

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT



## Traffic Signal Warrants Worksheet

Major St: Redwood Avenue

Minor St: Maxella Avenue

DATE 9/15/2017

CALC JAS

CHK \_\_\_\_\_

Critical Approach Speed 25 mph

or

Speed Limit 25 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

In built up area of isolated community of < 10,000 population..... ☐

☐ or ☒

}

**RURAL (R)**

**URBAN (U)**

### WARRANT 1 - Eight Hour Vehicular Volume

SATISFIED YES ☐ NO ☐

- a. Condition A or Condition B or combination of A and B must be satisfied.
- b. 6 hour manual count may be used in lieu of 8 hour count.
- c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.
- d. A reduction for right turning vehicles that turn within 45 seconds may be applied.
- e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.
- f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

### Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)								
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)								

### Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R								
APPROACH LANES	1		2 or More									
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)								
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)								

## Traffic Signal Warrants Worksheet

### WARRANT 2 - Four Hour Vehicular Volume

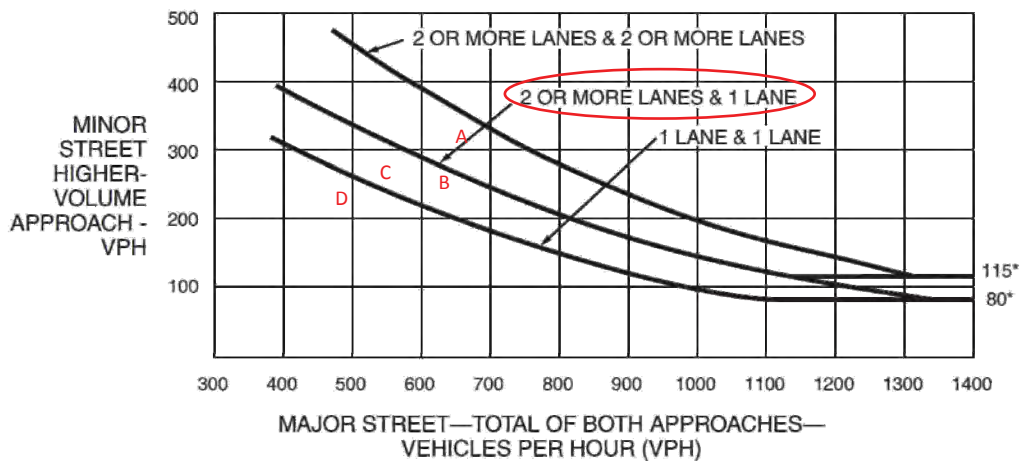
**SATISFIED**   YES ☐   NO ☒

- a. Record hourly vehicle volumes for any four hours of an average day.
- b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 5PM	B 8AM	C 4PM	D 3PM	Hour
Both Approaches - Major Street	✓		663	620	555	488	
Higher Approach - Minor Street		✓	321	244	264	226	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

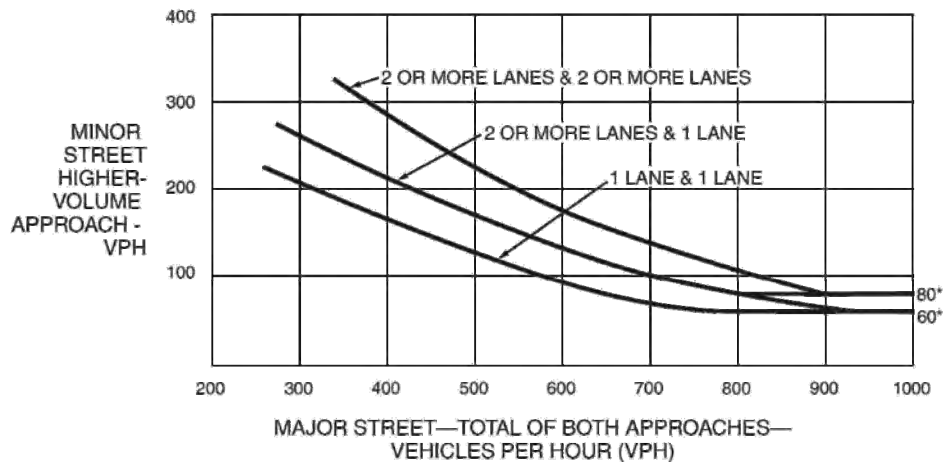
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

## Traffic Signal Warrants Worksheet

### WARRANT 3 - Peak Hour

SATISFIED YES ☐ NO ☒

- a. Part A or Part B must be satisfied.
- b. A reduction for right turning vehicle that turn within 45 seconds may be applied.
- c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.
- d. See Section 4C.102(CA) for bicycle signal guidelines.

#### PART A

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

#### PART B

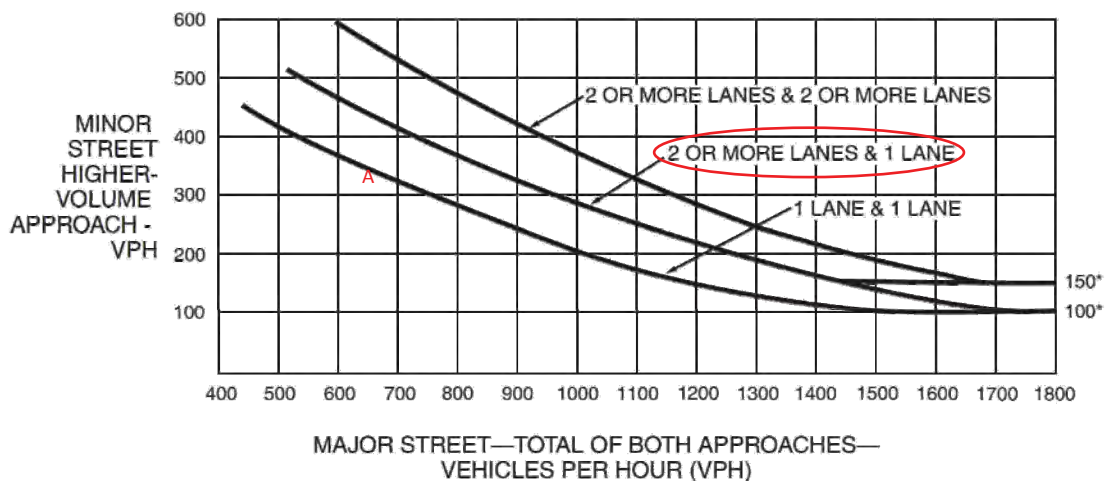
SATISFIED YES ☐ NO ☒

APPROACH LANES	One	2 or More	5PM Hour
Both Approaches - Major Street	✓		663
Higher Approach - Minor Street		✓	321

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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## **Appendix M.2**

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Los Angeles Department of Transportation  
Memorandum of Understanding

# **TRAFFIC STUDY - MEMORANDUM OF UNDERSTANDING (MOU)**

This MOU acknowledges that the traffic study for the following project will be prepared in accordance with the latest version of LADOT's Traffic Study Policies and Procedures:

**Project Name:** Paseo Marina (Case No. CTC16-104752)  
**Project Address:** 13400 Maxella Avenue  
**Project Description:** Construct 658 residential apartment units, 13,500 square feet of restaurant space, and 13,500 square feet of commercial space. See Figure 2-1.

