

Appendix H


LADOT Approval Letter and Traffic Memo

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

3233 S. Thatcher Avenue
DOT Case No. CTC18-106868

Date: February 28, 2019

To: Luciralia Ibarra, Senior City Planner
Attention: Heather Bleemers, Senior City Planner
Department of City Planning

From: 
Hamed Sandoghdar, Transportation Engineer
Department of Transportation

Subject: **REVISED TRAFFIC ASSESSMENT FOR THE PROPOSED 98 UNIT AFFORDABLE RESIDENTIAL PROJECT TO BE LOCATED AT 3233 SOUTH THATCHER AVENUE**

On July 9, 2018, the Department of Transportation (DOT) issued a traffic assessment report to the Department of City Planning on the proposed 3233 South Thatcher Avenue residential project. On January 28, 2019, DOT received an updated traffic impact review report, prepared by Linscott, Law & Greenspan, Engineers, for a revised project. Since the newly proposed project affordable unit breakdown is different compared to the original concept, DOT is providing this revised traffic impact assessment to confirm it's concurrence with this finding. Please replace the previous July 9, 2018 DOT assessment letter, in its entirety, with this report.

Pursuant to the Coastal Transportation Corridor Specific Plan (CTCSP) Ordinance No. 168,999, the Department of Transportation (DOT) has completed its review of the revised traffic impact analysis prepared by Linscott Law Greenspan Engineers, Inc. dated January 28, 2019, for the proposed 98 unit affordable residential apartment complex project located at 3233 South Thatcher 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 revised project proposes the construction of a residential complex consisting of 68 affordable senior housing units and 30 affordable family housing dwelling units. The original concept proposed the construction of a residential complex consisting of 50 affordable senior housing units, 23 affordable family housing dwelling units, and 25 permanent supportive housing dwelling units. The site is located on the west side of Thatcher Avenue between Princeton Drive and Harbor Crossing Lane and is currently vacant land. Access to the site is proposed from an existing driveway on the west side of Thatcher Avenue, and the existing gate on Princeton Drive east of Thatcher Avenue would be relocated to Thatcher Avenue north of the driveway entrance. The project is still anticipated to be fully built out and occupied by the year 2021.

DISCUSSION AND FINDINGS

Trip Generation

The project is estimated to generate a net increase of 239 daily trips, a net increase of 23 a.m. peak hour trips, and a net increase of 20 p.m. peak hour trips. The trip generation estimates are based on the trip

rate requirements of the DOT Transportation Impact Study Guidelines, 2016. A copy of the report trip generation table (Table 1) can be found in **Attachment "A"**.

Traffic Impact

Traffic impact analysis was conducted at four (4) intersections near the proposed project site. Based on DOT's traffic impact criteria¹, the proposed development would **not** create a significant impact at any of the study locations. A copy of the impact analysis summary table (Table 2) can be found in **Attachment "B"**.

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 appropriate application fees including the expedited traffic study review fee which was submitted on February 20, 2019.

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. 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.

E. 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.

F. 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

¹ Per the DOT Transportation Impact Study Guidelines, 2016, 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 (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.

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.

G. 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, DOT
Kevin Azarmahan, BOE
Jason A. Shender, David S. Shender, Linscott, Law and Greenspan Engineers

Table 1
PROJECT TRIP GENERATION [1]

28-Jan-19

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Affordable Senior Housing [3]	68 DU	117	3	5	8	5	5	10
Affordable Family Housing [4]	30 DU	122	6	9	15	6	4	10
NET INCREASE		239	9	14	23	11	9	20

[1] Source: City of Los Angeles "Transportation Impact Study Guidelines", December 2016.

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

[3] City of Los Angeles Affordable Housing (Seniors) trip generation average rates.

- Daily Trip Rate: 1.72 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.12 trips/dwelling unit; 38% inbound/62% outbound
- PM Peak Hour Trip Rate: 0.15 trips/dwelling unit; 52% inbound/48% outbound

[4] City of Los Angeles Affordable Housing (Family) trip generation average rates.

- Daily Trip Rate: 4.08 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.50 trips/dwelling unit; 40% inbound/60% outbound
- PM Peak Hour Trip Rate: 0.34 trips/dwelling unit; 55% inbound/45% outbound

**Table 2
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE**

23-Jan-19

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]			
			YEAR 2018 EXISTING		YEAR 2018 EXISTING W/ PROJECT		CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2021 FUTURE PRE-PROJECT		YEAR 2021 FUTURE W/ PROJECT		CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	Lincoln Boulevard / Washington Boulevard	AM	0.858	D	0.860	D	0.002	NO	0.917	E	0.918	E	0.001	NO
		PM	0.775	C	0.777	C	0.002	NO	0.829	D	0.831	D	0.002	NO
2	Lincoln Boulevard / Jefferson Way	AM	0.426	A	0.436	A	0.010	NO	0.459	A	0.468	A	0.009	NO
		PM	0.503	A	0.511	A	0.008	NO	0.540	A	0.548	A	0.008	NO
3	Lincoln Boulevard / Marina Pointe Drive-Maxella Avenue [b]	AM	0.576	A/F	0.576	A/F	0.000	NO	0.616	B/F	0.618	B/F	0.002	NO
		PM	0.586	A/F	0.587	A/F	0.001	NO	0.627	B/F	0.628	B/F	0.001	NO
4	Lincoln Boulevard / SR-90 Ramps [b]	AM	0.654	B/F	0.656	B/F	0.002	NO	0.700	C/F	0.701	C/F	0.001	NO
		PM	0.675	B/F	0.676	B/F	0.001	NO	0.723	C/F	0.724	C/F	0.001	NO

[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

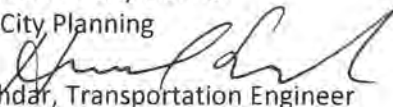
[b] Based on field observations, vehicle movements are constrained at times during peak periods due to downstream conditions. Therefore, a LOS F value has been assigned to describe existing and future conditions.

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

3233 S. Thatcher Avenue
DOT Case No. CTC18-106868

Date: July 9, 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 98 UNIT AFFORDABLE RESIDENTIAL PROJECT TO BE LOCATED AT 3233 SOUTH THATCHER 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 Greenspan Engineers, Inc. dated May 23, 2018, for the proposed 98 unit affordable residential apartment complex project located at 3233 South Thatcher 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 the construction of a residential complex consisting of 50 affordable senior housing units, 23 affordable family housing dwelling units, and 25 permanent supportive housing dwelling units. The site is located on the west side of Thatcher Avenue between Princeton Drive and Harbor Crossing Lane and is currently vacant land. Access to the site is proposed from an existing driveway on the west side of Thatcher Avenue, and the existing gate on Princeton Drive east of Thatcher Avenue would be relocated to Thatcher Avenue north of the driveway entrance. The project is anticipated to be fully built out and occupied by the year 2021.

DISCUSSION AND FINDINGS

Trip Generation

The project is estimated to generate a net increase of 212 daily trips, a net increase of 21 a.m. peak hour trips, and a net increase of 19 p.m. peak hour trips. The trip generation estimates are based on the trip rate requirements of the DOT Transportation Impact Study Guidelines, 2016. A copy of the report trip generation table (Table 1) can be found in **Attachment "A"**.

Traffic Impact

Traffic impact analysis was conducted at four (4) intersections near the proposed project site. Based on DOT's traffic impact criteria¹, the proposed development would **not** create a significant impact at any of the study locations. A copy of the impact analysis summary table (Table 2) can be found in **Attachment "B"**.

¹ Per the DOT Transportation Impact Study Guidelines, 2016, 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 (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.

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 appropriate application fees including the traffic study review fee which was submitted on June 21, 2018.

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.

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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.

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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.

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Attachments

- c: Krista Kline, Council District No. 11
- Sean Haeri, Mo Blorfroshan, Rudy Guevara, DOT
- Kevin Azarmahan, BOE
- David S. Shender, Linscott, Law and Greenspan Engineers

Table 1
PROJECT TRIP GENERATION [1]

16-Mar-18

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
<i>Proposed Project</i>								
Affordable Senior Housing [3]	50 DU	86	2	4	6	4	4	8
Affordable Family Housing [4]	23 DU	94	5	7	12	4	4	8
Permanent Supportive Housing [5]	25 DU	32	1	2	3	2	1	3
NET INCREASE		212	8	13	21	10	9	19

[1] Source: City of Los Angeles "Transportation Impact Study Guidelines", December 2016.

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

[3] City of Los Angeles Affordable Housing (Seniors) trip generation average rates.
 - Daily Trip Rate: 1.72 trips/dwelling units; 50% inbound/50% outbound
 - AM Peak Hour Trip Rate: 0.12 trips/dwelling unit; 38% inbound/62% outbound
 - PM Peak Hour Trip Rate: 0.15 trips/dwelling unit; 52% inbound/48% outbound

[4] City of Los Angeles Affordable Housing (Family) trip generation average rates.
 - Daily Trip Rate: 4.08 trips/dwelling units; 50% inbound/50% outbound
 - AM Peak Hour Trip Rate: 0.50 trips/dwelling unit; 40% inbound/60% outbound
 - PM Peak Hour Trip Rate: 0.34 trips/dwelling unit; 55% inbound/45% outbound

[5] City of Los Angeles Affordable Housing (Permanent Supportive Housing) trip generation average rates.
 - Daily Trip Rate: 1.27 trips/dwelling units; 50% inbound/50% outbound
 - AM Peak Hour Trip Rate: 0.12 trips/dwelling unit; 44% inbound/56% outbound
 - PM Peak Hour Trip Rate: 0.12 trips/dwelling unit; 59% inbound/41% outbound

Table 2
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE

01-May-18

NO.	INTERSECTION	PEAK HOUR	[1]		[2]				[3]		[4]			
			YEAR 2018 EXISTING		YEAR 2018 EXISTING W/ PROJECT		CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2021 FUTURE PRE-PROJECT		YEAR 2021 FUTURE W/ PROJECT		CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	Lincoln Boulevard / Washington Boulevard	AM	0.858	D	0.859	D	0.001	NO	0.917	E	0.917	E	0.000	NO
		PM	0.775	C	0.777	C	0.002	NO	0.829	D	0.831	D	0.002	NO
2	Lincoln Boulevard / Jefferson Way	AM	0.426	A	0.435	A	0.009	NO	0.459	A	0.467	A	0.008	NO
		PM	0.503	A	0.511	A	0.008	NO	0.540	A	0.548	A	0.008	NO
3	Lincoln Boulevard / Marina Pointe Drive-Maxella Avenue [b]	AM	0.576	A/F	0.576	A/F	0.000	NO	0.616	B/F	0.618	B/F	0.002	NO
		PM	0.586	A/F	0.587	A/F	0.001	NO	0.627	B/F	0.628	B/F	0.001	NO
4	Lincoln Boulevard / SR-90 Ramps [b]	AM	0.654	B/F	0.655	B/F	0.001	NO	0.700	C/F	0.701	C/F	0.001	NO
		PM	0.675	B/F	0.676	B/F	0.001	NO	0.723	C/F	0.724	C/F	0.001	NO

[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.

MEMORANDUM

LINSCOTT
LAW &
GREENSPAN

engineers

To: Pedro Ayala
Los Angeles Department of Transportation

Date: January 28, 2019

From: David S. Shender, P.E.
Jason A. Shender
Linscott, Law & Greenspan, Engineers

LLG Ref: 5-18-0399-1

Subject: **Technical Memorandum – Thatcher Yard Residential Project**

Engineers & Planners
Traffic
Transportation
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Woodland Hills

This Technical Memorandum has been prepared by Linscott, Law & Greenspan, Engineers (LLG) to provide a traffic assessment associated with the proposed Thatcher Yard Residential project (“the Project”) located at 3233 S. Thatcher Avenue in the Marina del Rey area of the City of Los Angeles, California. The Project proposes the construction of 68 affordable senior housing dwelling units and 30 affordable family housing dwelling units. The Project site location and general vicinity are shown in *Figure 1*. The site plan for the Project is illustrated in *Figure 2*. The vehicular site access routing between the Project site and Lincoln Boulevard is provided in *Figure 3*.

This memorandum provides: 1) a description of the existing setting; 2) a description of the proposed Project and its forecast potential vehicular trip generation; 3) a summary of the calculated operation at the study intersections with the proposed Project; and 4) an assessment of the relative impact of the Project at the study intersections. The Technical Memorandum has been prepared in compliance with the requirements of the Los Angeles Department of Transportation (LADOT) as provided in LADOT’s traffic study policies manual.¹

Existing Setting

As noted above, the Project site is located at 3233 S. Thatcher Avenue in the Marina del Rey area of the City of Los Angeles, California. The existing Project site is currently vacant.

This traffic assessment evaluates the potential traffic impact of the Project on the local street system. The following intersections have been evaluated for potential traffic impacts due to the Project:

1. Lincoln Boulevard / Washington Boulevard
2. Lincoln Boulevard / Jefferson Way
3. Lincoln Boulevard / Marina Pointe Drive-Maxella Avenue
4. Lincoln Boulevard / SR-90 Ramps

¹ *Transportation Impact Study Guidelines*, LADOT, December 2016.

The intersections selected for analysis were identified as they are located closest to the Project site, and therefore have the greatest potential to have adverse traffic impacts related to the project. Further away from the Project site, project-related traffic disperses, and thus, the potential for significant traffic impacts diminishes. The existing lane configurations and traffic control devices at the study intersections are provided on **Figure 4**.

Existing Traffic Volumes

Manual traffic counts of vehicular turning movements were conducted during the week of April 16, 2018 at 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 to determine the AM peak commuter hour, and from 3:00 PM to 6:00 PM to determine the PM peak commuter hour.

The summary data worksheets of the manual traffic counts at the study intersections are provided in **Appendix A** attached to this memorandum. The existing peak hour volumes at each study intersection are shown on **Figure 5**.

Proposed Project Description

The Project site is located at 3233 S. Thatcher Avenue in the Marina del Rey area of the City of Los Angeles, California. Specifically, the Project site is located on the west side of Thatcher Avenue, between Princeton Drive to the north and Harbor Crossing Lane to the south. The Project proposes the construction of 68 affordable senior housing dwelling units and 30 affordable family housing dwelling units.

As shown on **Figure 2**, vehicular access to the Project is provided via the existing driveway along the west side of Thatcher Avenue. The Project site driveway provides access to the subterranean parking garage, and accommodates full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

Additionally, as shown on **Figure 3**, the existing gate on Princeton Drive east of Thatcher Avenue would be relocated to Thatcher Avenue north of the intersection at Princeton Drive as part of the Project. This would direct all Project vehicle traffic to enter and exit onto Lincoln Boulevard via Princeton Drive.

Project Trip Generation

Traffic volumes expected to be generated by the proposed Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using the affordable housing trip rates published on Table 5 of the LADOT *Transportation Impact Study Guidelines*, December 2016. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project land use components:

- Affordable Senior Housing: LADOT Affordable Housing (Seniors) trip generation average rates were used to forecast the traffic volumes expected to be generated by the affordable senior housing component of the Project.
- Affordable Family Housing: LADOT Affordable Housing (Family) trip generation average rates were used to forecast the traffic volumes expected to be generated by the affordable family housing component of the Project.

As stated in the LADOT *Transportation Impact Study Guidelines*, the trip rates for affordable housing projects have been derived based on traffic counts conducted by LADOT at similar projects. In general, the LADOT affordable (and senior) trip generation rates result in fewer trips generated as compared to trip rates for market-rate (and non-age restricted) units provided in reference documents such as the *Trip Generation* manual published by the Institute of Transportation Engineers (ITE).

Table 1 attached to this memorandum provides the trip generation forecast for the Project. As shown in **Table 1**, the Project on a typical weekday is forecast to result in 239 net new daily trips (e.g., 120 inbound trips, 119 outbound trips), 23 net new AM peak hour trips (9 inbound trips and 14 outbound trips), and 20 net new PM peak hour trips (11 inbound trips and 9 outbound trips).

Traffic Volume Forecast

As required by LADOT, the traffic impact study evaluates the potential impacts of the Project through analysis of the following traffic volume conditions:

- Existing
- Existing with Project
- Future
- Future with Project

As previously noted, the existing traffic volumes at the study intersections are presented in *Figure 5*.

Figure 6 provides the forecast assignment of Project-related trips to the local street system on a percentage basis. It is noted that the Project includes the proposed closure of the portion of S. Thatcher Avenue between the two Princeton Drive intersections (north intersection and south intersection) as shown on *Figure 2*. Further, the existing gate that is provided on Princeton Drive east of S. Thatcher Avenue would be removed to accommodate Project-related traffic. Accordingly, all Project-related traffic would utilize Princeton Drive east of S. Thatcher Avenue, as well as Jefferson Way to access Lincoln Boulevard as noted on *Figure 3*. The Project trip assignment shown on *Figure 6* reflects the proposed closure of S. Thatcher Avenue.

The AM and PM peak hour trips forecast to be generated by the Project as shown on *Table 1* are applied to the distribution percentages provided on *Figure 6*. The resultant forecast weekday AM and PM peak hour traffic volumes associated with the Project at the study intersections are shown on *Figure 7*.

The forecast traffic volumes associated with the Project at the study intersections are then added to the existing volumes to obtain the Existing with Project traffic volumes, which are shown on *Figure 8*.

The Future Pre-Project traffic volumes were forecast through application of a 2.0% annual traffic growth factor to the existing traffic volumes from the date of the traffic counts through the Project build-out year of 2021. *Figure 9* provides the Future Pre-Project traffic volumes at the study intersections. The Future with Project traffic volumes at the study intersections are provided on *Figure 10*.

Impact Criteria and Levels of Service Calculations

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (v/c) ratios on a critical lane basis. 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 method and corresponding Level of Service is provided in *Appendix B*.

The relative impact of the added project traffic volumes to be generated by the 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 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 traffic impact criteria set forth in LADOT's *Transportation Impact Study Guidelines*, December 2016. According to the City's published traffic study guidelines, the impact is considered significant if the project-related increase in the v/c ratio equals or exceeds the thresholds presented in the following table.

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

Traffic Impact Analysis

The traffic impact analysis prepared for the study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria are summarized for the Project in **Table 2**. The CMA data worksheets for the analyzed intersections are contained in *Appendix B*.

As indicated in column [1] of *Table 2*, two of the four study intersections 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 conditions²:

² Based on field reviews, it was observed during the commuter peak hours that traffic flow at Intersection Nos. 3 and 4 (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 2*, 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.

- Int. No. 3 : Lincoln Boulevard /
Marina Pointe Drive-Maxella
Avenue AM Peak Hour: Constrained, LOS F
PM Peak Hour: Constrained, LOS F
- Int. No. 4 : Lincoln Boulevard /
SR-90 Ramps AM Peak Hour: Constrained, LOS F
PM Peak Hour: Constrained, LOS F

As previously noted, the existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figure 4*.

For the Existing with Project condition, following construction and occupancy of the Project, the forecast changes in v/c ratios at the four study intersections due to Project-related traffic are calculated to be below the City's significance thresholds as shown in column [2] of *Table 2*. Therefore, the traffic impacts of the Project in the Existing with Project condition will be less than significant for the four study intersections. As previously noted, the Existing with Project traffic volumes are provided on *Figure 7*.

For the Future Pre-Project conditions, as presented in column [3] of *Table 2*, three of the four study intersections are forecast to operate at LOS D or better during the peak hours. The following intersections are forecast to operate at LOS E or worse during the peak hours shown below under future pre-project conditions:

- Int. No. 1 : Lincoln Boulevard /
Washington Boulevard AM Peak Hour: v/c = 0.917, LOS E
- Int. No. 3 : Lincoln Boulevard /
Marina Pointe Drive-Maxella
Avenue AM Peak Hour: Constrained, LOS F
PM Peak Hour: Constrained, LOS F
- Int. No. 4: Lincoln Boulevard /
SR-90 Ramps AM Peak Hour: Constrained, LOS F
PM Peak Hour: Constrained, LOS F

As previously noted, the Future Pre-Project traffic volumes are provided on *Figure 8*.

As shown in column [4] of *Table 2*, the traffic impacts in the Future with Project condition will be less than significant for the four study intersections with application of the City's thresholds. As previously noted, the Future with Project traffic volumes are provided on *Figure 9*.

Summary

This memorandum provides the traffic assessment prepared for the proposed Thatcher Yard Residential project located at 3233 S. Thatcher Avenue in the Marina del Rey area of the City of Los Angeles, California. The conclusions of the traffic assessment are as follows:

- The Project is forecast to generate 239 new daily trips, 23 net new AM peak hour trips, and 20 net new PM peak hour trips during a typical weekday.
- Based on application of the City's thresholds of significance, the Project is forecast to result in incremental, but not significant traffic impacts at the four study intersections during the weekday AM and PM peak hours in the Existing with Project and Future with Project analysis conditions. Therefore, no traffic mitigation measures are required.

