

APPENDIX I

Hydrology and Water Quality

I-1 Preliminary Hydrology Study

PRELIMINARY

HYDROLOGY STUDY

FOR

APN 5139-010-001; -002; -008; -010; -011
1045 South Olive Street
Los Angeles, CA 90015

Prepared for:

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Submittal Date: 2/27/2018
Job Number: CRSC10450001

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Section 1.0 – Purpose

The purpose of this study is to evaluate and determine the storm water runoff qualities for the proposed developed located 1045 South Olive Street in the city of Los Angeles.

The objectives of this study include the following:

1. Prepare a conceptual/preliminary hydrologic analysis of the existing and proposed condition onsite watershed based on land uses, drainage patterns, ground slopes, and soil types to generate a 10-year storm event.
2. Analyze potential physical environmental effects related to drainage that may occur due to the implementation of the proposed project.
3. Demonstrate that the proposed drainage system will provide adequate flood protection for the proposed project without adversely impacting existing facilities or adjacent properties.

Section 2.0 – Project Location/Description

The project location has a net area approximately 0.88 acres in size. The site is located in the City of Los Angeles on the North West corner of Olive Street and 11th Street. The project is north of the Interstate 10 highway and east of the Interstate 110 highway. The site is bounded on the east by Olive Street, on the south by 11th street, on the west by a high rise along with existing 1 to 2 story commercial developments, and on the north by a mid-rise mixed-use development.

The proposed development is a high-rise tower that will consist of no more than 794 residential condominium units and approximately 12,504 square feet dedicated for retail use. It is proposed that the first 10 levels will take up the entire project site before slimming in to the tower. The ground floor will primarily be for retail use along Olive Street and 11th Street, as well as access to the residential lobby. The proposed high rise tower will have approximately 70 levels above grade and 6 subterranean levels of parking. The parking will have approximately 891 parking spaces along with L.A.M.C. required bicycle parking spaces.

Section 3.0 – Hydrologic Parameters

3.1 – Rainfall

Rainfall data was taken from the County of Los Angeles 2006 Hydrology manual and the Los Angeles County GIS Hydrology map. All referenced plates and tables can be found in the Appendix. The project area is shown on Plate 1-H1.18 (Hollywood) of the hydrology manual. The 50-year rainfall depth at the project site is 5.8 inches. The system will be designed for a 10-year storm, so the 50-year rainfall depth must be adjusted by the appropriate factor from Table 5.3.1 of the hydrology manual. From Table 5.3.1 the 10 year adjustment factor is 0.714. Therefore the 10-year rainfall depth at the project is calculated to be 4.14 inches.

3.2 – Soil Type

Soils data are also shown on Plate 1-H1.18. The soils number for the project location is 006.

3.3.1 – Existing Land Use

The current project site is developed with multiple one-story structures that are constructed with either wood and/or brick.

3.3.2 – Proposed Land Use

As stated previously in the report, the project proposes to construct a high-rise tower that is conceptually proposed to have a final height of around 600 to 800 feet above the existing ground surface level. The high rise will be a mixed-use development providing no more than 794 residential units and approximately 12,504 square feet of commercial space.

3.5– Time of Concentration

The time of concentration was calculated using the HydroCalc program of the LA County Hydrology Manual. The HydroCalc program gives Tc, peak flow, and volume from the site. The output from the HydroCalc program can be found in the Appendix.

Section 4.0 – Existing Storm Drain Facilities

4.1 – Hydrology Summary

The streets that are fronting the project site are surface draining to local low points. Olive Street drains to a local point located at the intersection with 11th Street. 11th Street drains to two low points located at the intersection with Olive Street. Since this project is still in the preliminary/conceptual phase, no topographic information was available at the time. Therefore this analysis will use the available resources to delineate the hydrologic subareas. The GIS data available was acquired from the City of Los Angeles Geohub. The overall drainage subarea was delineated for the existing storm drain. Refer to the “Existing Conditions” map located in the appendix.

4.2 – Existing Storm Drain

4.2.1 – 11th Street

There is a single storm drain located within the vicinity of the project. The storm drain is labeled as a “textile drain” that is owned by the Los Angeles County flood Control district (LACFCD) per drawing number 782-D1. The storm drain line starts at the frontage of the project on 11th street as a 27” RCP and travels 572’ southeast down 11th street. Once the storm drain passes Hill Street, the drain increases into a 36” RCP that continues southeast until Main Street where it travels north down Main Street until it ultimately connects to the existing City of Los Angeles storm drain number 16119. The total length of the 36” RCP is approximately 1158’. The 27” RCP portion of the storm drain has a 10 year design capacity of 25 CFS.

The design Q10 for the existing 27” RCP is 25 cfs per the as-built drawings. The total area tributary to the 27” RCP is approximately 12.04 acres. The average runoff rate for the tributary area is 2.08 cfs/acre. This average rate will be used to analyze the capacity of the existing catch basins and storm drain system.

4.3 – Existing Catch Basins

4.3.1 – 11th Street

There are a total of (2) catch basins located on the 11th Street frontage. One is located on the northwest corner and the other on the southwest corner at the intersection of Olive Street and 11th Street. The northwest corner catch basin is a curb opening catch basin with a width of 3.5' and is connected via an 18" RCP lateral to the 27" RCP textile drain constructed per LACFCD drawing number 782-D1. The southwest corner catch basin is a curb opening catch basin with a width of 3.5' and is connected via a 15" RCP lateral to the 27" RCP textile drain constructed per LACFCD drawing number 782-D1.

4.3.2 – Olive Street

There is (1) catch basin on Olive Street that is adjacent to the project site. It is located on the northwest corner of Olive Street and 11th Street. It is a curb opening catch basin with a width of 3.5' and is connected via a 18" RCP lateral to the 27" RCP textile drain constructed per LACFCD drawing number 782-D1.

5.0 Hydrology Calculations/Results

5.1 Onsite

In the proposed condition, the project site will encounter a decrease in imperviousness when compared to the existing condition which will reduce the overall expected runoff created by the new development. In the existing condition during a 10 year rain event, the project site produces 1.95 cfs while in the proposed condition during the same size storm event the site is expected to produce 1.88 cfs, approximately a 4% decrease in runoff. The same analysis was run using 50 year rain event and the resulting calculations can be seen in Appendix B. The existing site is expected to produce 2.73 cfs while the proposed condition will produce 2.70 cfs, this is approximately a 1% decrease in runoff.

5.2 Offsite

The overall capacity of the storm drain and catch basins were analyzed using the available as-built(s) plans. The results show that the existing 27" storm drain and catch basins adjacent to the site do not exceed its design capacity. The results below show that the (2) catch basins located on the corner of Olive Street and 11th Street are operating below their allowed design capacity. The catch basin located on the southwest corner on 11th Street is currently at its allowable capacity. Since the storm drain system has been designed to convey the 10 year storm the street is then used to convey the 50 year storm. Both cross streets, 11th and Olive, were analyzed to ensure that there is enough capacity in these streets to convey the 50 year storm. Overall, this project will be reducing the runoff to 11th street due to the addition of drywells.

Table 1. Summary of Hydrology Calculations

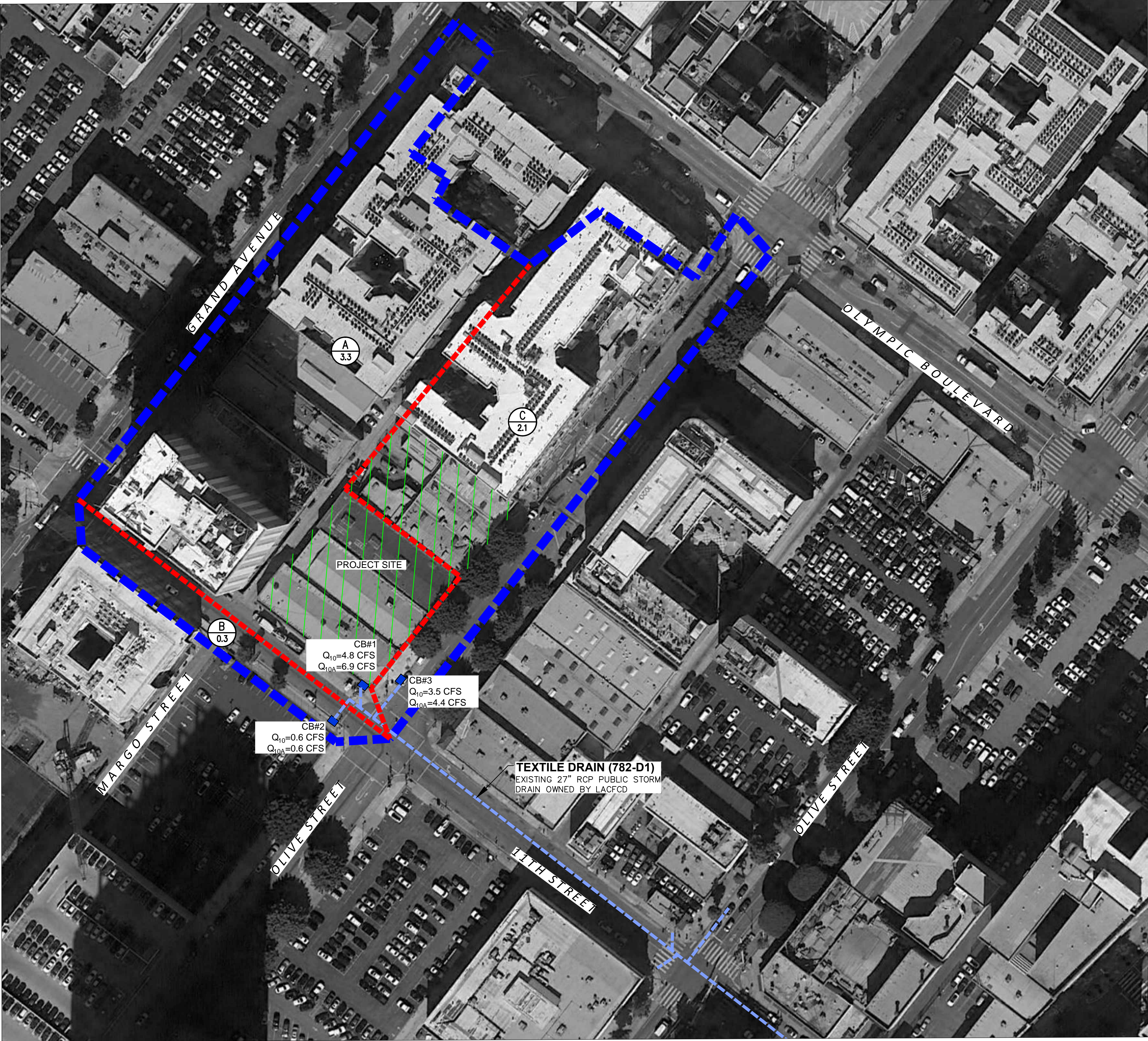
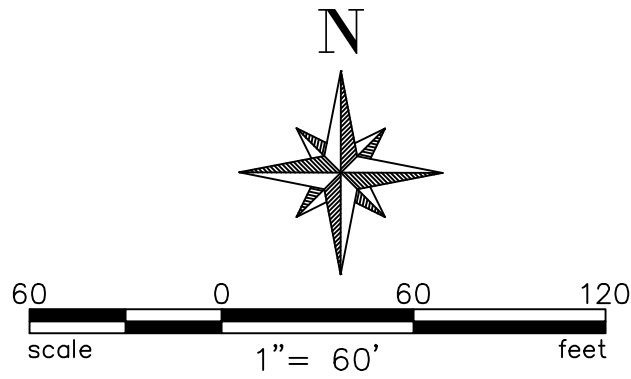
<i>Sub Area</i>	<i>Q_{10EX} (CFS)</i>	<i>Q_{10ALLOW} (CFS)</i>	<i>Destination</i>
A	4.8	6.9	11 th Street – NW corner catch basin
B	0.6	0.6	11 th Street – SW corner catch basin
C	3.5	4.4	Olive Street – NW corner catch basin

1045 SOUTH OLIVE STREET
HYDROLOGY MAP
EXISTING CONDTION
(PRELIMINARY)
CITY OF LOS ANGELES
COUNTY OF LOS ANGELES

LEGEND

- SUBAREA DESIGNATION
SUBAREA ACREAGE
- EXISTING STORM DRAIN
- TRIBUTARY AREA TO EXISTING SD
- SUBAREA BOUNDARY
- PROJECT SITE
- EXISTING CATCH BASIN

HYDROLOGY DATA TABLE									
DRAINAGE AREA	AREA (AC)	LENGTH (FT)	SLOPE (FT/FT)	PERCENT IMPERVIOUS (%)	SOIL TYPE	50-YR ISOHYET	CALCULATED Tc (MIN)	INTENSITY (IN/HR)	PEAK FLOW RATE Q ₁₀
A	3.3	950	0.02	0.98	6	5.8	12	1.64	4.8
B	0.3	370	0.02	0.98	6	5.8	6	2.27	0.6
C	2.1	600	0.02	0.98	6	5.8	9	1.87	3.5



PREPARED: 11/2017

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APPENDIX B

HYDROLOGY CALCULATIONS

HydroCalc

Existing-Offsite

Existing-Onsite

Proposed-Onsite

Flowmaster

Existing 27" RCP

Existing CB (3)

Peak Flow Hydrologic Analysis

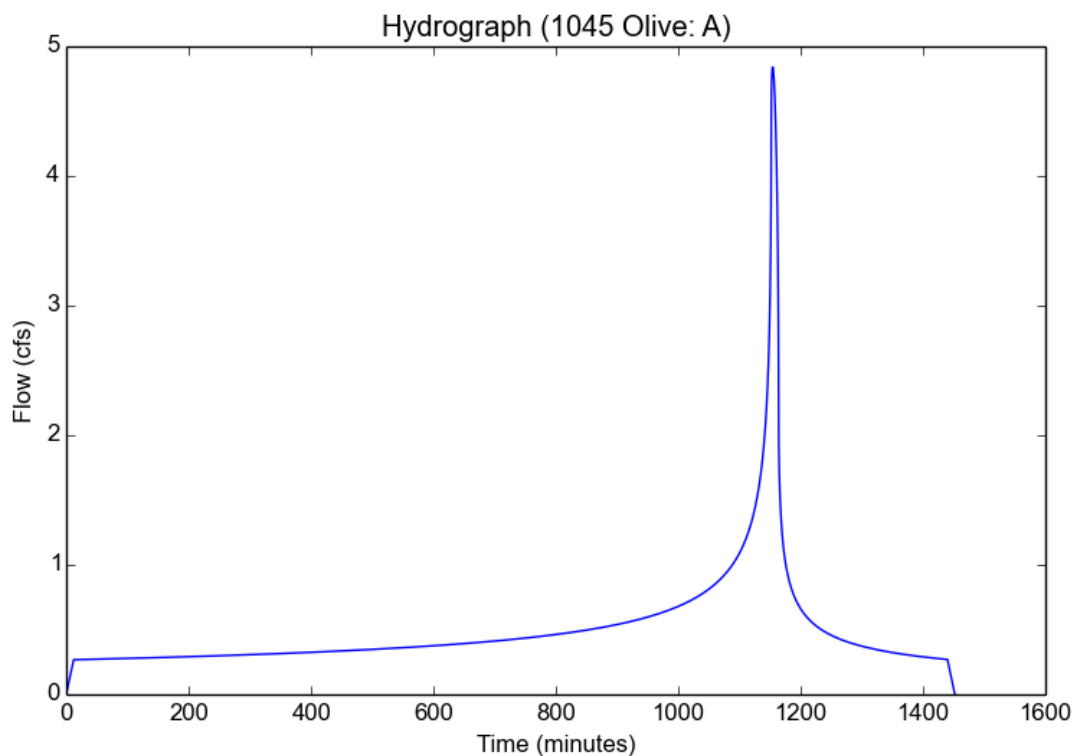
File location: C:/Users/rjaa/Desktop/1045 Olive Tower/_Hydrocalc/2017-11-08_HydroCalc.pdf
Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	A
Area (ac)	3.3
Flow Path Length (ft)	950.0
Flow Path Slope (vft/hft)	0.02
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.98
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.1412
Peak Intensity (in/hr)	1.6373
Undeveloped Runoff Coefficient (Cu)	0.6925
Developed Runoff Coefficient (Cd)	0.8958
Time of Concentration (min)	12.0
Clear Peak Flow Rate (cfs)	4.8404
Burned Peak Flow Rate (cfs)	4.8404
24-Hr Clear Runoff Volume (ac-ft)	1.0001
24-Hr Clear Runoff Volume (cu-ft)	43563.8533



Peak Flow Hydrologic Analysis

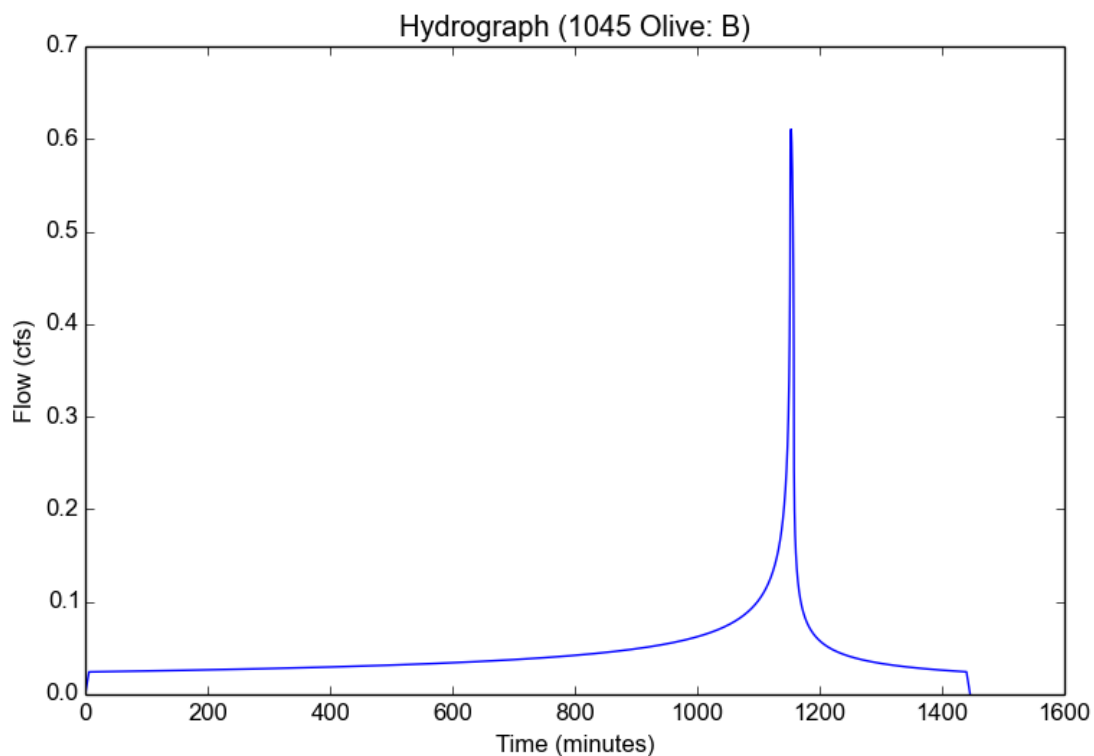
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Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	B
Area (ac)	0.3
Flow Path Length (ft)	370.0
Flow Path Slope (vft/hft)	0.02
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.98
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.1412
Peak Intensity (in/hr)	2.2678
Undeveloped Runoff Coefficient (Cu)	0.7617
Developed Runoff Coefficient (Cd)	0.8972
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	0.6104
Burned Peak Flow Rate (cfs)	0.6104
24-Hr Clear Runoff Volume (ac-ft)	0.0909
24-Hr Clear Runoff Volume (cu-ft)	3960.4303



Peak Flow Hydrologic Analysis

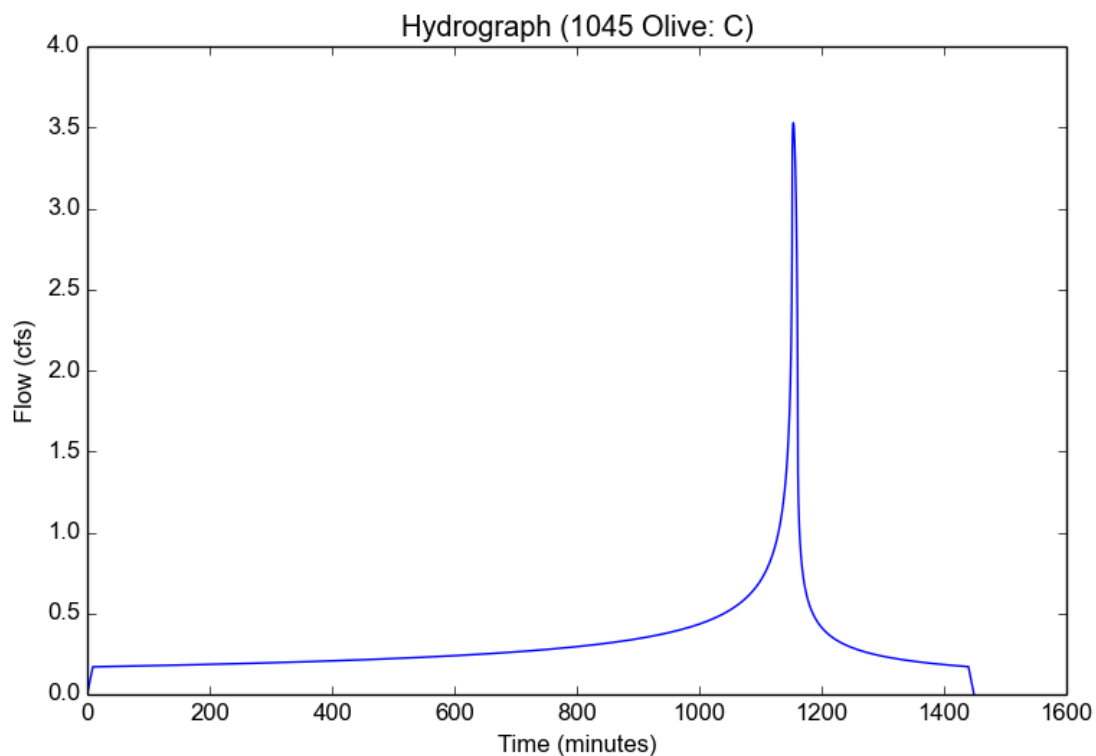
File location: C:/Users/rjaa/Desktop/1045 Olive Tower/_Hydrocalc/2017-11-08_HydroCalc.pdf
Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	C
Area (ac)	2.1
Flow Path Length (ft)	600.0
Flow Path Slope (vft/hft)	0.02
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.98
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.1412
Peak Intensity (in/hr)	1.8744
Undeveloped Runoff Coefficient (Cu)	0.7185
Developed Runoff Coefficient (Cd)	0.8964
Time of Concentration (min)	9.0
Clear Peak Flow Rate (cfs)	3.5282
Burned Peak Flow Rate (cfs)	3.5282
24-Hr Clear Runoff Volume (ac-ft)	0.6364
24-Hr Clear Runoff Volume (cu-ft)	27722.6141