**Geographic Distribution:** N 20% S 25% E 45% W 10%  
 Attached graphic illustrating project distribution percentages [Figure 7-1] at the study intersections.

**Trip Generation Rate(s)** ITE 9th Edition/Other ITE Trip Generation, 9th Edition, 2012  
 Attached trip generation table [Table 7-1] with a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc.

	In	Out	Total
AM Trips	59	236	295
PM Trips	113	(32)	81

**Project Buildout Year:** 2020 **Ambient or CMP Growth Rate:** 1.0 % Per Yr.

**Related Projects:** (to be researched by the consultant and approved by LADOT)

**Subject to Freeway Impact Analysis Screening review:** ☒ YES ☐ NO

**Is this project on the High Injury Network?** ☒ YES ☐ NO

**Study Intersections:**  
 (Subject to LADOT revision after initial impact analysis), See Figure 1-1, Vicinity Map

1. Abbot Kinney Boulevard / Venice Boulevard	15. Glencoe Avenue / Washington Boulevard
2. Abbot Kinney Boulevard / Washington Boulevard	16. Glencoe Avenue / Maxella Avenue
3. Admiralty Way / Mindanao Way	17. Mindanao Way / Glencoe Avenue
4. Lincoln Boulevard / Rose Avenue	18. Mindanao Way / SR-90 WB Ramps
5. Lincoln Boulevard / Venice Boulevard	19. Mindanao Way / SR-90 EB Ramps
6. Lincoln Boulevard / Washington Boulevard	20. Beethoven Street / Venice Boulevard
7. Lincoln Boulevard / Marina Pointe Drive - Maxella Avenue	21. Zanja Street / Washington Boulevard - Washington Place
8. Lincoln Boulevard / SR-90 Ramps	22. Centinela Avenue / Venice Boulevard
9. Lincoln Boulevard / Bali Way	23. Centinela Avenue / Washington Place
10. Lincoln Boulevard / Mindanao Way	24. Centinela Avenue / Washington Boulevard
11. Lincoln Boulevard / Fiji Way	25. Centinela Avenue / Short Avenue
12. Lincoln Boulevard / Jefferson Boulevard	26. Centinela Avenue / Culver Boulevard
13. Del Rey Avenue / Maxella Avenue (Signal Warrant Analysis)	27. Inglewood Boulevard / Washington Place
14. Hotel Driveway / Maxella Avenue (Signal Warrant Analysis)	

**Trip Credits:** (Exact amount of credit subject to approval by LADOT)

	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Existing Active Land Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Internal Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pass-by Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Consultant**

Name Linscott, Law & Greenspan, Engineers  
 Address 20931 Burbank Boulevard, Suite C  
Woodland Hills, CA 91367  
 Phone No. 818.835.8648  
 E-Mail bueno@llgengineers.com

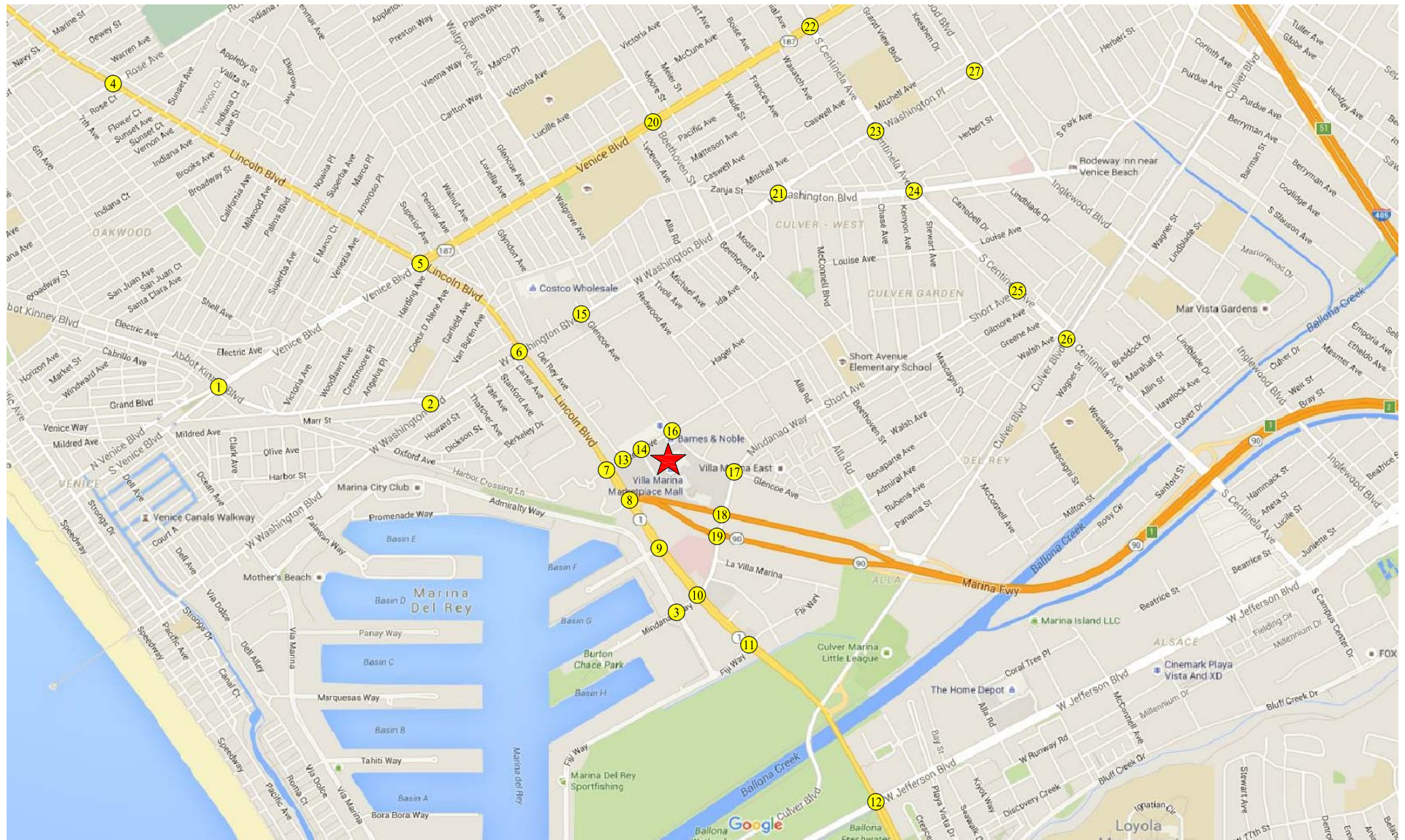
**Developer**

RAR2-Villa Marina Center CA, LLC  
18825 Bardeen Avenue  
Irvine, CA 92612  
949.809.2507  
JPinnell@Sares-Regis.com