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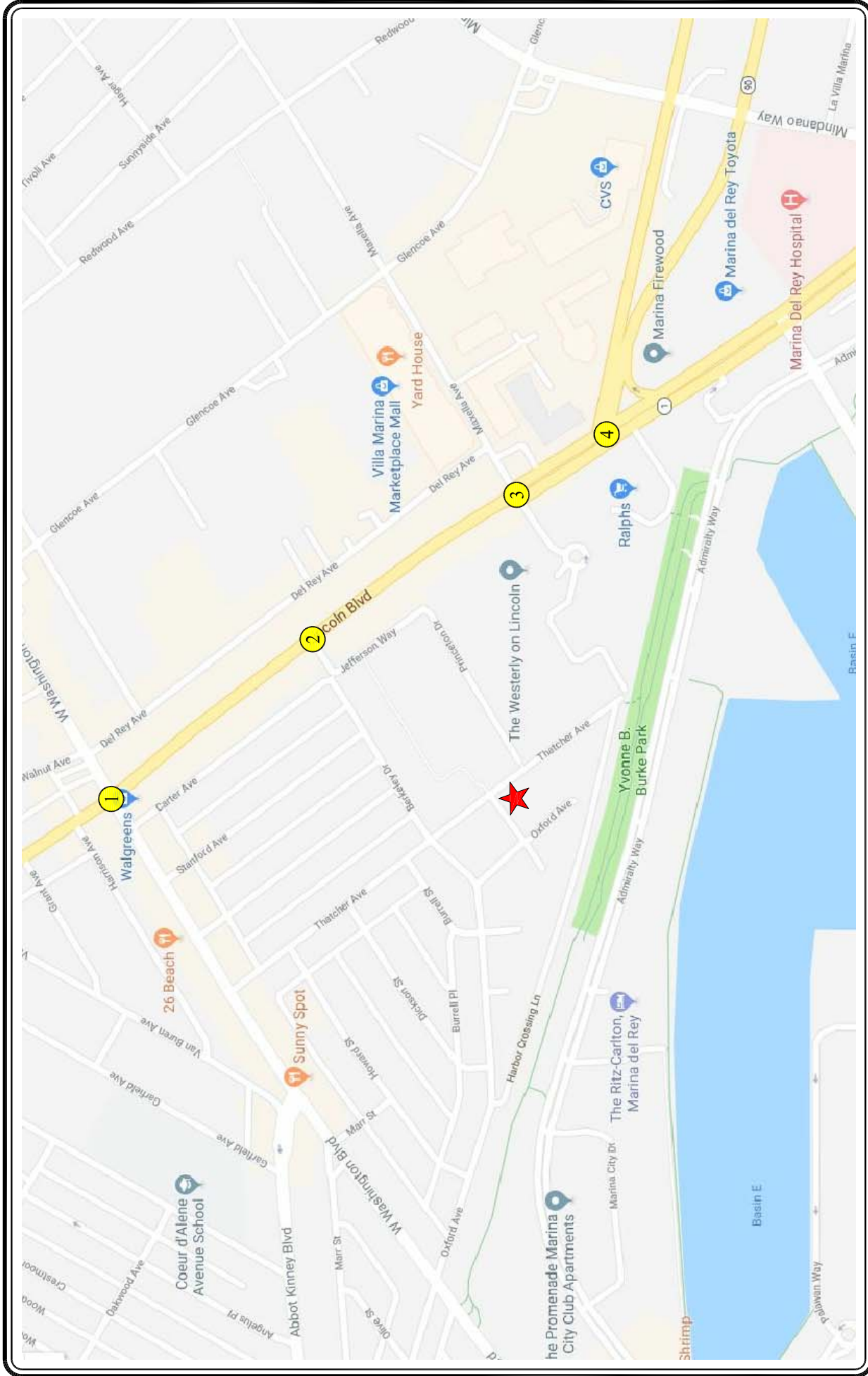


FIGURE 1
VICINITY MAP

MAP SOURCE: GOOGLE MAPS
 PROJECT SITE
 STUDY INTERSECTION
 NOT TO SCALE

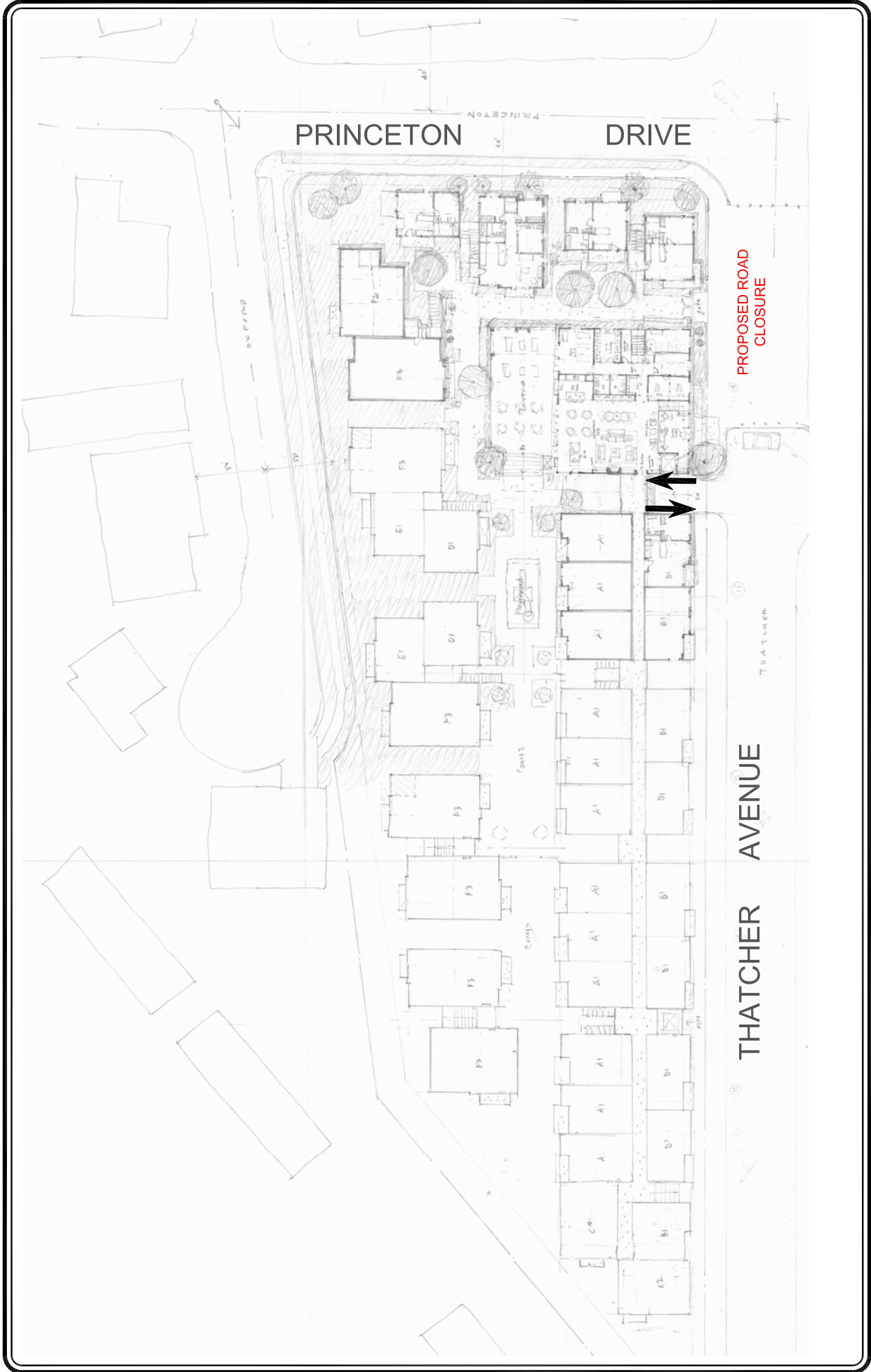


FIGURE 2
PROJECT SITE PLAN
GROUND FLOOR
 THATCHER YARD RESIDENTIAL PROJECT

MAP SOURCE: GIANNETTI ARCHITECTS

NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

THATCHER YARD RESIDENTIAL PROJECT

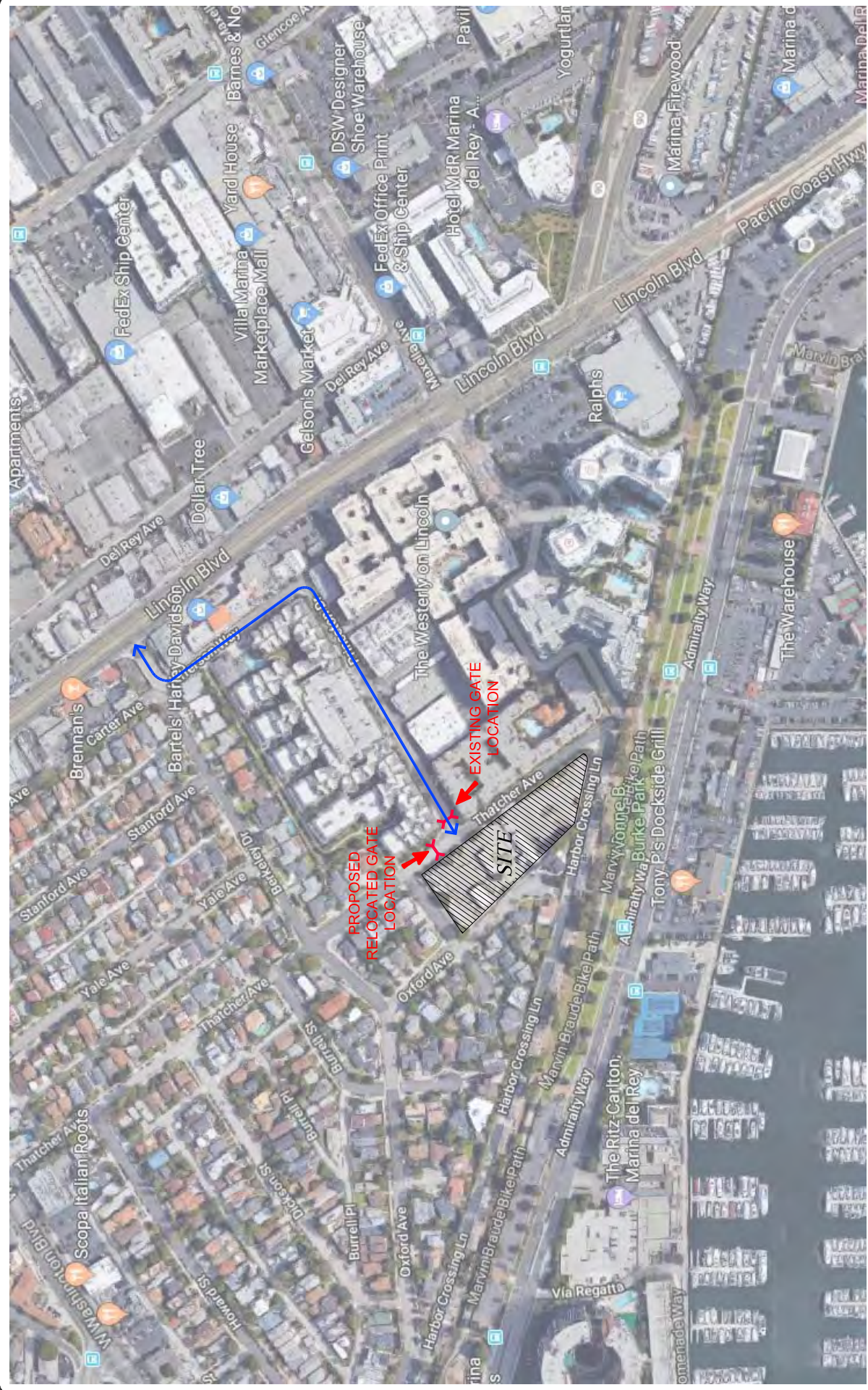


FIGURE 3
PROJECT SITE ACCESS

MAP SOURCE: GOOGLE MAPS
 PROJECT SITE
 VEHICLE TRAVEL ROUTE BETWEEN PROJECT SITE AND LINCOLN BOULEVARD

NOT TO SCALE

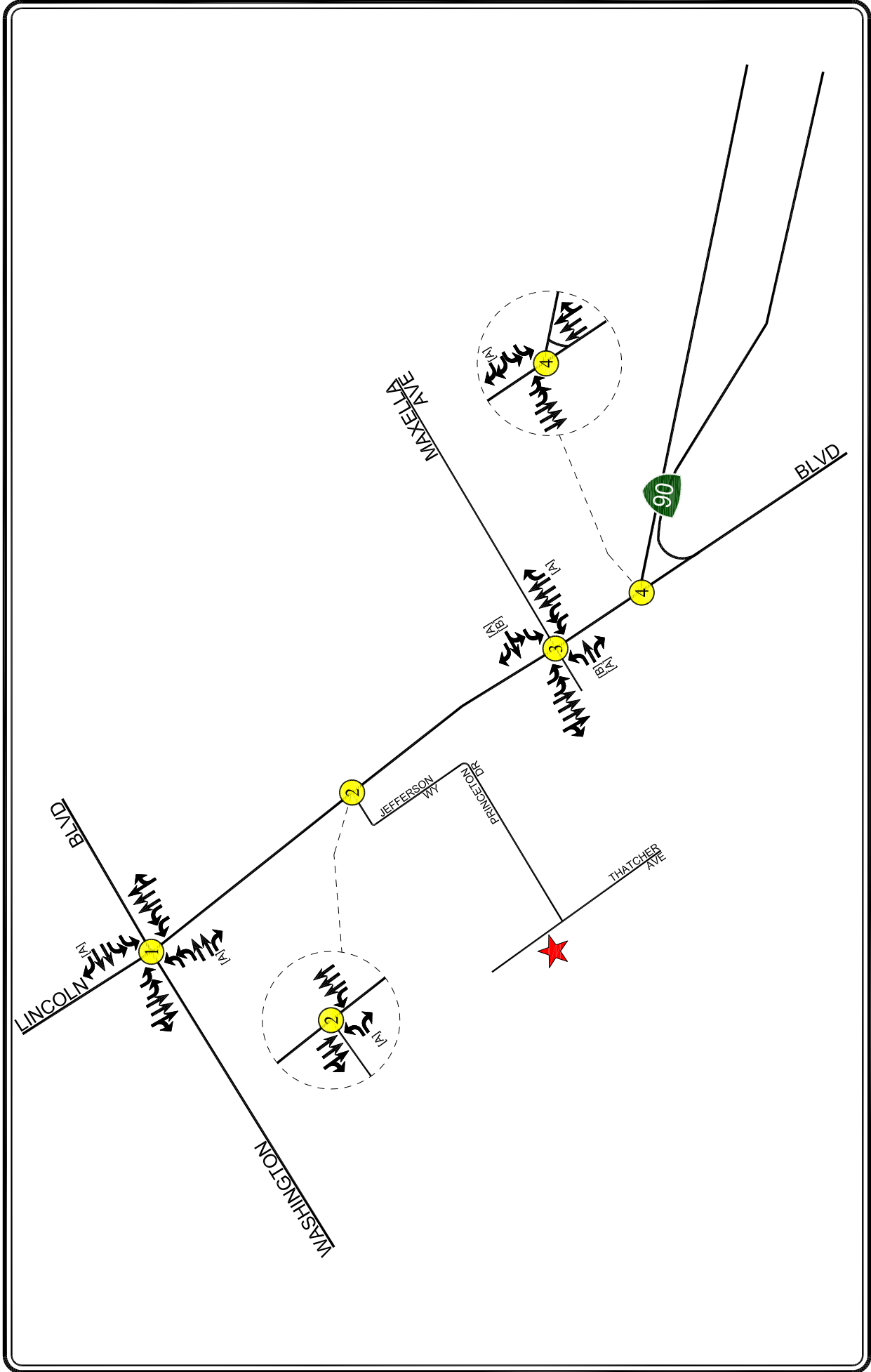
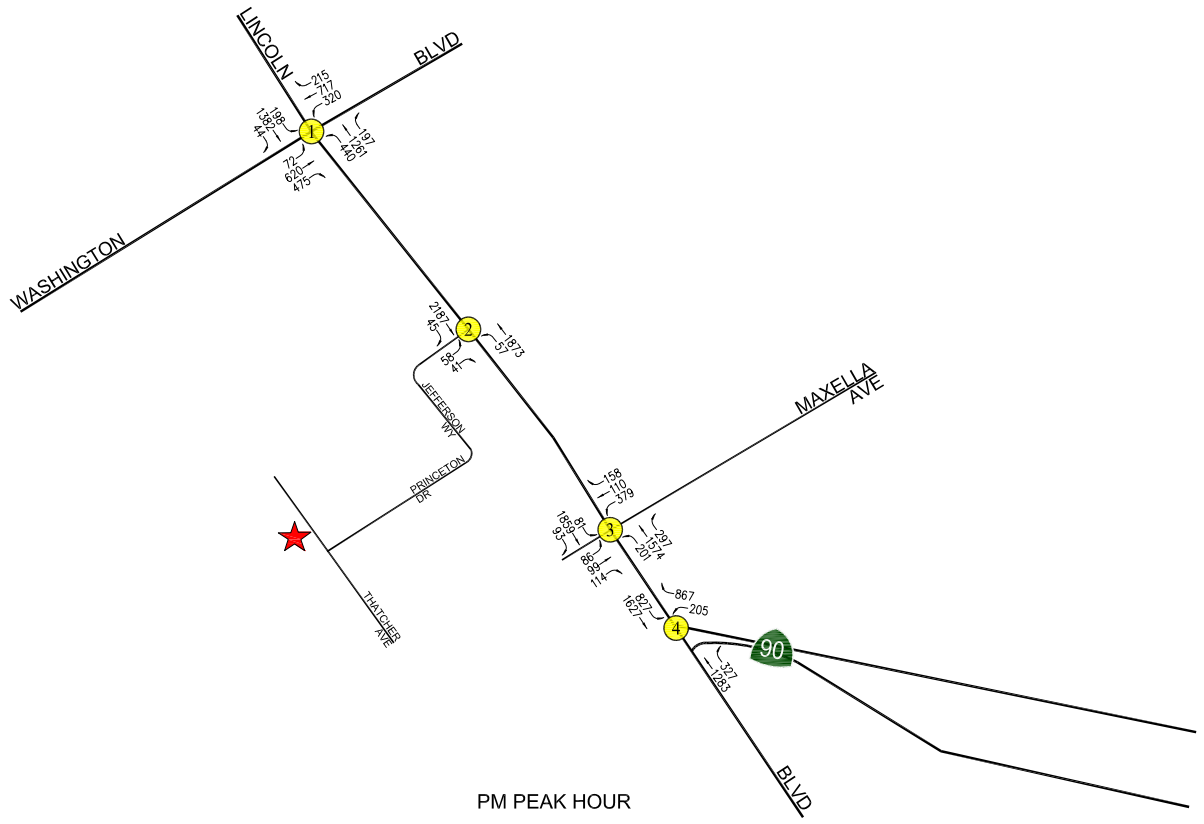
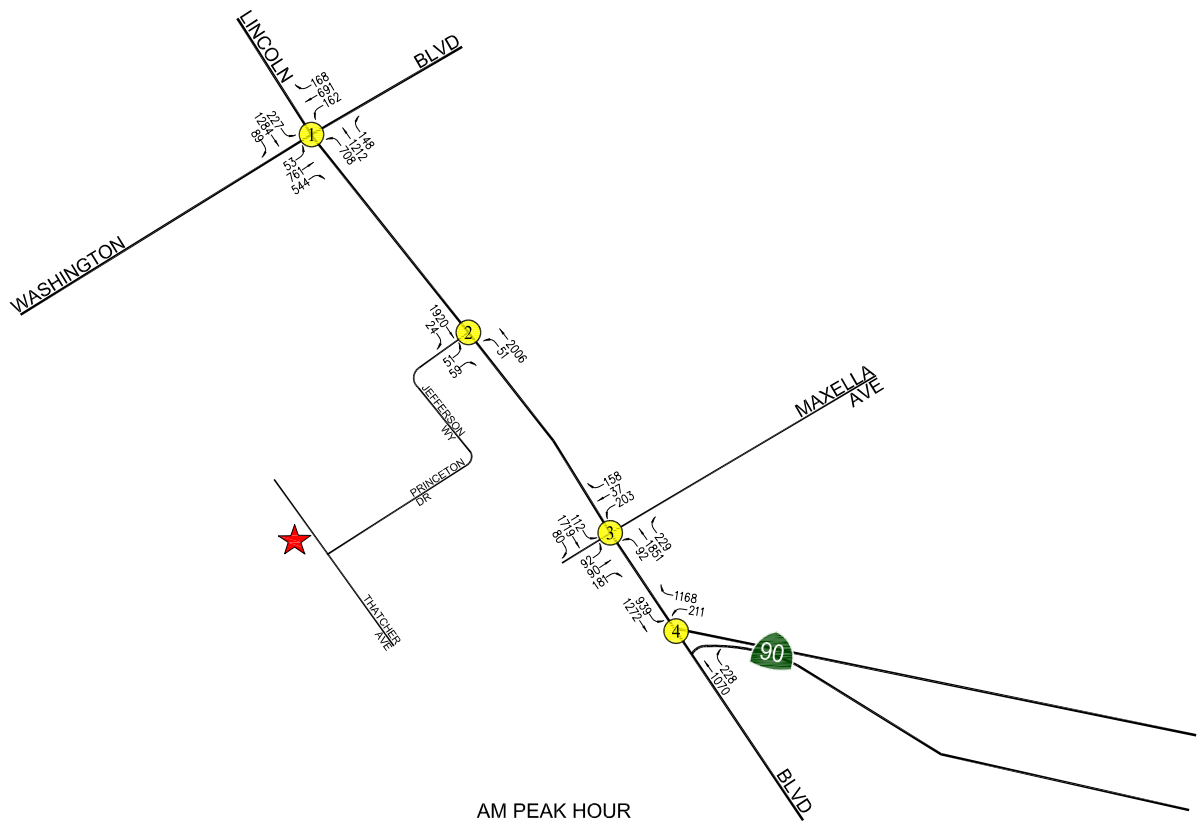


FIGURE 4
EXISTING LANE CONFIGURATIONS

- ★ PROJECT SITE
- ⊗ STUDY INTERSECTION
- [A] = RIGHT-TURN OVERLAP
- [B] = SPLIT PHASING

NOT TO SCALE



- ★ PROJECT SITE
- ⊗ STUDY INTERSECTION

FIGURE 5
EXISTING TRAFFIC VOLUMES

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Table 1
PROJECT TRIP GENERATION [1]

28-Jan-19

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]		PM PEAK HOUR VOLUMES [2]	
			IN	OUT	IN	OUT
Proposed Project						
Affordable Senior Housing [3]	68 DU	117	3	5	5	10
Affordable Family Housing [4]	30 DU	122	6	9	6	10
NET INCREASE		239	9	14	11	20

[1] Source: City of Los Angeles "Transportation Impact Study Guidelines", December 2016.