Peak Flow Hydrologic Analysis

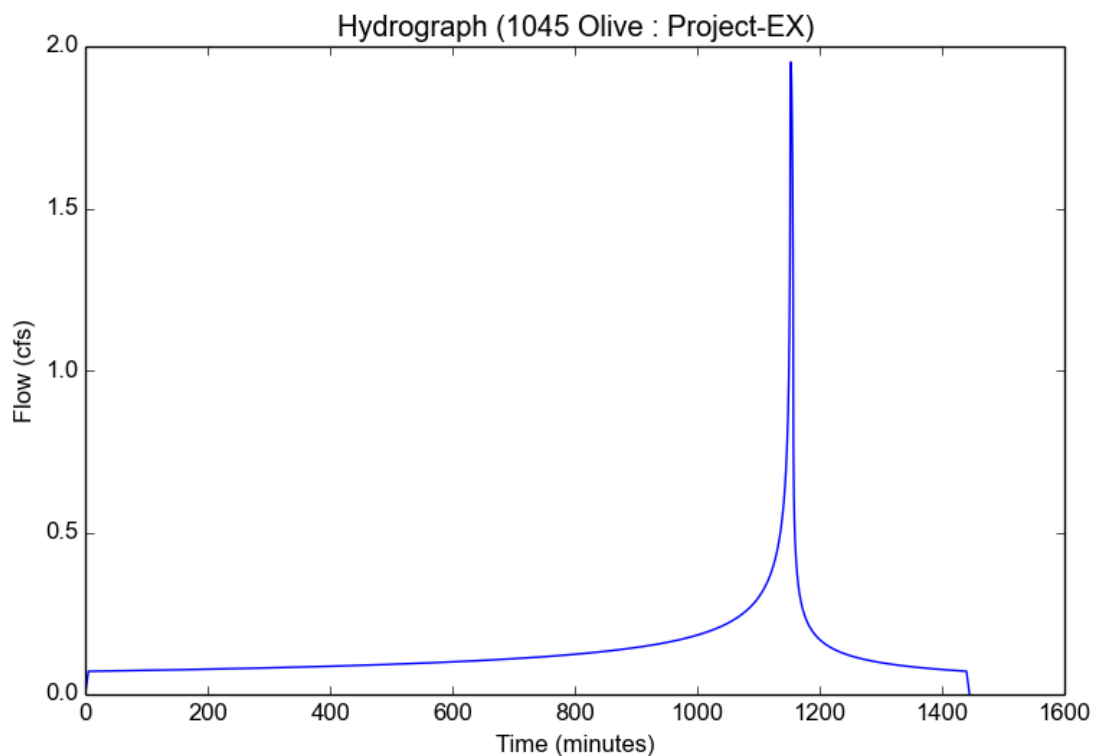
File location: C:/Users/rjaa/Desktop/1045 Olive Tower/_Hydrocalc/2017-11-08_HydroCalc.pdf
Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	Project-EX
Area (ac)	0.88
Flow Path Length (ft)	210.0
Flow Path Slope (vft/hft)	210.0
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.98
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.1412
Peak Intensity (in/hr)	2.4708
Undeveloped Runoff Coefficient (Cu)	0.784
Developed Runoff Coefficient (Cd)	0.8977
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.9518
Burned Peak Flow Rate (cfs)	1.9518
24-Hr Clear Runoff Volume (ac-ft)	0.2667
24-Hr Clear Runoff Volume (cu-ft)	11617.3598



Peak Flow Hydrologic Analysis

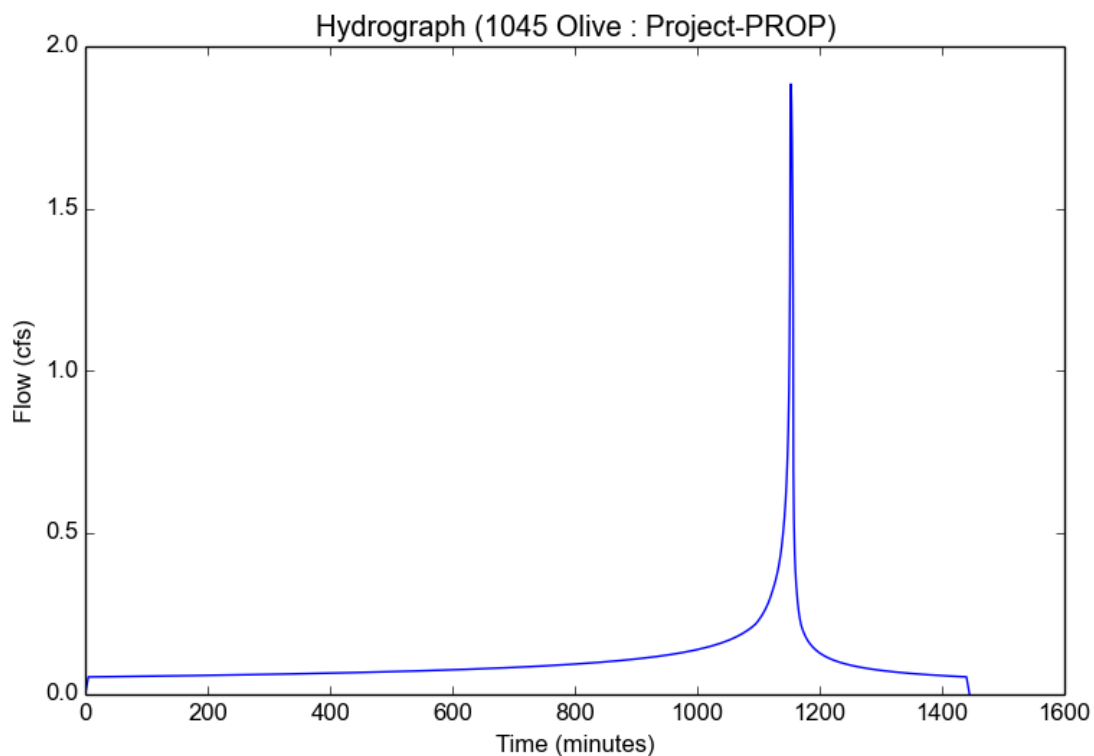
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Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	Project-PROP
Area (ac)	0.88
Flow Path Length (ft)	210.0
Flow Path Slope (vft/hft)	210.0
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.71
Soil Type	6
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	4.1412
Peak Intensity (in/hr)	2.4708
Undeveloped Runoff Coefficient (Cu)	0.784
Developed Runoff Coefficient (Cd)	0.8663
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.8837
Burned Peak Flow Rate (cfs)	1.8837
24-Hr Clear Runoff Volume (ac-ft)	0.2078
24-Hr Clear Runoff Volume (cu-ft)	9051.909



Peak Flow Hydrologic Analysis

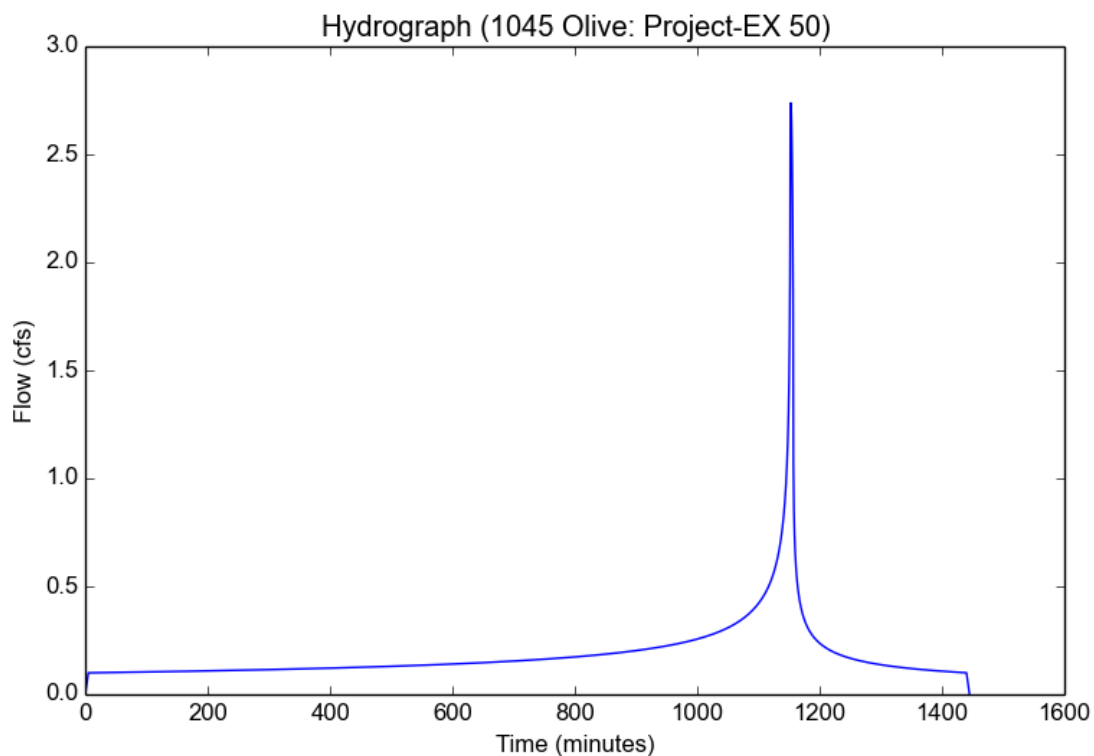
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Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	Project-EX 50
Area (ac)	0.88
Flow Path Length (ft)	210.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.98
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.8
Peak Intensity (in/hr)	3.4604
Undeveloped Runoff Coefficient (Cu)	0.8546
Developed Runoff Coefficient (Cd)	0.8991
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.7379
Burned Peak Flow Rate (cfs)	2.7379
24-Hr Clear Runoff Volume (ac-ft)	0.3738
24-Hr Clear Runoff Volume (cu-ft)	16284.1874



Peak Flow Hydrologic Analysis

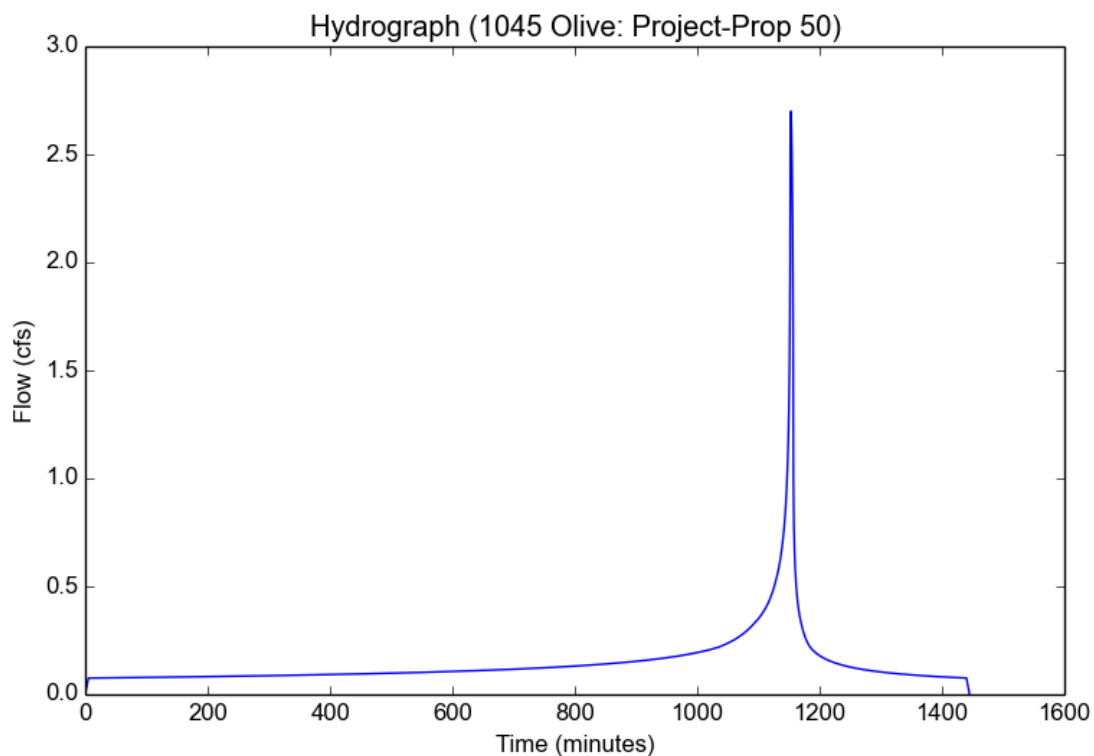
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Input Parameters

Project Name	1045 Olive
Subarea ID	Project-Prop 50
Area (ac)	0.88
Flow Path Length (ft)	210.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.8
Percent Impervious	0.71
Soil Type	6
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.8
Peak Intensity (in/hr)	3.4604
Undeveloped Runoff Coefficient (Cu)	0.8546
Developed Runoff Coefficient (Cd)	0.8868
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.7006
Burned Peak Flow Rate (cfs)	2.7006
24-Hr Clear Runoff Volume (ac-ft)	0.2955
24-Hr Clear Runoff Volume (cu-ft)	12871.6869



Existing 27" RCP

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00339	ft/ft
Normal Depth	2.27	ft
Diameter	2.27	ft
Discharge	18.46	ft ³ /s

Results

Discharge	18.46	ft ³ /s
Normal Depth	2.27	ft
Flow Area	4.05	ft ²
Wetted Perimeter	7.13	ft
Hydraulic Radius	0.57	ft
Top Width	0.00	ft
Critical Depth	1.50	ft
Percent Full	100.0	%
Critical Slope	0.00567	ft/ft
Velocity	4.56	ft/s
Velocity Head	0.32	ft
Specific Energy	2.59	ft
Froude Number	0.00	
Maximum Discharge	19.86	ft ³ /s
Discharge Full	18.46	ft ³ /s
Slope Full	0.00339	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%

Existing 27" RCP

GVF Output Data

Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	2.27	ft
Critical Depth	1.50	ft
Channel Slope	0.00339	ft/ft
Critical Slope	0.00567	ft/ft

Worksheet for CB ID# 1750132

Project Description

Solve For Spread

Input Data

Discharge		6.90	ft ³ /s
Gutter Width		2.00	ft
Gutter Cross Slope		0.11	ft/ft
Road Cross Slope		0.02	ft/ft
Curb Opening Length		3.50	ft
Opening Height		0.67	ft
Curb Throat Type	Horizontal		
Local Depression		2.00	in
Local Depression Width		5.00	ft
Throat Incline Angle		90.00	degrees

Results

Spread	20.79	ft
Depth	0.59	ft
Gutter Depression	0.17	ft
Total Depression	0.34	ft

Worksheet for CB ID# 1750133

Project Description

Solve For Spread

Input Data

Discharge		4.40	ft ³ /s
Gutter Width		2.00	ft
Gutter Cross Slope		0.11	ft/ft
Road Cross Slope		0.02	ft/ft
Curb Opening Length		3.50	ft
Opening Height		0.67	ft
Curb Throat Type	Horizontal		
Local Depression		2.00	in
Local Depression Width		5.00	ft
Throat Incline Angle		90.00	degrees

Results

Spread	4.47	ft
Depth	0.46	ft
Gutter Depression	0.17	ft
Total Depression	0.34	ft

Worksheet for CB ID# 1750131

Project Description

Solve For Spread

Input Data

Discharge		0.60	ft ³ /s
Gutter Width		2.00	ft
Gutter Cross Slope		0.11	ft/ft
Road Cross Slope		0.02	ft/ft
Curb Opening Length		3.50	ft
Opening Height		0.67	ft
Curb Throat Type	Horizontal		
Local Depression		2.00	in
Local Depression Width		5.00	ft
Throat Incline Angle		90.00	degrees

Results

Spread	2.97	ft
Depth	0.25	ft
Gutter Depression	0.17	ft
Total Depression	0.34	ft

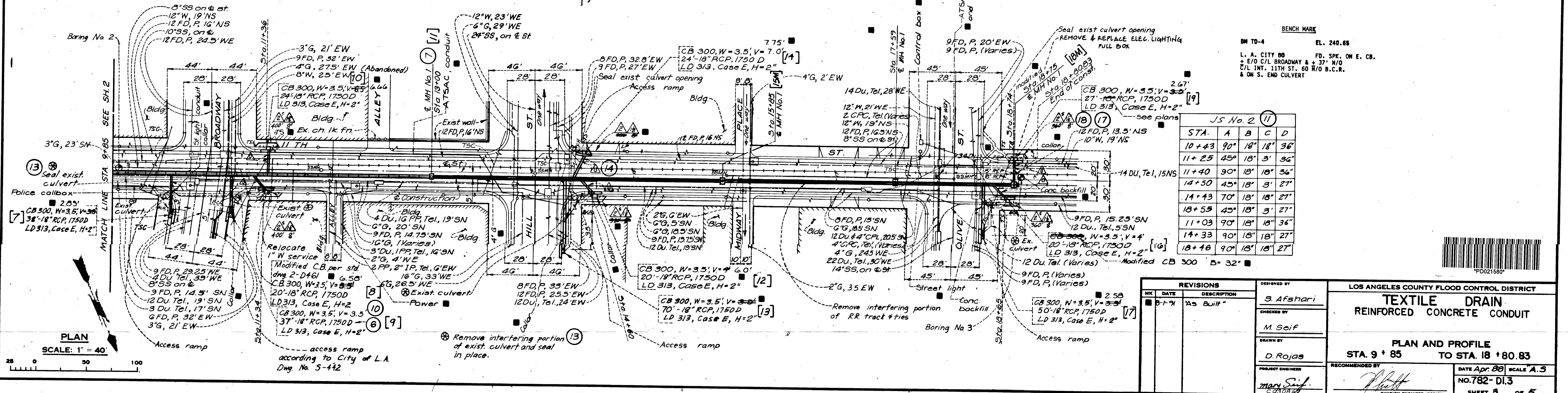
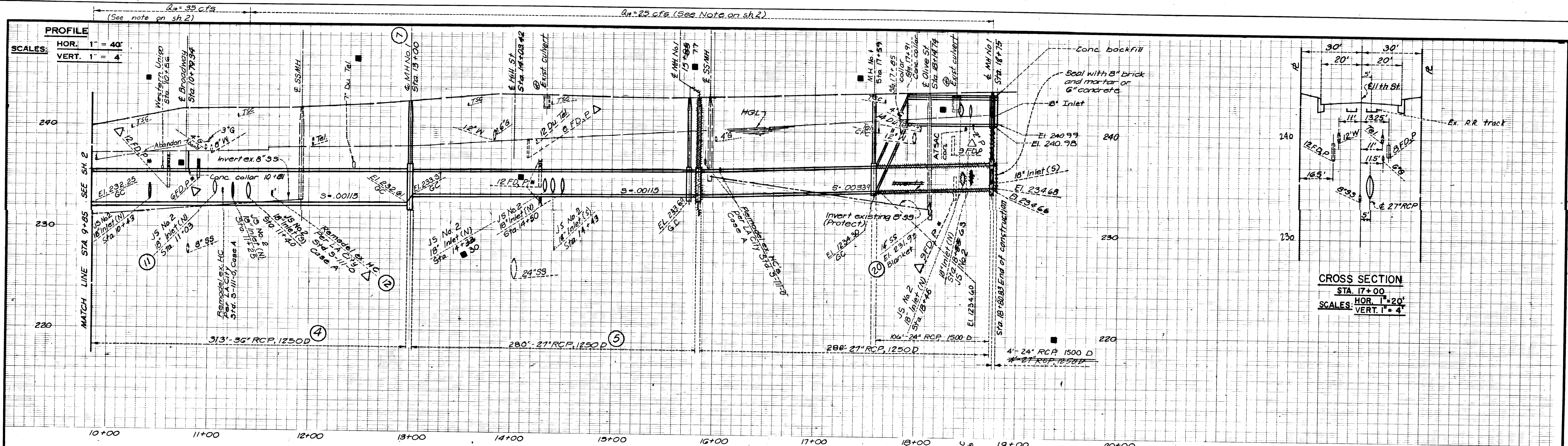
APPENDIX C

REFERENCE DOCUMENTS

LACFCD Drawing 782-D1

Hollywood 1-H1.18

LA County Hydrology GIS Data



JS No. 2

STA.	A	B	C	D
10+43	90"	18"	18"	36"
11+25	45"	18"	3"	36"
11+40	90"	18"	18"	36"
14+50	45"	18"	3"	27"
14+43	70"	18"	18"	27"
18+55	45"	18"	3"	27"
11+03	90"	18"	18"	36"
14+33	90"	18"	18"	27"
18+46	90"	18"	18"	27"

REVISIONS			DESIGNED BY	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	
NO.	DATE	DESCRIPTION	S. Afshari	TEXTILE DRAIN REINFORCED CONCRETE CONDUIT	
1	9-79	As Built	CHECKED BY		
			M. Seif		
			DRAWN BY		
			D. Rojas		
			PROJECT ENGINEER		
			Mary S. S. S.		
			DATE Apr. 28	SCALE A. 5	
			NO. 782-DI.3	SHEET 3 OF 5	

"AS BUILT" DRAWING

34° 07' 30"

BURBANK 1-H1.28

-118° 22' 30"

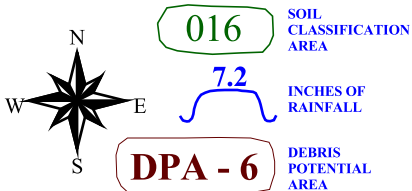
BEVERLY HILLS 1-H1.17

LOS ANGELES 1-H1.19

-118° 15' 00"

INGLEWOOD 1-H1.8

34° 00' 00"



25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
 10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

HOLLYWOOD

50-YEAR 24-HOUR ISOHYET

1-H1.18





Hydrology Map A GIS application to view the data for the hydrology manual.