**Approved by:** Mark Bueno  
 Date 2/15/2017  
 Consultant's Representative

Shirley Lusk 2/21/17  
 LADOT's Representative Date

c:\0265\dwg\1-1.dwg 08/18/2016 11:46:44 bueno lig exhibits color.ctb



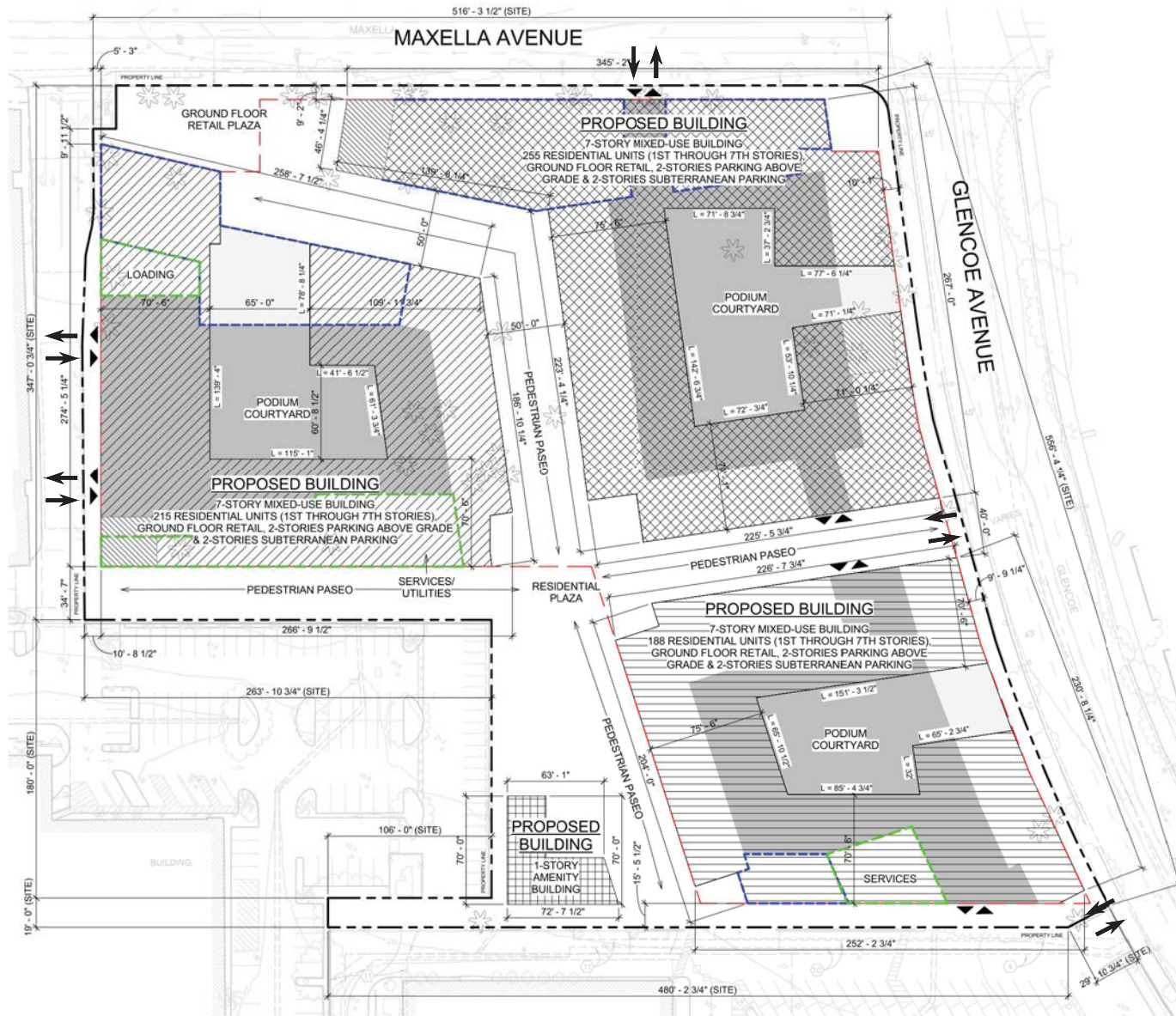
MAP SOURCE: GOOGLE MAPS  
★ PROJECT SITE  
ⓧ STUDY INTERSECTION

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 1-1  
VICINITY MAP

PASEO MARINA PROJECT





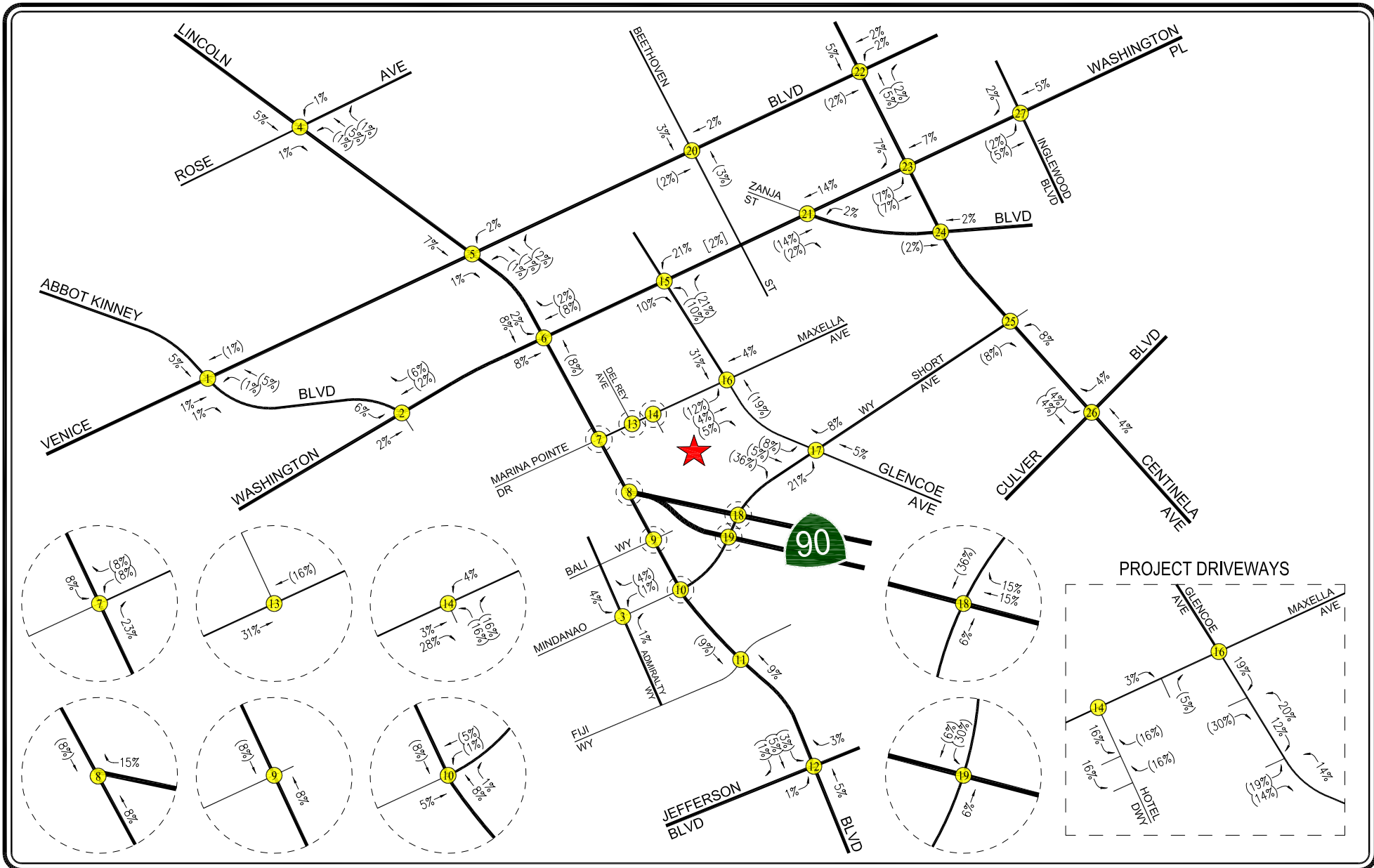
NOT TO SCALE

MAP SOURCE: TCA ARCHITECTS

LINSCOTT, LAW & GREENSPAN, engineers

**FIGURE 2-1**  
**PROJECT SITE PLAN**  
**GROUND FLOOR**

PASEO MARINA PROJECT



- ★ PROJECT SITE
- ⓧ STUDY INTERSECTION
- ## = INBOUND PERCENTAGES
- (##) = OUTBOUND PERCENTAGES
- [##] = INTERNAL TRAFFIC PERCENTAGES