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

[3] City of Los Angeles Affordable Housing (Seniors) trip generation average rates.

- Daily Trip Rate: 1.72 trips/dwelling unit; 50% inbound/50% outbound
 - AM Peak Hour Trip Rate: 0.12 trips/dwelling unit; 38% inbound/62% outbound
 - PM Peak Hour Trip Rate: 0.15 trips/dwelling unit; 52% inbound/48% outbound

[4] City of Los Angeles Affordable Housing (Family) trip generation average rates.
 - Daily Trip Rate: 4.08 trips/dwelling unit; 50% inbound/50% outbound
 - AM Peak Hour Trip Rate: 0.50 trips/dwelling unit; 40% inbound/60% outbound
 - PM Peak Hour Trip Rate: 0.34 trips/dwelling unit; 55% inbound/45% outbound

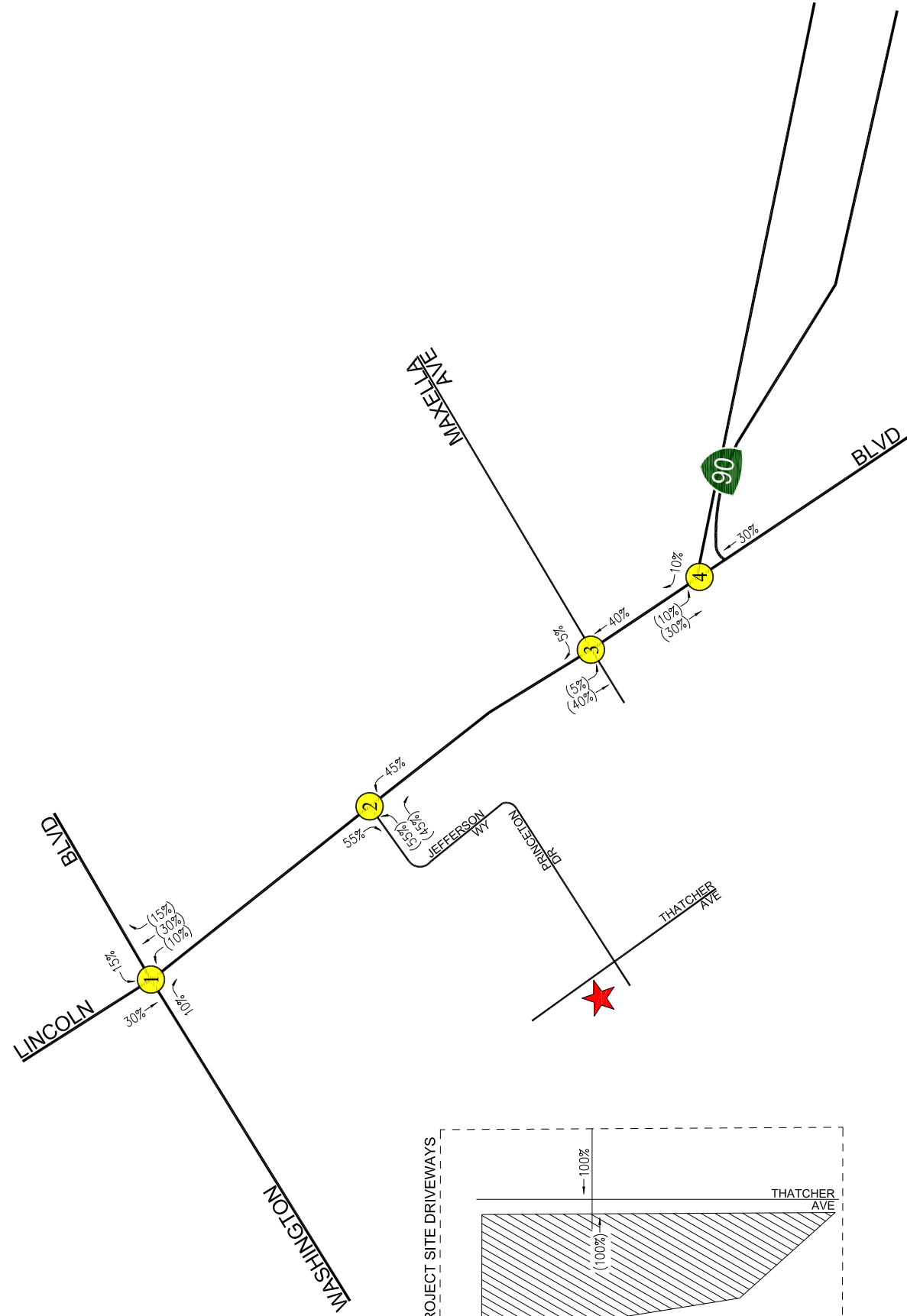
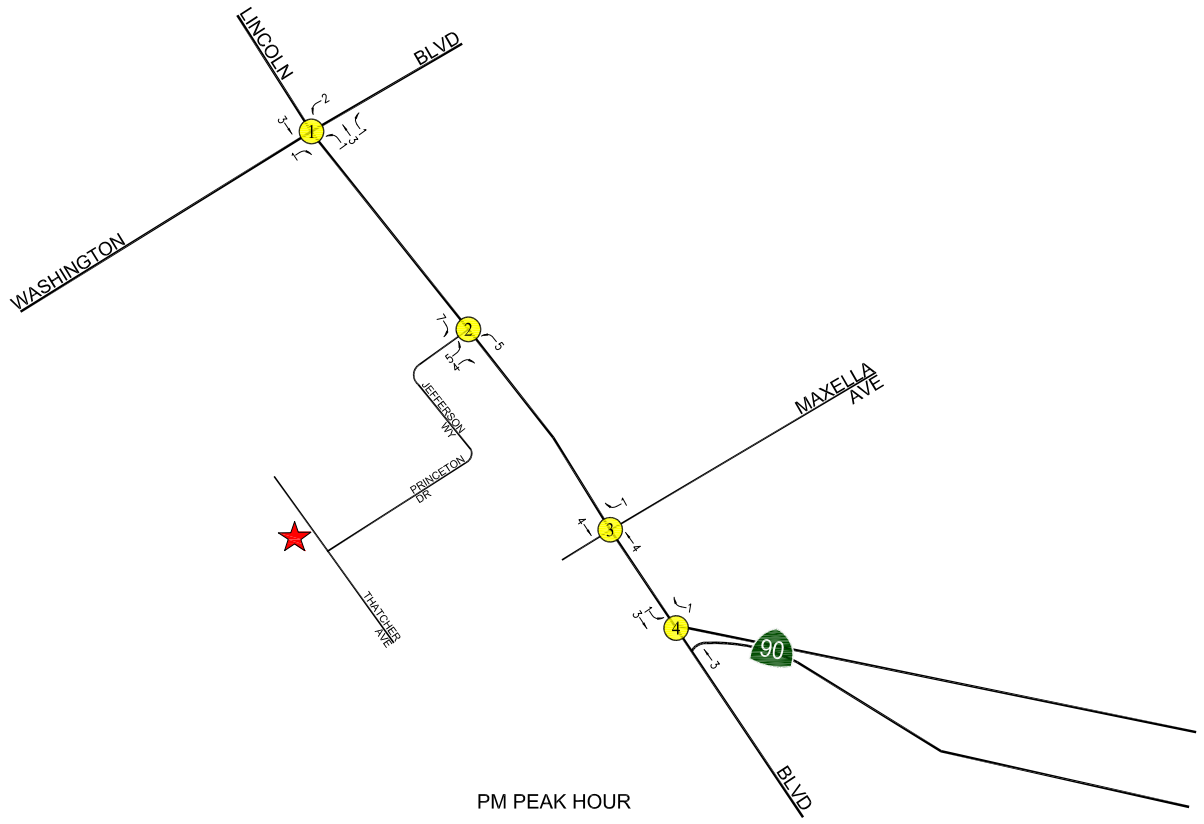
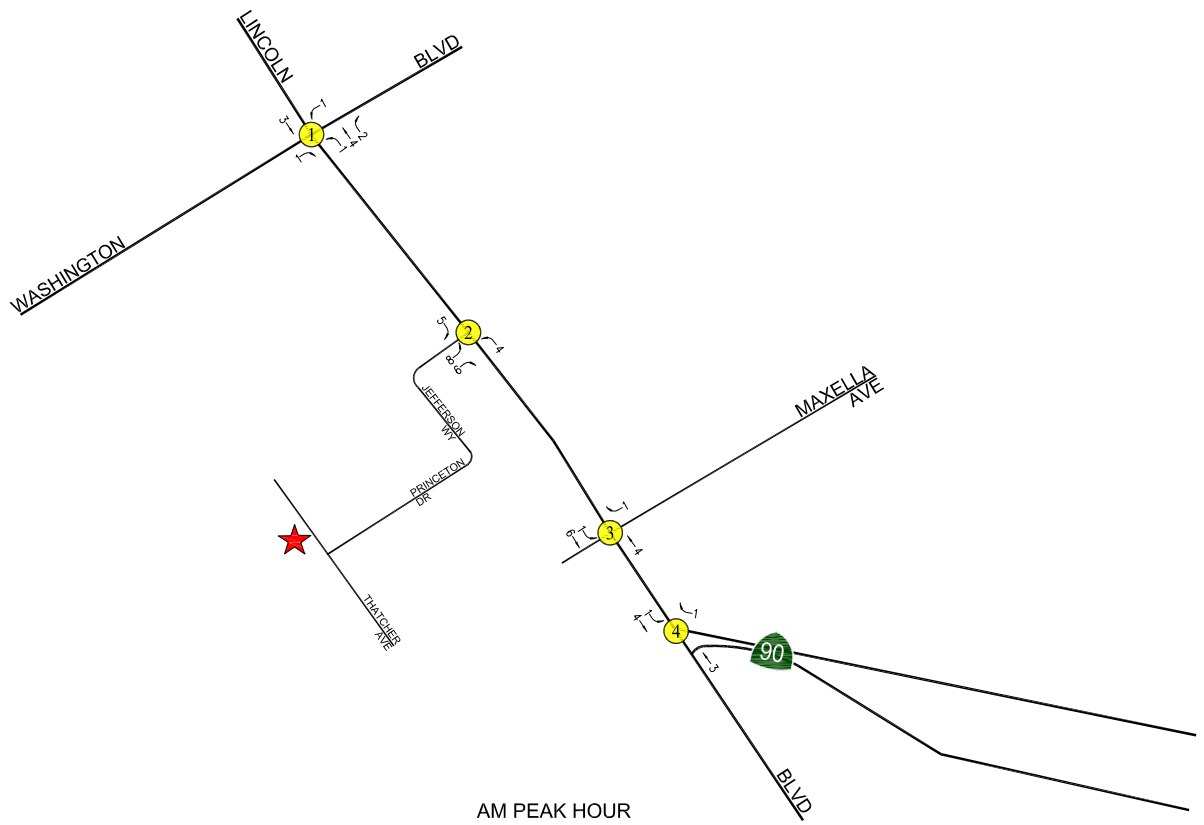


FIGURE 6
PROJECT TRIP DISTRIBUTION

★ PROJECT SITE
 ● STUDY INTERSECTION
 ## = INBOUND PERCENTAGES
 (##) = OUTBOUND PERCENTAGES

NOT TO SCALE




 NOT TO SCALE



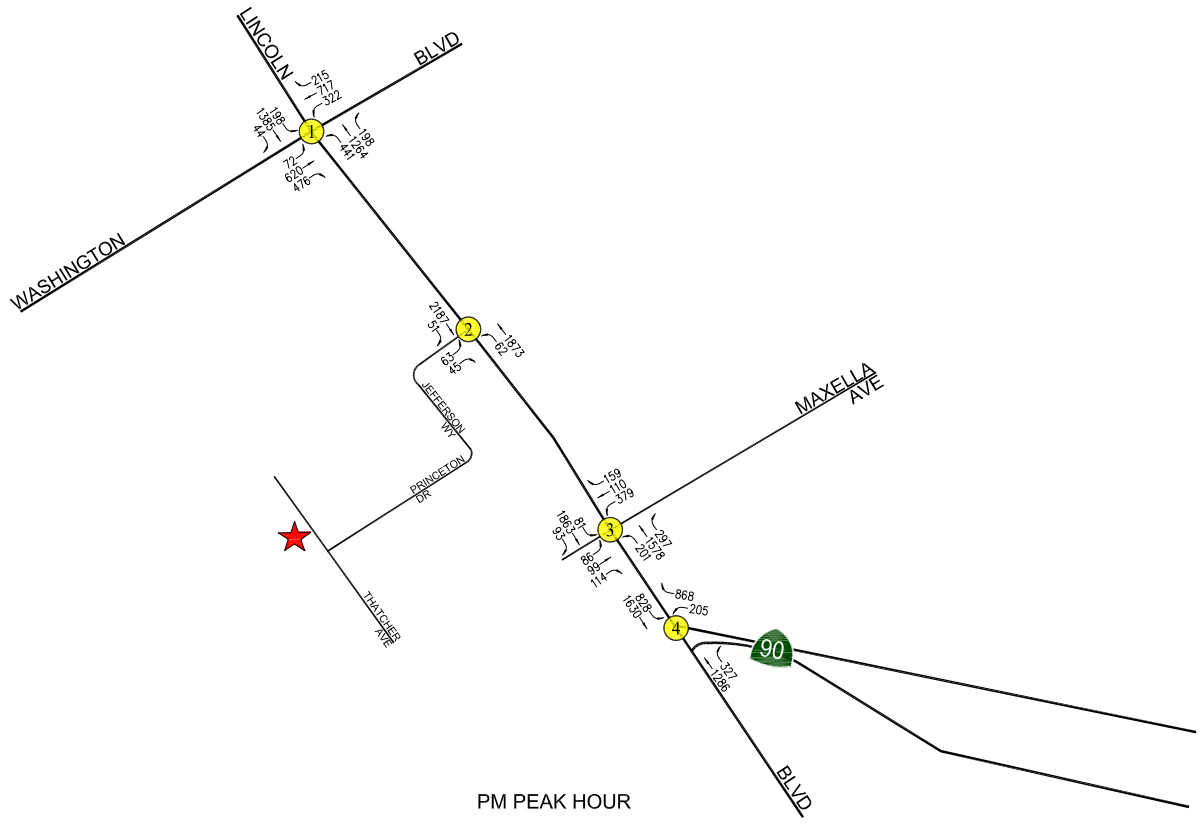
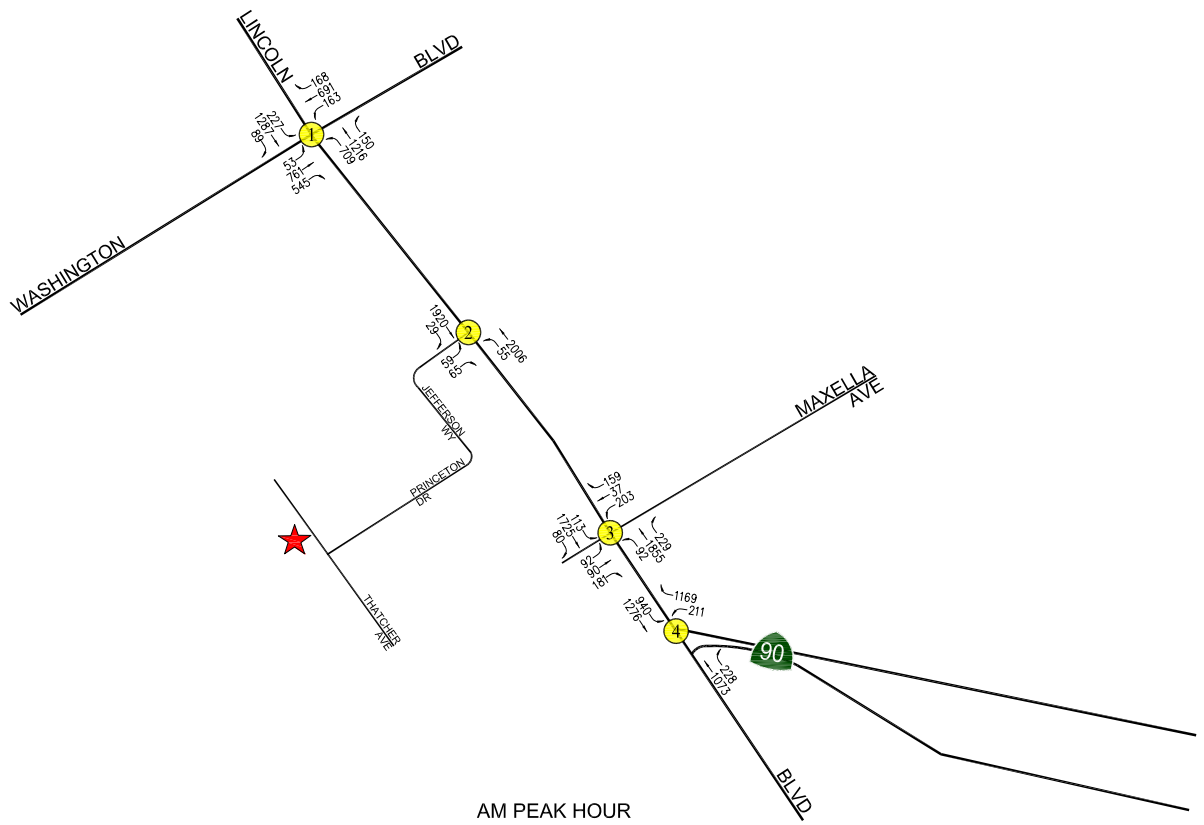
 PROJECT SITE
 STUDY INTERSECTION