- LAYERS
- ☒ 50yr Two Tenths (Rainfall)
 - ☐ DPA Zones
 - ☐ Soils 2004
 - ☐ Final 85th Percentile, 24-hr Rainfall
 - ☐ Final 95th Percentile, 24-hr Rainfall
 - ☐ 1-year, 1-hour Rainfall Intensity

SEARCH

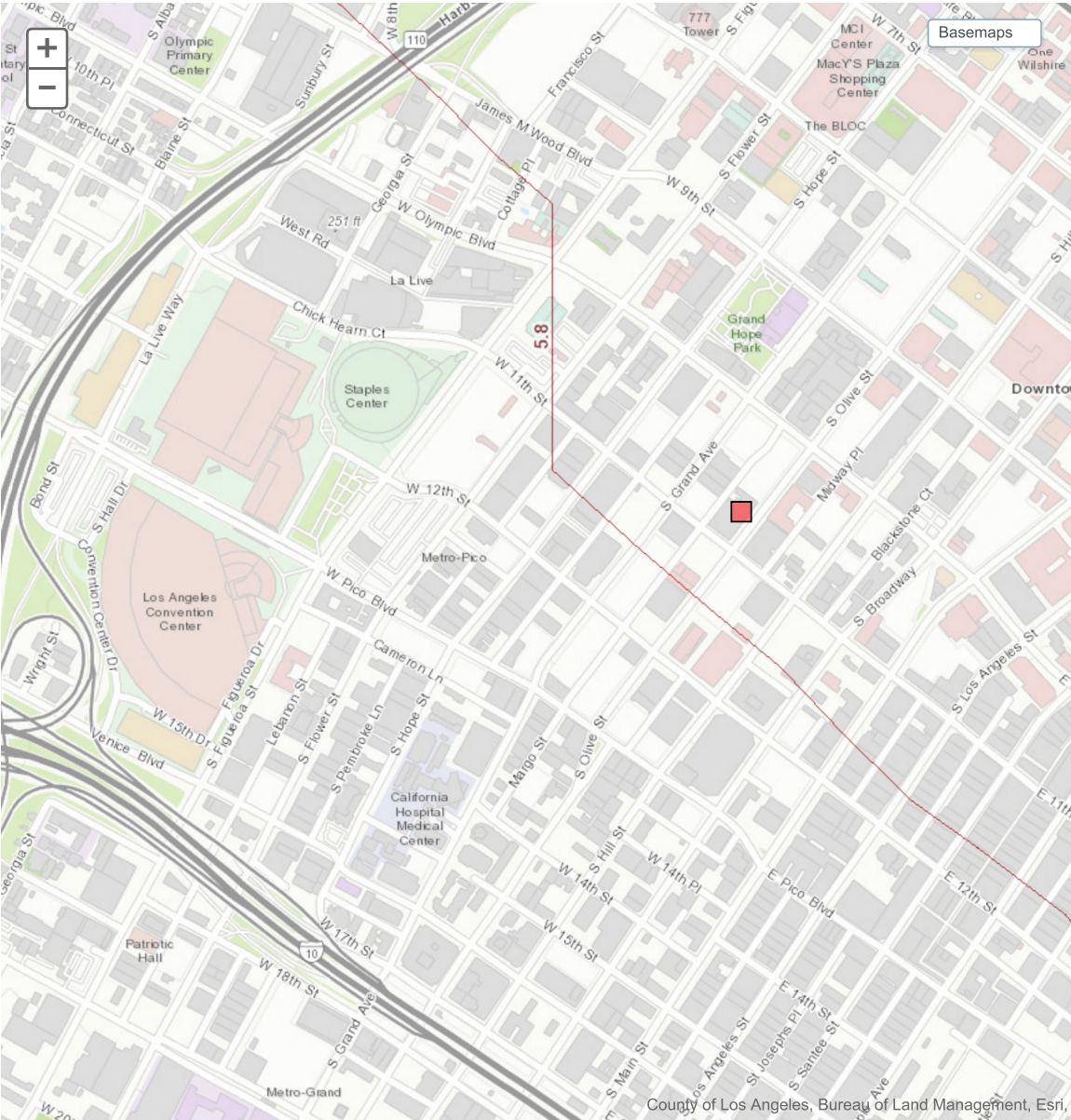
Enter Address, Cross Street, or Parcel No.:
(ex: 900 S. Fremont Ave., Fremont@Valley, 5342005904)

1045 olive. los angeles

Search

Address Search Results:

1045 olive los angeles





Los Angeles County Storm Drain System

File Geodatabase Download

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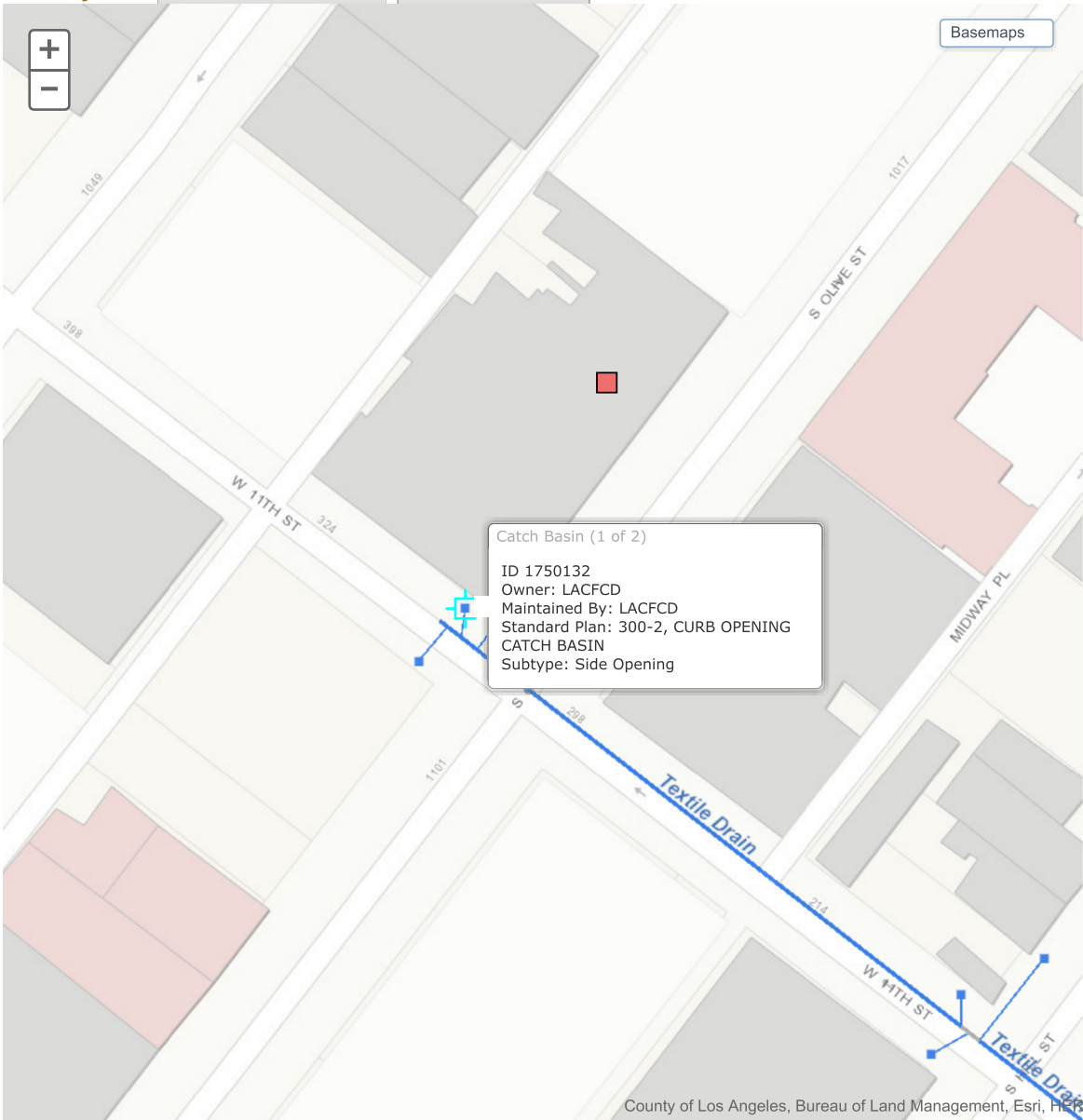
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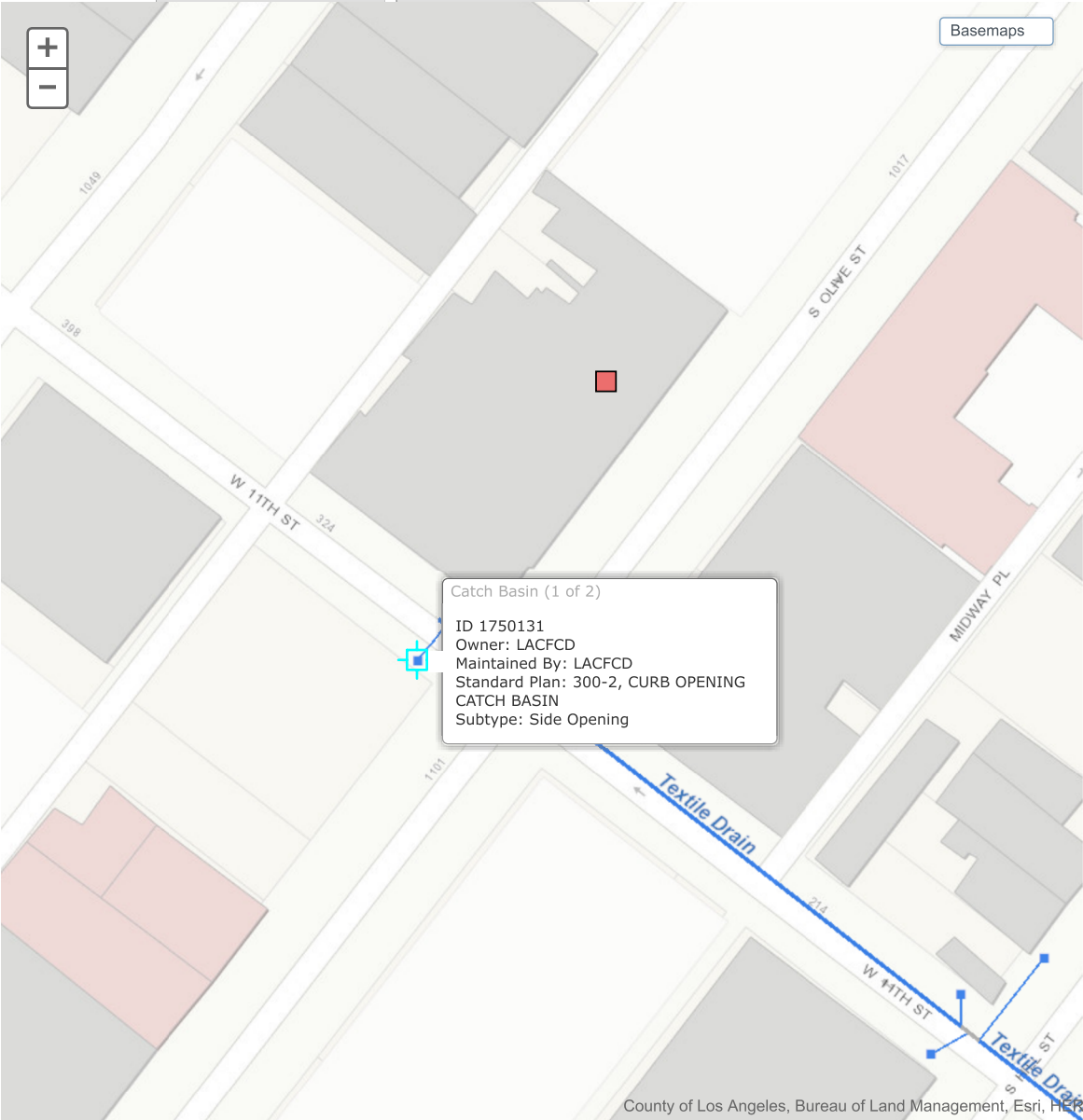
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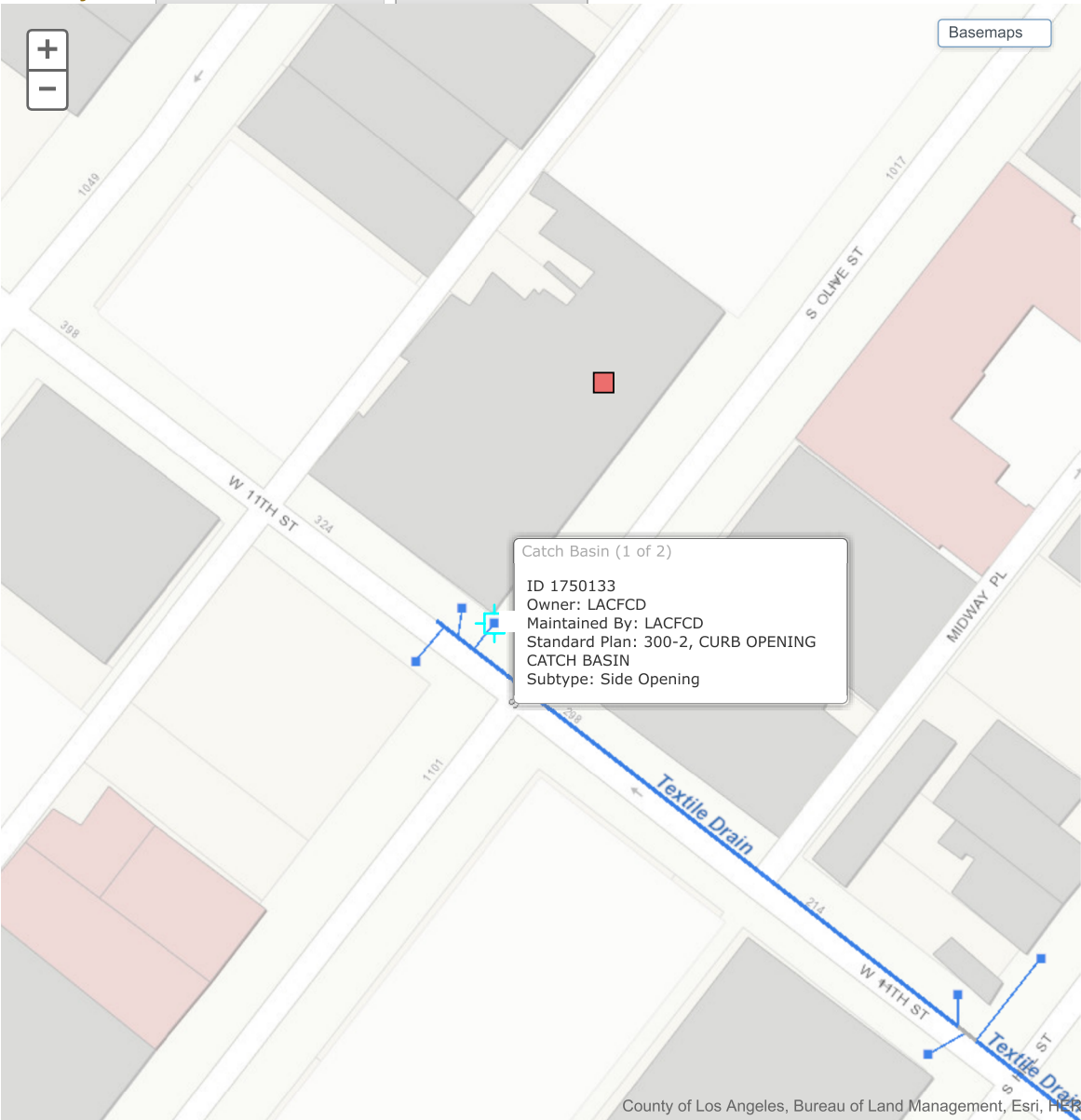
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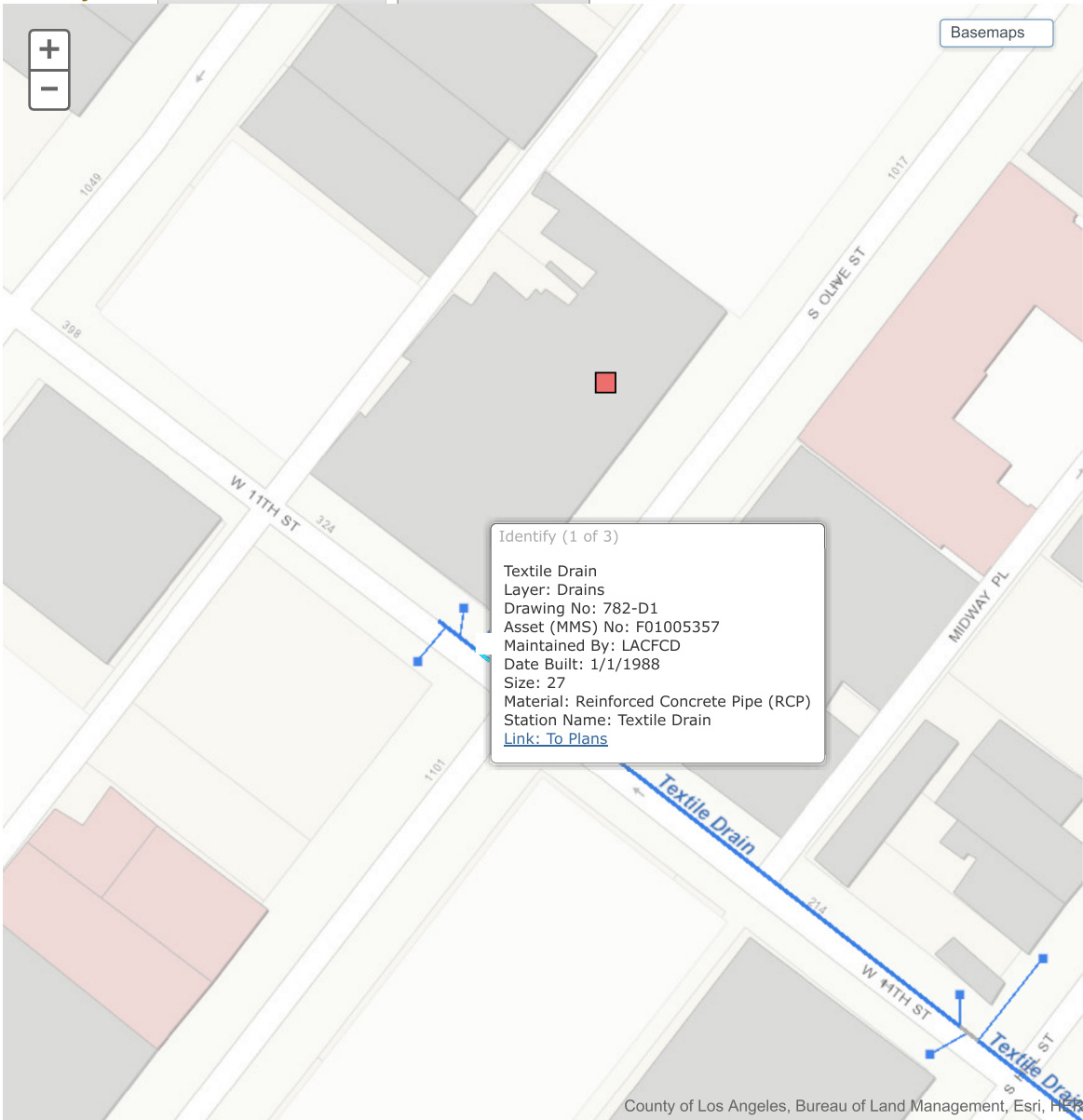
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Search





Hydrology Map A GIS viewer application to view the data for the hydrology manual.

- LAYERS
- ☐ 50yr Two Tenths (Rainfall)
 - ☐ DPA Zones
 - ☒ Soils 2004
 - ☐ Final 85th Percentile, 24-hr Rainfall
 - ☐ Final 95th Percentile, 24-hr Rainfall
 - ☐ 1-year, 1-hour Rainfall Intensity

SEARCH

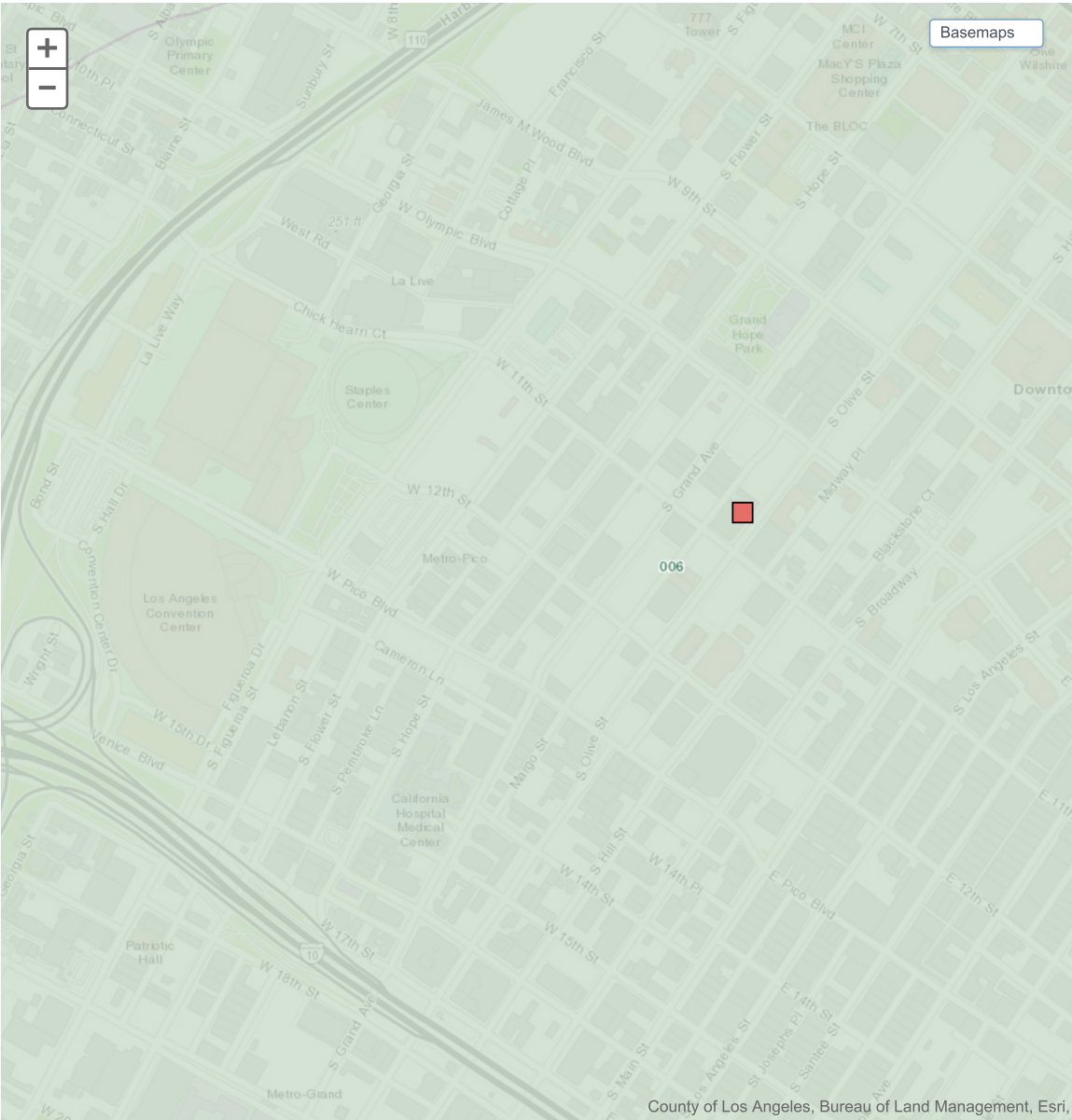
Enter Address, Cross Street, or Parcel No.:
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1045 olive. los angeles

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Address Search Results:

1045 olive los angeles



Map Tips

I-2 Preliminary LID Report

PRELIMINARY

LID REPORT FOR

APN 5139-010-001; -002; -008; -010; -011
1045 South Olive Street
Los Angeles, CA 90015

Prepared for:

1045 Olive, LLC
2200 Biscayne Boulevard
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Prepared under the Supervision of:

Jodi Mensen, P.E.
R.C.E. No. 79693

Submittal Date: 2/27/2018
Job Number: CRSC10450001

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APPENDIX A: LID Exhibit

APPENDIX B: Calculations

Section 1.0 – Purpose

The purpose of this study is to evaluate and determine the storm water runoff qualities for the proposed developed located 1045 South Olive Street in the City of Los Angeles.

The objectives of this study include the following:

1. Analyze potential physical environmental effects related to water quality that may occur due to the implementation of the proposed project.
2. To document that the Low Impact Development (LID) requirements of the City of Los Angeles will be met for the proposed project

Section 2.0 – Project Location/Description

The project location has an area approximately 0.85 acres in size. The site is located in the City of Los Angeles on the North West corner of Olive Street and 11th Street. The project is north of the Interstate 10 highway and east of the Interstate 110 highway. The site is bounded on the east by Olive Street, on the south by 11th street, on the west by a high rise along with existing 1 to 2 story commercial developments, on the north by a mid-rise mixed use development.

The proposed development is a high-rise tower that will consist of no more than 794 residential condominium units and approximately 12,504 square feet dedicated for retail use. It is proposed that the first 10 levels will take up the entire project site before slimming in to the tower. The ground floor will be primarily for retail use along Olive Street and 11th Street as well as access to the residential lobby. The proposed high rise tower will have approximately 70 levels above grade and a total of 6 subterranean levels of parking. The parking will have approximately 891 parking spaces along with L.A.M.C required bicycle parking spaces.

Section 3.0 – Hydrologic Parameters

3.1 – Rainfall

Rainfall data was taken from the County of Los Angeles 2006 Hydrology manual and the Los Angeles County GIS Hydrology map. All referenced plates and tables can be found in the Appendix. The 85th percentile rainfall depth at the project site is 1.0 inches.

3.2 – Soil Type

Soils data is also shown on Plate 1-H1.18. The soils number for the project location is 006.

3.3.1 – Existing Land Use

The current project site is developed with multiple one-story structures that are constructed with either wood and/or brick.

3.3.2 – Proposed Land Use

As stated previously in the report, the project proposes to construct a high-rise tower that is conceptually proposed to have a final height of around 600 to 800

feet above the existing ground surface level. The high rise will be a mixed-use development providing no more than 794 residential units and approximately 12,504 square feet of commercial space.

Section 4.0 – Stormwater Quality Management

4.1 – Standards and Objectives

This project is required to comply with the Low Impact Development (LID) requirements set forth by the Municipal National Pollutant Discharge Elimination System (NPDES) permit. Since this project is considered a residential development with more than 5 units, the project must capture and manage 100% of the required storm event of the required area.