FIGURE 7-1  
PROJECT TRIP DISTRIBUTION

Table 7-1  
PROJECT TRIP GENERATION [1]

23-Nov-16

LAND USE	SIZE	DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
		VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Apartments [3]	658 DU	4,376	67	269	336	300	161	461
Restaurant [4]	13,500 GSF	1,717	80	66	146	85	57	142
Commercial [5]	13,500 GLSF	<u>576</u>	<u>8</u>	<u>5</u>	<u>13</u>	<u>95</u>	<u>102</u>	<u>197</u>
<b>Subtotal</b>		6,669	155	340	495	480	320	800
<i>Internal Capture</i>								
Apartments [6]		(344)	(13)	(11)	(24)	(27)	(24)	(51)
Restaurant (15%) [7]		(258)	(12)	(10)	(22)	(13)	(9)	(22)
Commercial (15%) [7]		<u>(86)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(14)</u>	<u>(15)</u>	<u>(29)</u>
<b>Subtotal</b>		(688)	(26)	(22)	(48)	(54)	(48)	(102)
<i>Transit Trips [8]</i>								
Apartments (15%)		(605)	(8)	(39)	(47)	(41)	(21)	(62)
Restaurant (15%)		(219)	(10)	(8)	(18)	(11)	(7)	(18)
Commercial (15%)		<u>(74)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(12)</u>	<u>(13)</u>	<u>(25)</u>
<b>Subtotal</b>		(898)	(19)	(48)	(67)	(64)	(41)	(105)
Subtotal Project Driveway Trips		5,083	110	270	380	362	231	593
<i>Existing Land Use</i>	(100,781) GLSF							
Commercial [5]		(4,303)	(60)	(37)	(97)	(339)	(367)	(706)
<i>Transit Trips [8]</i>								
Existing Use (15%)		645	9	6	15	51	55	106
Subtotal Existing Driveway Trips		(3,658)	(51)	(31)	(82)	(288)	(312)	(600)
NET INCREASE DRIVEWAY TRIPS		1,425	59	239	298	74	(81)	(7)
<i>Proposed Pass-By Trips [9]</i>								
Restaurant (20%)		(248)	(12)	(10)	(22)	(12)	(8)	(20)
Commercial (50%)		(208)	(3)	(2)	(5)	(35)	(37)	(72)
<i>Existing Pass-By Trips [9]</i>								
Existing Use (30%)		1,097	15	9	24	86	94	180
NET INCREASE "OFF-SITE" TRIPS		2,066	59	236	295	113	(32)	81

[1] Sources: ITE "Trip Generation", 9th Edition, 2012; Coastal Transportation Corridor Specific Plan, 1993.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 220 (Apartment) trip generation average rates.

- Daily Trip Rate: 6.65 trips/dwelling unit; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.51 trips/dwelling unit; 20% inbound/80% outbound

- PM Peak Hour directional distribution: 65% inbound/35% outbound

For Multi-Story Apartments, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 0.70 trips/dwelling unit

[4] ITE Land Use Code 932 (High-Turnover Restaurant) trip generation average rates.

- Daily Weekday Trip Rate: 127.15 trips/1,000 GSF of floor area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 10.81 trips/1000 GSF of floor area; 55% inbound/45% outbound

- PM Peak Hour directional distribution: 60% inbound/40% outbound

For High Turnover Restaurant, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 10.5 trips/1000 GSF

[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.

- Daily Trip Rate: 42.70 trips/1000 GLSF of leasable area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF of leasable area; 62% inbound/38% outbound

- PM Peak Hour directional distribution: 48% inbound/52% outbound

For shopping center less than 30,000 sq. ft., PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 14.6 trips/1000 GLSF

For shopping center 30,000 sq. ft. or more, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate:  $-0.001(A) + 323.5/(A) + 3.9$  trips/1000 GLSF, [where (A) = floor area/(1000 GLSF)]

- [6] The internal capture reduction for the residential use is based on the internal capture reduction of the restaurant and retail uses.
- [7] The internal capture reduction for the restaurant and retail is based on the synergy between all the land uses provided within the Project site.
- [8] A 15% transit use reduction applied based on the project site being located within 1/4 mile of a Big Blue Bus rapid stop.  
The trip reduction for transit trips has been applied to the proposed project and existing land uses based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments within a 1/4 mile walking distance of a transit station or a Rapid Bus stop.
- [9] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion.  
Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site.  
The trip reduction for pass-by trips has been applied to the commercial component of the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for High Turnover Restaurant, Shopping Center less than 50,000 sf, and Shopping Center 100,000 to less than 300,000 sf.

## **Appendix M.3**

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Los Angeles Department of Transportation  
Assessment Letter



**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

13400 Maxella Avenue  
DOT Case No. CTC16-104752

Date: February 28, 2018

To: Luciralia Ibarra, Senior City Planner  
Department of City Planning

From: Hamed Sandoghdar, Transportation Engineer  
Department of Transportation

Subject: **TRAFFIC ASSESSMENT FOR THE PROPOSED MIXED USE PROJECT TO BE LOCATED AT  
13400 MAXELLA AVENUE**

Pursuant to the Coastal Transportation Corridor Specific Plan (CTCSP) Ordinance No. 168,999, the Department of Transportation (DOT) has completed its review of the traffic impact analysis prepared by Linscott Law and Greenspan Engineers, dated October 30, 2017, with subsequent revision on January 3, 2018, for the proposed mixed use project located at 13400 Maxella Avenue. After a review of the pertinent data, DOT has determined that the analysis conducted adequately describes the project-related impact of the proposed development.

#### **PROJECT DESCRIPTION**

The project proposes to construct a mixed use development consisting of 658 residential apartment units, 13,650 square feet of restaurant space, and 13,650 square feet of commercial space. The site is currently occupied by several commercial buildings and a surface parking lot which will be demolished to accommodate the proposed project. This project is anticipated to be fully built out and occupied by the year 2023.

Access to the project will be provided via driveways on Maxella Avenue, Glencoe Avenue and a private road (Ocean Way) along the west side of the project.

#### **DISCUSSION AND FINDINGS**

##### **Trip Generation**

The project is estimated to generate a net increase of 2,079 daily trips, a net increase of 296 a.m. peak hour trips, and a net increase of 83 p.m. peak hour trips. The trip generation estimates are based on the trip rate requirements of the Coastal Transportation Corridor Specific Plan (CTCSP), and the rates published by the Institute of Transportation Engineers (ITE) Trip Generation, 9<sup>th</sup> Edition, 2012. A copy of the report trip generation table (Table 7-1) can be found in **Attachment "A"**.