FIGURE 7 PROJECT TRAFFIC VOLUMES

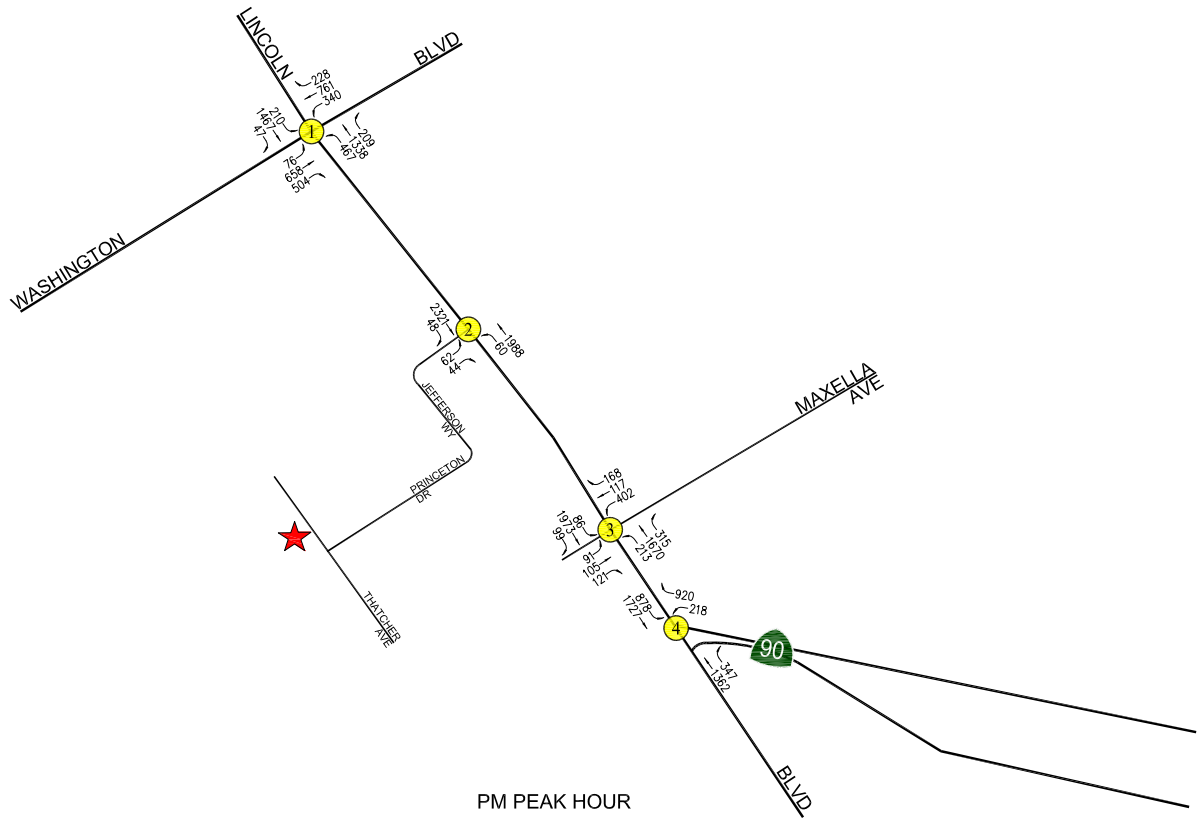
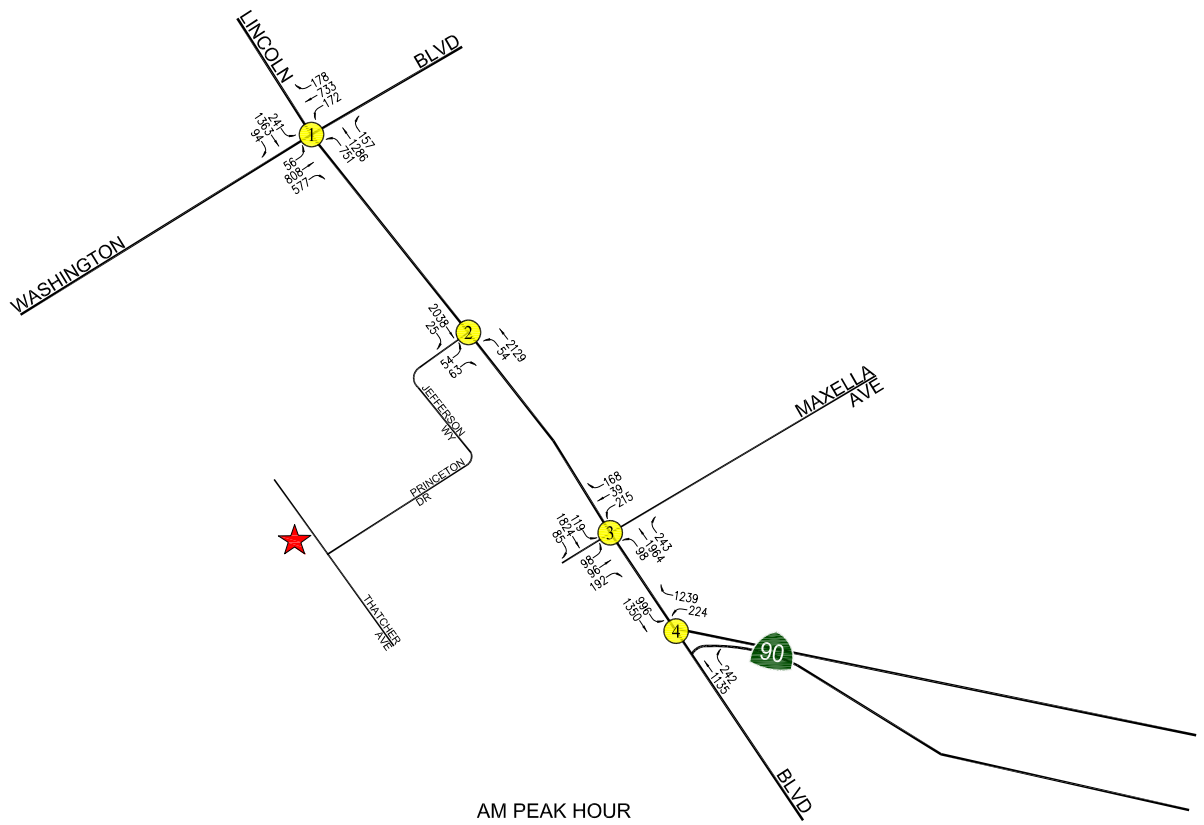
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- ★ PROJECT SITE
- ⊗ STUDY INTERSECTION

FIGURE 8
EXISTING WITH PROJECT
TRAFFIC VOLUMES

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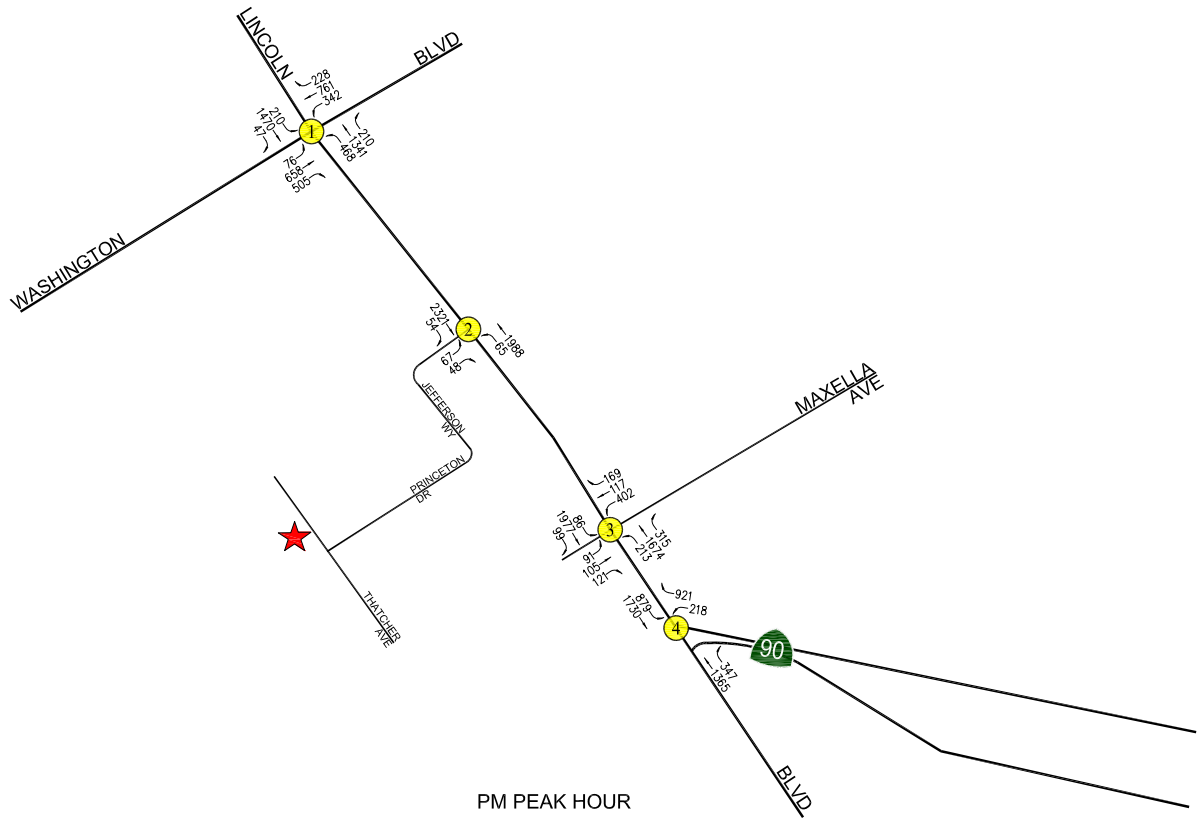
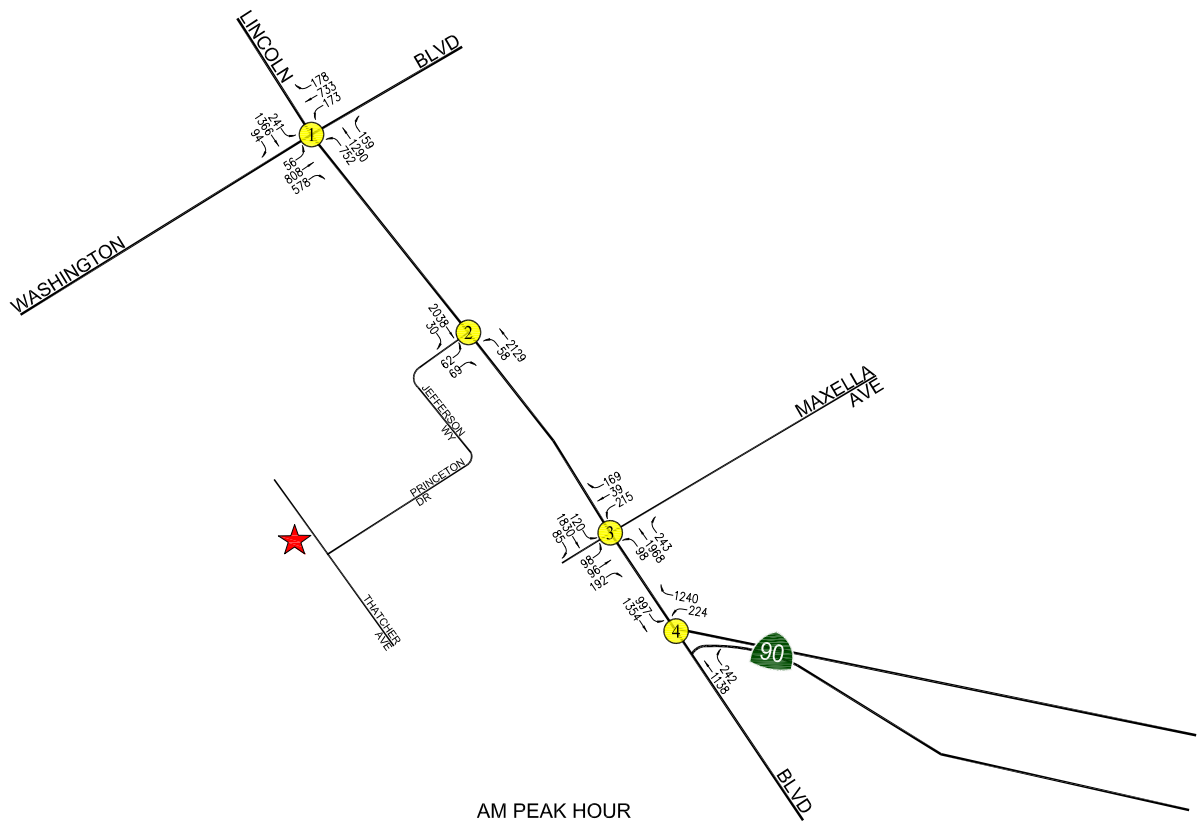
 PROJECT SITE
 STUDY INTERSECTION

FIGURE 9 FUTURE TRAFFIC VOLUMES

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 PROJECT SITE
 STUDY INTERSECTION
NOT TO SCALE

FIGURE 10 FUTURE WITH PROJECT TRAFFIC VOLUMES

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Table 2
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE

23-Jan-19

NO.	INTERSECTION	PEAK HOUR	[1]		[2]			[3]		[4]				
			YEAR 2018 EXISTING V/C	LOS	YEAR 2018 EXISTING W/PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	YEAR 2021 FUTURE PROJECT V/C	LOS	YEAR 2021 FUTURE W/PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]
1	Lincoln Boulevard / Washington Boulevard	AM PM	0.858 0.775	D C	0.860 0.777	D C	0.002 0.002	NO NO	0.917 0.829	E D	0.918 0.831	E D	0.001 0.002	NO NO
2	Lincoln Boulevard / Jefferson Way	AM PM	0.426 0.503	A A	0.436 0.511	A A	0.010 0.008	NO NO	0.459 0.540	A A	0.468 0.548	A A	0.009 0.008	NO NO
3	Lincoln Boulevard / Marina Pointe Drive-Maxella Avenue [b]	AM PM	0.576 0.586	A/F A/F	0.576 0.587	A/F A/F	0.000 0.001	NO NO	0.616 0.627	B/F B/F	0.618 0.628	B/F B/F	0.002 0.001	NO NO
4	Lincoln Boulevard / SR-90 Ramps [b]	AM PM	0.654 0.675	B/F B/F	0.656 0.676	B/F B/F	0.002 0.001	NO NO	0.700 0.723	C/F C/F	0.701 0.724	C/F C/F	0.001 0.001	NO NO

[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.

APPENDIX A
MANUAL TRAFFIC COUNT DATA



City Of Los Angeles
 Department Of Transportation
 MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Lincoln Blvd
 East/West Washington Blvd
 Day: Tuesday Date: 04/17/2018 Weather: SUNNY
 Hours: _____ Checkrs: NDS
 School Day: Yes I/S CODE _____

	N/B	S/B	E/B	W/B
DUAL-WHEELED	206	115	113	61
BIKES	0	0	0	0
BUSES	48	46	27	31

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	572 7.15	423 8.30	365 8.15	291 8.45
PM PK 15 MIN	508 17.15	438 16.45	316 15.00	336 17.15
AM PK HOUR	2193 7.00	1632 7.45	1389 8.15	1025 8.00
PM PK HOUR	1916 16.45	1687 16.15	1243 15.00	1256 17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	652	1440	101	2193
8-9	708	1222	148	2078
9-10	710	1258	151	2119
15-16	431	1086	210	1727
16-17	436	1110	196	1742
17-18	440	1268	197	1905
TOTAL	3377	7384	1003	11764

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	158	1030	81	1269	3462	0	0	0	0
8-9	227	1291	89	1607	3685	0	0	0	0
9-10	249	1175	102	1526	3645	0	0	0	0
15-16	191	1345	70	1606	3333	0	0	0	0
16-17	196	1416	65	1677	3419	0	0	0	0
17-18	198	1390	44	1632	3537	0	0	0	0
TOTAL	1219	7647	451	9317	21081	0	0	0	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	36	628	376	1040
8-9	53	765	545	1363
9-10	90	655	463	1208
15-16	92	662	489	1243
16-17	93	641	481	1215
17-18	72	624	475	1171
TOTAL	436	3975	2829	7240

WESTBOUND Approach

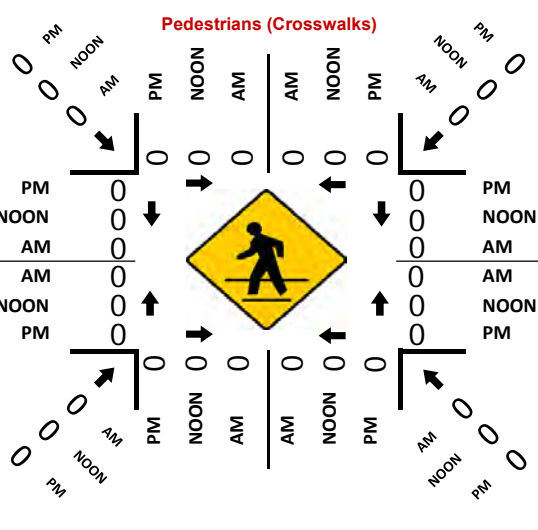
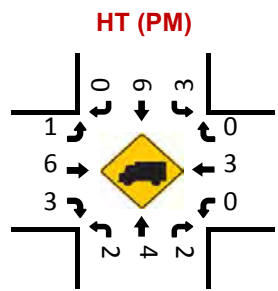
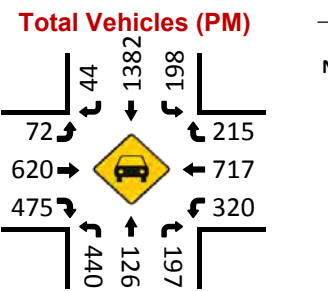
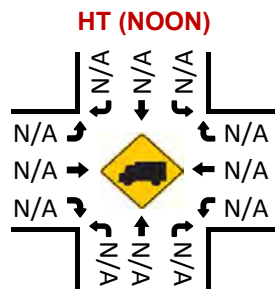
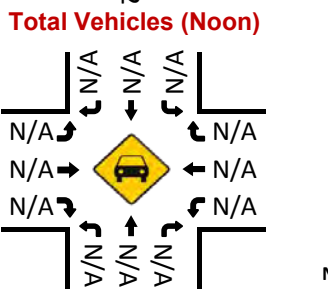
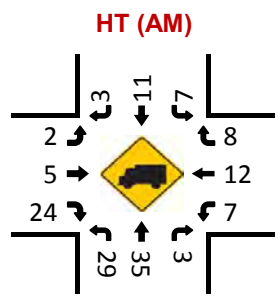
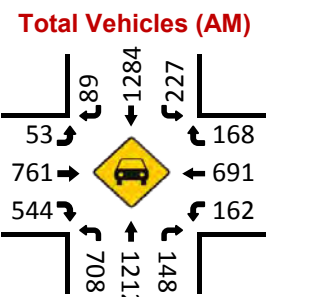
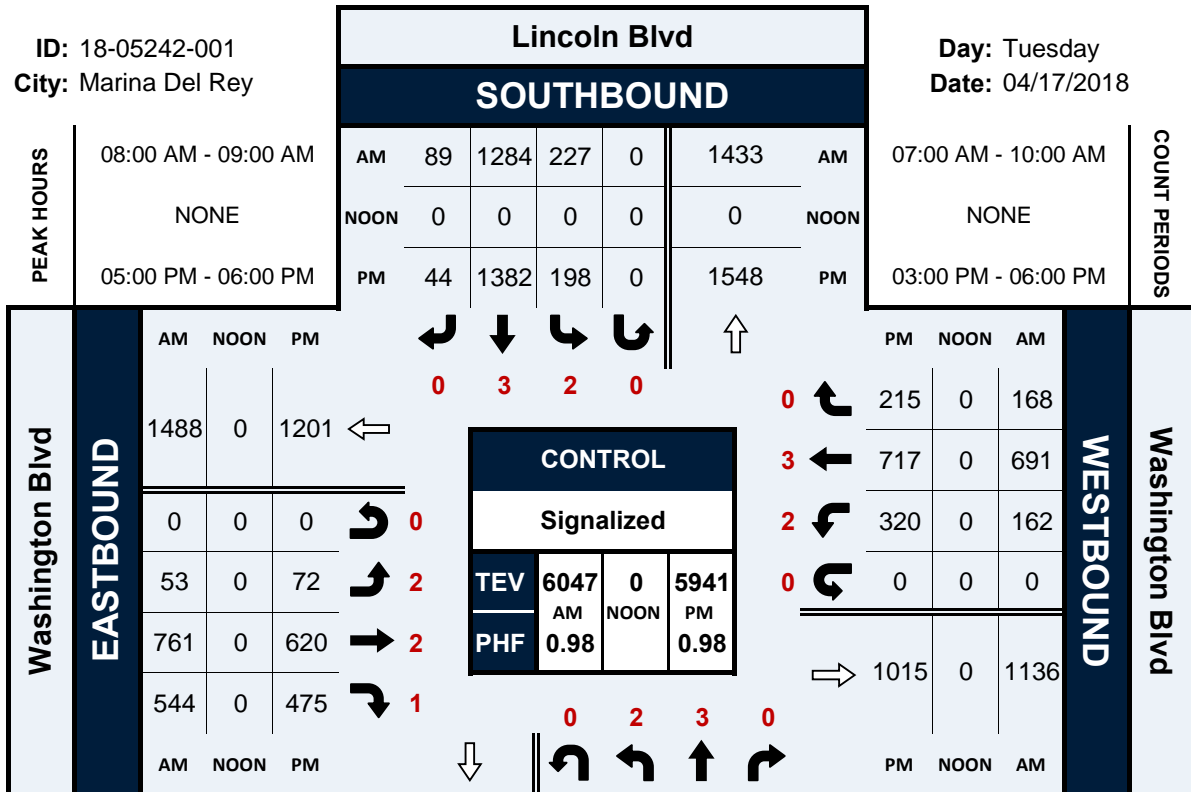
Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	115	596	175	886	1926	0	0	0	0
8-9	162	694	169	1025	2388	0	0	0	0
9-10	153	537	204	894	2102	0	0	0	0
15-16	329	618	232	1179	2422	0	0	0	0
16-17	285	665	200	1150	2365	0	0	0	0
17-18	320	720	216	1256	2427	0	0	0	0
TOTAL	1364	3830	1196	6390	13630	0	0	0	0