A preliminary geotechnical engineering report was prepared by GeoDesign Inc. for the project site. It was concluded that the majority of soil below the surface consists of clayey sand, sandy clay, and silty sand. The characteristics of these soils generally promote adequate infiltration. The report also stated that groundwater was encountered at the depths of 60, 85, and 120 feet below ground surface. The report notes that groundwater might be present at shallower depths but additional tests will be required as the project progresses more into the final stage of design. Due to these geotechnical findings, the maximum design infiltration rate of 10 in/hr and maximum invert infiltration depth of 110 feet will be used for this project. Stormwater storage and infiltration will begin at a depth of 70 feet and allow for 40 total feet of a combination of storage and infiltration. This conservative design approach will be used in the preliminary phase and once more infiltration information is available the design will be revised accordingly.

Since the site has infiltration potential, it is proposed to construct a drywell system to capture and manage runoff expected from the new development. Once additional infiltration information is available, the final location of the drywell can be identified. The location of the drywell will be installed in a specific area to ensure proper design infiltration is met at the minimum and will meet the requirements of the City of Los Angeles. When additional infiltration information is received this report and drywell design shall be revised accordingly.

4.2 – V_M Calculations

Using the LA County 85th percentile precipitation isohyet map, the water quality design storm for the project was determined to be 1.0 inch (85th percentile, 24-hr rain event) since it's greater than the 0.75 inch 24-hr rain event. The equations and table shown below summarize the design flow rate and volume.

$$\text{Catchment Area [ft}^2\text{]} = (\text{Impervious Area [ft}^2\text{]} \times 0.9) + (\text{Pervious Area [ft}^2\text{]} \times 0.1)$$

$$V_M \text{ [ft}^3\text{]} = \text{Catchment Area [ft}^2\text{]} \times \text{Project Design Storm [ft]}$$

Table 2. Runoff Calculations for Project Site

Project Acreage/disturbed area (ac/ft ²)	0.85 / 37,172
Impervious Surface area (ft ²)	25,882
Pervious Surface area (ft ²)	11,290
Project design storm, 85 th Percentile (in)	1.0
Catchment Area (ft ²)	24,422

Volume required for mitigation (V_M)	2,035
--	-------

4.3 – Proposed Stormwater Management System

The proposed drywell system for this project is the Torrent Resources Maxwell Plus drywell system (MWP). The MWP has 9 settling chambers above the infiltration zone that allows only pre-treated water to enter the infiltration zone below. The project will have a total of (2) drywells servicing the entire project site. The drainage/plumbing system within the building will be connected directly to the MWP. The proposed system is currently designed to have a total depth of 40 feet below lowest subterranean level but shall be revised as necessary once the proposed project becomes more finalized. 30 feet for the settling chamber and 10 feet below for the infiltration zone. In an event that the drywell will fail (clog up) or a storm greater than a 85th percentile storm occurs, an overflow pipe will be installed to drain out to one of the adjacent catch basins located on the corner of Olive Street and 11th street. The overflow drain pipe will either be connected directly to the side of the catch basins or via parkway drain depending on the final location of the drywells.

Table 3. Drywell Calculations

Total Infiltration Drywell BMP volume (ft ³)	804
Volume Infiltrated within 1st 3 hours	148
Design storm to be stored (ft ³)	1,655
Percent of stored design storm (%)	81

4.4 Alternatives

Should infiltration be deemed infeasible the proposed development does have alternative routes it can follow. Since the proposed development is going to be a high rise tower with a maximum of 794 residential units there is the potential to use capture & reuse if it is feasible. Typically, the Estimated Total Water Usage (ETWU) must be greater than the mitigated volume required for capture and reuse to be considered feasible. If capture and reuse cannot completely adhere to the LID requirements a combination with the use of bio-filtration planters can be looked at for an alternative. Bio-filtration planter calculations shown below highlight the amount of surface area needed using the maximum 1 foot ponding per the LID requirements.

Table 4. Bio-filtration Calculations

Design Soil infiltration Rate (in/hr)	2.5
Ponding Depth (ft)	1
Drawdown time (hr)	48
Req'd Bio-filtration Mitigated Volume (ft ³)	3,053
Bio-filtration Surface Required	1,879

4.5 Adjacent Sidewalk

The sidewalk adjacent to the project is approximately 4,770 ft² in area. It is proposed to use permeable pavement to capture and manage the offsite runoff. There are specific areas within

the parkway that are dedicated for bicycle parking. A portion of this bicycle parking area will be designed for permeable pavement. Refer to the calculation summary below. The minimum required permeable pavement was estimated using the City of Los Angeles permeable pavement fact sheet

Table 4. Permeable Pavement Calculations

Impervious Tributary Area (ft ²)	2,851
Design subbase depth (ft)	1
Permeable pavement area required (ft ²)	399

Section 5.0 – Inspection/Maintenance Responsibilities

All proposed drainage and LID Facilities on-site will be maintained by the owner of the project

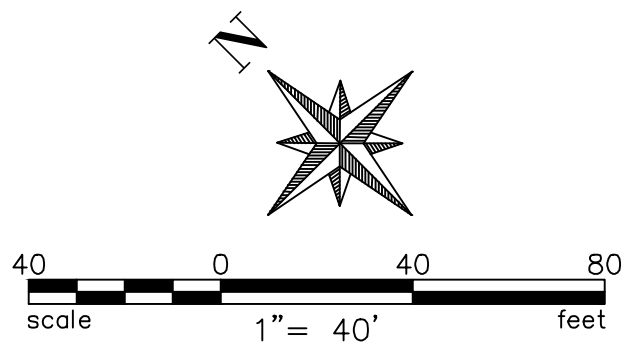
APPENDIX A

LID Exhibit

1045 SOUTH OLIVE STREET
LID EXHIBIT
(PRELIMINARY)
CITY OF LOS ANGELES
COUNTY OF LOS ANGELES

LEGEND

- (A)
1.0
- SUBAREA DESIGNATION
SUBAREA ACREAGE
- SUBAREA BOUNDARY
- PERVIOUS SURFACE
- PERMEABLE PAVEMENT



BMP = DRY WELL

DRAINAGE AREA	TRIBUTARY AREA (AC)	IMPERVIOUS (%)	VOLUME MITIGATED REQ'D (CF)	TOTAL # OF DRYWELLS	DRYWELL STORAGE (CF)	ADD'L STORAGE REQUIRED (CF)	Q _{PM} (CFS)
A	0.85	70	2,035	2	804	1,104	0.24

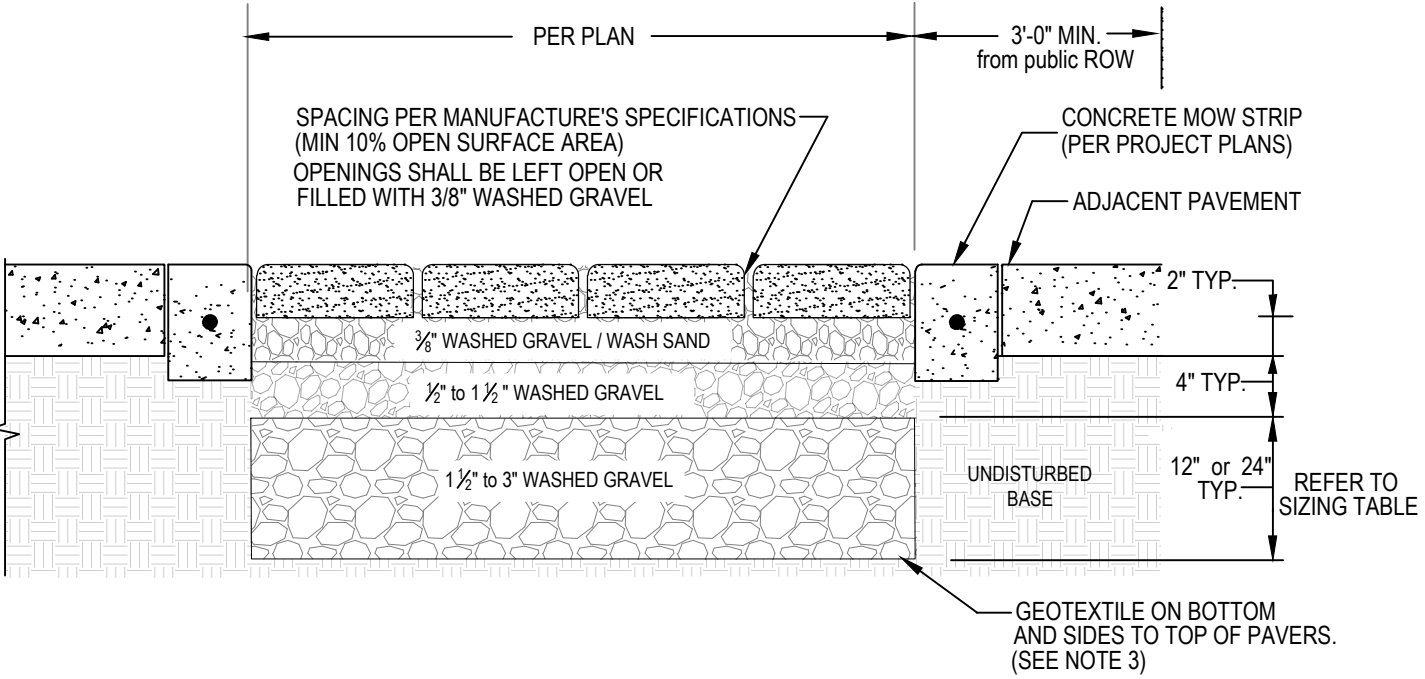
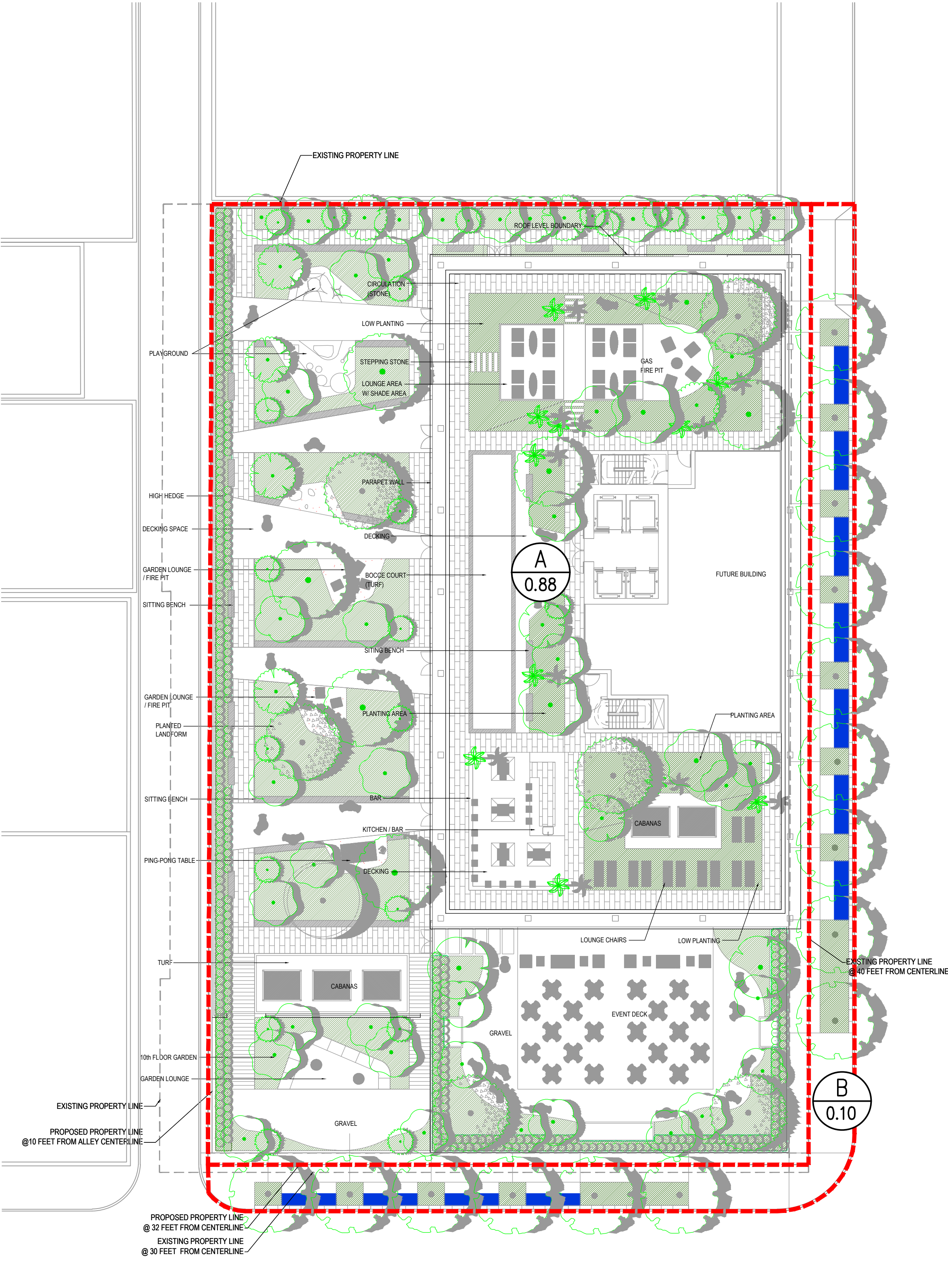
BMP = BIO-FILTRATION PLANTER

DRAINAGE AREA	TRIBUTARY AREA (AC)	IMPERVIOUS (%)	1.5 X VOLUME MITIGATED REQ'D (CF)	TOTAL SF REQ'D (USING 1' PONDING)
A*	0.85	70	3,053	1,879

*NOTE: THE BMP DESIGN VALUES SHOWN ARE TO SERVE AS AN ALTERNATIVE FOR THE CORRESPONDING DRAINAGE AREA

BMP = PERMEABLE PAVERS

DRAINAGE AREA	TRIBUTARY AREA (SF)	IMPERVIOUS (%)	VOLUME MITIGATED REQ'D (CF)	TOTAL PERMEABLE PAVERS AREA (SF)	TOTAL SF REQ'D (USING 1' PONDING)
B	4,770	60	230	563	399



TYPICAL PERMEABLE PAVEMENT DETAIL

MAXWELL® IV DRAINAGE SYSTEM DETAIL AND SPECIFICATIONS

ITEM NUMBERS

- Manhole Cover - Modified Flat Bottom.
- Manhole Blanket - 6 Mil. Plastic. Applies only when native material is used for backfill. Place membrane securely against exterior curb and hole sidewall.
- Bolted Ring & Gasket - Diameter as shown. Check each ring with wording "Storm Water Only" in raised letters. Bolted in 2 locations and secured to cover with nut/washer. Rim elevation ±0.02' ± 0.015'.
- Graded Basins or Paving (Qty Others).
- Compacted Base Material - 1-Sack Slurry except in landscaped installations with no pipe connections.
- PureFlo® Debris Shield - Bolted 15 gals. steel 3'x4' length with vented anti-siphon and internal .255" Max. SWSW Flattened expanded steel screen 3'x12' length. Fasten banded every 6" on center.
- Pre-cast Liner - 4000 PSI concrete 48" ID, X 54" OD. Center in hole and align sections to maximize bearing surface.
- Support Bladder - Formed 12 Ga. steel. Fasten banded every 6" on center.
- Overflow Pipe - Sch. 40 PVC rated to drainage pipe at base seal.
- Drainage Pipe - ADS Highway grade with TBI-A coupling. Suspend pipe during backfill operations to prevent buckling or breakage. Diameter as noted.
- Base Seal - Isobutylene or concrete slurry.
- Back - Washed, sized between 3/8" and 1-1/2" to best complement soil conditions.
- FloFast® Drainage Screen - Sch. 40 PVC 0.120" slotted well screen with 32 slots per row/ft. Diameter varies 1.62" overall length with TBI-A coupling.
- Min. 4" Ø Shaft - Drilled to maintain permeability of drainage soils.
- Fabric Seal - LVL resistant geotextile - to be removed by customer at project completion.
- Absorbent - Hydrophobic Petrochemical Sponge. Min. to 128 cc. capacity.
- Freeboard Depth Varies with inlet pipe elevation. Increase settling chamber depth as needed to maintain all inlet pipe elevations above overflow pipe inlet.
- Support Bladder - Formed 12 Ga. steel. Fasten banded every 6" on center.
- Optional Inlet Pipe (Aluminum 4" xg. Orifice). Extend necessary membrane and compacted base material or 1 sack slurry backfill below inlet pipe invert.

The referenced drawing and specifications are available on CAD either through our office or web site. This detail is copyrighted (2004) but may be used as is in construction plans without further release. For information on product application, individual project specifications or site evaluation, contact our Design Staff for no-charge assistance in any phase of your planning.

CALCULATING MAXWELL IV REQUIREMENTS

The type of property, soil permeability, rainfall intensity and local drainage ordinances determine the number and design of Maxwell Systems. For general applications draining retained stormwater, use one standard Maxwell IV per the instructions below for up to 3 acres of landscaped contributory area, and up to 1 acre of paved surface. For larger paved surfaces, subdivision drainage, nuisance water drainage, connecting pipes larger than 4" Ø from catch basins or underground storage, or other demanding applications, refer to our Maxwell® Plus System. For industrial drainage, including gasoline service stations, our Enviro® System may be recommended. For additional considerations, please refer to "Design Suggestions For Retention And Drainage Systems" or consult our Design Staff.

COMPLETING THE MAXWELL IV DRAWING

To apply the Maxwell IV drawing to your specific project, simply fill in the blue boxes per instructions below. For assistance, please consult our Design Staff.

ESTIMATED TOTAL DEPTH

The Estimated Total Depth is the approximate depth required to achieve 10 continuous feet of penetration into permeable soils. Torrent utilizes specialized "crow" equipped drill rigs to penetrate difficult, cemented soils and to reach permeable materials at depths up to 180 feet. Our extensive database of drilling logs and soils information is available for use as a reference. Please contact our Design Staff for site-specific information on your project.

SETTLING CHAMBER DEPTH

On Maxwell IV Systems of over 30 feet overall depth and up to 0.25cfs design rate, the standard Settling Chamber Depth is 18 feet. For systems exposed to greater contributory area than noted above, extreme service conditions, or that require higher design rates, chamber depths up to 25 feet are recommended.

OVERFLOW HEIGHT

The Overflow Height and Settling Chamber Depth determine the effectiveness of the settling process. The higher the overflow pipe, the deeper the chamber, the greater the settling capacity. For normal drainage applications, an overflow height of 18 feet is used with the standard settling chamber depth of 18 feet. Sites with higher design rates than noted above, heavy debris loading or unusual service conditions require greater settling capacities.

DRAINAGE PIPE

This dimension also applies to the PureFlo® Debris Shield, the FloFast® Drainage Screen, and fittings. The size selected is based upon system design rates, soil conditions, and the need for adequate venting. Choices are 6", 8", or 12" diameter. Refer to "Design Suggestions For Retention and Drainage Systems" for recommendations on which size best matches your application.

BOLTED RING & GRATE

Standard models are quality cast iron and available to fit 24" Ø or 30" Ø manhole openings. All units are bolted in two locations with wording "Storm Water Only" in raised letters. For other surface treatments, please refer to "Design Suggestions For Retention and Drainage Systems."

INLET PIPE INVERT

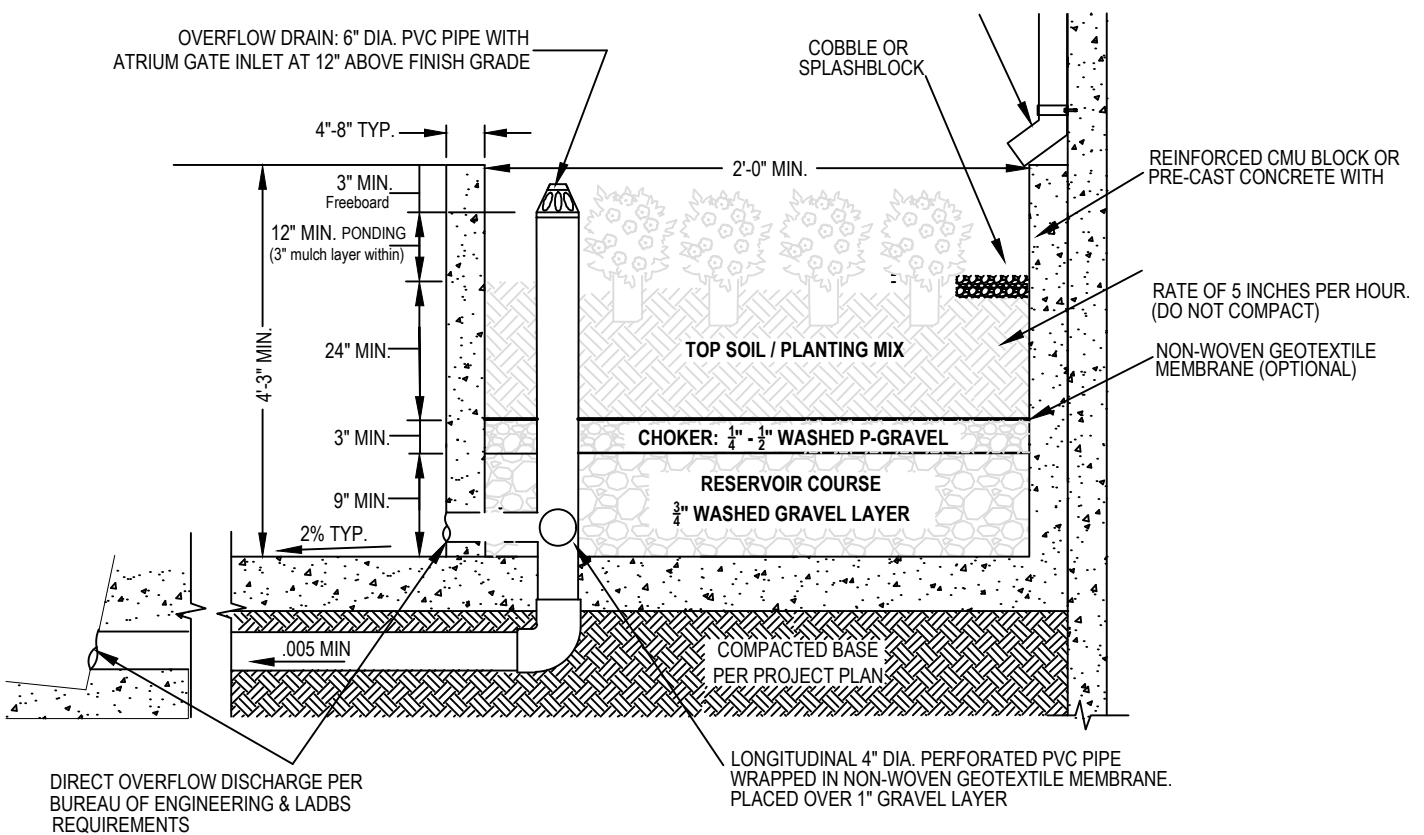
Pipes up to 4" in diameter from catch basins, underground storage, etc. may be connected into the settling chamber. Inverts deeper than 5 feet will require additional settling chamber depth to maintain effective overflow height.