##### **Traffic Impact**

Traffic impact analysis was conducted at thirty three (33) intersections surrounding the proposed project site. Five of the study intersections are located in the City of Culver City, three of the intersections are shared Los Angeles County and City of Los Angeles, and one intersection is entirely in the County of Los Angeles. Based on DOT's traffic impact criteria<sup>1</sup>, the proposed development would

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<sup>1</sup> Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service

create a significant impact at only one of the study locations within the City of Los Angeles boundaries. A copy of the impact analysis summary tables (Table 9-1) can be found in **Attachment "B"**.

The potentially impacted intersection is:

1. Mindanao Way and 90 Freeway Eastbound Ramps

In order to address the identified project impact at locations listed above, the project has proposed the implementation of various physical improvements.

The project impact analysis also included a review of three stop sign controlled intersections near the project site to determine if the addition of project traffic would trigger the need for signalization at these locations. Based on the minimum volume thresholds defined in the Manual of Uniform Traffic Control Devices (MUTCD), the combination of future conditions plus project trips meets the minimum threshold for consideration of signalization at the intersection of Del Rey Avenue and Maxella Avenue. However, based on field conditions and proposed project improvements in the vicinity, the installation of a traffic signal is not currently justified for this intersection. A copy of the study warrant analysis summary table (Table 13-1) is provided as **Attachment "C"** to this report.

#### **Congestion Management Program (CMP)**

In accordance with the state-mandated Congestion Management Program (CMP), an increase in the freeway volume by 150 vehicles per hour during the a.m. or p.m. peak hours in any direction requires further analysis. A substantial change in freeway segments is defined as an increase or decrease of 2% in the demand capacity ratio when at LOS F. For purposes of CMP intersections, an increase of 50 vehicles or more during the a.m. or p.m. peak hour requires further analysis. The intersections of Lincoln Boulevard and Marina Expressway, and Lincoln Boulevard and Venice Boulevard are the nearest CMP intersections to the project, located less than a mile from the project site. Based on the distribution of Project trips, it is anticipated that fewer than 35 trips would likely travel through these intersections. Similarly, the maximum number of project-related trips to occur along any of the nearby freeway segments is well below the 150 trips threshold for potential CMP Freeway Segment impact and therefore, no further analysis is needed.

#### **Freeway Screening Analysis**

To comply with the Freeway Analysis Agreement executed between Caltrans and LADOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare a more detailed freeway analysis. However, the project did not meet or exceed any of the four thresholds defined in the agreement; therefore, no additional freeway analysis is deemed required at this time. A copy of the project freeway screening analysis discussion is provided as **Attachment "D"** to this report.

### **PROJECT REQUIREMENTS**

#### **A. Application Fee**

Pursuant to Section 5.C.2.(b) of the CTCSP, the applicant is responsible for remitting payment to all applicable application / traffic study review fees as required. Applicant has submitted all

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(LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

appropriate application fees including the traffic study review fee which was submitted on May 1, 2017.

**B. Covenant and Agreement**

Pursuant to Section 5.B of the CTCSP, the owner(s) of the property must sign and record a Covenant and Agreement prior to issuance of any building permit, acknowledging the contents and limitations of the Specific Plan is a form designed to run with the land.

**C. Highway Dedication And Street Widening Requirements**

Pursuant to Section 5.E of the CTCSP, and in order to mitigate potential access and circulation impacts, the applicant may be required to make highway dedications and improvements. The applicant shall consult the Bureau of Engineering (BOE) for any highway dedication or street widening requirements. These requirements must be guaranteed before the issuance of any building permit through the B-permit process of the BOE. They must be constructed and completed prior to the issuance of any certificate of occupancy to the satisfaction of DOT and BOE.

**D. Traffic Signal Improvements and Caltrans Ramp Widening**

Mindanao Way and 90 Freeway Eastbound Ramps – The applicant proposes to restripe northbound Mindanao Way to two through lane and a free flow right-turn only lane and restripe the Eastbound 90 Freeway Ramp to a shared left-through, a through, and a right-turn only as shown in Appendix D of the traffic study and is provided as **Attachment “E”**. The proposal will require upgrade to the existing traffic signal equipment and widening of the 90 Freeway Ramps on the north and south side. The signal improvements must be guaranteed before the issuance of any building permit through the B-permit process of the BOE and Caltrans approval process.

**Should any improvement be deemed infeasible at the time of reconciliation, the City may require a substitute mitigation of equivalent effectiveness or require the applicant to reduce the scope of this project.**

**E. Pedestrian Connectivity**

The applicant shall consult with the City’s Planning Department for any additional requirements pertaining to pedestrian walkability and connectivity, as described in the Walkability Checklist.

**F. Construction Impacts**

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

**G. Site Access and Internal Circulation**

The proposed site plan is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT’s West LA/Coastal Development Review Section (7166 W Manchester Ave, @ 213-485-1062). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading

and unloading should take place on site with no vehicles backing into the project from public streets via any of the project driveways.

**H. Development Review Fees**

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

**DOT ASSESSMENT APPEAL PROCESS**

Pursuant to Section 9.A of the CTCSP, an applicant or any other interested person adversely affected by the proposed project who disputes any determination made by DOT pursuant to this Ordinance may appeal to the General Manager of DOT. This appeal must be filed within a 15 day period following the applicant's receipt date of this letter of determination. The appeal shall set forth specifically the basis of the appeal and the reasons why the determination should be reversed or modified.

If you have any questions, please contact Pedro Ayala, of my staff, at (213) 485-1062.

HS:pa

**Attachments**

c: Krista Kline, Council District No. 11  
Sean Haeri, Mo Blorfroshan, Rudy Guevara, Fabio Arias, DOT  
Kevin Azarmahan, BOE  
David S. Shender, Linscott Law & Greenspan

**Table 7-1**  
**PROJECT TRIP GENERATION [1]**

26-Jun-17

LAND USE	SIZE	DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
		VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Apartments [3]	658 DU	4,376	67	269	336	300	161	461
Restaurant [4]	13,650 GSF	1,736	81	67	148	86	57	143
Commercial [5]	13,650 GLSF	<u>583</u>	<u>8</u>	<u>5</u>	<u>13</u>	<u>96</u>	<u>103</u>	<u>199</u>
Subtotal		6,695	156	341	497	482	321	803
<i>Internal Capture</i>								
Apartments [6]		(347)	(13)	(11)	(24)	(27)	(24)	(51)
Restaurant (15%) [7]		(260)	(12)	(10)	(22)	(13)	(9)	(22)
Commercial (15%) [7]		<u>(87)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(14)</u>	<u>(15)</u>	<u>(29)</u>
Subtotal		(694)	(26)	(22)	(48)	(54)	(48)	(102)
<i>Transit Trips [8]</i>								
Apartments (15%)		(604)	(8)	(39)	(47)	(41)	(21)	(62)
Restaurant (15%)		(221)	(10)	(9)	(19)	(11)	(7)	(18)
Commercial (15%)		<u>(74)</u>	<u>(1)</u>	<u>(1)</u>	<u>(2)</u>	<u>(12)</u>	<u>(13)</u>	<u>(25)</u>
Subtotal		(899)	(19)	(49)	(68)	(64)	(41)	(105)
Subtotal Project Driveway Trips		5,102	111	270	381	364	232	596
<i>Existing Land Use</i>	(100,781) GLSF	(4,303)	(60)	(37)	(97)	(339)	(367)	(706)
Commercial [5]								
<i>Transit Trips [8]</i>								
Existing Use (15%)		645	9	6	15	51	55	106
Subtotal Existing Driveway Trips		(3,658)	(51)	(31)	(82)	(288)	(312)	(600)
NET INCREASE DRIVEWAY TRIPS		1,444	60	239	299	76	(80)	(4)
<i>Proposed Pass-By Trips [9]</i>								
Restaurant (20%)								
Commercial (50%)								
<i>Existing Pass-By Trips [9]</i>								
Existing Use (30%)		1,097	15	9	24	86	94	180
NET INCREASE "OFF-SITE" TRIPS		2,079	60	236	296	115	(32)	83

[1] Sources: ITE "Trip Generation", 9th Edition, 2012; Coastal Transportation Corridor Specific Plan, 1993.