Lincoln Blvd & Washington Blvd

Peak Hour Turning Movement Count

ID: 18-05242-001
City: Marina Del Rey

Day: Tuesday
Date: 04/17/2018



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lincoln Blvd & Washington Blvd
 City: Marina Del Rey
 Control: Signalized

Project ID: 18-05242-001
 Date: 4/17/2018

Total

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Washington Blvd				Washington Blvd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	2	3	0	0	2	3	0	0	2	2	1	0	2	3	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	144	393	26	0	19	200	17	0	10	143	64	0	26	101	44	0	1187
7:15 AM	152	389	30	0	31	224	16	0	12	99	87	0	21	148	32	0	1241
7:30 AM	182	326	24	0	48	263	25	0	8	194	100	0	34	159	40	0	1403
7:45 AM	174	326	21	0	60	336	23	0	6	188	125	0	34	183	57	0	1533
8:00 AM	210	317	33	0	62	314	21	0	12	175	118	0	31	170	40	0	1503
8:15 AM	178	285	42	0	55	314	20	0	13	211	140	0	51	168	45	0	1522
8:30 AM	164	303	40	0	54	343	25	0	13	182	135	0	37	153	36	0	1485
8:45 AM	156	307	33	0	56	313	23	0	15	193	151	0	43	200	47	0	1537
9:00 AM	173	334	30	0	67	283	20	0	23	194	113	0	34	124	45	0	1440
9:15 AM	162	301	42	0	54	299	29	0	19	179	137	0	42	150	63	0	1477
9:30 AM	205	325	37	0	56	309	29	0	19	127	99	0	37	129	47	0	1419
9:45 AM	170	288	42	0	72	276	24	0	29	152	111	0	40	130	48	0	1382
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	2070	3894	400	0	634	3474	272	0	179	2037	1380	0	430	1815	544	0	17129
APPROACH %'s :	32.53%	61.19%	6.29%	0.00%	14.47%	79.32%	6.21%	0.00%	4.98%	56.65%	38.38%	0.00%	15.42%	65.08%	19.51%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																
PEAK HR VOL :	708	1212	148	0	227	1284	89	0	53	761	544	0	162	691	168	0	TOTAL 6047
PEAK HR FACTOR :	0.843	0.956	0.881	0.000	0.915	0.936	0.890	0.000	0.883	0.902	0.901	0.000	0.794	0.864	0.894	0.000	0.984
	0.923				0.948				0.933				0.880				

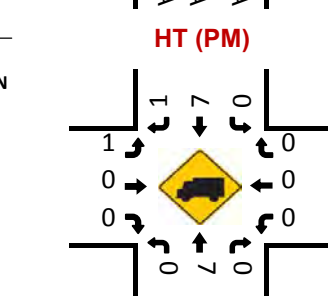
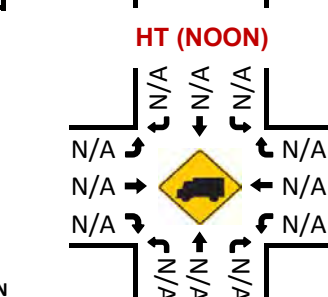
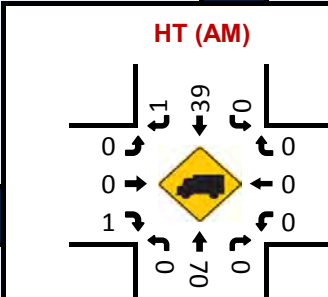
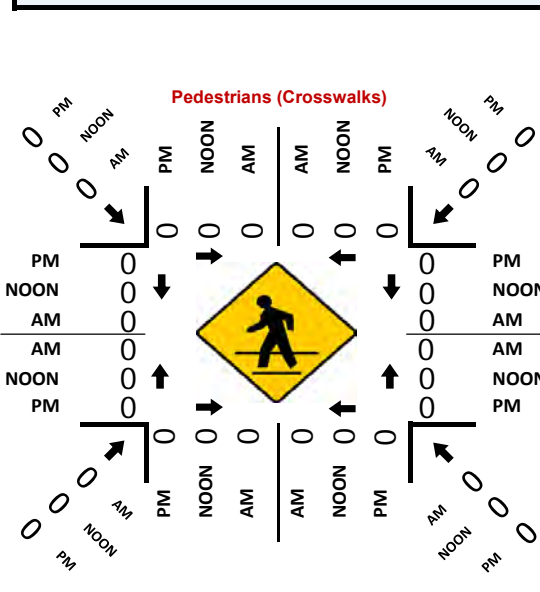
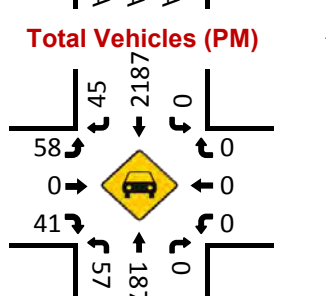
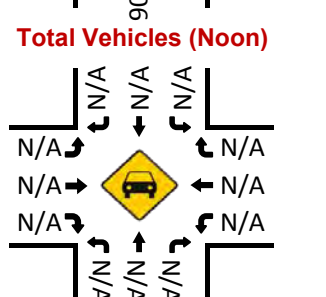
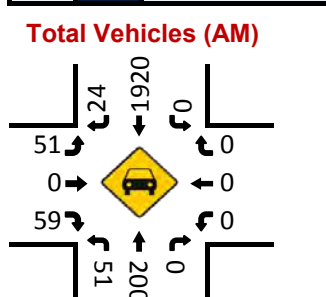
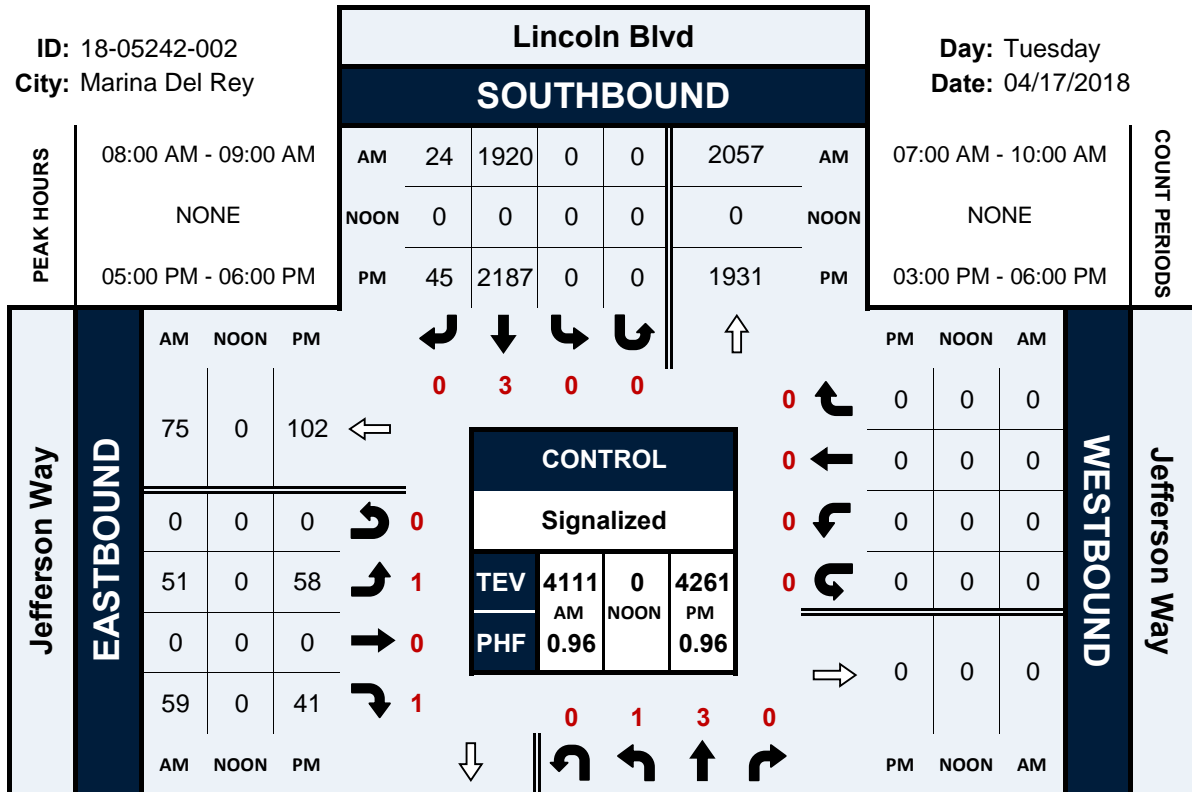
NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Washington Blvd				Washington Blvd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	2	3	0	0	2	3	0	0	2	2	1	0	2	3	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	114	288	43	0	41	316	23	0	19	172	124	0	68	154	62	0	1424
3:15 PM	115	272	64	0	51	336	18	0	27	161	124	0	87	154	62	0	1471
3:30 PM	95	240	61	0	63	331	19	0	18	164	118	0	81	138	61	0	1389
3:45 PM	107	279	42	0	36	356	10	0	28	161	123	0	93	168	45	0	1448
4:00 PM	110	256	37	0	45	338	11	0	33	140	107	0	68	148	49	0	1342
4:15 PM	107	290	64	0	47	339	20	0	21	158	131	0	67	169	48	0	1461
4:30 PM	96	257	52	0	54	360	18	0	21	173	117	0	86	173	54	0	1461
4:45 PM	123	299	43	0	50	369	16	0	18	166	126	0	64	171	48	0	1493
5:00 PM	119	300	43	0	53	339	14	0	20	155	119	0	76	156	45	0	1439
5:15 PM	114	336	56	0	45	337	7	0	17	147	114	0	79	190	67	0	1509
5:30 PM	110	319	47	0	51	347	12	0	16	156	124	0	82	182	51	0	1497
5:45 PM	97	306	51	0	49	359	11	0	19	162	118	0	83	189	52	0	1496
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	1307	3442	603	0	585	4127	179	0	257	1915	1445	0	934	1992	644	0	17430
APPROACH %'s :	24.42%	64.31%	11.27%	0.00%	11.96%	84.38%	3.66%	0.00%	7.11%	52.94%	39.95%	0.00%	26.16%	55.80%	18.04%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	440	1261	197	0	198	1382	44	0	72	620	475	0	320	717	215	0	TOTAL 5941
PEAK HR FACTOR :	0.924	0.938	0.879	0.000	0.934	0.962	0.786	0.000	0.900	0.957	0.958	0.000	0.964	0.943	0.802	0.000	0.984
	0.938				0.969				0.976				0.932				

Lincoln Blvd & Jefferson Way

Peak Hour Turning Movement Count

ID: 18-05242-002
City: Marina Del Rey

Day: Tuesday
Date: 04/17/2018



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lincoln Blvd & Jefferson Way
 City: Marina Del Rey
 Control: Signalized

Project ID: 18-05242-002
 Date: 4/17/2018

Total

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Jefferson Way				Jefferson Way				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	3	0	0	0	3	0	0	1	0	1	0	0	0	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	2	547	0	0	0	268	5	0	9	0	16	0	0	0	0	0	847
7:15 AM	7	580	0	0	0	318	3	0	17	0	11	0	0	0	0	0	936
7:30 AM	11	526	0	0	0	382	12	0	10	0	13	0	0	0	0	0	954
7:45 AM	8	449	0	0	0	473	4	0	15	0	12	0	0	0	0	0	961
8:00 AM	9	500	0	0	0	461	4	0	13	0	15	0	0	0	0	0	1002
8:15 AM	10	528	0	0	0	506	6	0	8	0	13	0	0	0	0	0	1071
8:30 AM	12	513	0	0	0	467	7	0	17	0	17	0	0	0	0	0	1033
8:45 AM	20	465	0	0	0	486	7	0	13	0	14	0	0	0	0	0	1005
9:00 AM	13	517	0	0	0	403	7	0	12	0	12	0	0	0	0	0	964
9:15 AM	10	497	0	0	0	438	10	0	14	0	19	0	0	0	0	0	988
9:30 AM	11	542	0	0	0	449	11	0	9	0	12	0	0	0	0	0	1034
9:45 AM	10	519	0	0	0	411	8	0	13	0	9	0	0	0	0	0	970
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1.23	6183	0	0	0	5062	84	0	150	0	163	0	0	0	0	0	11765
	1.95%	98.05%	0.00%	0.00%	0.00%	98.37%	1.63%	0.00%	47.92%	0.00%	52.08%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																
PEAK HR VOL :	51	2006	0	0	0	1920	24	0	51	0	59	0	0	0	0	0	TOTAL
PEAK HR FACTOR :	0.638	0.950	0.000	0.000	0.000	0.949	0.857	0.000	0.750	0.000	0.868	0.000	0.000	0.000	0.000	0.000	4111
	0.956				0.949				0.809								0.960

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Jefferson Way				Jefferson Way				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	3	0	0	0	3	0	0	1	0	1	0	0	0	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
3:00 PM	7	415	0	0	0	499	11	0	8	0	7	0	0	0	0	0	947
3:15 PM	15	441	0	0	0	574	3	0	5	0	4	0	0	0	0	0	1042
3:30 PM	6	393	0	0	0	523	6	0	6	0	12	0	0	0	0	0	946
3:45 PM	5	422	0	0	0	570	9	0	4	0	8	0	0	0	0	0	1018
4:00 PM	7	410	0	0	0	525	5	0	6	0	3	0	0	0	0	0	956
4:15 PM	10	438	0	0	0	531	4	0	3	0	12	0	0	0	0	0	998
4:30 PM	11	433	0	0	0	603	8	0	3	0	7	0	0	0	0	0	1065
4:45 PM	7	439	0	0	0	555	9	0	6	0	11	0	0	0	0	0	1027
5:00 PM	19	473	0	0	0	511	4	0	13	0	9	0	0	0	0	0	1029
5:15 PM	12	495	0	0	0	539	9	0	13	0	9	0	0	0	0	0	1077
5:30 PM	13	424	0	0	0	561	15	0	20	0	9	0	0	0	0	0	1042
5:45 PM	13	481	0	0	0	576	17	0	12	0	14	0	0	0	0	0	1113
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	125	5264	0	0	0	6567	100	0	99	0	105	0	0	0	0	0	12260
	2.32%	97.68%	0.00%	0.00%	0.00%	98.50%	1.50%	0.00%	48.53%	0.00%	51.47%	0.00%					
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	57	1873	0	0	0	2187	45	0	58	0	41	0	0	0	0	0	TOTAL
PEAK HR FACTOR :	0.750	0.946	0.000	0.000	0.000	0.949	0.662	0.000	0.725	0.000	0.732	0.000	0.000	0.000	0.000	0.000	4261
	0.952				0.941				0.853								0.957



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Lincoln Blvd
East/West Marina Pointe Drive / Maxella Avenue
Day: Tuesday **Date:** 04/17/2018 **Weather:** SUNNY
Hours: _____ **Chckrs:** NDS
School Day: Yes **I/S CODE** _____

	N/B	S/B	E/B	W/B
DUAL-WHEELED	216	178	15	41
BIKES	0	0	0	0
BUSES	67	46	0	8

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	640	7.30	528	8.30	101	8.30	121	9.30
<i>PM PK 15 MIN</i>	589	17.15	573	15.15	79	17.45	174	17.00
<i>AM PK HOUR</i>	2414	7.00	1920	8.15	378	8.00	407	9.00
<i>PM PK HOUR</i>	2115	16.45	2100	15.15	299	17.00	648	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	59	2161	194	2414
8-9	96	1817	238	2151
9-10	108	1914	193	2215
15-16	144	1453	300	1897
16-17	156	1530	290	1976
17-18	201	1581	299	2081
TOTAL	764	10456	1514	12734

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	89	1323	32	1444
8-9	104	1722	85	1911
9-10	134	1520	67	1721
15-16	122	1860	88	2070
16-17	80	1913	91	2084
17-18	81	1865	93	2039
TOTAL	610	10203	456	11269

TOTAL

	N-S	Ped	Sch	Ped	Sch
7-8	3858	0	0	0	0
8-9	4062	0	0	0	0
9-10	3936	0	0	0	0
15-16	3967	0	0	0	0
16-17	4060	0	0	0	0
17-18	4120	0	0	0	0
TOTAL	24003	0	0	0	0

XING S/L

XING N/L

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	81	73	131	285
8-9	93	104	181	378
9-10	94	69	143	306
15-16	71	77	86	234
16-17	71	55	99	225
17-18	86	99	114	299
TOTAL	496	477	754	1727

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	139	30	85	254
8-9	215	42	141	398
9-10	195	50	162	407
15-16	289	87	185	561
16-17	312	92	177	581
17-18	380	110	158	648
TOTAL	1530	411	908	2849

TOTAL

	E-W	Ped	Sch	Ped	Sch
7-8	539	0	0	0	0
8-9	776	0	0	0	0
9-10	713	0	0	0	0
15-16	795	0	0	0	0
16-17	806	0	0	0	0
17-18	947	0	0	0	0
TOTAL	4576	0	0	0	0