TORRENT RESOURCES INCORPORATED
1500 East Elwood Street, Phoenix Arizona 85040-1391
phone 602-268-8755 fax 602-268-0820
Nevada 702-366-1234
AZ Lic. ROC070465 A, ROC047067 B-C; ADWR 363
CA Lic. 528880 A, C-42; HAZ - NV Lic. 0835350 A - NM Lic. 90504 G504
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phone 661-947-9836
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www.TorrentResources.com
An evolution of McCrackin Drilling
The watermark for drainage solutions.®



TYPICAL DRYWELL DETAIL



TYPICAL BIOFILTRATION PLANTER DETAIL

PREPARED: 06/2018



DAVID EVANS
AND ASSOCIATES INC.
201 SOUTH FIGUEROA STREETM SUITE 240
LOS ANGELES, CALIFORNIA 90012
Phone: 213.337.3680 Fax: 213.337.3679

PREPARED UNDER THE SUPERVISION OF:

JODI MENSEN R.C.E. 79693 DATE:

APPENDIX B

CALCULATIONS

LID CALCULATIONS

DRYWELL SIZING - 5TH EDITION

Tributary area:	37,172 sf	Impervious	25,882	Percentage	70%	Pervious	11,290	Percentage	30%
85th Percentile:	1	in		0.0833		ft			
Catchment Area:	24,423								
Volume (V_m):			2,035						

Note: $V_m = V_{\text{design}}$ (p.31)

Sizing	
FS	3
K_{meas}	79
K_{sat}	3.33
T	48
or	3
hrs	

$A_{\text{min-48hr}} = 152.80$ 2444.7

$h_{\text{infiltration}} = 11.16$ or 193.5 ***Required height of INFILTRATION zone**

$V_{3\text{hr}} = 127.20$

$V_{\text{stor-actual}} = 804.25$ Volume stored total (gravel + drywell chamber)

$V_{\text{additional}} = 1103.78$ Volume (cf) required to be stored

$h_{\text{provided}} = 30$ ft

3hr A_{min}	2444.72
$h_{3\text{hr}}$	193.5
No. of Drywells with no storage	6.45

Storage Sizing

Assume CMP diameter	8 ft
Assume 1ft loss	7 ft
Length	42.00 ft
Use L =	43 ft

Volume Stored_{actual} 1654.83

Radius	2	ft
Void ratio	0.4	

Assume	30	ft of infiltration zone
	20	ft of drywell chamber
	2	Drywells

Check

37,172	sf (area check)
-551.05	Additional volume fully stored

*Negative value indicates more volume is being stored than $V_{\text{additional}}$ requires

$A_{\text{provided}} = 779.11$

$T_{3\text{hr}} = 9.41$

LID CALCULATIONS

FLOW THROUGH PLANTER SIZING - 5TH EDITION

			Impervious	Percentage	Pervious	Percentage
Site area:	37,172	sf	25,882	70%	11,290	30%
85th Percentile:	1		in	0.0833	ft	
Catchment Area:	24422.8					
Volume (V_m):			2035.23333			

Note: For Flow Through Planters **$V_{design} = 1.5 * V_m$**

Sizing		$V_{design} = 3,052.9$		
FS	2			
$K_{meas} =$	5			
$K_{sat} =$	2.50			
T=	3	hrs		
	MINIMUMS	51" Planter	45" Planter	30" Planter
$d_p(FT) =$	0.625	1	0.5	0.25
$A_{min} =$	2,442.3	1,878.7	2,713.6	3,489.0

PERCENTAGE OF IMPERVIOUS AREA

9.4% 7.3% 10.5% 13.5%

Peak Flow Hydrologic Analysis

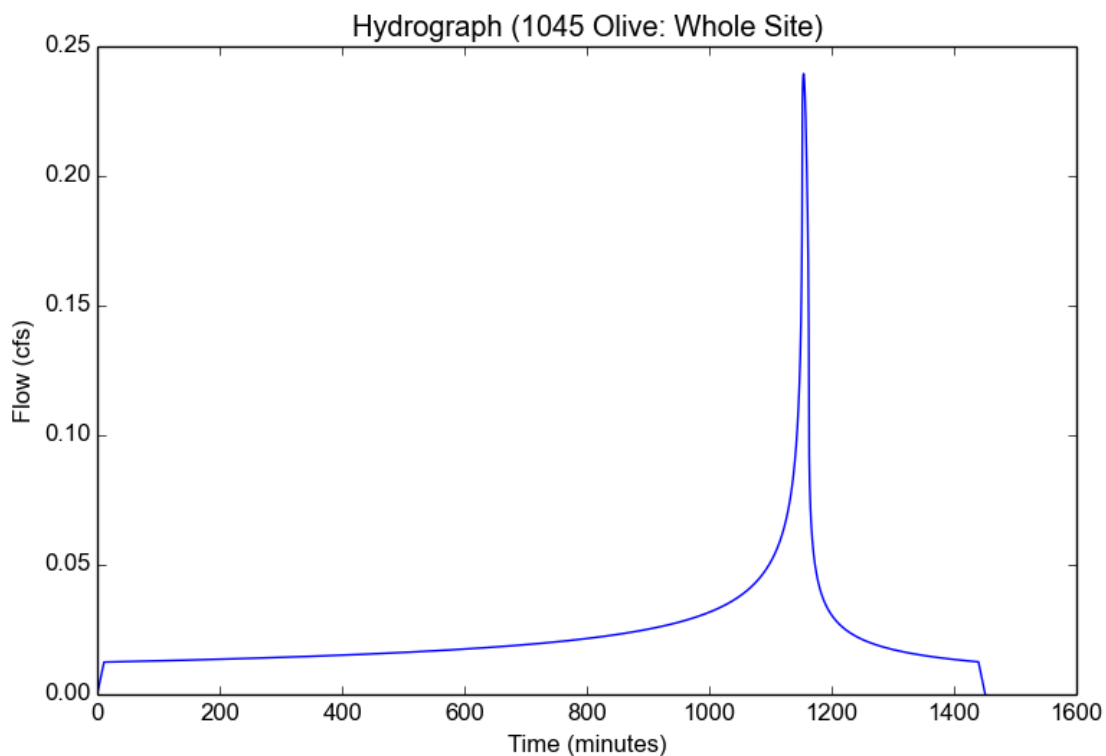
File location: P:/C/CRSC10450001/0600INFO/0670Reports/LID/Preliminary/_LID Calculations/HydroCalc_85.pdf
Version: HydroCalc 0.3.1

Input Parameters

Project Name	1045 Olive
Subarea ID	Whole Site
Area (ac)	0.853
Flow Path Length (ft)	270.0
Flow Path Slope (vft/hft)	0.2
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.7
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.4119
Undeveloped Runoff Coefficient (Cu)	0.1719
Developed Runoff Coefficient (Cd)	0.6816
Time of Concentration (min)	11.0
Clear Peak Flow Rate (cfs)	0.2395
Burned Peak Flow Rate (cfs)	0.2395
24-Hr Clear Runoff Volume (ac-ft)	0.0466
24-Hr Clear Runoff Volume (cu-ft)	2028.9119



APPENDIX J

Land Use Supplementary Table

APPENDIX J

Land Use Supplementary Table

SUPPLEMENTARY LAND USE TABLE – 1 COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE SECTIONS OF THE CITY CENTER REDEVELOPMENT PLAN

Plan Provision	Project Characteristics
Section 105. Project Objectives	
1. To eliminate and prevent the spread of blight and deterioration and to rehabilitate and redevelop the Project Area in accordance with this Plan.	Blight as referred to in this Objective refers to a circumstance and/or process that reflects deterioration of the physical, social and economic environments. Such physical deterioration can result in adverse effects on the aesthetic character of an areas, safety and hazardous threats in an area, and deteriorating infrastructure. The Project would eliminate and prevent the spread of blight and deterioration through the development of a new mixed-use Project at the location of existing aging commercial buildings. The Project would include sidewalk upgrades, new street trees, a landscaped Plaza accessible to the public with seating and public art, ground level commercial uses, and a 70-story residential tower. These improvements would represent a higher use of the Project Site and enhance the character and quality of the existing property, and contribute to rejuvenation of the Downtown area.
2. To further the development of Downtown as the major center of the Los Angeles metropolitan region, within the context of the Los Angeles General Plan as envisioned by the General Plan Framework, Concept Plan, City-wide Plan portions, the Central City Community Plan, and the Downtown Strategic Plan.	The Project would provide a mixed-use residential and commercial development that would support policies to provide additional housing in the Downtown area, provide supporting commercial uses, create a lively pedestrian environment, locate high density development near public transit, and be compatible with the surrounding area planned for and containing a variety of compatible uses of comparative size and scale.
3. To create an environment that will prepare, and allow, the Central City to accept that share of regional growth and development which is appropriate, and which is economically and functionally attracted to it.	The Project would provide a mixed-use high density development that is appropriate for growth anticipated for the Central City and is designed for the tower to have deep setbacks and narrow profile to compatible with surrounding high-rises development. The housing provided by the Project would support a fair share of regional growth and development.
4. To promote the development and rehabilitation of economic enterprises including retail, commercial, service, sports and entertainment, manufacturing, industrial and hospitality uses that are intended to	The Project would further the development and rehabilitation of businesses in Downtown by replacing currently underutilized buildings with 794 residential units and ground floor commercial uses. The increase would support Downtown and South Park's wide variety of entertainment and cultural uses, retail businesses,

Plan Provision	Project Characteristics
provide employment and improve the Project Area's tax base.	restaurants, and other local businesses and services and, as such, would contribute to the rehabilitation of the area's economic enterprises.
5. To guide growth and development, reinforce viable functions, and facilitate the redevelopment, revitalization or rehabilitation of deteriorated and underutilized areas.	The Project would replace older existing commercial buildings with a new high-density residential use and ground floor commercial uses. The sidewalk upgrades, new street trees, a landscaped Plaza accessible to the public with seating and public art, ground level commercial uses and 70-story residential tower would contribute to the revitalization of the Project area.
6. To create a modern, efficient and balanced urban environment for people, including a full range of around-the-clock activities and uses, such as recreation, sports, entertainment and housing.	The Project would provide a high-density multi-family and commercial uses, and a public Plaza, that would support a full range of around-the-clock activities and uses. The introduction of new residents within walking distance of restaurants, services, employment and entertainment (including L.A. LIVE, Staples Center and the Los Angeles Convention Center) would generate connectivity and higher activity in the local area between the area's existing commercial uses and the Project's new residential uses.
7. To create a symbol of pride and identity which gives the Central City a strong image as the major center of the Los Angeles region.	
8. To facilitate the development of an integrated transportation system which will allow for the efficient movement of people and goods into, through and out of the Central City.	The Project's new residents would provide a high density development that would support such public transportation services as the proposed Los Angeles Streetcar Project, which would travel along W. 11 th Street adjacent to the Project Site, and other transit services, including Metro's Light Rail's Expo and Blue lines accessed at Flower and Pico Streets, and the Blue, Expo, Red and Purple Lines at Flower Street and 7th Street. It would also provide ridership/and thereby funds for regional bus lines and other shuttles that are also available in the immediate vicinity of the Project Site. The I-10 and I-110 and the Santa Monica Freeway are also located in close proximity to the Project Site, providing regional accessibility to the Project Site, The Project's mitigation measures TRAF- MM- 1 and TRAF-MM-2 would include a TDM Program to encourage the use of non-auto modes of transportation and reduce vehicle trips; and support upgrades to the signalization system to enhance the flow of traffic operations. The Project would also create pedestrian opportunities, which combined with the introduction of new residents, would support the development of an integrated transportation system, and thus, facilitate the efficient movement of goods and people through and out of the City.
9. To achieve excellence in design, based on how the Central City is to be used by people, giving emphasis to parks, green spaces, streetscapes, street trees and places designed for walking and sitting, and to develop an open space infrastructure that will aid in the creation of a cohesive social fabric.	The Project would include a public Plaza along W. 11 th Street, as well as provide landscaping, street trees, wider (W. 11 th Street) and upgraded sidewalks. The public Plaza would incorporate landscaping, seating, and public art. The Project would also provide landscaped open space at the 8 th floor cut-out and 10 th floor roof-top of the Podium. These areas would be visible from the street and would add to the open space character of the Project Site. The

Plan Provision	Project Characteristics
10. To develop and implement public art into the urban fabric, integrating art into both public and private developments.	<p>public Plaza, seating, and landscaping would support a cohesive social fabric in the Project's neighborhood.</p> <p>Public art would be provided within the public Plaza. Proposed landscaping features, such as vines along the soffit of the Plaza, with canopy trees and native ground cover within the adjacent sidewalk and exterior meshing of the parking Podium would also contribute to the artful character of the street front. In addition, the architectural detailing of the residential tower, including cutouts at upper floor levels and the slim tower profile would be architecturally unique and would contribute to the aesthetic character of the City's Downtown skyline.</p>
13. To provide high and medium density housing close to employment and available to all ethnic, social and economic groups, and to make an appropriate share of the City's low- and moderate-income housing available to residents of the area.	<p>The Project's 794 proposed residential units would contribute to meeting housing needs in the City. The units would range in size, providing housing opportunities for an array of household sizes and income levels. Further, the Project would provide added housing by providing residential development in an area compatible with residential uses, and without displacing existing housing. The Project would not require the demolition of existing housing stock serving low and moderate income households.</p>

Section 500. Land Uses Permitted in the Project Area

Section 502. Map

The Redevelopment Plan Map, attached [within the Redevelopment Plan] as Exhibit No. 1 and incorporated herein, illustrates the location of the Project Area boundaries, the immediately adjacent streets, the proposed public rights-of-way and public easements, and the land uses currently permitted in the Project Area for all public, semi-public and private land.

Notwithstanding anything to the contrary in this Plan, the land uses permitted in the Project Area shall be those permitted by the General Plan, the applicable Community Plan, and any applicable City zoning ordinance, all as they now exist or are hereafter amended and/or supplemented from time to time. In the event the General Plan, the applicable Community Plan, and/or any applicable City zoning ordinance is amended and/or supplemented with regard to any land use in the Project Area, the land use provisions of this Plan, including without limitation, all Exhibits attached [within the Redevelopment Plan], shall be automatically modified accordingly without the need for any formal plan amendment process.

Section 502 pertains to the relationship between the Redevelopment Plan and the other plans that address development in City Center area. This section is procedural in nature, however the procedural provisions must be met to ensure proper implementation of the development guidelines so as to meet the Redevelopment Plan objectives, inclusive of those that reduce impacts on the physical environment. The referenced Exhibit 1 does not designate a specific land use for the Project Site. However, the Project Site is designated as a Downtown Center in the General Plan Framework, and High Density Residential in the Central City Community Plan. The remaining portion of Section 502 discusses procedures by which the Plan map might be adjusted, and indicates that it is the intent of the Redevelopment Plan to stay current with, and be modified to reflect changes in, the Central City Community Plan. As further clarified by the CRA/LA in a memorandum dated June 21, 2012, the land use designation for any property in a Project Area set forth in the Redevelopment Plan Map and the corresponding land use regulations shall defer to and are superseded by the underlying General Plan, Community Plan, and Zoning Ordinance land use designations and regulations.¹ No General Plan amendment or zone change is proposed as part of this Project.

¹ CRA/LA, A designated Local Authority. Clarification Regarding Discretionary Land Use Action. http://www.crala.org/internet-site/Meetings/Board_Agenda_2012/upload/June_21_2012_Item_13.pdf. Accessed June 15, 2018.

Plan Provision	Project Characteristics
<p>Section 503.1. Commercial Uses</p> <p>Areas shown on the Redevelopment Plan Map as Commercial shall be maintained, developed, or used for Commercial uses, consistent with the applicable Community Plan as it now reads or as it may be amended from time to time in the future, and as permitted by the zoning and the Los Angeles Municipal Code, as they now exist or as they may be amended from time to time in the future.</p>	<p>Pursuant to the June 21, 2012 CRA/LA memo cited above, the superseding Community Plan designation for the Project Site is high-density residential with a [Q]R5 designation, which allows ground level commercial uses. The Project's neighborhood oriented commercial (e.g., restaurant/retail uses) would be consistent with the objectives and policies of the Central City Community Plan.</p>
<p>Section 503.2. Residential Uses</p> <p>Areas shown on the Redevelopment Plan Map as Residential shall be maintained, developed or used for multiple family housing, consistent with the applicable Community Plan as it now reads or as it may be amended from time to time in the future, and as permitted by the zoning and the Los Angeles Municipal Code, as they now exist or as they may be amended from time to time in the future.</p>	<p>As noted above, pursuant to the June 21, 2012 CRA/LA memo the superseding Community Plan designation for the Project Site is high-density residential with a [Q]R5 designation, that allows ground level commercial uses. The provision of 794 residential condominium units would be consistent with the objectives and policies of the Central City Community Plan to provide a range of housing choices in the Downtown area. The proposed residential uses would be consistent with the applicable provisions of the LAMC.</p>
<p>508.3. South Park Development Area</p> <p>The land uses that shall generally be located in the South Park Development Area include the following:</p> <ol style="list-style-type: none"> 2. Private Land: Regional Center Commerce and Parking, including but not limited to service establishments; retail/wholesale stores; business offices; professional offices; recreational; sports and entertainment enterprises including theaters, clubs and movie houses; hotel and motel uses; and other compatible and related uses; tourism-serving uses; entertainment uses; community commerce and supportive service establishments; high and medium density housing where compatible with existing and proposed development; open space and parking. 3. Private Land Alternate Use: The following additional alternative uses are designated for that portion of the South Park Development Area designated on the Redevelopment Plan Map for alternative uses: High and medium density housing; community commerce and supportive service establishments, retail/wholesale stores, business offices, professional offices, recreational and entertainment enterprises including theaters, clubs and movie houses, hotel and motel 	<p>The Project Site is designated as High Density Residential in the Central City Community Plan. The Project would require a determination of consistency from CRA/LA to ensure that the Project would be consistent with land uses identified for the South Park Development Area in the Redevelopment Plan.</p> <p>The Project is a mixed-use residential and commercial development that would be consistent with the uses listed for Private Land Alternative Use (high density residential use and compatible commercial uses).</p>

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<p>uses, and other compatible and related uses; open space and parking.</p>	
<p>509. Limitations on Type, Size and Height of Buildings</p> <p>Except as set forth in this Plan or as described in any Designs for Development adopted pursuant to this Plan, the type, size and height of buildings shall be limited by applicable federal, State and local statutes, codes, ordinances and regulations and as generally diagrammed in Exhibit No. 4 attached [within the Redevelopment Plan] and incorporated herein by this reference.</p> <p>512.1. Maximum Floor Area Ratios</p> <p>Subject to the exemption provisions set forth in the balance of this §512 below, each parcel in the Project Area shall be subject to and may be developed with the following maximum Floor Area Ratios:</p> <p>In the South Park Development Area, the Floor Area shall be no more than six (6) times the Parcel Area for parcels north of Pico Boulevard, nor more than three (3) times the Parcel Area for parcels south of Pico Boulevard.</p> <p>512.4. Higher Maximum Floor Area Ratios through Transfer of Floor Area</p> <p>Floor Area Ratios may exceed the maximum Floor Area Ratios set forth in §512.1 above through the transfer of Floor Area Ratios pursuant to the procedures set forth below. The provisions of this §512.4 are in addition to those and a separate matter from the provisions in §§512.2 and 512.3 above. Transfers of Floor Area must be consistent with the following criteria:</p>	<p>The Project would be consistent with the intent of the Redevelopment Plan as well as the Central City Community Plan and applicable sections of the LAMC. The Project Site is located in Height District 4D, with unlimited building height and a development limitation of 6:1 FAR. The Project Site is also located in the South Park Development Area north of Pico Boulevard, which limits FAR to 6:1; except, as discussed below Section 512.4 allows density to be increased to an FAR of 13:1 for projects that include a TFAR.</p> <p>The Applicant is requesting a TFAR of 404,803 square feet of transferred floor area that would be added to the 346,974 square feet of permitted base floor area (6:1 FAR). The total floor area of 751,777 square feet would result in a Transit Area Mixed Use Project FAR of 13:1.</p> <p>As clarified by CRA/LA, land use regulations shall defer to and are superseded by the underlying Community Plan and Zoning regulations. The Project would require a determination of consistency from CRA/LA to ensure that the Project would be consistent with City Center Redevelopment Plan regarding TFAR.</p> <p>However, the Project's proposed TFAR would generally be consistent with the following criteria:</p>
<ol style="list-style-type: none"> 1. The resulting higher density development must be appropriate in terms of location and access to circulation system; compatible with other existing and proposed development; and consistent with the purposes and objectives of this Plan. 2. Unless otherwise permitted by the applicable Community Plan as it now reads or as it may 	<ol style="list-style-type: none"> 1. The proposed Project would be located within a Transit Priority Area near existing public transit. The Project would be similar to other mixed-use tower buildings (both existing and proposed) within the urban area that makes up the general Downtown TFAR area. As described above, the Project would be consistent with the purpose and objectives of the City Center Redevelopment Plan by providing a mixed-use residential/commercial development that would activate the streetscape. 2. The LACC (City Owned Donor Site) is the Los Angeles Convention Center at 1201 S. Figueroa Street, a City-

Plan Provision	Project Characteristics
<p>be amended from time to time in the future, Floor Area Ratios may only be transferred from parcels or portions thereof and to parcels and portions thereof which are within, respectively, the Historic Downtown, City Markets, or South Park Development Areas.</p>	<p>owned property located adjacent to the South Park Redevelopment Plan area within the Central City Community Plan area. The Central City Community Plan references LAMC Section 14.15.1 et seq, regarding TFAR. As defined in LAMC Section 14.5.3, both the Donor Site and Project Site are located within the Central City TFAR Area.</p>
<p>3. The Floor Area Ratio on any parcel shall not exceed the maximum Floor Area Ratio set forth in the applicable City zoning ordinance in effect at the time the transfer is made.</p>	<p>3. The Project Site is zoned [Q]R5-4D-O, with the “4” indicating Height District 4, which allows unlimited building height and a maximum FAR of 13:1. The D indicates a Development Limitation that limits the maximum FAR to 6:1, with an increase to a maximum FAR of 13:1 with a TFAR. The requested FAR of 13:1 would be consistent with these applicable FAR requirements.</p>
<p>4. Transfers of Floor Area Ratio to parcels with reasonable proximity or direct access to a public or private rapid transit station shall be particularly encouraged.</p>	<p>4. The Project Site is adjacent to the proposed Los Angeles Streetcar Project that would run along W. 11th Street. In addition, it is served by regional bus lines and is located approximately 1,360 feet from a Metro Light Rail station at Flower Street and Pico Boulevard as well as a station at Flower Street and 7th Street, approximately 2,700 feet from the Project Site.</p>
<p>5. Transfers of Floor Area Ratio from parcels on which buildings of historic, architectural or cultural merit are located shall be particularly encouraged where the transfer can reasonably be expected to further the goal of preservation of such buildings.</p>	<p>5. This criteria is not applicable to the Project, as the LACC (Donor Site) has not been identified as a historic resource.</p>
<p>512.5. Procedures for Effectuating Transfers of Floor Area Ratio for Transfers of 50,000 square feet of Floor Area or More</p> <p>Transfers of Floor Area Ratio of 50,000 square feet of Floor Area or more shall be governed by §14.5.1 to §14.5.8 of the Los Angeles Zoning Code (Article 4.5 of Chapter 1 of the Los Angeles Municipal Code) codified by Ordinance 163,617, adopted by the City Council on May 4, 1988, as it may be hereafter amended.</p>	<p>The Project would require approximately 404,803 square feet of transferred floor area in order to permit the requested FAR of 13:1.</p> <p>The Project would comply with the applicable provisions of LAMC Article 4.5, Sections 14.5.1 through 14.5.8.</p>
<p>513. Open Space, Landscaping, Light, Air and Privacy</p> <p>The approximate amount of open space to be provided in the Project Area is the total of all area which will be in the public rights-of-way, the public grounds, spaces around buildings, and all other outdoor areas not permitted to be covered by buildings as generally diagrammed in Exhibit No. 5 of this Plan attached [within the Redevelopment Plan] and incorporated herein by this reference. In all areas, sufficient space shall</p>	<p>While this provision applies to the entire CRA Project Area and is not meant to be directly applied to individual development projects, the Project will provide open space areas to generally support this plan provision.</p> <p>Exhibit No. 5 indicates an approximate Open Space total of 3 percent, a Right-of-Way total of 34 percent, and a Building Area total of 63 percent. As indicated in Table II-1, <i>Proposed Development Program</i> in Chapter II, <i>Project Description</i>, of this Draft EIR, the Project would include 103,380 square feet of public, private, and common open space, which is approximately 13.75 percent of the total</p>

Plan Provision**Project Characteristics**

be maintained between buildings to provide adequate light, air and privacy. Landscaping shall be developed in the Project Area to ensure optimum use of living plant material.

building floor area of 751,777 square feet. The residential tower would be located more than 80 feet from any offsite existing and future high-rise buildings in the area, which would provide sufficient space between the tower and any off-site high-rise buildings pursuant to Downtown Design Guide standards. Landscaping would be provided in the public Plaza, Podium terraces, building cut-out areas and along the building frontages. The Project would also comply with open space requirements under LAMC Section 12.21.G, as discussed in Section IV.M.5, *Parks and Recreation*, of this Draft EIR.