[2] Trips are one-way traffic movements, entering or leaving.

[3] ITE Land Use Code 220 (Apartment) trip generation average rates.

- Daily Trip Rate: 6.65 trips/dwelling unit; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.51 trips/dwelling unit; 20% inbound/80% outbound

- PM Peak Hour directional distribution: 65% inbound/35% outbound

For Multi-Story Apartments, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 0.70 trips/dwelling unit

[4] ITE Land Use Code 932 (High-Turnover Restaurant) trip generation average rates.

- Daily Weekday Trip Rate: 127.15 trips/1,000 GSF of floor area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 10.81 trips/1000 GSF of floor area; 55% inbound/45% outbound

- PM Peak Hour directional distribution: 60% inbound/40% outbound

For High Turnover Restaurant, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 10.5 trips/1000 GSF

[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.

- Daily Trip Rate: 42.70 trips/1000 GLSF of leasable area; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.96 trips/1000 GLSF of leasable area; 62% inbound/38% outbound

- PM Peak Hour directional distribution: 48% inbound/52% outbound

For shopping center less than 30,000 sq. ft., PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate: 14.6 trips/1000 GLSF

For shopping center 30,000 sq. ft. or more, PM Peak Hour Trip Rate is based on the Coastal Transportation Corridor Specific Plan.

- PM Peak Hour Trip Rate:  $-0.001(A) + 323.5/(A) + 3.9$  trips/1000 GLSF, [where (A) = floor area/(1000 GLSF)]

**Table 9-1**  
**SUMMARY OF VOLUME TO CAPACITY RATIOS**  
**AND LEVELS OF SERVICE**  
**CITY OF LOS ANGELES INTERSECTIONS**

03-Jan-18

NO.	INTERSECTION	PEAK HOUR	[1]  YEAR 2017 EXISTING V/C      LOS		[2]				[3]  YEAR 2023 FUTURE PRE- PROJECT V/C      LOS		[4]				[5]			
					YEAR 2017 EXISTING W/ PROJECT V/C      LOS		CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]			YEAR 2023 FUTURE W/ PROJECT V/C      LOS		CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ PROJECT MITIGATION V/C      LOS		CHANGE V/C [(5)-(3)]	MITI- GATED
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS			V/C	LOS		
1	Abbot Kinney Boulevard / Venice Boulevard	AM PM	0.794 0.721	C C	0.802 0.725	D C	0.008 0.004	NO NO	0.895 0.789	D C	0.903 0.793	E C	0.008 0.004	NO NO	0.903 0.793	E C	0.008 0.004	N/A N/A
2	Abbot Kinney Boulevard / Washington Boulevard	AM PM	0.553 0.529	A A	0.563 0.530	A A	0.010 0.001	NO NO	0.609 0.600	B A	0.619 0.601	B B	0.010 0.001	NO NO	0.619 0.601	B B	0.010 0.001	N/A N/A
3	Admiralty Way / Mindanao Way	AM PM	0.628 0.533	B A	0.635 0.532	B A	0.007 -0.001	NO NO	0.717 0.624	C B	0.724 0.622	C B	0.007 -0.002	NO NO	0.724 0.622	C B	0.007 -0.002	N/A N/A
4	Lincoln Boulevard / Rose Avenue	AM PM	0.768 0.775	C C	0.773 0.777	C C	0.005 0.002	NO NO	0.873 0.896	D D	0.878 0.899	D D	0.005 0.003	NO NO	0.878 0.899	D D	0.005 0.003	N/A N/A
5	Lincoln Boulevard / Venice Boulevard	AM PM	0.827 0.821	D D	0.835 0.821	D D	0.008 0.000	NO NO	0.958 0.960	E E	0.966 0.960	E E	0.008 0.000	NO NO	0.966 0.960	E E	0.008 0.000	N/A N/A
6	Lincoln Boulevard / Washington Boulevard	AM PM	0.883 0.837	D D	0.885 0.842	D D	0.002 0.005	NO NO	1.019 0.957	F E	1.021 0.962	F E	0.002 0.005	NO NO	1.021 0.962	F E	0.002 0.005	N/A N/A
7	Lincoln Boulevard / Marina Pointe Drive - Maxella Avenue [b]	AM PM	0.606 0.572	F F	0.615 0.575	F F	0.009 0.003	NO NO	0.706 0.678	F F	0.715 0.680	F F	0.009 0.002	NO NO	0.715 0.680	F F	0.009 0.002	N/A N/A
8	Lincoln Boulevard / SR-90 Ramps [b]	AM PM	0.727 0.711	F F	0.727 0.713	F F	0.000 0.002	NO NO	0.839 0.837	F F	0.840 0.839	F F	0.001 0.002	NO NO	0.840 0.839	F F	0.001 0.002	N/A N/A
9	Lincoln Boulevard / Bali Way	AM PM	0.453 0.553	A A	0.457 0.552	A A	0.004 -0.001	NO NO	0.553 0.648	A B	0.558 0.647	A B	0.005 -0.001	NO NO	0.558 0.647	A B	0.005 -0.001	N/A N/A
10	Lincoln Boulevard / Mindanao Way	AM PM	0.692 0.785	B C	0.694 0.787	B C	0.002 0.002	NO NO	0.797 0.902	C E	0.801 0.904	D E	0.004 0.002	NO NO	0.801 0.904	D E	0.004 0.002	N/A N/A
11	Lincoln Boulevard / Fiji Way	AM PM	0.798 1.306	C F	0.802 1.305	D F	0.004 -0.001	NO NO	0.950 1.465	E F	0.955 1.464	E F	0.005 -0.001	NO NO	0.955 1.464	E F	0.005 -0.001	N/A N/A

Table 9-1 (Continued)  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF LOS ANGELES INTERSECTIONS