XING W/L

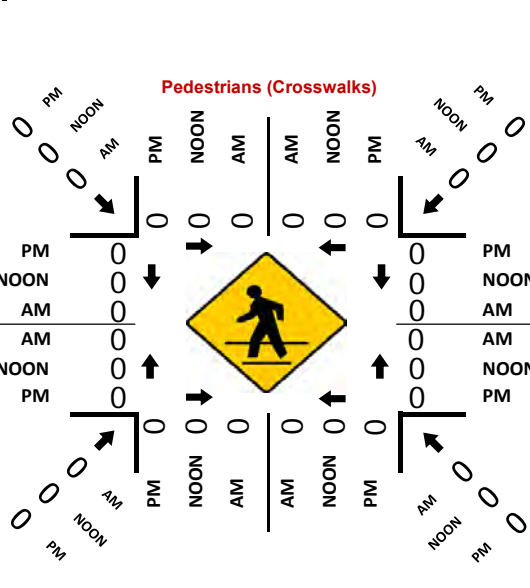
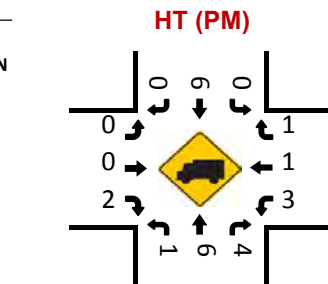
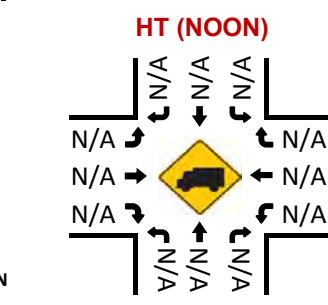
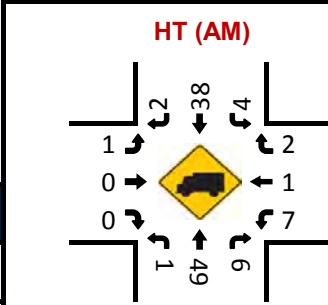
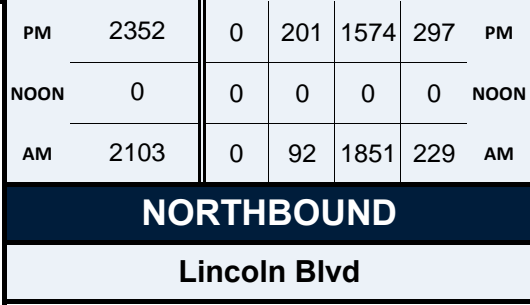
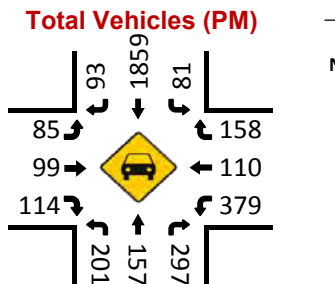
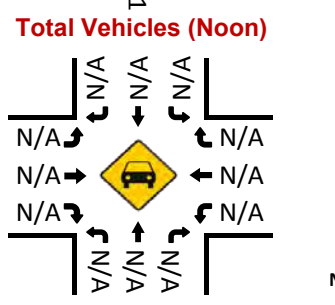
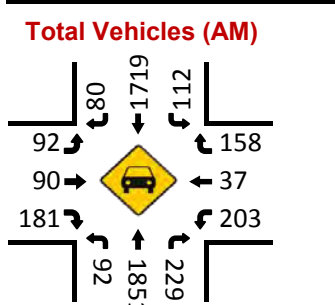
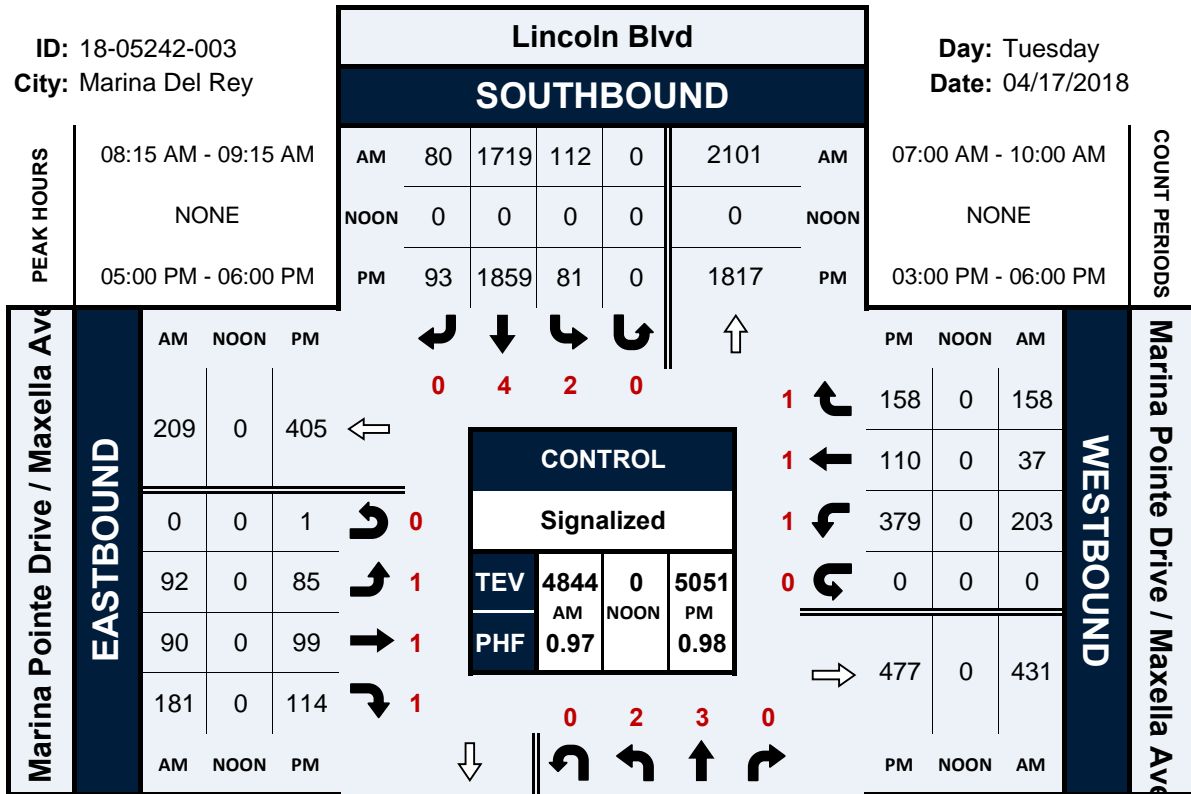
XING E/L

Lincoln Blvd & Marina Pointe Drive / Maxella Avenue

Peak Hour Turning Movement Count

ID: 18-05242-003
City: Marina Del Rey

Day: Tuesday
Date: 04/17/2018



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lincoln Blvd & Marina Pointe Drive / Maxella Avenue
 City: Marina Del Rey
 Control: Signalized

Project ID: 18-05242-003
 Date: 4/17/2018

Total

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Marina Pointe Drive / Maxella Avenue				Marina Pointe Drive / Maxella Avenue				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
AM	2	3	0	0	2	4	0	0	1	1	1	0	1	1	1	0	
7:00 AM	11	545	28	0	19	248	5	0	17	10	35	0	21	5	20	0	
7:15 AM	17	569	44	0	13	308	5	0	16	15	31	0	41	6	34	0	
7:30 AM	15	566	56	0	20	323	12	0	20	27	35	0	32	9	20	0	
7:45 AM	16	474	63	0	37	437	10	0	28	21	30	0	44	10	11	0	
8:00 AM	28	456	51	0	20	367	23	0	21	25	46	0	52	15	26	0	
8:15 AM	17	465	65	0	28	437	16	0	21	33	41	0	64	11	27	0	
8:30 AM	19	452	57	0	34	471	21	0	24	29	48	0	45	7	44	0	
8:45 AM	32	434	62	0	22	440	25	0	27	17	46	0	53	9	44	0	
9:00 AM	24	500	45	0	28	371	18	0	20	11	46	0	41	10	43	0	
9:15 AM	27	479	49	0	36	419	14	0	27	18	31	0	44	6	28	0	
9:30 AM	21	453	39	0	41	382	16	0	27	18	32	0	53	20	48	0	
9:45 AM	36	472	57	0	29	338	19	0	20	22	34	0	55	14	43	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	263	5865	616	0	327	4541	184	0	268	246	455	0	545	122	388	0	13820
	3.90%	86.97%	9.13%	0.00%	6.47%	89.89%	3.64%	0.00%	27.66%	25.39%	46.96%	0.00%	51.66%	11.56%	36.78%	0.00%	
PEAK HR :	08:15 AM - 09:15 AM																
PEAK HR VOL :	92	1851	229	0	112	1719	80	0	92	90	181	0	203	37	158	0	4844
PEAK HR FACTOR :	0.719	0.926	0.881	0.000	0.824	0.912	0.800	0.000	0.852	0.682	0.943	0.000	0.793	0.841	0.898	0.000	0.968
	0.954				0.908				0.899				0.939				

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				Marina Pointe Drive / Maxella Avenue				Marina Pointe Drive / Maxella Avenue				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
PM	2	3	0	0	2	4	0	0	1	1	1	0	1	1	1	0	
3:00 PM	35	363	70	0	30	414	20	0	16	15	17	0	79	22	47	0	
3:15 PM	37	395	78	0	38	513	22	0	21	22	20	0	66	23	55	0	
3:30 PM	45	341	91	0	33	449	22	0	16	22	31	0	78	27	34	0	
3:45 PM	27	347	58	0	21	478	24	0	18	18	18	0	65	15	49	0	
4:00 PM	43	321	66	0	22	449	21	0	22	15	22	0	79	15	56	0	
4:15 PM	31	416	82	0	22	491	22	0	13	12	28	0	88	19	41	0	
4:30 PM	35	383	68	0	17	473	23	0	12	18	22	0	88	29	40	0	
4:45 PM	47	401	71	0	19	490	25	0	24	10	27	0	55	29	40	0	
5:00 PM	35	375	58	0	21	456	21	0	24	25	26	0	105	22	47	0	
5:15 PM	60	422	103	0	14	427	19	0	18	26	29	0	98	29	46	0	
5:30 PM	61	397	76	0	20	505	29	0	17	26	28	1	78	27	30	0	
5:45 PM	45	380	60	0	26	471	24	0	26	22	31	0	98	32	35	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	501	4541	881	0	283	5616	272	0	227	231	299	1	977	289	520	0	14638
	8.46%	76.67%	14.87%	0.00%	4.59%	91.01%	4.41%	0.00%	29.95%	30.47%	39.45%	0.13%	54.70%	16.18%	29.12%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																
PEAK HR VOL :	201	1574	297	0	81	1859	93	0	85	99	114	1	379	110	158	0	5051
PEAK HR FACTOR :	0.824	0.932	0.721	0.000	0.779	0.920	0.802	0.000	0.817	0.952	0.919	0.250	0.902	0.859	0.840	0.000	0.975
	0.885				0.917				0.946				0.930				



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Lincoln Blvd
 East/West: SR-90 Ramps
 Day: Tuesday Date: 04/17/2018 Weather: SUNNY
 Hours: _____ Checkrs: NDS
 School Day: Yes I/S CODE _____

	N/B	S/B	E/B	W/B
DUAL-WHEELED	121	206	0	122
BIKES	0	0	0	0
BUSES	64	60	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	364	7.30	577	8.15	0	0.00	390	9.30
PM PK 15 MIN	340	17.30	648	16.30	0	0.00	286	17.15
AM PK HOUR	1305	7.15	2222	8.15	0	0.00	1478	8.45
PM PK HOUR	1297	16.45	2506	16.30	0	0.00	1098	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1303	0	1303
8-9	0	1131	1	1132
9-10	0	973	1	974
15-16	0	1167	5	1172
16-17	0	1160	6	1166
17-18	0	1244	3	1247
TOTAL	0	6978	16	6994

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	724	849	0	1573
8-9	946	1269	0	2215
9-10	809	1163	0	1972
15-16	862	1483	0	2345
16-17	824	1650	0	2474
17-18	847	1640	0	2487
TOTAL	5012	8054	0	13066

TOTAL XING S/L XING N/L

	N-S	Ped	Sch	Ped	Sch
7-8	2876	0	0	0	0
8-9	3347	0	0	0	0
9-10	2946	0	0	0	0
15-16	3517	0	0	0	0
16-17	3640	0	0	0	0
17-18	3734	0	0	0	0
TOTAL	20060	0	0	0	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	172	0	1089	1261
8-9	216	0	1105	1321
9-10	174	0	1287	1461
15-16	184	0	773	957
16-17	167	0	789	956
17-18	204	0	894	1098
TOTAL	1117	0	5937	7054

TOTAL XING W/L XING E/L

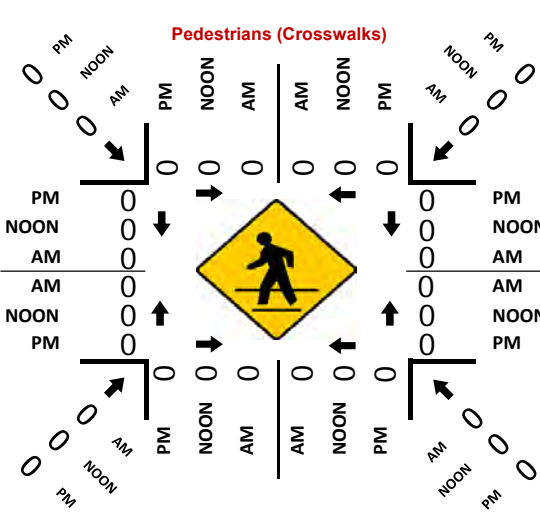
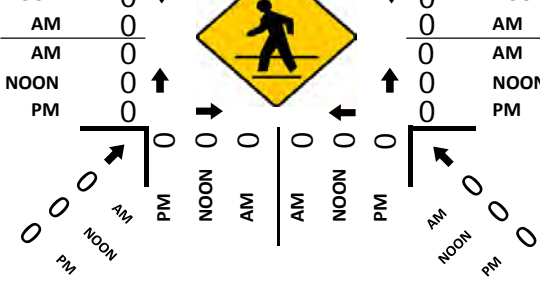
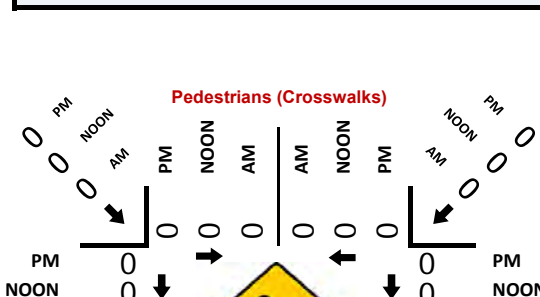
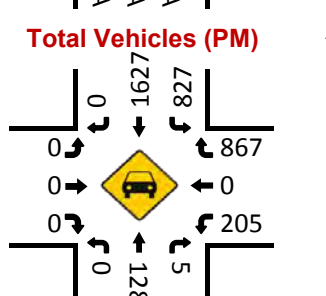
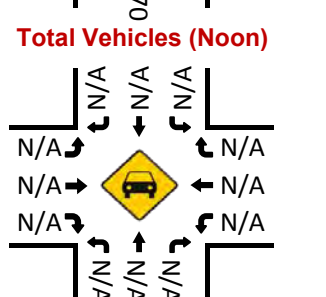
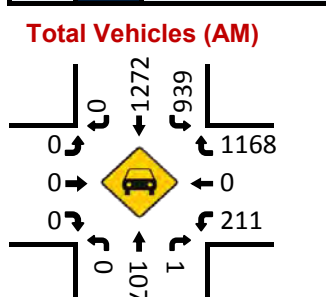
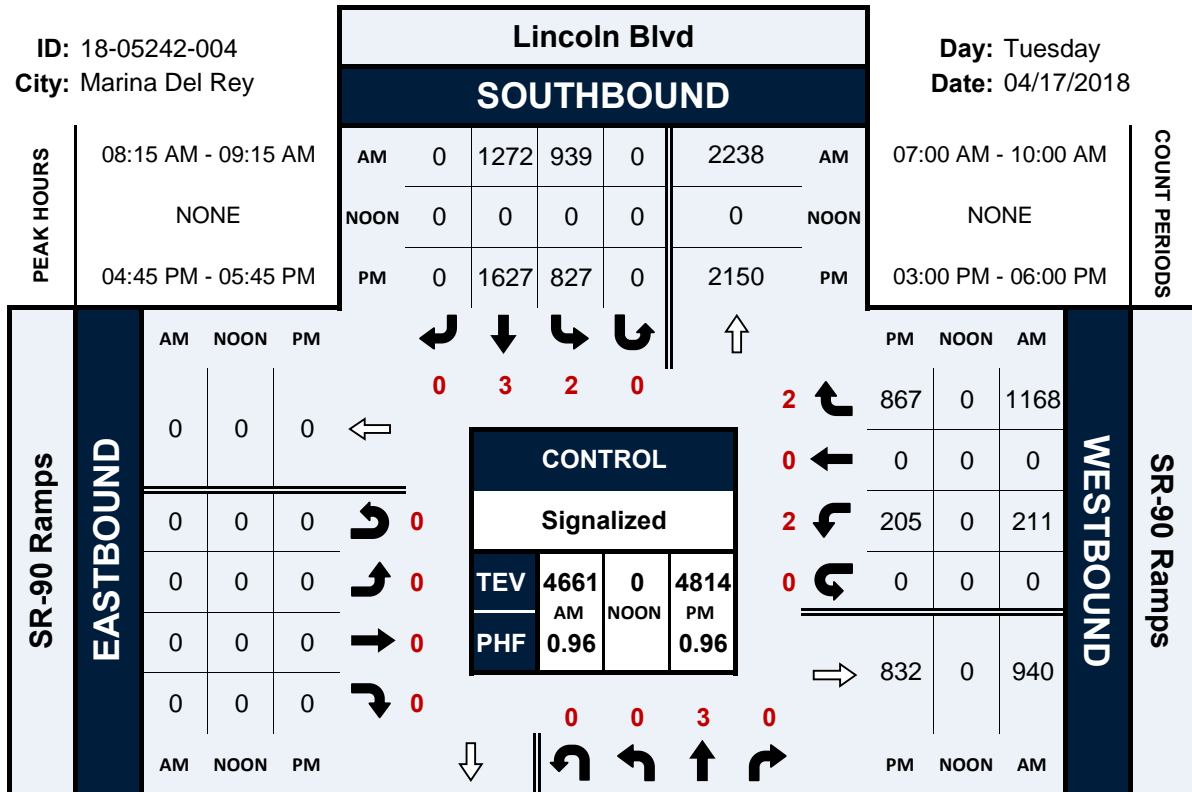
	E-W	Ped	Sch	Ped	Sch
7-8	1261	0	0	0	0
8-9	1321	0	0	0	0
9-10	1461	0	0	0	0
15-16	957	0	0	0	0
16-17	956	0	0	0	0
17-18	1098	0	0	0	0
TOTAL	7054	0	0	0	0

Lincoln Blvd & SR-90 Ramps

Peak Hour Turning Movement Count

ID: 18-05242-004
City: Marina Del Rey

Day: Tuesday
Date: 04/17/2018



National Data & Surveying Services

Intersection Turning Movement Count

Location: Lincoln Blvd & SR-90 Ramps
 City: Marina Del Rey
 Control: Signalized

Project ID: 18-05242-004
 Date: 4/17/2018

Total

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				SR-90 Ramps				SR-90 Ramps				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
AM	0	3	0	0	2	3	0	0	0	0	0	0	2	0	2	0	
7:00 AM	0	313	0	0	142	176	0	0	0	0	0	0	36	0	242	0	909
7:15 AM	0	347	0	0	166	189	0	0	0	0	0	0	32	0	261	0	995
7:30 AM	0	362	0	0	181	216	0	0	0	0	0	0	45	0	293	0	1097
7:45 AM	0	271	0	0	235	260	0	0	0	0	0	0	59	0	293	0	1118
8:00 AM	0	316	0	0	208	290	0	0	0	0	0	0	57	0	243	0	1114
8:15 AM	0	300	1	0	247	328	0	0	0	0	0	0	65	0	278	0	1219
8:30 AM	0	270	0	0	265	308	0	0	0	0	0	0	46	0	280	0	1169
8:45 AM	0	234	0	0	225	335	0	0	0	0	0	0	48	0	304	0	1146
9:00 AM	0	266	0	0	202	301	0	0	0	0	0	0	52	0	306	0	1127
9:15 AM	0	213	0	0	194	294	0	0	0	0	0	0	43	0	335	0	1079
9:30 AM	0	223	0	0	202	283	0	0	0	0	0	0	40	0	349	0	1097
9:45 AM	0	257	1	0	208	275	0	0	0	0	0	0	38	0	297	0	1076
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	3372	2	0	2475	3255	0	0	0	0	0	0	561	0	3481	0	13146
	0.00%	99.94%	0.06%	0.00%	43.19%	56.81%	0.00%	0.00%					13.88%	0.00%	86.12%	0.00%	
PEAK HR :	08:15 AM - 09:15 AM																
PEAK HR VOL :	0	1070	1	0	939	1272	0	0	0	0	0	0	211	0	1168	0	4661
PEAK HR FACTOR :	0.000	0.892	0.250	0.000	0.886	0.949	0.000	0.000	0.000	0.000	0.000	0.000	0.812	0.000	0.954	0.000	0.956
	0.890				0.961				0.963								

NS/EW Streets:	Lincoln Blvd				Lincoln Blvd				SR-90 Ramps				SR-90 Ramps				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
PM	0	3	0	0	2	3	0	0	0	0	0	0	2	0	2	0	
3:00 PM	0	264	3	0	209	327	0	0	0	0	0	0	43	0	207	0	1053
3:15 PM	0	297	1	0	231	362	0	0	0	0	0	0	49	0	211	0	1151
3:30 PM	0	329	0	0	209	417	0	0	0	0	0	0	43	0	181	0	1179
3:45 PM	0	267	1	0	213	367	0	0	0	0	0	0	49	0	174	0	1071
4:00 PM	0	257	2	0	215	394	0	0	0	0	0	0	36	0	199	0	1103
4:15 PM	0	305	1	0	208	390	0	0	0	0	0	0	43	0	195	0	1142
4:30 PM	0	261	1	0	197	448	0	0	0	0	0	0	44	0	195	0	1146
4:45 PM	0	326	2	0	204	408	0	0	0	0	0	0	44	0	200	0	1184
5:00 PM	0	287	0	0	229	380	0	0	0	0	0	0	55	0	216	0	1167
5:15 PM	0	334	0	0	213	418	0	0	0	0	0	0	57	0	229	0	1251
5:30 PM	0	336	3	0	181	421	0	0	0	0	0	0	49	0	222	0	1212
5:45 PM	0	279	0	0	224	411	0	0	0	0	0	0	43	0	227	0	1184
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	3542	14	0	2533	4743	0	0	0	0	0	0	555	0	2456	0	13843
	0.00%	99.61%	0.39%	0.00%	34.81%	65.19%	0.00%	0.00%					18.43%	0.00%	81.57%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																
PEAK HR VOL :	0	1283	5	0	827	1627	0	0	0	0	0	0	205	0	867	0	4814
PEAK HR FACTOR :	0.000	0.955	0.417	0.000	0.903	0.966	0.000	0.000	0.000	0.000	0.000	0.000	0.899	0.000	0.947	0.000	0.962
	0.950				0.972				0.937								