515. Utilities

The Agency shall require that all utilities be placed underground when physically and economically feasible, as determined by the Agency.

All utility lines would be placed underground or screened from public view.

517. Setbacks

All setback areas shall be landscaped and maintained by the owner. Any portion necessary for access shall be paved. The Agency may establish setback requirements for new developments within the Project Area which may exceed the requirements of the City's zoning ordinance.

The Project would include a landscaped, 2,728-square foot public Plaza at a setback at the corner of W. 11th Street and S. Olive Street. 5-foot setbacks would be provided at the sidewalk entrances to the commercial uses along W. 11th Street and the residential lobby. In addition, the residential tower would be set back from the Podium edge approximately 54 feet, 4 inches from the west Podium wall, 58 feet, 5 inches from the south Podium wall, and 20 feet from the north property line. All setbacks would be consistent with existing zoning and the requirements of the Downtown Design Guide (evaluated below).

522. Design Guidelines and Development Controls

Within the limits, restrictions and controls established in this Plan, the Agency is authorized to establish heights of buildings, land coverage, setback requirements, design criteria, traffic circulation, traffic access, and other design guidelines and development controls (including, without limitation, standards for signage) necessary for the proper development of both private and public areas within the Project Area.

No new improvement shall be constructed and no new existing improvement shall be substantially modified, altered, repaired, or rehabilitated except in accordance with this Plan and any such design guidelines and development controls, and in accordance with architectural, landscape and site plans submitted to and approved in writing by the Agency. One of the objectives of this Plan is to create an attractive and pleasant environment in the Project Area. Therefore, such plans shall give consideration to good design, open space and other amenities to enhance the aesthetic quality

As clarified by CRA/LA, land use regulations, shall defer to and are superseded by the underlying General Plan, Community Plan, and Zoning Ordinance, including the codified sections of the current Downtown Design Guide. The Project would require a determination of consistency from CRA/LA to ensure that the Project would comply with applicable design guidelines and development controls of the Redevelopment Plan. The Project would include a public Plaza, streetscape improvements along all the street frontages, and a striking modern building design with residential and restaurant/retail street fronts to enhance the aesthetic quality of the Project Area. A table that compares the characteristics of the Project's applicable design guidelines and standards in the Downtown Design Guide is provided in Appendix B, Aesthetics Tables of this Draft EIR. Aesthetics Table – 2, was prepared to support the analysis included in Section IV.A, *Aesthetics*, of this Draft EIR. As indicated in the evaluation, the Project is consistent with the provisions of the Downtown Design Guide.

Plan Provision	Project Characteristics
<p>of the Project Area. The Agency shall not approve any plans that do not comply with this Plan or with any applicable design guidelines or development controls adopted by the Agency.</p> <p>523. Variances, Conditional Use Permits, Building Permits and Other Land Development Entitlements</p> <p>No zoning variance, conditional use permit, building permit, demolition permit or other land development entitlement shall be issued in the Project Area from the date of adoption of this Plan unless and until the application thereof has been reviewed and approved by the Agency and determined to be in conformance with this Plan and any applicable design guidelines or development controls adopted by the Agency.</p> <p>No permits shall be issued for the construction of any new building or any addition to or rehabilitation of an existing building in the Project Area until the application for such permit has been processed in the manner provided. Any permit that is issued hereunder must be in conformance with the provisions and intent of this Plan.</p> <p>The City shall withhold the issuance of the permit if the proposed improvements do not meet the requirements of the Plan as determined by the City.</p> <p>SOURCE: ESA, 2018.</p>	<p>As clarified by the CRA/LA, land use regulations shall defer to and are superseded by the underlying General Plan, Community Plan, and the City's Zoning Ordinance. The City Planning Department and CRA/LA would ensure that all entitlements are consistent with the intent of the Center City Redevelopment Plan.</p>

Appendix K

Noise and Vibration

1045 OLIVE PROJECT

Noise and Vibration Technical Appendix

Prepared for
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Miami, Florida 33137

September 2019



1045 OLIVE PROJECT

Noise and Vibration Technical Appendix

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Los Angeles
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted dB scale
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
L_{eq}	Equivalent Sound Level
L_{max}	Maximum Noise Level
LAMC	Los Angeles Municipal Code
PPV	peak particle velocity
TeNS	Caltrans Technical Noise Supplement
VdB	vibration decibel

1045 OLIVE PROJECT

Noise and Vibration Methodology

1. Introduction

An acoustical study was conducted for the Project that evaluates potential noise and vibration impacts due to Project construction activities, as well as aspects of Project operations that are noise- and vibration-intensive and that have the potential to impact off-site sensitive land uses sensitive to these effects. The objectives of this analysis are to:

- Quantify the existing ambient noise environment at the Project Site;
- Evaluate the construction and operational noise and vibration impacts to nearby off-site noise sensitive receptors based on applicable City standards and thresholds; and
- Provide, if needed, noise mitigation measures to comply with applicable City noise regulations and standards.

2. Ambient Noise Levels

The predominant existing noise source near the Project Site is roadway noise from the area bounded by W. Olive Street to the east, 11th Street to the south, S. Grand Avenue to the west, and Olympic Boulevard to the north. Secondary noise sources include general residential- and commercial-related activities associated with loading dock/delivery truck activities, trash compaction, and refuse service activities.

To establish ambient noise levels, ambient noise measurements were conducted at nine locations chosen to be representative of the impacts on the sensitive receptors within the Project Site vicinity that are closest to the Project Site. These measurements also characterize the existing noise environment in the Project Site vicinity. Short-term ambient noise measurements were conducted between 8:00 A.M. to 10:00 A.M. on Wednesday, January 31, 2018, and long-term ambient noise measurements were conducted from Wednesday, January 31 through Thursday, February 1, 2018. Long-term (24-hour) measurements were conducted at locations R1 and R2, and short-term (15-minute) noise measurements were conducted at locations R3 through R8. The measurement locations are shown in **Figure 1**, *Noise Measurement Locations*.

- R1: Represents the existing noise environment at the seven-story Oakwood Olympic & Olive mixed-use residential development on the northern boundary of the Project Site. The sound meter was placed at the northwestern corner of the Project Site at S. Olive Street.
- R2: Represents the existing noise environment at the southern Project Site boundary just east of the southern boundary of the 20-story Ten50 project residential mixed-use building adjacent to the Project Site. The sound meter was placed at the western side of the southern property line of the Project Site along W. 11th Street.
- R3: Represents the existing noise environment at the multi-family residential uses along W. 11th Street near S. Grand Avenue. The sound meter was placed at the southwest corner of W. 11th Street and S. Grand Avenue.
- R4: Represents the existing noise environment at the multi-family residential uses along S. Hope Street. The sound meter was placed in front of a multi-family residential building along S. Hope Street.
- R5: Represents the existing noise environment at the multi-family residential uses along W. Olympic Boulevard. The sound meter was placed in front of a multi-family residential building along W. Olympic Boulevard.
- R6: Represents the existing noise environment at the multi-family residential uses along W. Olympic Boulevard. The sound meter was placed at the northeast corner of W. Olympic Boulevard and S. Olive Street, nearby a multi-family residential building.
- R7: Represents the existing noise environment at future mixed use developments at the southeast and southwest corner of W. 11th Street and S. Hill Street. The sound meter was placed at the southeast corner of W. 11th Street and S. Hill Street.
- R8: Represents the existing noise environment at a future mixed use development at the northwest corner of W. 12th Street and Margo Street. The sound meter was placed at the northeast corner of the future mixed use development along Margo Street.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (SLM). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately 5 feet above the local grade.

A summary of the noise measurements collected is provided in **Table 1**, *Summary of Ambient Noise Measurements*. As shown therein, the measured daytime hourly ambient noise levels ranged from a low of 54 dBA L_{eq} to a high of 76 dBA L_{eq} in the vicinity of the Project Site.

TABLE 1
SUMMARY OF AMBIENT NOISE MEASUREMENTS

Location	Measured Ambient Noise Levels ^a (dBA)			
	Daytime (7 A.M. to 10 P.M.) Hourly L _{eq}	Daytime Average Hourly L _{eq}	Nighttime (10 P.M. to 7 A.M.) Hourly L _{eq}	Nighttime Average Hourly L _{eq}
R1 1/31/18 10:00 a.m. to 2/1/18 10:00 a.m.	63 – 76	69	54 – 68	62
R2 1/31/18 10:00 a.m. to 2/1/18 10:00 a.m.	63 – 76	69	54 – 69	64
R3	72	N/A	N/A	N/A
R4	68	N/A	N/A	N/A
R5	74	N/A	N/A	N/A
R6	79	N/A	N/A	N/A
R7	72	N/A	N/A	N/A
R8	66	N/A	N/A	N/A

^a Detailed measured noise data, including hourly Leq levels, are provided in Appendix K of this Draft EIR.

SOURCE: ESA, 2018.

3. Methodology

3.1 On-Site Construction Noise

On-site construction noise impacts were evaluated by determining the noise levels generated by the different types of construction activity anticipated, calculating the construction-related noise level generated by the mix of equipment assumed for all construction activities at nearby sensitive receptor locations, and comparing these construction-related noise levels to existing ambient noise levels (i.e., noise levels without construction noise) at those receptors. More specifically, the following steps were undertaken to assess construction-period noise impacts.

1. Ambient noise levels at surrounding sensitive receptor locations were determined based on field measurements (see **Table 1**). Ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter (sound meter). The Larson-Davis 820 sound meter is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade.
2. Typical noise levels for each type of construction equipment expected to be used based on information provided by the Project Applicant were obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM).

3. Distances between construction site locations (noise sources) within the Project Site and surrounding off-site noise-sensitive receptors were measured using Project architectural drawings, site plans, and Google Earth.
4. The construction noise level was then calculated for each construction phase using the FHWA RCNM, conservatively, in terms of hourly L_{eq} , for sensitive receptor locations based on the standard point-source noise-distance attenuation factor of 6.0 dBA for each doubling of distance over a hard surface, assuming that all of the equipment for each construction phase would be in use concurrently and that the loudest equipment would be located at the edge of the Project Site closest to the sensitive receptor locations.
5. Construction noise levels were then compared to the construction noise significance thresholds identified below.

In accordance with the City of Los Angeles California Environmental Quality Act (CEQA) Thresholds Guide (Threshold Guide), since construction activities would last more than 10 days for all phases, the construction noise significance threshold used in this analysis is an increase in the ambient exterior noise level of 5 dBA L_{eq} or more at a noise-sensitive use.

It should also be noted that the Thresholds Guide contains screening criteria, including (1) whether construction activities occur within 500 feet of a noise sensitive use; and (2) whether construction occurs between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or anytime on Sunday. A “no” response to these questions indicates that construction would not occur between these hours and there would normally be no significant construction noise impacts from the project.

3.2 Off-Site Roadway Noise (Construction and Operation)

Roadway noise impacts were evaluated using the FHWA Traffic Noise Model (TNM) and the Caltrans Technical Noise Supplement (TeNS) method based on the roadway traffic volume data provided in the Traffic Study prepared for the Project.¹ This method represents a noise prediction model that takes into account traffic volumes at the study intersections analyzed in the Traffic Study prepared for the Project and provided in Appendix N of the Project’s Draft EIR. This method, considered an industry standard, allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels that would occur under the “Without Project” condition.

Since construction activities would last more than 10 days for all phases, the construction noise significance threshold used in this analysis is an increase in the ambient exterior noise level of 5 dBA L_{eq} or more at a noise-sensitive use. For the construction-related traffic noise analysis, it was assumed that trucks traveling to and from the Project Site would travel along routes that connect to the Interstate 10 Freeway, which coincide with travel along the haul route(s) approved by the City. Therefore, construction-related traffic noise impacts were evaluated along the haul route(s) requested by the Applicant. The truck route for loaded trucks would be a left turn from the Project Site heading north on S. Olive Street, a right turn onto W. Olympic Boulevard, a right turn onto

¹ The Mobility Group, 1045 Olive Project Transportation Study, 2019. Provided in Appendix N of the Project’s Draft Environmental Impact Report (EIR).

Hill Street, a left turn onto W. 18th Street, and merging onto the Interstate 10 freeway. The truck route for empty trucks would be exiting the Interstate 10 freeway onto W. 17th Street and a right turn onto S. Olive Street towards the Project Site. The construction-related traffic noise analysis also included construction worker vehicle trips.

For operations, the operational noise significance threshold used in this analysis is whether the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” category; or any 5 dBA CNEL or greater noise increase.

3.3 Stationary Point-Source Noise (Operations)

Stationary point-source noise levels from the Project Site were evaluated by identifying the noise levels generated by the Project’s outdoor stationary noise sources such as open spaces areas with outdoor activities, rooftop mechanical equipment, parking structure automobile operations, and loading/refuse collection area activity, calculating the hourly L_{eq} noise level from each noise source at sensitive receptor property lines, and comparing such noise levels to existing ambient noise levels. More specifically, the following steps were undertaken to calculate outdoor stationary point-source noise impacts:

1. Ambient noise levels at surrounding off-site sensitive receptor locations were estimated based on field measurement data (see Table 1).
2. Noise levels generated by each type of stationary point-source noise generator, including mechanical equipment, open spaces, loading dock, and parking structure operations, were obtained based on measured noise levels for similar equipment/activities, from noise levels published in environmental noise assessment documents for land use development projects or scientific journals, or from noise levels from equipment manufacturer specifications
3. Distances between stationary point-source noise sources and surrounding sensitive receptor locations were measured using Project architectural drawings, site plans, and Google Earth.
4. Stationary point-source noise levels were then calculated for each sensitive receptor location based on the standard point-source noise-distance attenuation factor of 6.0 dBA for each doubling of distance over a hard surface.
5. Parking related noise levels were estimated utilizing the methodology recommended by the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* for the general assessment of stationary transit noise sources. Using this methodology, the Project’s peak hourly noise level that would be generated by the on-site parking levels was estimated using the following FTA equation for a parking garage:²

$$L_{eq}(h) = SEL_{ref} + 10\log(NA/1000) - 35.6, \text{ where}$$

$$L_{eq}(h) = \text{hourly } L_{eq} \text{ noise level at 50 feet}$$

² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 4-13 and Table 4-14, pages 45 and 47, 2018.

$SEL_{ref} = 92$ dBA, which is the reference noise level for stationary noise source represented in sound exposure level (SEL) at 50 feet, for 1,000 cars in peak activity hour including engines accelerating, doors slamming, car alarms, tire squeals, and people talking

N_A = number of automobiles per hour

6. Noise level increases were compared to the stationary source noise significance threshold identified above.
7. The combined noise levels from each operational noise source were estimated and the combined noise level increases were compared to the significance threshold identified above.
8. For outdoor mechanical equipment, it was assumed that the Project would comply with the requirements of LAMC Section 112.02 to ensure that the maximum allowable noise generated from any and all outdoor mechanical equipment were specified such that noise levels would not exceed the significance threshold identified above.

3.4 Composite Noise (Operations)

The combined noise level from all operational noise sources was estimated by logarithmically adding together the noise levels from all of the operational noise sources at the maximally impacted noise-sensitive receptor locations, assuming the simultaneous contribution of noise from each source. As discussed previously, the dBA scale is based on logarithms, where a doubling of sound energy corresponds to a 3 dBA increase (e.g., if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA). The noise sources comprising the composite noise level include off-site roadway noise and on-site stationary point-source noise, as listed above. Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls³ and is thus evaluated in conjunction with groundborne vibration as discussed in the next subsection below.

3.5 Groundborne Vibration (Construction and Operations)

Groundborne vibration and noise impacts were evaluated for potential building damage and human annoyance impacts by identifying Project's potential vibration sources, estimating the distance between the Project's vibration sources and the nearest structure and human annoyance receptor locations, estimating the maximum vibration and noise levels at the distances to the nearest structure and vibration annoyance receptor locations using the vibration data from the FTA *Transit Noise and Vibration Impact Assessment Manual*, and making a determination based on the significance thresholds described below.

The Thresholds Guide does not include significance thresholds to assess groundborne vibration and noise impacts during construction or operation. Thus, for this Project, the City has determined to use the FTA's criteria, stated below, to evaluate potential groundborne vibration and noise impacts related to Project construction and operation. Based on the FTA *Transit Noise and Vibration Impact*

³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Section 5.5, 2018.

Assessment Manual, groundborne vibration could result in building damage if the following were to occur:

- Potential Building Damage – Project construction and operational activities cause groundborne vibration levels to exceed 0.5 inches per second PPV at the nearest offsite reinforced-concrete, steel, or timber building.⁴

Based on FTA *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration could be perceived as annoying to humans if the following were to occur:

- Potential Human Annoyance – Project construction and operational activities cause groundborne vibration levels to exceed 72 VdB at off-site sensitive uses, including residential uses.⁵

The FTA *Transit Noise and Vibration Impact Assessment Manual* classifies the vibration levels above based on whether the vibration-producing events are frequent, occasional, or infrequent. “Frequent Events” is defined as more than 70 vibration events of the same source per day. “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day. “Infrequent Events” is defined as fewer than 30 vibration events of the same kind per day. The values listed above are applicable to “Frequent Events.” For purposes of conservative analysis, the vibration analysis provided herein for potential human annoyance compares the estimated vibration levels generated during construction and operation of the Project to the 72 VdB significance threshold for off-site residential uses for “Frequent Event.”

4. Project Characteristics

The following Project Design Features would be incorporated into the Project to eliminate potential sources of noise and groundborne vibration and noise:

NOISE-PDF-1: The Project will not use impact pile drivers and will not allow blasting during construction activities.

NOISE-PDF-2: Signs will be posted at Project truck loading areas prohibiting idling for more than 5 consecutive minutes.

NOISE-PDF-3: Amplified sound in outdoor open space areas on the site shall be prohibited.

In addition, Section IV.A, *Aesthetics*, of the Project’s Draft EIR includes a Project Design Feature to provide noise shielding of the noise from the Project’s parking structure, as well as to reduce potential aesthetics impacts:

AES-PDF-2: Parking Shielding (refer to Section IV.A, *Aesthetics*, of the Project’s Draft EIR for additional details). This Project Design Feature requires that the podium parking

⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-5, page 186, 2018.

⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 6-3, page 126, 2018.

be shielded from adjacent areas with minimum 36-inch high baffling panels behind architectural screen meshing for aesthetic character and for light and sound attenuation.

5. Mitigation Measures

5.1 Construction Noise and Vibration

The following mitigation measures would reduce on-site construction-related noise and vibration levels:

NOISE-MM-1: The Project shall provide temporary ground-level construction fencing equipped with noise blankets rated to achieve sound level reductions of at least 10 dBA between the Project Site and the ground-level noise sensitive receptors at sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site). These temporary noise barriers shall be used to block the line-of-sight between the construction equipment and the noise-sensitive receptors during early Project construction phases (up to the start of framing) when the use of noisy heavy equipment such as concrete saws, crawler tractors, and drill rigs, is prevalent.

Noise barriers shall be heavy-duty materials such as vinyl-coated polyester (VCP), at least 10 ounces per square yard and quilted for sound absorption, or other similarly effective materials. All noise barrier material types are equally effective, acoustically, if they have this density. The noise barrier shall have a minimum sound transmission class (STC) of 25 and noise reduction coefficient (NRC) of 0.75 or equivalent STC and NRC to achieve the 10 dBA reduction. STC is an integer rating of how well a wall attenuates airborne sound and NRC is a scalar representation of the amount of sound energy absorbed upon striking a wall.

NOISE-MM-2: During framing and vertical building construction, the Project shall provide temporary flexible noise curtains or noise blankets along the Project's vertical structures rated to achieve sound level reductions of at least 10 dBA to block the line-of-sight between noise producing equipment and the adjacent residential land uses at sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site), where the use of such noise curtains or noise blankets would not interfere with the safety, integrity, and necessary construction activities of framing and vertical building construction.

NOISE-MM-3: Contractors shall ensure that all construction equipment, fixed or mobile, are equipped with properly operating and maintained noise shielding and muffling devices, consistent with manufacturers' standards. The contractor shall use muffler systems (e.g. absorptive mufflers) that provide a minimum reduction of 8 dBA compared to the same equipment without an installed muffler system, reducing maximum construction noise levels.

NOISE-MM-4: The operation of construction equipment that generates high levels of vibration, such as large bulldozers and loaded trucks, shall be prohibited within 80 feet of the property lines of existing residential uses adjacent to the Project Site. Instead, rubber-tired equipment not exceeding 400 horsepower shall be used in these areas during demolition, grading, and excavation operations within 80 feet from the sensitive receptor locations R1 (mixed-use residential north of the Project Site) and R2 (mixed-use residential west of the Project Site).

NOISE-MM-5: To reduce potential construction noise impacts and vibration impacts regarding human annoyance, the Applicant shall designate a construction relations officer to serve as a liaison with the adjacent mixed-use developments (R1 and R2). The liaison shall be responsible for responding to concerns regarding construction noise and vibration within 24 hours of receiving a complaint. The liaison shall ensure that steps will be taken to reduce construction noise and vibration levels as deemed appropriate and safe by the on-site construction manager. Such steps could include the use of noise absorbing curtains or blankets, vibration absorbing barriers, substituting lower noise or vibration generating equipment or activity, rescheduling of high noise or vibration-generating construction activity, or other potential adjustments to the construction program to reduce noise or vibration levels at the adjacent mixed-use developments (sensitive receptor locations R1 [mixed-use residential north of the Project Site] and R2 [mixed-use residential west of the Project Site]).

NOISE-MM-6: The Project shall provide a construction site notice that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public.

5.2 Operational Noise and Vibration

Not applicable as Project impacts are less than significant without mitigation.