10-Oct-17

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]				[5]			
			YEAR 2017 EXISTING		YEAR 2017 EXISTING W/ PROJECT		CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2023 FUTURE PRE-PROJECT		YEAR 2023 FUTURE W/ PROJECT		CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ PROJECT MITIGATION		CHANGE V/C [(5)-(3)]	MITI-GATED
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS			V/C	LOS		
12	Lincoln Boulevard / Jefferson Boulevard	AM PM	0.896 0.707	D C	0.898 0.708	D C	0.002 0.001	NO NO	1.040 0.857	F D	1.042 0.858	F D	0.002 0.001	NO NO	1.042 0.858	F D	0.002 0.001	N/A N/A
14	Glencoe Avenue / Maxella Avenue [c]	AM PM	0.439 0.417	A A	0.489 0.419	A A	0.050 0.002	NO NO	0.504 0.498	A A	0.552 0.501	A A	0.048 0.003	NO NO	0.552 0.501	A A	0.048 0.003	N/A N/A
15	Mindanao Way / Glencoe Avenue [c]	AM PM	0.519 0.647	A B	0.582 0.651	A B	0.063 0.004	NO NO	0.621 0.729	B C	0.685 0.732	B C	0.064 0.003	NO NO	0.685 0.732	B C	0.064 0.003	N/A N/A
16	Mindanao Way / SR-90 WB Ramps	AM PM	0.588 0.587	A A	0.615 0.588	B A	0.027 0.001	NO NO	0.662 0.656	B B	0.688 0.657	B B	0.026 0.001	NO NO	0.688 0.657	B B	0.026 0.001	N/A N/A
17	Mindanao Way / SR-90 EB Ramps	AM PM	0.798 0.842	C D	0.826 0.840	D D	0.028 -0.002	YES NO	0.913 0.934	E E	0.941 0.931	E E	0.028 -0.003	YES NO	0.832 0.829	D D	-0.109 -0.102	YES N/A
18	Beethoven Street / Venice Boulevard	AM PM	0.809 0.736	D C	0.814 0.738	D C	0.005 0.002	NO NO	0.885 0.804	D D	0.889 0.805	D D	0.004 0.001	NO NO	0.889 0.805	D D	0.004 0.001	N/A N/A
20	Centinela Avenue / Venice Boulevard	AM PM	0.928 0.882	E D	0.934 0.885	E D	0.006 0.003	NO NO	1.025 0.986	F E	1.032 0.989	F E	0.007 0.003	NO NO	1.032 0.989	F E	0.007 0.003	N/A N/A
23	Centinela Avenue / Short Avenue	AM PM	0.496 0.596	A A	0.499 0.603	A B	0.003 0.007	NO NO	0.639 0.735	B C	0.643 0.741	B C	0.004 0.006	NO NO	0.643 0.741	B C	0.004 0.006	N/A N/A
24	Centinela Avenue / Culver Boulevard	AM PM	0.898 0.878	D D	0.905 0.880	E D	0.007 0.002	NO NO	1.083 1.011	F F	1.091 1.013	F F	0.008 0.002	NO NO	1.091 1.013	F F	0.008 0.002	N/A N/A
25	Inglewood Boulevard / Washington Place	AM PM	0.813 0.711	D C	0.817 0.713	D C	0.004 0.002	NO NO	0.977 0.863	E D	0.981 0.865	E D	0.004 0.002	NO NO	0.981 0.865	E D	0.004 0.002	N/A N/A
26	Walgrove Avenue / Venice Boulevard	AM PM	0.696 0.682	B B	0.696 0.682	B B	0.000 0.000	NO NO	0.753 0.738	C C	0.753 0.738	C C	0.000 0.000	NO NO	0.753 0.738	C C	0.000 0.000	N/A N/A

Table 9-1 (Continued)  
SUMMARY OF VOLUME TO CAPACITY RATIOS  
AND LEVELS OF SERVICE  
CITY OF LOS ANGELES INTERSECTIONS

10-Oct-17

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]				[5]			
			YEAR 2017 EXISTING V/C	LOS	YEAR 2017 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2023 FUTURE PRE-PROJECT V/C	LOS	YEAR 2023 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	YEAR 2023 W/ PROJECT MITIGATION V/C	LOS	CHANGE V/C [(5)-(3)]	MITI-GATED
28	Alla Road / SR-90 WB On-Ramp	AM PM	0.560 0.245	A A	0.562 0.249	A A	0.002 0.004	NO NO	0.786 0.367	C A	0.788 0.371	C A	0.002 0.004	NO NO	0.788 0.371	C A	0.002 0.004	N/A N/A
29	Culver Boulevard / SR-90 WB Off-Ramp	AM PM	0.831 0.784	D C	0.834 0.784	D C	0.003 0.000	NO NO	1.105 0.963	F E	1.108 0.963	F E	0.003 0.000	NO NO	1.108 0.963	F E	0.003 0.000	N/A N/A
30	Culver Boulevard / SR-90 EB Ramps [c]	AM PM	0.411 0.312	A A	0.411 0.312	A A	0.000 0.000	NO NO	0.527 0.380	A A	0.527 0.380	A A	0.000 0.000	NO NO	0.527 0.380	A A	0.000 0.000	N/A N/A
31	Centinela Avenue / Sanford Street - SR-90 WB Off-Ramp [c]	AM PM	0.577 0.536	A A	0.579 0.536	A A	0.002 0.000	NO NO	0.694 0.630	B B	0.696 0.630	B B	0.002 0.000	NO NO	0.696 0.630	B B	0.002 0.000	N/A N/A
32	Centinela Avenue / SR-90 EB Ramps	AM PM	0.609 0.577	B A	0.610 0.576	B A	0.001 -0.001	NO NO	0.798 0.711	C C	0.800 0.711	D C	0.002 0.000	NO NO	0.800 0.711	D C	0.002 0.000	N/A N/A
33	Centinela Avenue - Campus Center Drive / Jefferson Boulevard	AM PM	0.873 0.750	D C	0.874 0.749	D C	0.001 -0.001	NO NO	1.069 0.884	F D	1.070 0.883	F D	0.001 -0.001	NO NO	1.070 0.883	F D	0.001 -0.001	N/A N/A

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010

[b] Based on field observations, vehicle movements are constrained at times during peak periods due to downstream conditions. Therefore, a LOS F value has been assigned to describe existing and future conditions.

[c] Unsignalized Intersection



**Table 13-1**  
**TRAFFIC SIGNAL WARRANTS SUMMARY [A]**

21-Sep-17

NO.	INTERSECTION	EXISTING + PROJECT		FUTURE + PROJECT	
		WARRANT 2 4-HOUR SATISFIED? [B]	WARRANT 3 PEAK HOUR SATISFIED? [B]	WARRANT 2 4-HOUR SATISFIED? [B]	WARRANT 3 PEAK HOUR SATISFIED? [B]
1	Del Rey Avenue / Maxella Avenue	NO	NO	YES	YES
2	Walgrove Avenue / Washington Boulevard	YES	YES	YES	YES
3	Redwood Avenue / Maxella Avenue	NO	NO	NO	NO

[A] Traffic signal warrant analysis based on the Manual on Uniform Traffic Control Devices (MUTCD), 2014 California Supplement, November 7, 2014.

[B] Traffic signal warrant data worksheets are contained in *Appendix E*.