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Lincoln Blvd
 East/West SR-90 Ramps
 Day: Tuesday Date: 04/17/2018 Weather: SUNNY
 Hours: _____ Chckrs: NDS
 School Day: Yes I/S CODE _____

	N/B	S/B	E/B	W/B
DUAL-WHEELED	23	0	0	0
BIKES	0	0	0	0
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	62	8.15	0	0.00	0	0.00	0	0.00
PM PK 15 MIN	93	15.30	0	0.00	0	0.00	0	0.00
AM PK HOUR	227	8.00	0	0.00	0	0.00	0	0.00
PM PK HOUR	322	15.15	0	0.00	0	0.00	0	0.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	156	156
8-9	0	0	227	227
9-10	0	0	168	168
15-16	0	0	306	306
16-17	0	0	270	270
17-18	0	0	281	281
TOTAL	0	0	1408	1408

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	156
8-9	227
9-10	168
15-16	306
16-17	270
17-18	281
TOTAL	1408

XING S/L

Ped	Sch
0	0
0	0
0	0
0	0
0	0
0	0
0	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
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
TOTAL	0	0	0	0

TOTAL

E-W	0
-----	---

XING W/L

Ped	Sch
0	0

XING E/L

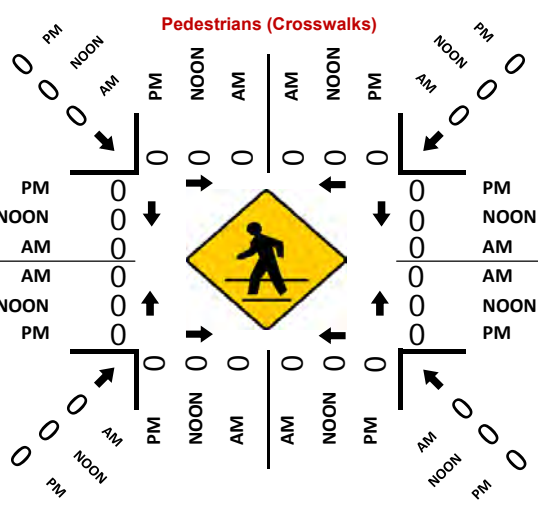
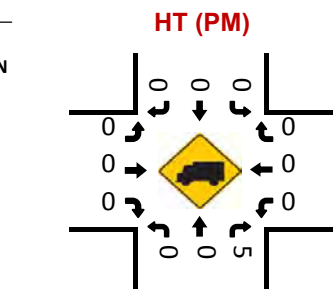
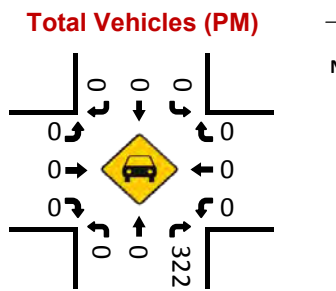
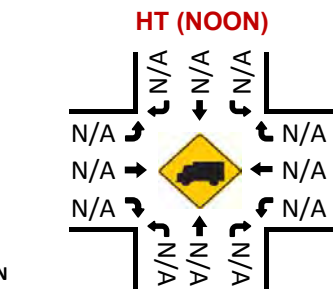
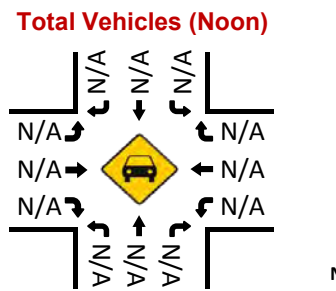
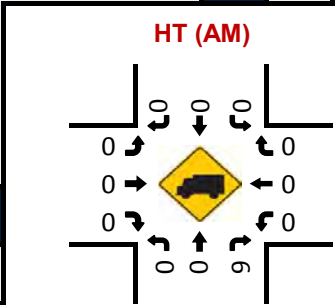
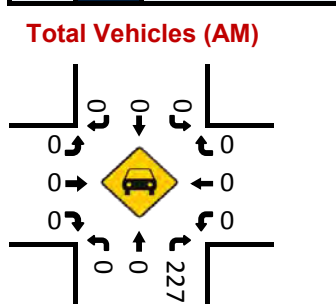
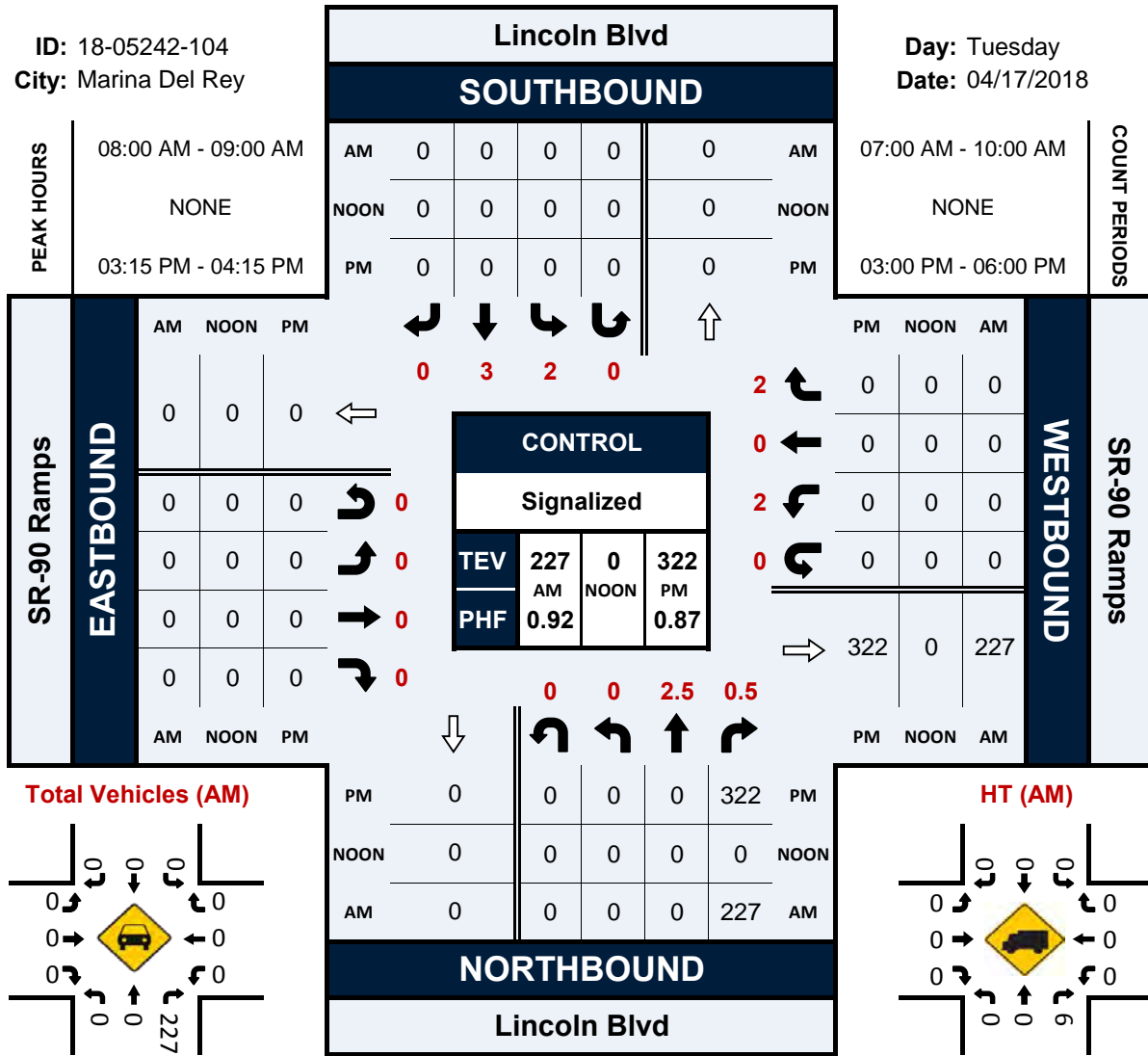
Ped	Sch
0	0

Lincoln Blvd & SR-90 Ramps

Peak Hour Turning Movement Count

ID: 18-05242-104
City: Marina Del Rey

Day: Tuesday
Date: 04/17/2018



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:		Lincoln Boulevard		Year of Count:		Ambient Growth: (%)		Conducted by:		Date:												
	East-West Street:	Washingon Boulevard	2018	2021	Peak Hour:	AM	2.0	JAS	1/28/2019	Project:	Thatcher Yard Residential												
No. of Phases		4		4		4		4		4		4											
Opposed Øing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0											
Right Turns: FREE-1, NRTOR-2 or OLA-3?		0		0		0		0		0		0											
ATSAC-1 or ATSAC+ATCS-2?		3		3		3		3		3		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	Total Volume	No. of Lanes	Added Volume	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Added Volume	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	708	2	389	1	709	390	0	751	0	413	1	752	2	414	0	752	2	414	0	752	2	414
	Left-Through		0		0		0	0	1286	0	481	4	1290	0	483	0	1290	0	483	0	1290	0	483
	Through-Right		1	148	2	150	150	0	157	0	157	2	159	0	159	0	159	0	159	0	159	0	159
	Right		0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	227	2	125	0	227	125	0	241	0	133	0	241	2	133	0	241	2	133	0	241	2	133
	Left-Through		0		0		0	0	1363	0	486	3	1366	2	487	0	1366	2	487	0	1366	2	487
	Through-Right		1	1284	3	1287	459	1	94	0	94	0	94	1	94	0	94	1	94	0	94	1	94
	Right		0	89	0	89	89	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	53	2	29	0	53	29	0	56	0	31	0	56	2	31	0	56	2	31	0	56	2	31
	Left-Through		0		0		0	0	808	0	404	0	808	2	404	0	808	2	404	0	808	2	404
	Through-Right		1	761	0	761	381	0	577	0	164	1	578	1	164	0	578	1	164	0	578	1	164
	Right		0	155	1	545	155	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	162	2	89	1	163	90	0	172	0	95	1	173	2	95	0	173	2	95	0	173	2	95
	Left-Through		0		0		0	0	733	0	367	0	733	2	367	0	733	2	367	0	733	2	367
	Through-Right		1	691	0	691	346	0	178	0	45	0	178	1	45	0	178	1	45	0	178	1	45
	Right		0	43	0	168	43	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 847 East-West: 470 SUM: 1317		North-South: 849 East-West: 471 SUM: 1320		North-South: 899 East-West: 499 SUM: 1398		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400		North-South: 901 East-West: 499 SUM: 1400			
VOLUME/CAPACITY (V/C) RATIO:		0.958		0.960		1.017		1.018		1.018		1.018		1.018		1.018		1.018		1.018		1.018	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.858		0.860		0.917		0.918		0.918		0.918		0.918		0.918		0.918		0.918		0.918	
LEVEL OF SERVICE (LOS):		D		D		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: **0.001** 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:		Ambient Growth: (%)		Conducted by:		Date:					
	East-West Street:	Washington Boulevard	2018	2021	PM	Peak Hour:	2.0	JAS	1/28/2019	Project:	Thatcher Yard Residential					
CMA01	No. of Phases	Opposed Øing: N/S-1, E/W-2 or Both-3?		Projection Year:		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION						
		Right Turns: FREE-1, NRTOR-2 or OLA-3?	ATSAC-1 or ATSAC+ATCS-2?	Override Capacity	Added Volume	Lane Volume	No. of Lanes	Total Volume	Lane Volume	No. of Lanes	Total Volume	Lane Volume				
NORTHBOUND	Left	440	2	242	1	441	0	467	1	468	2	257	0	468	2	257
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1261	2	486	3	1264	0	1338	3	1341	2	516	0	1341	2	517
	Through-Right		1	198	1	198	0	209	1	210	0	209	0	210	0	210
	Right	197	0	197	1	198	0	209	1	210	0	209	0	210	0	210
Left-Through-Right		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
SOUTHBOUND	Left	198	2	109	0	198	0	210	0	210	2	116	0	210	2	116
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	1382	2	475	3	1385	0	1467	3	1470	2	505	0	1470	2	506
	Through-Right		1	44	0	44	0	47	0	47	1	47	0	47	1	47
	Right	44	0	44	0	44	0	47	0	47	0	47	0	47	0	47
Left-Through-Right		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	
EASTBOUND	Left	72	2	40	0	72	0	76	0	76	2	42	0	76	2	42
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	620	2	310	0	620	0	658	0	658	2	329	0	658	2	329
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	475	1	233	1	476	0	504	1	505	1	247	0	505	1	248
Left-Through-Right		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	
WESTBOUND	Left	320	2	176	2	322	0	340	2	342	2	187	0	342	2	188
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through	717	2	359	0	717	0	761	0	761	2	381	0	761	2	381
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	215	1	106	0	215	0	228	0	228	1	112	0	228	1	112
Left-Through-Right		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	
CRITICAL VOLUMES		North-South:		719	North-South:		762	North-South:		763	North-South:		763	North-South:		763
VOLUME/CAPACITY (V/C) RATIO:		East-West:		487	East-West:		516	East-West:		517	East-West:		517	East-West:		517
V/C LESS ATSAC/ATCS ADJUSTMENT:		SUM:		1206	SUM:		1278	SUM:		1280	SUM:		1280	SUM:		1280
LEVEL OF SERVICE (LOS):		SUM:		0.875	SUM:		0.929	SUM:		0.931	SUM:		0.931	SUM:		0.931
				0.775			0.829			0.831			0.831			0.831
				C			D			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 #: CMA02	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%)		Conducted by: NDS		Date: 1/28/2019	
	East-West Street: Jefferson Way		Projection Year: 2021		Peak Hour: AM		Reviewed by: JAS		Project: Thatcher Yard Residential	
Opposed Øing: 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	No. of Phases		3		3		3		3	
	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--
		EB--	WB--	EB--	WB--	EB--	WB--	EB--	WB--	EB--
		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	Total Volume	Lane Volume	Added Volume	Total Volume	Added Volume	Total Volume	Added Volume	Total Volume
NORTHBOUND	Left	1	51	55	0	54	4	58	0	58
	Left-Through	0	0	0	0	0	0	0	0	0
	Through	3	669	2006	710	0	2129	0	2129	0
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through	2	648	1920	688	0	2038	0	2038	0
	Through-Right	1	24	29	25	5	30	0	30	0
	Right	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	1	51	59	54	8	62	0	62	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	1	8	65	9	6	69	0	69	0
WESTBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 699	North-South: 705	North-South: 742	North-South: 747	North-South: 747	North-South: 747	North-South: 747	North-South: 747	North-South: 747
		East-West: 51	East-West: 59	East-West: 54	East-West: 62	East-West: 62	East-West: 62	East-West: 62	East-West: 62	East-West: 62
		SUM: 750	SUM: 764	SUM: 796	SUM: 809	SUM: 809	SUM: 809	SUM: 809	SUM: 809	SUM: 809
VOLUME/CAPACITY (V/C) RATIO:		0.526	0.536	0.559	0.568	0.568	0.568	0.568	0.568	0.568
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.426	0.436	0.459	0.468	0.468	0.468	0.468	0.468	0.468
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: **0.009** Δv/c after mitigation: **0.009**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet (Circular 212 Method)



I/S #: CMA02	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%)		2.0		Conducted by: NDS		Date: 1/28/2019									
	East-West Street: Jefferson Way		Projection Year: 2021		Peak Hour:		PM		Reviewed by: JAS		Project: Thatcher Yard Residential									
Opposed Øing: 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	No. of Phases		3		0		0		0		3									
	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--								
		EB--	WB--	EB--	WB--	EB--	WB--	EB--	WB--	EB--	WB--	EB--								
		2		0		2		0		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	57	1	57	0	57	0	57	1	60	0	60	1	65	0	65	1	65		
	Left-Through																			
	Through	1873	3	1873	0	1873	0	1873	3	663	0	1873	3	663	0	1873	3	663		
	Through-Right																			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left-Through-Right																			
	Left-Right																			
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through																			
	Through	2187	2	744	0	2187	0	2187	2	790	0	2187	2	792	0	2321	2	792		
EASTBOUND	Through-Right																			
	Right	45	0	45	6	51	0	48	1	48	6	54	0	54	0	54	0	54		
	Left-Through-Right																			
	Left-Right																			
	Left	58	1	58	5	63	0	62	1	62	5	67	1	67	0	67	1	67		
WESTBOUND	Left-Through																			
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right																			
	Right	41	1	41	4	45	0	44	1	44	4	48	1	48	0	48	1	48		
	Left-Through-Right																			
CRITICAL VOLUMES	Left-Right																			
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	Left-Through																			
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SUM:	Through-Right																			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SUM:	Left-Through-Right																			
	Left-Right																			
SUM:	North-South:	801	808	801	808	808	850	850	857	850	857	857	857	857	857	857	857	857		
	East-West:	58	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	62		
SUM:	North-South:	859	871	871	912	912	912	912	924	924	924	924	924	924	924	924	924	924		
	East-West:	0.603	0.611	0.611	0.640	0.640	0.640	0.640	0.648	0.648	0.648	0.648	0.648	0.648	0.648	0.648	0.648	0.648		
SUM:	North-South:	0.503	0.511	0.511	0.540	0.540	0.540	0.540	0.548	0.548	0.548	0.548	0.548	0.548	0.548	0.548	0.548	0.548		
	East-West:	A	A	A	A	A	A	A	A	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: **0.008** Δv/c after mitigation: **0.008**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet (Circular 212 Method)



I/S #: CMA03	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%)		2.0		Conducted by: NDS		Date: 1/28/2019												
	East-West Street: Marina Pointe Drive-Maxella Avenue		Projection Year: 2021		Peak Hour:		AM		Reviewed by: JAS		Project: Thatcher Yard Residential												
Opposed Øing: 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																							
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	Lane Volume	Project Traffic	Total Volume	Lane Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	92	2	51	0	92	51	54	0	98	2	54	0	98	2	54	0	98	0	98	2	54	
	Left-Through																						
	Through	1851	3	617	4	1855	618	655	4	1968	3	656	4	1968	3	656	0	1968	0	1968	3	656	
	Through-Right																						
SOUTHBOUND	Right	229	1	109	0	229	109	116	0	243	1	116	0	243	1	116	0	243	0	243	1	116	
	Left-Through-Right																						
	Left-Right																						
	Left	112	2	62	1	113	62	65	1	120	2	66	1	120	2	66	0	120	0	120	2	66	
EASTBOUND	Left-Through																						
	Through	1719	3	450	6	1725	451	477	6	1830	3	479	6	1830	3	479	0	1830	0	1830	3	479	
	Through-Right																						
	Right	80	0	80	0	80	80	85	0	85	0	85	0	85	0	85	0	85	0	85	0	85	
WESTBOUND	Left-Through-Right																						
	Left-Right																						
	Left	92	1	92	0	92	92	98	0	98	1	98	0	98	1	98	0	98	0	98	1	98	
	Left-Through																						
WESTBOUND	Through	90	1	90	0	90	90	96	0	96	1	96	0	96	1	96	0	96	0	96	1	96	
	Through-Right																						
	Right	181	1	130	0	181	130	138	0	192	1	138	0	192	1	138	0	192	0	192	1	138	
	Left-Through-Right																						
WESTBOUND	Left-Right																						
	Left	203	1	120	0	203	120	127	0	215	1	127	0	215	1	127	0	215	0	215	1	127	
	Left-Through																						
	Through	37	0	120	0	37	120	127	0	39	0	127	0	39	0	127	0	39	0	39	0	127	
WESTBOUND	Through-Right																						
	Right	158	1	96	1	159	97	103	1	168	1	103	1	169	1	103	0	169	0	169	1	103	
	Left-Through-Right																						
	Left-Right																						
CRITICAL VOLUMES		North-South: 679		North-South: 680		North-South: 720		North-South: 722		North-South: 722		North-South: 722		North-South: 722		North-South: 722		North-South: 722		North-South: 722		North-South: 722	
EAST-West: 250		EAST-West: 250		EAST-West: 250		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265		EAST-West: 265	
SUM: 929		SUM: 930		SUM: 985		SUM: 987		SUM: 987		SUM: 987		SUM: 987		SUM: 987		SUM: 987		SUM: 987		SUM: 987		SUM: 987	
VOLUME/CAPACITY (V/C) RATIO:		0.676		0.676		0.716		0.718		0.718		0.718		0.718		0.718		0.718		0.718		0.718	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.576		0.576		0.616		0.618		0.618		0.618		0.618		0.618		0.618		0.618		0.618	
LEVEL OF SERVICE (LOS):		A		A		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: **0.002** Δv/c after mitigation: **0.002**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet (Circular 212 Method)