Exhibit K-1

Ambient Noise Data

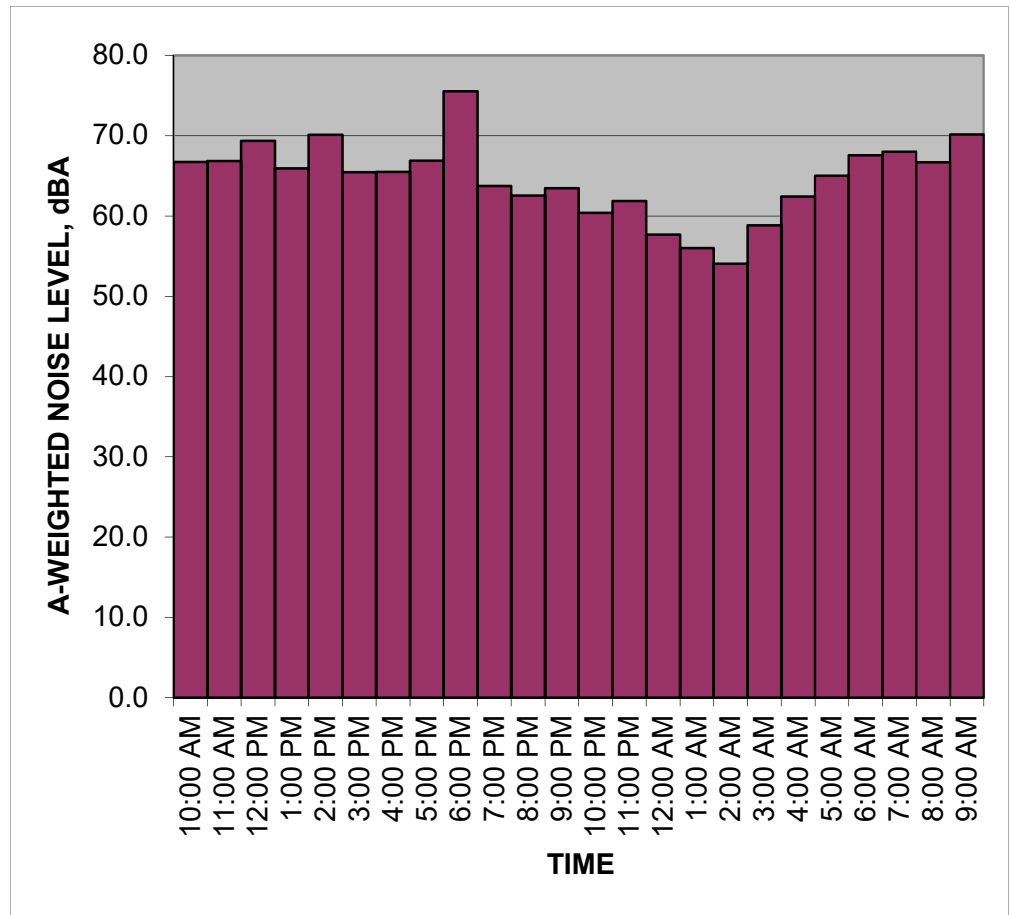


Measured Ambient Noise Levels

Project: 1045 S Olive Street
 Location: R1
 Sources: Ambient

Date: April 17-18, 2017

TIME	HNL, dB(A)
10:00 AM	66.7
11:00 AM	66.8
12:00 PM	69.3
1:00 PM	65.9
2:00 PM	70.1
3:00 PM	65.4
4:00 PM	65.5
5:00 PM	66.9
6:00 PM	75.5
7:00 PM	63.7
8:00 PM	62.5
9:00 PM	63.4
10:00 PM	60.4
11:00 PM	61.9
12:00 AM	57.7
1:00 AM	56.0
2:00 AM	54.0
3:00 AM	58.8
4:00 AM	62.4
5:00 AM	65.0
6:00 AM	67.5
7:00 AM	68.0
8:00 AM	66.7
9:00 AM	70.1
CNEL, dB(A):	70.6



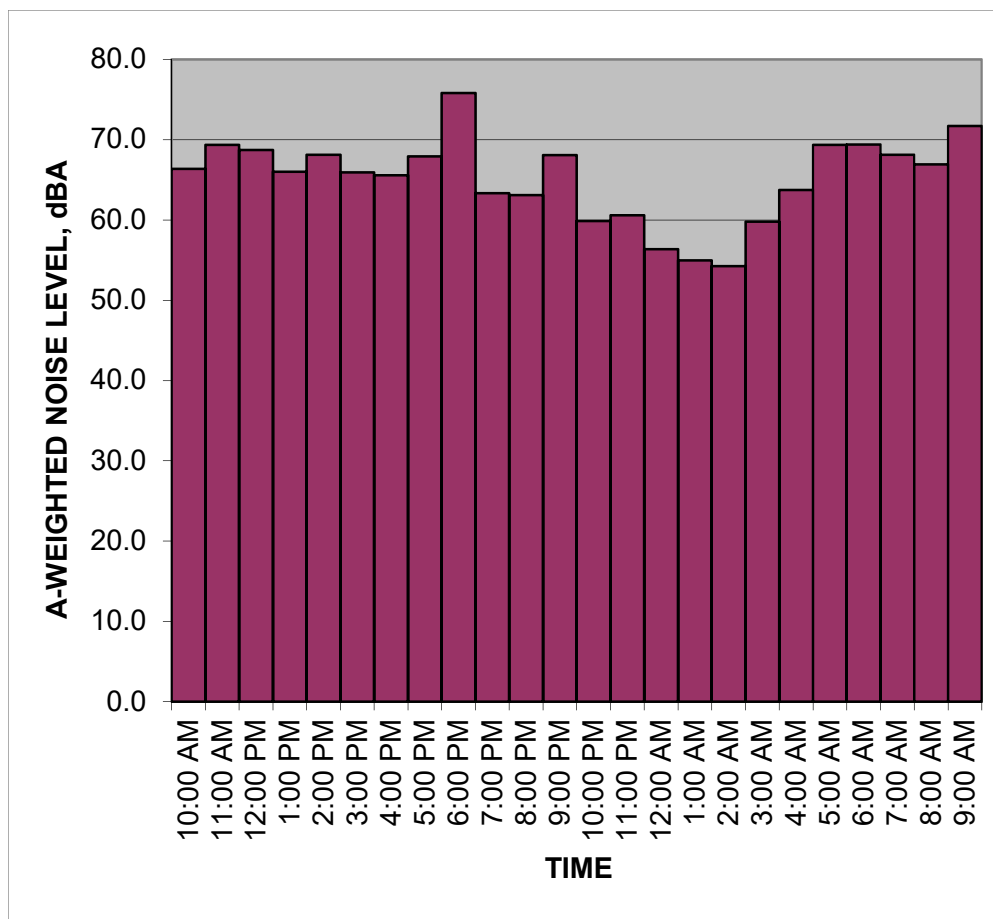
NOTES:

Measured Ambient Noise Levels

Project: 1045 S Olive Street
 Location: R2
 Sources: Ambient

Date: April 17-18, 2017

TIME	HNL, dB(A)
10:00 AM	66.3
11:00 AM	69.4
12:00 PM	68.7
1:00 PM	66.0
2:00 PM	68.1
3:00 PM	65.9
4:00 PM	65.6
5:00 PM	67.9
6:00 PM	75.8
7:00 PM	63.3
8:00 PM	63.1
9:00 PM	68.1
10:00 PM	59.9
11:00 PM	60.6
12:00 AM	56.4
1:00 AM	54.9
2:00 AM	54.2
3:00 AM	59.8
4:00 AM	63.7
5:00 AM	69.3
6:00 AM	69.4
7:00 AM	68.1
8:00 AM	66.9
9:00 AM	71.7
CNEL, dB(A):	72.0



NOTES:

Summary

File Name on Meter LxT_Data.073
File Name on PC SLM_0005055_LxT_Data_073.00.ldbin
Serial Number 0005055
Model SoundTrack LxT®
Firmware Version 2.301
User
Location R3
Job Description
Note

Measurement

Description
Start 2018-01-31 09:20:50
Stop 2018-01-31 09:35:50
Duration 00:15:00.0
Run Time 00:15:00.0
Pause 00:00:00.0

Pre Calibration 2018-01-31 08:32:22
Post Calibration None
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
Peak Weight A Weighting
Detector Slow
Preamp PRMLxT1
Microphone Correction Off
Integration Method Exponential
Overload 147.2 dB

A C Z
Under Range Peak 103.4 100.4 105.4 dB
Under Range Limit 38.7 36.7 44.7 dB
Noise Floor 25.8 26.4 33.9 dB

Results

LASeq 72.4 dB
LASE 101.9 dB
EAS 1.729 mPa²h
EAS8 55.342 mPa²h
EAS40 276.708 mPa²h
LASpeak (max) 2018-01-31 09:23:10 101.2 dB
LASmax 2018-01-31 09:23:10 83.1 dB
LASmin 2018-01-31 09:27:22 61.6 dB
SEA -99.9 dB

LAS > 85.0 dB (Exceedance Counts / Duration) 0 0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration) 0 0.0 s

LCSeq 81.5 dB
LASEq 72.4 dB
LCSeq - LASEq 9.1 dB
LAleq 74.0 dB
LAeq 72.4 dB
LAleq - LAeq 1.6 dB

Leq
LS(max)
LS(min)
LPeak(max)

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
72.4					
83.1	2018/01/31 9:23:10				
61.6	2018/01/31 9:27:22				
101.2	2018/01/31 9:23:10				

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Run	2018-01-31	9:20:50				
2		2018-01-31	9:20:50	72.4	93.0	78.5	69.0
3		2018-01-31	9:21:50	73.8	98.6	82.2	70.1
4		2018-01-31	9:22:50	75.1	101.2	83.1	69.3
5		2018-01-31	9:23:50	73.6	96.3	81.1	65.7
6		2018-01-31	9:24:50	66.6	85.1	72.8	62.9
7		2018-01-31	9:25:50	72.4	95.0	80.5	65.2
8		2018-01-31	9:26:50	68.9	87.4	74.2	61.6
9		2018-01-31	9:27:50	66.9	94.0	74.7	61.8
10		2018-01-31	9:28:50	71.5	89.7	75.6	65.1
11		2018-01-31	9:29:50	74.1	95.6	82.0	65.7
12		2018-01-31	9:30:50	71.2	93.8	77.1	65.1
13		2018-01-31	9:31:50	73.3	93.6	80.6	67.0
14		2018-01-31	9:32:50	70.4	90.9	75.2	66.9
15		2018-01-31	9:33:50	72.5	93.0	77.0	67.7
16		2018-01-31	9:34:50	74.0	94.2	79.4	67.3
17	Stop	2018-01-31	9:35:50				

Summary

File Name on Meter LxT_Data.122
File Name on PC SLM_0004983_LxT_Data_122.00.ldbin
Serial Number 0004983
Model SoundTrack LxT®
Firmware Version 2.301
User
Location R4
Job Description
Note

Measurement

Description
Start 2018-01-31 08:48:46
Stop 2018-01-31 09:03:46
Duration 00:15:00.0
Run Time 00:15:00.0
Pause 00:00:00.0

Pre Calibration 2018-01-31 08:35:28
Post Calibration None
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
Peak Weight A Weighting
Detector Slow
Preamp PRMLxT1
Microphone Correction Off
Integration Method Exponential
Overload 144.9 dB

A C Z
Under Range Peak 101.1 98.1 103.1 dB
Under Range Limit 37.6 35.6 43.6 dB
Noise Floor 24.7 25.3 32.7 dB

Results

LASeq 67.9 dB
LASE 97.5 dB
EAS 622.408 µPa²h
EAS8 19.917 mPa²h
EAS40 99.585 mPa²h
LASpeak (max) 2018-01-31 08:50:14 99.1 dB
LASmax 2018-01-31 09:02:07 80.1 dB
LASmin 2018-01-31 08:55:08 59.3 dB
SEA -99.9 dB

LAS > 85.0 dB (Exceedance Counts / Duration) 0 0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration) 0 0.0 s

LCSeq 76.9 dB
LASeq 67.9 dB
LCSeq - LASeq 8.9 dB
LAleq 69.5 dB
LAeq 67.9 dB
LAleq - LAeq 1.5 dB

Leq
LS(max)
LS(min)
LPeak(max)

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
67.9					
80.1	2018/01/31 9:02:07				
59.3	2018/01/31 8:55:08				
99.1	2018/01/31 8:50:14				

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Calibration Change	2018-01-31	8:35:09				
2	Calibration Change	2018-01-31	8:35:28				
3	Run	2018-01-31	8:48:46				
4		2018-01-31	8:48:46	65.0	86.8	70.7	59.7
5		2018-01-31	8:49:46	66.4	99.1	75.0	60.5
6		2018-01-31	8:50:46	68.0	87.8	73.7	59.9
7		2018-01-31	8:51:46	67.7	89.1	73.4	61.7
8		2018-01-31	8:52:46	65.3	84.4	71.3	60.5
9		2018-01-31	8:53:46	66.8	98.3	74.0	59.6
10		2018-01-31	8:54:46	65.3	91.1	72.7	59.3
11		2018-01-31	8:55:46	67.5	92.2	73.9	59.3
12		2018-01-31	8:56:46	64.6	84.1	71.6	59.9
13		2018-01-31	8:57:46	67.9	94.1	74.4	61.5
14		2018-01-31	8:58:46	65.9	95.8	72.9	59.8
15		2018-01-31	8:59:46	65.7	87.1	70.8	60.6
16		2018-01-31	9:00:46	64.6	88.4	71.4	60.1
17		2018-01-31	9:01:46	73.0	94.6	80.1	62.0
18		2018-01-31	9:02:46	72.3	92.7	78.9	62.4
19	Stop	2018-01-31	9:03:46				

Summary		
File Name on Meter	LxT_Data.123	
File Name on PC	SLM_0004983_LxT_Data_123.00.ldbin	
Serial Number	0004983	
Model	SoundTrack LxT®	
Firmware Version	2.301	
User		
Location	R5	
Job Description		
Note		

Measurement		
Description		
Start	2018-01-31 09:07:45	
Stop	2018-01-31 09:22:45	
Duration	00:15:00.0	
Run Time	00:15:00.0	
Pause	00:00:00.0	
Pre Calibration	2018-01-31 08:35:24	
Post Calibration	None	
Calibration Deviation	---	

Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1		
Microphone Correction	Off		
Integration Method	Exponential		
Overload	144.9 dB		
	A	C	Z
Under Range Peak	101.1	98.1	103.1 dB
Under Range Limit	37.6	35.6	43.6 dB
Noise Floor	24.7	25.3	32.7 dB

Results

LASeq	74.3 dB	
LASE	103.8 dB	
EAS	2.672 mPa²h	
EAS8	85.506 mPa²h	
EAS40	427.528 mPa²h	
LASpeak (max)	2018-01-31 09:13:38	109.9 dB
LASmax	2018-01-31 09:13:38	91.3 dB
LASmin	2018-01-31 09:09:35	60.6 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	6	13.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCSeq	83.1 dB	
LASeq	74.3 dB	
LCSeq - LASeq	8.8 dB	
LAlaq	77.4 dB	
LAeq	74.3 dB	
LAlaq - LAeq	3.2 dB	

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	74.3				
LS(max)	91.3	2018/01/31 9:13:38			
LS(min)	60.6	2018/01/31 9:09:35			
LPeak(max)	109.9	2018/01/31 9:13:38			

Overloads

0

Overload Duration

0.0 s

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Run	2018-01-31	9:07:45				
2		2018-01-31	9:07:45	74.4	98.4	80.3	66.5
3		2018-01-31	9:08:45	67.6	87.2	75.1	60.6
4		2018-01-31	9:09:45	74.8	99.9	85.5	64.3
5		2018-01-31	9:10:45	70.9	96.4	77.7	62.5
6		2018-01-31	9:11:45	74.2	101.2	85.3	65.3
7	R5	2018-01-31	9:12:45	79.0	109.9	91.3	70.2
8		2018-01-31	9:13:45	72.3	91.4	77.3	63.6
9		2018-01-31	9:14:45	72.5	101.5	82.3	61.7
10		2018-01-31	9:15:45	77.2	99.7	86.7	68.3
11		2018-01-31	9:16:45	73.3	96.3	82.6	63.7
12		2018-01-31	9:17:45	71.2	90.8	77.7	66.0
13		2018-01-31	9:18:45	76.5	108.8	89.5	63.2
14		2018-01-31	9:19:45	74.7	94.1	81.0	63.2
15		2018-01-31	9:20:45	67.5	89.5	74.5	60.9
16		2018-01-31	9:21:45	72.5	94.8	77.3	63.2
17	Stop	2018-01-31	9:22:45				

Summary

File Name on Meter	LxT_Data.124
File Name on PC	SLM_0004983_LxT_Data_124.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.301
User	
Location	R6
Job Description	
Note	

Measurement

Description	
Start	2018-01-31 09:26:20
Stop	2018-01-31 09:41:20
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-01-31 08:35:24
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1		
Microphone Correction	Off		
Integration Method	Exponential		
Overload	144.9 dB		
	A	C	Z
Under Range Peak	101.1	98.1	103.1 dB
Under Range Limit	37.6	35.6	43.6 dB
Noise Floor	24.7	25.3	32.7 dB

Results

LASeq	79.3 dB	
LASE	108.8 dB	
EAS	8.486 mPa²h	
EAS8	271.554 mPa²h	
EAS40	1.358 Pa²h	
LASpeak (max)	2018-01-31 09:31:10	112.0 dB
LASmax	2018-01-31 09:31:10	101.3 dB
LASmin	2018-01-31 09:37:08	59.5 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	1	18.6 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LCSeq	82.7 dB
LASeq	79.3 dB
LCSeq - LASeq	3.5 dB
LALeq	82.2 dB
LAeq	79.3 dB
LALeq - LAeq	2.9 dB

Leq	79.3
LS(max)	101.3
LS(min)	59.5
LPeak(max)	112.0

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
79.3					
101.3	2018/01/31 9:31:10				
59.5	2018/01/31 9:37:08				
112.0	2018/01/31 9:31:10				

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Run	2018-01-31	9:26:20				
2		2018-01-31	9:26:20	70.2	94.6	74.2	64.6
3		2018-01-31	9:27:20	72.4	103.9	79.8	63.3
4		2018-01-31	9:28:20	72.3	93.0	75.4	66.9
5		2018-01-31	9:29:20	69.5	89.8	74.3	63.5
6		2018-01-31	9:30:20	90.4	112.0	101.3	67.6
7		2018-01-31	9:31:20	69.7	88.6	78.9	63.6
8		2018-01-31	9:32:20	71.7	93.0	78.5	62.7
9		2018-01-31	9:33:20	72.1	99.5	78.9	67.9
10		2018-01-31	9:34:20	72.9	93.9	80.2	64.5
11		2018-01-31	9:35:20	72.0	98.3	78.5	64.5
12		2018-01-31	9:36:20	69.3	99.9	76.8	59.5
13		2018-01-31	9:37:20	68.9	93.3	75.6	62.7
14		2018-01-31	9:38:20	70.8	94.9	76.5	60.0
15		2018-01-31	9:39:20	68.1	93.4	73.7	61.1
16		2018-01-31	9:40:20	71.2	95.3	75.6	65.2
17	Stop	2018-01-31	9:41:20				

Summary

File Name on Meter LxT_Data.074
File Name on PC SLM_0005055_LxT_Data_074.00.ldbin
Serial Number 0005055
Model SoundTrack LxT®
Firmware Version 2.301
User
Location R7
Job Description
Note

Measurement

Description
Start 2018-01-31 09:39:34
Stop 2018-01-31 09:54:34
Duration 00:15:00.0
Run Time 00:15:00.0
Pause 00:00:00.0

Pre Calibration 2018-01-31 08:32:22
Post Calibration None
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
Peak Weight A Weighting
Detector Slow
Preamp PRMLxT1
Microphone Correction Off
Integration Method Exponential
Overload 147.2 dB
A C Z
Under Range Peak **103.4** 100.4 105.4 dB
Under Range Limit **38.7** 36.7 44.7 dB
Noise Floor 25.8 26.4 33.9 dB

Results

LASeq 71.8 dB
LASE 101.3 dB
EAS 1.504 mPa²h
EAS8 48.131 mPa²h
EAS40 240.655 mPa²h
LASpeak (max) 2018-01-31 09:52:51 104.0 dB
LASmax 2018-01-31 09:52:51 87.9 dB
LASmin 2018-01-31 09:51:47 62.0 dB
SEA -99.9 dB

LAS > 85.0 dB (Exceedance Counts / Duration) 2 7.4 s
LAS > 115.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration) 0 0.0 s

LCSeq 82.0 dB
LASeq 71.8 dB
LCSeq - LASeq 10.2 dB
LAleq 73.8 dB
LAeq 71.8 dB
LAleq - LAeq 2.1 dB

Leq
LS(max)
LS(min)
LPeak(max)

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
71.8					
87.9	2018/01/31 9:52:51				
62.0	2018/01/31 9:51:47				
104.0	2018/01/31 9:52:51				

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Run	2018-01-31	9:39:34				
2		2018-01-31	9:39:34	74.6	98.6	84.4	67.0
3		2018-01-31	9:40:34	70.1	91.9	76.2	63.6
4		2018-01-31	9:41:34	76.8	101.4	86.4	65.6
5		2018-01-31	9:42:34	68.0	91.0	73.3	63.2
6		2018-01-31	9:43:34	69.2	90.1	75.3	63.4
7		2018-01-31	9:44:34	72.2	94.4	80.1	64.3
8		2018-01-31	9:45:34	73.8	96.7	81.5	64.8
9		2018-01-31	9:46:34	70.0	92.6	81.4	63.3
10		2018-01-31	9:47:34	68.9	87.8	78.6	62.9
11		2018-01-31	9:48:34	69.2	91.0	73.6	62.7
12		2018-01-31	9:49:34	66.9	87.3	73.3	62.8
13		2018-01-31	9:50:34	70.3	95.1	79.9	63.0
14		2018-01-31	9:51:34	67.5	87.9	73.2	62.0
15		2018-01-31	9:52:34	74.3	104.0	87.9	62.7
16		2018-01-31	9:53:34	69.6	91.3	74.7	64.6
17	Stop	2018-01-31	9:54:34				

Summary

File Name on Meter LxT_Data.072
File Name on PC SLM_0005055_LxT_Data_072.00.ldbin
Serial Number 0005055
Model SoundTrack LxT®
Firmware Version 2.301
User
Location R8
Job Description
Note

Measurement

Description
Start 2018-01-31 09:02:17
Stop 2018-01-31 09:17:17
Duration 00:15:00.0
Run Time 00:15:00.0
Pause 00:00:00.0

Pre Calibration 2018-01-31 08:32:22
Post Calibration None
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
Peak Weight A Weighting
Detector Slow
Preamp PRMLxT1
Microphone Correction Off
Integration Method Exponential
Overload 147.2 dB

A C Z
Under Range Peak 103.4 100.4 105.4 dB
Under Range Limit 38.7 36.7 44.7 dB
Noise Floor 25.8 26.4 33.9 dB

Results

LASeq 65.6 dB
LASE 95.1 dB
EAS 359.781 $\mu\text{Pa}^2\text{h}$
EAS8 11.513 mPa^2h
EAS40 57.565 mPa^2h
LASpeak (max) 2018-01-31 09:16:44 101.7 dB
LASmax 2018-01-31 09:16:45 82.7 dB
LASmin 2018-01-31 09:15:07 56.6 dB
SEA -99.9 dB

LAS > 85.0 dB (Exceedance Counts / Duration) 0 0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 135.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 137.0 dB (Exceedance Counts / Duration) 0 0.0 s
LASpeak > 140.0 dB (Exceedance Counts / Duration) 0 0.0 s

LCSeq 74.2 dB
LASEq 65.6 dB
LCSeq - LASEq 8.6 dB
LAleq 69.0 dB
LAeq 65.6 dB
LAleq - LAeq 3.5 dB

Leq
LS(max)
LS(min)
LPeak(max)

A		C		Z	
dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
65.6					
82.7	2018/01/31 9:16:45				
56.6	2018/01/31 9:15:07				
101.7	2018/01/31 9:16:44				

Record #	Record Type	Date	Time	LASeq	LApeak	LASmax	LASmin
1	Run	2018-01-31	9:02:17				
2		2018-01-31	9:02:17	66.0	90.8	78.3	58.9
3		2018-01-31	9:03:17	63.2	84.8	69.9	58.8
4		2018-01-31	9:04:17	61.0	87.0	64.2	58.0
5		2018-01-31	9:05:17	64.5	88.8	69.4	60.4
6		2018-01-31	9:06:17	62.6	89.6	68.8	58.7
7		2018-01-31	9:07:17	64.9	85.0	70.2	59.9
8		2018-01-31	9:08:17	67.6	87.6	71.4	61.4
9		2018-01-31	9:09:17	66.7	93.2	73.6	60.8
10		2018-01-31	9:10:17	67.2	85.1	69.6	61.1
11		2018-01-31	9:11:17	64.6	89.1	69.6	58.7
12		2018-01-31	9:12:17	67.8	88.7	74.3	60.6
13		2018-01-31	9:13:17	61.3	85.7	67.6	57.3
14		2018-01-31	9:14:17	60.6	90.4	68.4	56.6
15		2018-01-31	9:15:17	61.5	92.5	69.0	57.3
16		2018-01-31	9:16:17	70.2	101.7	82.7	58.6
17	Stop	2018-01-31	9:17:17				