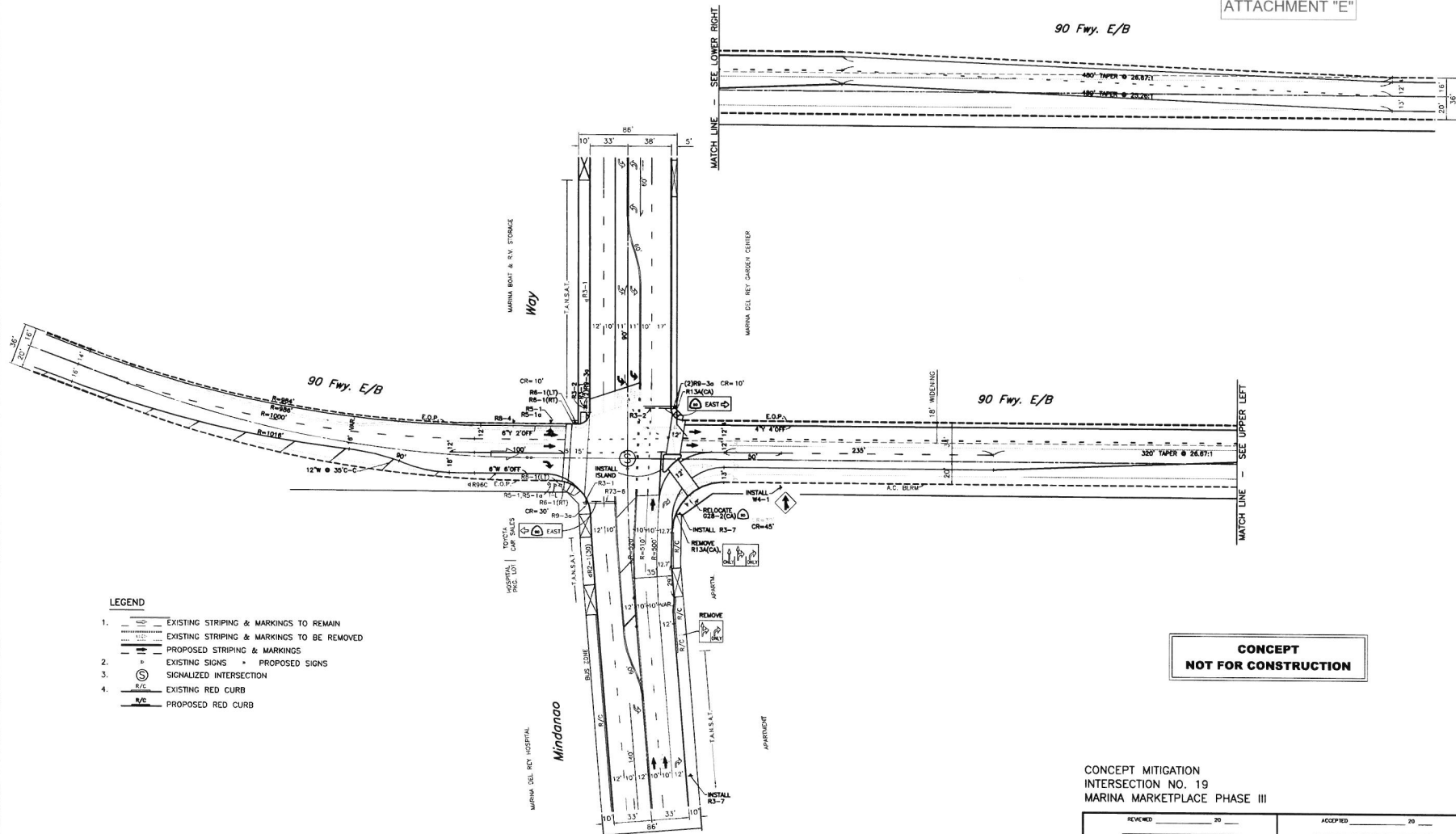
\* City of Culver City

**Table 15-1**  
**FREEWAY SEGMENT AND OFF-RAMP SCREENING PROCESS**  
**EXISTING CONDITIONS**

07-Sep-17

NO.	FREEWAY SEGMENT	DIRECTION	PEAK HOUR	NUMBER OF LANES [A]	CAPACITY [B]	EXISTING VOLUME [C], [D]	V/C RATIO	LEVEL OF SERVICE	ADDED PROJECT TRAFFIC	PERCENT OF CAPACITY	MEETS SCREENING CRITERIA
1	SR-90 Mainline west of Mindanao Way	EB	AM PM	2 2	4000 4000	1391 1391	0.35 0.35	A A	0 0	0.00% 0.00%	NO NO
		WB	AM PM	2 2	4000 4000	1391 1391	0.35 0.35	A A	9 17	0.23% 0.43%	NO NO
2	SR-90 Mainline btwn. Mindanao Way & Culver Blvd.	EB	AM PM	2 2	4000 4000	2421 2421	0.61 0.61	B B	71 -10	1.78% -0.25%	NO NO
		WB	AM PM	2 2	4000 4000	2421 2421	0.61 0.61	B B	18 34	0.45% 0.85%	NO NO
3	SR-90 Mainline btwn. Culver Blvd. & Centinela Ave.	EB	AM PM	3 3	6000 6000	2988 2988	0.50 0.50	A A	71 -10	1.19% -0.17%	NO NO
		WB	AM PM	3 3	6000 6000	2988 2988	0.50 0.50	A A	18 34	0.30% 0.57%	NO NO
4	SR-90 Mainline east of Centinela Ave.	EB	AM PM	3 3	6000 6000	3555 3555	0.59 0.59	A A	76 -10	1.27% -0.17%	NO NO
		WB	AM PM	4 4	8000 8000	3555 3555	0.44 0.44	A A	20 37	0.25% 0.46%	NO NO

ATTACHMENT "E"



**CONCEPT  
NOT FOR CONSTRUCTION**

CONCEPT MITIGATION  
INTERSECTION NO. 19  
MARINA MARKETPLACE PHASE III

REVIEWED _____ 20 ____		ACCEPTED _____ 20 ____	
Transportation Engineer _____		Senior Transportation Engineer _____	
<b>INSTALLATION DATES</b> WAREHOUSE BEQUEL _____ WAREHOUSE COMPLETED _____ STRIPPING COMPLETED _____ Reference: A-1153.00g		CITY OF LOS ANGELES <b>DEPARTMENT OF TRANSPORTATION</b> SELETA J. REYNOLDS, General Manager  MINDANAO WAY MARINA FWY EB RAMPS TO MARINA FWY WB RAMPS	
Thimble Gauge _____ District _____ 672 BT      W	PROJECT NO. _____	ISSUANCE NO. _____	1 / 1

**LINSCOTT  
LAW &  
GREENSPAN** → **TRANSPORTATION PLANNING — TRAFFIC ENGINEERING — PARKING**

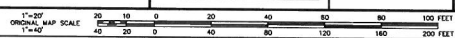
■ 20931 BURBANK BOULEVARD, SUITE C, WOODLAND HILLS, CA 91367	(818) 835-8648
□ 600 SOUTH LAKE AVENUE, SUITE 500, PASADENA, CA 91106	(626) 796-2322
□ 2 EXECUTIVE CIRCLE, SUITE 250, IRVINE, CA 92614	(949) 825-6175
□ 4542 RUFFNER STREET, SUITE 100, SAN DIEGO, CA 92111	(858) 300-8810

**engineers**

PLAN PREPARED BY :  <hr/> REGISTERED TRAFFIC ENGINEER  DATE :	PLAN RECOMMENDED BY :  <hr/> REGISTERED CIVIL ENGINEER  DATE : 11.04.06
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SCALE: 1"=40'



## SCALES

HORIZ. 1"=

**SHEET** 1 OF 1

	INDEX NUMBER
--	--------------

1		BY	DATE	DATE
BAG			SUPERVISOR	
CHECK			DIRECTOR	
DESIGN			SIGNALS	

NO.	REVISION DESCRIPTION	T.E./SR. T.E.	PRINCIPAL T.E.	DATE