I/S #: CMA03	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%) 2.0		Conducted by: NDS		Date: 1/28/2019							
	East-West Street: Marina Pointe Drive-Maxella Avenue		Projection Year: 2021		Peak Hour: PM		Reviewed by: JAS		Project: Thatcher Yard Residential							
Opposed Øing: 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	No. of Phases		No. of Phases		No. of Phases		No. of Phases		No. of Phases							
	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--	NB--	SB--						
		EB--	WB--	EB--	WB--	EB--	WB--	EB--	WB--	EB--						
		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	Lane Volume	Added Volume	Total Volume	Lane Volume	Added Volume	Total Volume	Lane Volume	
NORTHBOUND	Left	201	2	111	0	201	0	213	2	117	0	213	0	213	2	
	Left-Through		0	111		111		117	0	117		117		117	0	
	Through	1574	3	525	4	1578	4	1670	3	557	4	1674	4	1674	3	
	Through-Right		0	525		525		557	0	557		558		558	0	
	Right	297	1	52	0	297	0	315	1	55	0	315	0	315	1	
Left-Through-Right		0	52		52		55	0	55		55		55	0		
Left-Right		0	0		0		0	0	0		0		0	0		
SOUTHBOUND	Left	81	2	45	0	81	0	86	2	47	0	86	0	86	2	
	Left-Through		0	45		45		47	0	47		47		47	0	
	Through	1859	3	488	4	1863	4	1973	3	518	4	1977	4	1977	3	
	Through-Right		1	488		489		518	1	519		519		519	1	
	Right	93	0	93	0	93	0	99	0	99	0	99	0	99	0	
Left-Through-Right		0	93		93		99	0	99		99		99	0		
Left-Right		0	0		0		0	0	0		0		0	0		
EASTBOUND	Left	86	1	86	0	86	0	91	1	91	0	91	0	91	1	
	Left-Through		0	86		86		91	0	91		91		91	0	
	Through	99	1	99	0	99	0	105	1	105	0	105	0	105	1	
	Through-Right		0	99		99		105	0	105		105		105	0	
	Right	114	1	3	0	114	0	121	1	4	0	121	0	121	1	
Left-Through-Right		0	3		3		4	0	4		4		4	0		
Left-Right		0	0		0		0	0	0		0		0	0		
WESTBOUND	Left	379	1	245	0	379	0	402	1	260	0	402	0	402	1	
	Left-Through		1	245		245		260	1	260		260		260	1	
	Through	110	0	245	0	110	0	117	0	260	0	117	0	117	0	
	Through-Right		0	245		245		260	0	260		260		260	0	
	Right	158	1	113	1	159	1	168	1	121	1	169	1	169	1	
Left-Through-Right		0	113		114		121	0	121		122		122	0		
Left-Right		0	0		0		0	0	0		0		0	0		
CRITICAL VOLUMES			North-South: 600	East-West: 344	North-South: 635	East-West: 365	North-South: 636	East-West: 365	North-South: 636	East-West: 365	North-South: 636	East-West: 365	North-South: 636	East-West: 365	North-South: 636	East-West: 365
SUM:			943	944	1000	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001
VOLUME/CAPACITY (V/C) RATIO:			0.686	0.687	0.727	0.728	0.728	0.728	0.728	0.728	0.728	0.728	0.728	0.728	0.728	0.728
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.586	0.587	0.627	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628
LEVEL OF SERVICE (LOS):			A	A	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: **0.001** Δv/c after mitigation: **0.001**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet (Circular 212 Method)



I/S #: CMA04	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%) 2.0		Conducted by: NDS		Date: 1/28/2019			
	East-West Street: SR-90 Ramps		Projection Year: 2021		Peak Hour: AM		Reviewed by: JAS		Project: Thatcher Yard Residential			
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	No. of Phases		EXISTING PLUS PROJECT		EXISTING CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Total Volume	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
	Left-Through	1070	2	1073	434	0	2	1138	3	1138	2	460
	Through-Right		1				1				1	
	Right	228	0	228	228	0	0	242	0	242	0	242
	Left-Through-Right		0				0				0	
SOUTHBOUND	Left	939	2	940	517	0	2	996	1	997	2	548
	Left-Through	1272	3	1276	425	0	3	1350	4	1354	3	451
	Through-Right		0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0				0				0	
WESTBOUND	Left	211	2	211	116	0	2	224	0	224	2	123
	Left-Through	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0				0				0	
	Right	1168	2	1169	126	0	2	1239	1	1240	2	134
	Left-Through-Right		0				0				0	
CRITICAL VOLUMES		North-South: 949	North-South: 951	North-South: 1007	North-South: 1007	North-South: 1007	North-South: 1008	North-South: 1008	North-South: 1008	North-South: 1008	North-South: 1008	North-South: 1008
VOLUME/CAPACITY (V/C) RATIO:		East-West: 126	East-West: 126	East-West: 133	East-West: 133	East-West: 133	East-West: 134	East-West: 134	East-West: 134	East-West: 134	East-West: 134	East-West: 134
LEVEL OF SERVICE (LOS):		SUM: 1075	SUM: 1077	SUM: 1140	SUM: 1140	SUM: 1140	SUM: 1142	SUM: 1142	SUM: 1142	SUM: 1142	SUM: 1142	SUM: 1142
VOLUME/CAPACITY (V/C) RATIO:		0.754	0.756	0.800	0.800	0.800	0.801	0.801	0.801	0.801	0.801	0.801
LEVEL OF SERVICE (LOS):		0.654	0.656	0.700	0.700	0.700	0.701	0.701	0.701	0.701	0.701	0.701
LEVEL OF SERVICE (LOS):		B	B	C	C	C	C	C	C	C	C	C

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 #: CMA04	North-South Street: Lincoln Boulevard		Year of Count: 2018		Ambient Growth: (%)		2.0		Conducted by: NDS		Date: 1/28/2019		
	East-West Street: SR-90 Ramps		Projection Year: 2021		Peak Hour:		PM		Reviewed by: JAS		Project: Thatcher Yard Residential		
No. of Phases		3		0		0		3		0		3	
Opposed Øing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0		0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?		0		0		0		0		0		0	
ATSAC-1 or ATSAC+ATCS-2?		3		3		3		3		3		3	
Override Capacity		2		2		2		2		2		2	
		0		0		0		0		0		0	
		1283		538		1362		1365		1365		1365	
		327		327		347		347		347		347	
		827		455		878		879		879		879	
		1627		543		1727		1730		1730		1730	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		205		113		218		218		218		218	
		0		0		0		0		0		0	
		867		22		920		921		921		921	
		992		993		1053		1054		1054		1054	
		113		113		120		120		120		120	
		1105		1106		1173		1174		1174		1174	
		0.775		0.776		0.823		0.824		0.824		0.824	
		0.675		0.676		0.723		0.724		0.724		0.724	
		B		B		C		C		C		C	
CRITICAL VOLUMES		SUM: 1105		SUM: 1106		SUM: 1173		SUM: 1174		SUM: 1174		SUM: 1174	
VOLUME/CAPACITY (V/C) RATIO:		0.675		0.676		0.723		0.724		0.724		0.724	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.675		0.676		0.723		0.724		0.724		0.724	
LEVEL OF SERVICE (LOS):		B		B		C		C		C		C	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through												
	Through												
	Through-Right												
	Right												
	Left-Through-Right												
	Left-Right												
SOUTHBOUND	Left	2	0	2	2	2	2	2	2	2	2	2	
	Left-Through												
	Through												
	Through-Right												
	Right												
	Left-Through-Right												
	Left-Right												
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through												
	Through												
	Through-Right												
	Right												
	Left-Through-Right												
	Left-Right												
WESTBOUND	Left	2	0	2	2	2	2	2	2	2	2	2	
	Left-Through												
	Through												
	Through-Right												
	Right												
	Left-Through-Right												
	Left-Right												
CRITICAL VOLUMES		SUM: 1105		SUM: 1106		SUM: 1173		SUM: 1174		SUM: 1174		SUM: 1174	
VOLUME/CAPACITY (V/C) RATIO:		0.675		0.676		0.723		0.724		0.724		0.724	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.675		0.676		0.723		0.724		0.724		0.724	
LEVEL OF SERVICE (LOS):		B		B		C		C		C		C	

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**

MEMORANDUM

To: Tyler Monroe
Thomas Safran & Associates

Date: August 27, 2019

From: David S. Shender, P.E.
Jason A. Shender
Linscott, Law & Greenspan, Engineers

LLG Ref: 5-18-0399-1

Subject: **Traffic Analysis Addendum for the Thatcher Yard Affordable Housing Project at 3221-3233 Thatcher Avenue**

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This memorandum has been prepared by Linscott, Law & Greenspan, Engineers (LLG) to provide an addendum traffic analysis for the proposed Thatcher Yard Affordable Housing project (“the Project”) located at 3221-3233 S. Thatcher Avenue in the Marina del Rey area of the City of Los Angeles, California (the “City”). LLG previously prepared the traffic assessment dated January 28, 2019 (the “approved traffic assessment”) for this Project based on the Los Angeles Department of Transportation (LADOT) *Transportation Impact Study Guidelines*, December 2016 (the “2016 Guidelines”). The findings of the approved traffic assessment were confirmed based on the LADOT traffic assessment letter dated February 28, 2019. The approved traffic assessment concluded that based on the 2016 Guidelines, the Project would not create a significant impact at any of the four study intersections analyzed in the approved traffic assessment.

In September 2013, the Governor’s Office signed Senate Bill (SB) 743, starting a process that fundamentally changes the way transportation impact analysis is conducted under the California Environmental Quality Act. Within the State’s CEQA Guidelines, these changes include the elimination of auto delay, Level of Service (LOS), and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant traffic impacts. SB 743 identifies Vehicle Miles Traveled (VMT) as the most appropriate CEQA transportation metric, along with the elimination of Auto Delay/LOS for CEQA purposes statewide. The justification for this paradigm shift is that auto delay/LOS impacts lead to improvements that increase roadway capacity and therefore induce more traffic and greenhouse gas emissions.

The City formally adopted VMT as the criteria in determining transportation impacts on July 30, 2019. In conjunction with the adoption of VMT, the LADOT *Transportation Assessment Guidelines*, July 2019 (the “2019 Guidelines”) were formally adopted. While LADOT has stated that studies that were prepared and approved under the 2016 Guidelines will still be honored, it has been recommended that these projects also evaluate VMT as part of their transportation analysis.

A VMT calculation for the Project was prepared using the LADOT VMT Calculator, and the results are contained within **Appendix A**. As shown in the VMT Calculator contained within *Appendix A*, the Project is expected to generate 242 net new daily vehicle trips. Section 2.2.2 of the 2019 Guidelines state that if a project will not generate a net increase of 250 or more daily vehicle trips, a “no impact” determination can be made. Therefore, the Project is not expected to generate a VMT impact, and no further analysis is required.

cc: File

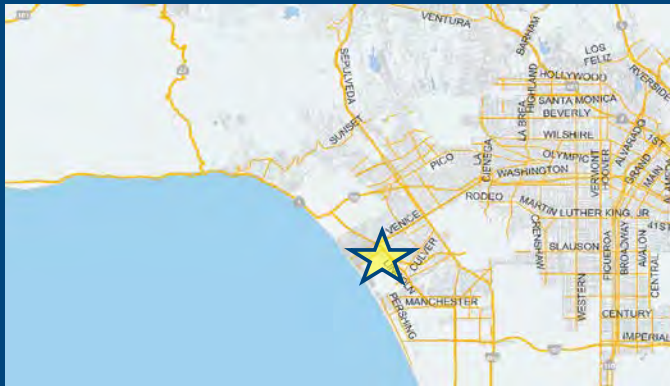
APPENDIX A
VMT CALCULATOR OUTPUTS

CITY OF LOS ANGELES VMT CALCULATOR Version 1.0



Project Information

Project:
Scenario:
Address: 3233 S THATCHER AVE, 90292



Land Use Type	Value	Unit	
Housing Affordable Housing - Senior	68	DU	
Housing Affordable Housing - Family	30	DU	
Housing Affordable Housing - Senior	68	DU	

Click here to add a single custom land use type (will be included in the above list)

TDM Strategies

Select each section to show individual strategies
 Use to denote if the TDM strategy is proposed part of the project or is a mitigation strategy

A Parking

Reduce Parking Supply

Proposed Prj Mitigation

100 city code parking provision for the project site

74 actual parking provision for the project site

Unbundle Parking

Proposed Prj Mitigation

225 monthly parking cost (dollar) for the project site

Parking Cash-Out

Proposed Prj Mitigation

50 percent of employees eligible

Price Workplace Parking

Proposed Prj Mitigation

6.00 daily parking charge (dollar)

50 percent of employees subject to priced parking

Residential Area Parking Permits

Proposed Prj Mitigation

200 cost (dollar) of annual permit

- B** Transit
- C** Education & Encouragement
- D** Commute Trip Reductions
- E** Shared Mobility
- F** Bicycle Infrastructure
- G** Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
242 Daily Vehicle Trips	N/A Daily Vehicle Trips
N/A Daily VMT	N/A Daily VMT
N/A Household VMT per Capita	N/A Household VMT per Capita
N/A Work VMT per Employee	N/A Work VMT per Employee
Significant VMT Impact?	
Household: N/A Threshold = 7.4 15% Below APC	Household: N/A Threshold = 7.4 15% Below APC
Work: N/A Threshold = 11.1 15% Below APC	Work: N/A Threshold = 11.1 15% Below APC



CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

Project Information			
	Land Use Type	Value	Units
Housing	Single Family	0	DU
	Multi Family	0	DU
	Townhouse	0	DU
	Hotel	0	Rooms
	Motel	0	Rooms
Affordable Housing	Family	30	DU
	Senior	68	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
Retail	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
	Health Club	0.000	ksf
	High-Turnover Sit-Down	0.000	ksf
	Restaurant	0.000	ksf
	Fast-Food Restaurant	0.000	ksf
	Quality Restaurant	0.000	ksf
	Auto Repair	0.000	ksf
	Home Improvement Superstore	0.000	ksf
	Free-Standing Discount	0.000	ksf
	Movie Theater	0	Seats
Office	General Office	0	ksf
	Medical Office	0.000	ksf
Industrial	Light Industrial	0.000	ksf
	Manufacturing	0.000	ksf
	Warehousing/Self-Storage	0.000	ksf
School	University	0	Students
	High School	0	Students
Other		0	Trips

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

Analysis Results			
<i>Total Employees: N/A</i>			
<i>Total Population: N/A</i>			
Proposed Project		With Mitigation	
242	Daily Vehicle Trips	N/A	Daily Vehicle Trips
N/A	Daily VMT	N/A	Daily VMT
N/A	Household VMT per Capita	N/A	Household VMT per Capita
N/A	Work VMT per Employee	N/A	Work VMT per Employee
Significant VMT Impact?			
<i>APC: West Los Angeles</i>			
Impact Threshold: 15% Below APC Average			
Household = 7.4 ²			
Work = 11.1 ²			
Proposed Project		With Mitigation	
<i>VMT Threshold</i>	<i>Impact</i>	<i>VMT Threshold</i>	<i>Impact</i>
<i>Household > 7.4</i>	N/A	<i>Household > 7.4</i>	N/A
<i>Work > 11.1</i>	N/A	<i>Work > 11.1</i>	N/A

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Strategy Inputs				
Strategy Type	Description	Proposed Project	Mitigations	
Parking	Reduce parking supply	City code parking provision (spaces)	0	0
		Actual parking provision (spaces)	0	0
	Unbundle parking	Monthly cost for parking (\$)	\$0	\$0
	Parking cash-out	Employees eligible (%)	0%	0%
	Price workplace parking	Daily parking charge (\$)	\$0.00	\$0.00
		Employees subject to priced parking (%)	0%	0%
	Residential area parking permits	Cost of annual permit (\$)	\$0	\$0

(cont. on following page)

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Strategy Inputs, Cont.				
Strategy Type	Description	Proposed Project	Mitigations	
Transit	Reduce transit headways	Reduction in headways (increase in frequency) (%)	0%	0%
		Existing transit mode share (as a percent of total daily trips) (%)	0%	0%
		Lines within project site improved (<50%, >=50%)	0	0
	Implement neighborhood shuttle	Degree of implementation (low, medium, high)	0	0
		Employees and residents eligible (%)	0%	0%
Transit subsidies	Employees and residents eligible (%)	0%	0%	
	Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00	
Education & Encouragement	Voluntary travel behavior change program	Employees and residents participating (%)	0%	0%
	Promotions and marketing	Employees and residents participating (%)	0%	0%
(cont. on following page)				

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Strategy Inputs, Cont.				
	Strategy Type	Description	Proposed Project	Mitigations
Commute Trip Reductions	<i>Required commute trip reduction program</i>	<i>Employees participating (%)</i>	0%	0%
		<i>Degree of implementation (low, medium, high)</i>	0	0
	<i>Employer sponsored vanpool or shuttle</i>	<i>Employees eligible (%)</i>	0%	0%
		<i>Employer size (small, medium, large)</i>	0	0
	<i>Ride-share program</i>	<i>Employees eligible (%)</i>	0%	0%
Shared Mobility	<i>Car share</i>	<i>Car share project setting (Urban, Suburban, All Other)</i>	0	0
	<i>Bike share</i>	<i>Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)</i>	0	0
	<i>School carpool program</i>	<i>Level of implementation (Low, Medium, High)</i>	0	0
(cont. on following page)				

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Strategy Inputs, Cont.				
	Strategy Type	Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/Improve on-street bicycle facility	Provide bicycle facility along site (Yes/No)	0	0
	Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	0	0
	Include secure bike parking and showers	Includes indoor bike parking/lockers, showers, & repair station (Yes/No)	0	0
Neighborhood Enhancement		Streets with traffic calming	0%	0%
	Traffic calming improvements	improvements (%) Intersections with traffic calming improvements (%)	0%	0%
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	0	0

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		Parking	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Unbundle parking	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Parking cash-out	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Price workplace parking	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Residential area parking permits	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Commute Trip Reductions sections 1 - 4
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Appendix B, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction		Source
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
		Bicycle Infrastructure	Implement/Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Bike parking per LAMC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	Appendix B, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Work Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
	COMBINED TOTAL	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MAX. TDM EFFECT	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

$$= \text{Minimum}(X\%, 1 - (1-[a]) * (1-[b]))$$

where: X%=

	urban center	75%
PLACE	urban	75%
TYPE	compact infill	40%
MAX:	suburban center	20%
	suburban	15%

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: August 20, 2019

Project Name:

Project Scenario:

Project Address: 3233 S THATCHER AVE, 90292



Version 1.0

MXD Methodology - Existing Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	72	-16.9%	60	N/A	N/A	N/A
Home Based Other Production	192	-27.2%	140	N/A	N/A	N/A
Non-Home Based Other Production	0	0.0%	0	N/A	N/A	N/A
Home-Based Work Attraction	0	0.0%	0	N/A	N/A	N/A
Home-Based Other Attraction	35	-30.7%	24	N/A	N/A	N/A
Non-Home Based Other Attraction	19	-7.4%	18	N/A	N/A	N/A

MXD Methodology with TDM Measures

	<i>Proposed Project</i>			<i>Project with Mitigation Measures</i>		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	N/A	N/A	N/A	N/A	N/A	N/A
Home Based Other Production	N/A	N/A	N/A	N/A	N/A	N/A
Non-Home Based Other Production	N/A	N/A	N/A	N/A	N/A	N/A
Home-Based Work Attraction	N/A	N/A	N/A	N/A	N/A	N/A
Home-Based Other Attraction	N/A	N/A	N/A	N/A	N/A	N/A
Non-Home Based Other Attraction	N/A	N/A	N/A	N/A	N/A	N/A

MXD VMT Methodology Per Capita & Per Employee

Total Population: N/A

Total Employees: N/A

APC: West Los Angeles

	<i>Proposed Project</i>	<i>Project with Mitigation Measures</i>
<i>Total Home Based Production VMT</i>	N/A	N/A
<i>Total Home Based Work Attraction VMT</i>	N/A	N/A
<i>Total Home Based VMT Per Capita</i>	N/A	N/A
<i>Total Work Based VMT Per Employee</i>	N/A	N/A