Exhibit K-2

Construction Noise and Vibration Calculations



Project: 1045 S. Olive Project
Construction Noise Impact on Sensitive Receptors

Parameters

Leq to L10 factor	3
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				R1					R2					R3				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
Demolition					93	89				86	83				66	63		
Air Compressor	1	78	40%	5	93	89	92	5	20	86	82	85	0	280	58	54	57	5
Jackhammer	1	89	20%	105	78	71	74	5	120	81	74	77	0	380	66	59	62	5
Loader	1	79	40%	205	62	58	61	5	220	66	62	65	0	480	54	50	53	5
Sweeper/Scrubbers	1	82	10%	255	63	53	56	5	270	67	57	60	0	530	56	46	49	5
Concrete Saw	1	90	20%	255	71	64	67	5	270	75	68	71	0	530	64	58	61	5
Site Preparation					105	98				98	91				70	63		
Concrete Saw	1	90	20%	5	105	98	101	5	20	98	91	94	0	280	70	63	66	5
Loader	1	79	40%	105	68	64	67	5	120	71	67	70	0	380	56	52	55	5
Grading/Excavation					95	91				88	84				61	61		
Backhoe	1	80	40%	5	95	91	94	5	20	88	84	87	0	280	60	56	59	5
Bore/Drill Rig	1	84	20%	105	73	66	69	5	120	76	69	72	0	380	61	54	57	5
Excavator	2	81	40%	205	67	63	66	5	220	71	67	70	0	480	59	55	58	5
Loader	1	79	40%	255	60	56	59	5	270	64	60	63	0	530	53	50	53	5
Sweeper/Scrubbers	1	82	10%	255	63	53	56	5	270	67	57	60	0	530	56	46	49	5
Drainage/ Utilities/ Trenching					88	85				88	85				65	62		
Crawler Tractors	1	85	50%	20	88	85	88	5	35	88	85	88	0	295	65	62	65	5
Sweeper/Scrubbers	1	82	10%	120	69	59	62	5	135	73	63	66	0	395	59	49	52	5
Foundation/Concrete Pour					83	79				83	79				60	57		
Backhoe	1	80	40%	20	83	79	82	5	35	83	79	82	0	295	60	56	59	5
Cranes	1	81	16%	120	68	60	63	5	135	72	64	67	0	395	58	50	53	5
Forklift	1	75	10%	220	57	47	50	5	235	62	52	55	0	495	50	40	43	5
Sweeper/Scrubbers	1	82	10%	270	62	52	55	5	285	67	57	60	0	545	56	46	49	5
Building Construction					87	79				87	79				64	57		
Cranes	2	81	16%	20	87	79	82	5	35	87	79	82	0	295	64	56	59	5
Forklift	2	75	10%	120	65	55	58	5	135	69	59	62	0	395	55	45	48	5
Sweeper/Scrubbers	1	82	10%	220	64	54	57	5	235	69	59	62	0	495	57	47	50	5
Paving					95	91				88	84				60	57		
Backhoe	1	80	40%	5	95	91	94	5	20	88	84	87	0	280	60	56	59	5
Paver	1	77	50%	105	66	63	66	5	120	69	66	69	0	380	54	51	54	5
Architectural Coating					81	77				81	77				58	54		
Air Compressor	1	78	40%	20	81	77	80	5	35	81	77	80	0	295	58	54	57	5
Forklift	1	75	10%	120	62	52	55	5	135	66	56	59	0	395	52	42	45	5

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: 1045 S. Olive Project
Construction Noise Impact on Sensitive Receptors



Parameters

Leq to L10 factor	3
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				R4					R5					R6				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
Demolition					58	55				52	49				58	55		
Air Compressor	1	78	40%	450	49	45	48	10	530	42	39	42	15	450	49	45	48	10
Jackhammer	1	89	20%	550	58	51	54	10	630	52	45	48	15	550	58	51	54	10
Loader	1	79	40%	650	47	43	46	10	730	41	37	40	15	650	47	43	46	10
Sweeper/Scrubbers	1	82	10%	700	49	39	42	10	780	43	33	36	15	700	49	39	42	10
Concrete Saw	1	90	20%	700	57	50	53	10	780	51	44	47	15	700	57	50	53	10
Site Preparation					61	54				54	48				61	54		
Concrete Saw	1	90	20%	450	61	54	57	10	530	54	48	51	15	450	61	54	57	10
Loader	1	79	40%	550	48	44	47	10	630	42	38	41	15	550	48	44	47	10
Grading/Excavation					53	52				47	46				53	52		
Backhoe	1	80	40%	450	51	47	50	10	530	44	41	44	15	450	51	47	50	10
Bore/Drill Rig	1	84	20%	550	53	46	49	10	630	47	40	43	15	550	53	46	49	10
Excavator	2	81	40%	650	52	48	51	10	730	46	42	45	15	650	52	48	51	10
Loader	1	79	40%	700	46	42	45	10	780	40	36	39	15	700	46	42	45	10
Sweeper/Scrubbers	1	82	10%	700	49	39	42	10	780	43	33	36	15	700	49	39	42	10
Drainage/ Utilities/ Trenching					56	53				49	47				56	53		
Crawler Tractors	1	85	50%	465	56	53	56	10	545	49	46	49	15	465	56	53	56	10
Sweeper/Scrubbers	1	82	10%	565	51	41	44	10	645	45	35	38	15	565	51	41	44	10
Foundation/Concrete Pour					51	49				44	42				51	49		
Backhoe	1	80	40%	465	51	47	50	10	545	44	40	43	15	465	51	47	50	10
Cranes	1	81	16%	565	50	42	45	10	645	44	36	39	15	565	50	42	45	10
Forklift	1	75	10%	665	43	33	36	10	745	37	27	30	15	665	43	33	36	10
Sweeper/Scrubbers	1	82	10%	715	49	39	42	10	795	43	33	36	15	715	49	39	42	10
Building Construction					55	48				48	42				55	48		
Cranes	2	81	16%	465	55	47	50	10	545	48	40	43	15	465	55	47	50	10
Forklift	2	75	10%	565	47	37	40	10	645	41	31	34	15	565	47	37	40	10
Sweeper/Scrubbers	1	82	10%	665	50	40	43	10	745	44	34	37	15	665	50	40	43	10
Paving					51	48				44	42				51	48		
Backhoe	1	80	40%	450	51	47	50	10	530	44	41	44	15	450	51	47	50	10
Paver	1	77	50%	550	46	43	46	10	630	40	37	40	15	550	46	43	46	10
Architectural Coating					49	45				42	39				49	45		
Air Compressor	1	78	40%	465	49	45	48	10	545	42	38	41	15	465	49	45	48	10
Forklift	1	75	10%	565	44	34	37	10	645	38	28	31	15	565	44	34	37	10

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: 1045 S. Olive Project
Construction Noise Impact on Sensitive Receptors



Parameters

Leq to L10 factor	3
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				R7					R8				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA
Demolition					53	49				61	57		
Air Compressor	1	78	40%	480	43	39	42	15	300	52	48	51	10
Jackhammer	1	89	20%	580	53	46	49	15	400	61	54	57	10
Loader	1	79	40%	680	41	37	40	15	500	49	45	48	10
Sweeper/Scrubbers	1	82	10%	730	44	34	37	15	550	51	41	44	10
Concrete Saw	1	90	20%	730	52	45	48	15	550	59	52	55	10
Site Preparation					55	49				64	58		
Concrete Saw	1	90	20%	480	55	48	51	15	300	64	57	60	10
Loader	1	79	40%	580	43	39	42	15	400	51	47	50	10
Grading/Excavation					48	47				56	55		
Backhoe	1	80	40%	480	45	41	44	15	300	54	50	53	10
Bore/Drill Rig	1	84	20%	580	48	41	44	15	400	56	49	52	10
Excavator	2	81	40%	680	46	42	45	15	500	54	50	53	10
Loader	1	79	40%	730	41	37	40	15	550	48	44	47	10
Sweeper/Scrubbers	1	82	10%	730	44	34	37	15	550	51	41	44	10
Drainage/ Utilities/ Trenching					50	47				59	56		
Crawler Tractors	1	85	50%	495	50	47	50	15	315	59	56	59	10
Sweeper/Scrubbers	1	82	10%	595	45	35	38	15	415	54	44	47	10
Foundation/Concrete Pour					45	43				54	52		
Backhoe	1	80	40%	495	45	41	44	15	315	54	50	53	10
Cranes	1	81	16%	595	44	37	40	15	415	53	45	48	10
Forklift	1	75	10%	695	37	27	30	15	515	45	35	38	10
Sweeper/Scrubbers	1	82	10%	745	44	34	37	15	565	51	41	44	10
Building Construction					49	42				58	51		
Cranes	2	81	16%	495	49	41	44	15	315	58	50	53	10
Forklift	2	75	10%	595	41	31	34	15	415	50	40	43	10
Sweeper/Scrubbers	1	82	10%	695	44	34	37	15	515	52	42	45	10
Paving					45	43				54	52		
Backhoe	1	80	40%	480	45	41	44	15	300	54	50	53	10
Paver	1	77	50%	580	41	38	41	15	400	49	46	49	10
Architectural Coating					43	39				52	48		
Air Compressor	1	78	40%	495	43	39	42	15	315	52	48	51	10
Forklift	1	75	10%	595	38	28	31	15	415	47	37	40	10

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 1045 S. Olive Project
 Analysis Scenario: Building Foundation
 Source of Traffic Volumes: Applicant

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Olive St between Olympic Blvd and 11th St	Hard	50	40	35	35	175	0	76	65.7	66.0
Olive St between 11th St and 12th St	Hard	44	40	35	35	175	0	76	66.3	66.6
Olive St between 12th St and Pico Blvd	Hard	40	40	35	35	175	0	76	66.7	67.0
Olive St between Pico Blvd and Venice Boulevard	Hard	40	40	35	35	175	0	76	66.7	67.0
Olive St between Venice Boulevard and 17th St	Hard	40	40	35	35	175	0	76	66.7	67.0
Olive St between 17th St and 18th St	Hard	40	40	35	35	175	0	76	66.7	67.0
Olympic Blvd between Olive St and Hill St	Hard	40	40	35	35	175	0	76	66.7	67.0
Hill St between Olympic Blvd and 11th St	Hard	50	40	35	35	175	0	76	65.7	66.0
Hill St between 11th St and Pico Blvd	Hard	44	40	35	35	175	0	76	66.3	66.6
18th St east of Hill St	Hard	25	35	35	35	175	0	76	68.5	68.8
17th St between Grand Ave and Olive St	Hard	30	35	35	35	175	0	76	67.7	68.0

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

1045 Olive Project
Vibration Source Levels
Based on Federal Transit Administration, Office of Planning and Environment

Off-Site Structural and Human Annoyance Impact Analysis

N = 1.5

Construction Equipment	Project Equipment	Equipment Peak Particle Velocity @ 25 Feet* (inches/second)	Distance to Receptor for < 0.5 PPV (Feet)	Estimated Velocity Decibels @ Distance** (VdB)	Estimated Peak Particle Velocity @ Distance*** (inches/second)
Unmitigated Vibration Levels					
Large Bulldozer or Bore/Drill Rig	Yes	0.089	5	107.9	0.995
Loaded Trucks	Yes	0.076	5	106.5	0.850
Jackhammer	Yes	0.035	5	99.8	0.391
Small Bulldozer	Yes	0.003	5	78.5	0.034
Mitigated Vibration Levels					
Large Bulldozer or Bore/Drill Rig	Yes	0.089	80	71.8	0.016
Loaded Trucks	Yes	0.076	72	71.8	0.016
Jackhammer	Yes	0.035	43	71.8	0.016
Small Bulldozer	Yes	0.003	9	70.8	0.014

Exhibit K-3

Off-Site Traffic Noise Calculations



TRAFFIC NOISE ANALYSIS TOOL



Project Name: 1045 S. Olive Street
Analysis Scenario: Existing
Source of Traffic Volumes: The Mobility Group

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
11th St between Figueroa St and Flower St	Hard	30	40	40	40	465	10	5	65.5	65.8
11th St between Flower St and Hope St	Hard	30	40	40	40	386	8	4	64.7	65.0
11th St between Hope St and Grand Ave	Hard	30	40	40	40	407	8	4	64.9	65.2
11th St between Grand Ave and Olive St	Hard	30	40	40	40	446	9	5	65.3	65.6
11th St between Olive St and Hill St	Hard	30	40	40	40	377	8	4	64.6	64.9
11th St between Hill St and Broadway	Hard	30	40	40	40	404	8	4	64.9	65.2
11th St between Broadway and Main St	Hard	30	40	40	40	447	9	5	65.3	65.6
11th St between Main St and Los Angeles St	Hard	30	40	40	40	436	9	4	65.2	65.5
Olympic Blvd between Figueroa St and Flower St	Hard	55	40	40	40	2509	52	26	70.1	70.4
Olympic Blvd between Flower St and Hope St	Hard	50	40	40	40	2191	45	23	70.0	70.3
Olympic Blvd between Hope St and Grand Ave	Hard	40	40	40	40	2027	42	21	70.6	70.9
Olympic Blvd between Grand Ave and Olive St	Hard	40	40	40	40	1901	39	20	70.3	70.6
Olympic Blvd between Olive St and Hill St	Hard	40	40	40	40	1704	35	18	69.9	70.2
Olympic Blvd between Hill St and Broadway	Hard	40	40	40	40	1698	35	18	69.8	70.1
Olympic Blvd between Broadway and Main St	Hard	40	40	40	40	1445	30	15	69.1	69.4
Olympic Blvd between Main St and Los Angeles St	Hard	40	40	40	40	1317	27	14	68.7	69.0
Olive St between 8th St and 9th St	Hard	40	40	40	40	1133	23	12	68.1	68.4
Olive St between 9th St and Olympic Blvd	Hard	45	40	40	40	1076	22	11	67.3	67.6
Olive St between Olympic Blvd and 11th St	Hard	50	40	40	40	1074	22	11	66.9	67.2
Olive St between 11th St and 12th St	Hard	44	40	40	40	1279	26	13	68.2	68.5
Olive St between 12th St and Pico Blvd	Hard	40	40	40	40	1212	25	12	68.4	68.7
Olive St between Pico Blvd and Venice Boulevard	Hard	40	40	40	40	1569	32	16	69.5	69.8
Olive St between Venice Boulevard and 17th St	Hard	40	40	40	40	1577	32	16	69.5	69.8
Olive St between 17th St and 18th St	Hard	40	40	40	40	1657	34	17	69.7	70.0
Grand Ave between 8th St and 9th St	Hard	45	40	40	40	1561	32	16	68.9	69.2
Grand Ave between 9th St and Olympic Blvd	Hard	55	40	40	40	1651	34	17	68.3	68.6
Grand Ave between Olympic Blvd and 11th St	Hard	45	40	40	40	1523	31	16	68.8	69.1
Grand Ave between 11th St and Pico Blvd	Hard	40	40	40	40	1499	31	15	69.3	69.6
Grand Ave between Pico Blvd and Venice Boulevard	Hard	35	35	35	35	1215	25	12	67.4	67.7
Grand Ave between Venice Boulevard and 17th St	Hard	35	35	35	35	1106	23	11	67.0	67.3
Grand Ave between 17th St and 18th St	Hard	35	35	35	35	763	16	8	65.4	65.7
Pico Blvd between LA Live Way and Figueroa St	Hard	40	40	40	40	1625	33	17	69.6	69.9
Pico Blvd between Figueroa St and Grand Ave	Hard	40	40	40	40	1514	31	15	69.3	69.6
Pico Blvd between Grand Ave and Olive St	Hard	35	35	35	35	1211	25	12	67.4	67.7
Pico Blvd between Olive St and Hill St	Hard	35	35	35	35	1040	21	11	66.7	67.0
8th St between Grand Ave and Olive St	Hard	35	35	35	35	1459	30	15	68.2	68.5
9th St between Grand Ave and Olive St	Hard	40	40	40	40	1232	25	13	68.4	68.7
Venice Boulevard between Grand Ave and Olive St	Hard	35	35	35	35	1006	21	10	66.6	66.9
17th St between Grand Ave and Olive St	Hard	30	35	35	35	1192	24	12	68.0	68.3
18th St between Grand Ave and Olive St	Hard	25	35	35	35	1770	36	18	70.5	70.8
Los Angeles St between 11th St and Olympic Blvd	Hard	40	40	40	40	1525	31	16	69.4	69.7
Los Angeles St north of Olympic Blvd	Hard	40	40	40	40	1614	33	16	69.6	69.9
Hill St between Olympic Blvd and 11th St	Hard	25	35	35	35	1195	24	12	68.8	69.1
Hill St between 11th St and Pico Blvd	Hard	40	40	40	40	1239	25	13	68.5	68.8
Figueroa St between Olympic Blvd and 11th St	Hard	45	30	30	30	1551	32	16	65.8	66.1
Figueroa St between 11th St and Pico Blvd	Hard	45	30	30	30	1684	34	17	66.1	66.4
Flower St between Olympic Blvd and 11th St	Hard	35	40	40	40	1419	29	14	69.6	69.9
Hope St between Olympic Blvd and 11th St	Hard	40	40	40	40	944	19	10	67.3	67.6
Broadway between Olympic Blvd and 11th St	Hard	35	40	40	40	1215	25	12	69.0	69.3
Main St between Olympic Blvd and 11th St	Hard	40	40	40	40	1103	23	11	68.0	68.3

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 1045 S. Olive Street
Analysis Scenario: Existing with Project
Source of Traffic Volumes: The Mobility Group

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
11th St between Figueroa St and Flower St	Hard	30	40	40	40	472	10	5	65.5	65.8
11th St between Flower St and Hope St	Hard	30	40	40	40	395	8	4	64.7	65.0
11th St between Hope St and Grand Ave	Hard	30	40	40	40	420	9	4	65.0	65.3
11th St between Grand Ave and Olive St	Hard	30	40	40	40	472	10	5	65.5	65.8
11th St between Olive St and Hill St	Hard	30	40	40	40	408	8	4	64.9	65.2
11th St between Hill St and Broadway	Hard	30	40	40	40	421	9	4	65.0	65.3
11th St between Broadway and Main St	Hard	30	40	40	40	459	9	5	65.4	65.7
11th St between Main St and Los Angeles St	Hard	30	40	40	40	440	9	5	65.2	65.5
Olympic Blvd between Figueroa St and Flower St	Hard	55	40	40	40	2535	52	26	70.2	70.5
Olympic Blvd between Flower St and Hope St	Hard	50	40	40	40	2221	46	23	70.0	70.3
Olympic Blvd between Hope St and Grand Ave	Hard	40	40	40	40	2054	42	21	70.7	71.0
Olympic Blvd between Grand Ave and Olive St	Hard	40	40	40	40	1961	40	20	70.5	70.8
Olympic Blvd between Olive St and Hill St	Hard	40	40	40	40	1723	36	18	69.9	70.2
Olympic Blvd between Hill St and Broadway	Hard	40	40	40	40	1710	35	18	69.9	70.2
Olympic Blvd between Broadway and Main St	Hard	40	40	40	40	1450	30	15	69.1	69.4
Olympic Blvd between Main St and Los Angeles St	Hard	40	40	40	40	1327	27	14	68.8	69.1
Olive St between 8th St and 9th St	Hard	40	40	40	40	1160	24	12	68.2	68.5
Olive St between 9th St and Olympic Blvd	Hard	45	40	40	40	1114	23	11	67.5	67.8
Olive St between Olympic Blvd and 11th St	Hard	50	40	40	40	1097	23	11	67.0	67.3
Olive St between 11th St and 12th St	Hard	44	40	40	40	1297	26	13	68.2	68.5
Olive St between 12th St and Pico Blvd	Hard	40	40	40	40	1227	25	13	68.4	68.7
Olive St between Pico Blvd and Venice Boulevard	Hard	40	40	40	40	1581	32	16	69.5	69.8
Olive St between Venice Boulevard and 17th St	Hard	40	40	40	40	1589	32	16	69.5	69.8
Olive St between 17th St and 18th St	Hard	40	40	40	40	1666	34	17	69.7	70.0
Grand Ave between 8th St and 9th St	Hard	45	40	40	40	1573	32	16	69.0	69.3
Grand Ave between 9th St and Olympic Blvd	Hard	55	40	40	40	1677	34	17	68.4	68.7
Grand Ave between Olympic Blvd and 11th St	Hard	45	40	40	40	1528	31	16	68.9	69.2
Grand Ave between 11th St and Pico Blvd	Hard	40	40	40	40	1520	31	16	69.3	69.6
Grand Ave between Pico Blvd and Venice Boulevard	Hard	35	35	35	35	1231	25	13	67.4	67.7
Grand Ave between Venice Boulevard and 17th St	Hard	35	35	35	35	1122	23	11	67.0	67.3
Grand Ave between 17th St and 18th St	Hard	35	35	35	35	774	16	8	65.4	65.7
Pico Blvd between LA Live Way and Figueroa St	Hard	40	40	40	40	1639	33	17	69.7	70.0
Pico Blvd between Figueroa St and Grand Ave	Hard	40	40	40	40	1528	31	16	69.4	69.7
Pico Blvd between Grand Ave and Olive St	Hard	35	35	35	35	1223	25	12	67.4	67.7
Pico Blvd between Olive St and Hill St	Hard	35	35	35	35	1041	21	11	66.7	67.0
8th St between Grand Ave and Olive St	Hard	35	35	35	35	1467	30	15	68.2	68.5
9th St between Grand Ave and Olive St	Hard	40	40	40	40	1238	25	13	68.5	68.8
Venice Boulevard between Grand Ave and Olive St	Hard	35	35	35	35	1006	21	10	66.6	66.9
17th St between Grand Ave and Olive St	Hard	30	35	35	35	1192	24	12	68.0	68.3
18th St between Grand Ave and Olive St	Hard	25	35	35	35	1784	36	18	70.5	70.8
Los Angeles St between 11th St and Olympic Blvd	Hard	40	40	40	40	1527	31	16	69.4	69.7
Los Angeles St north of Olympic Blvd	Hard	40	40	40	40	1614	33	16	69.6	69.9
Hill St between Olympic Blvd and 11th St	Hard	25	35	35	35	1210	25	12	68.8	69.1
Hill St between 11th St and Pico Blvd	Hard	40	40	40	40	1240	25	13	68.5	68.8
Figueroa St between Olympic Blvd and 11th St	Hard	45	30	30	30	1558	32	16	65.8	66.1
Figueroa St between 11th St and Pico Blvd	Hard	45	30	30	30	1688	34	17	66.1	66.4
Flower St between Olympic Blvd and 11th St	Hard	35	40	40	40	1422	29	15	69.6	69.9
Hope St between Olympic Blvd and 11th St	Hard	40	40	40	40	948	19	10	67.3	67.6
Broadway between Olympic Blvd and 11th St	Hard	35	40	40	40	1221	25	12	69.0	69.3
Main St between Olympic Blvd and 11th St	Hard	40	40	40	40	1110	23	11	68.0	68.3

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltrans's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 1045 S. Olive Street
Analysis Scenario: Future
Source of Traffic Volumes: The Mobility Group

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
11th St between Figueroa St and Flower St	Hard	30	40	40	40	698	14	7	67.2	67.5
11th St between Flower St and Hope St	Hard	30	40	40	40	974	20	10	68.7	69.0
11th St between Hope St and Grand Ave	Hard	30	40	40	40	949	20	10	68.6	68.9
11th St between Grand Ave and Olive St	Hard	30	40	40	40	1062	22	11	69.0	69.3
11th St between Olive St and Hill St	Hard	30	40	40	40	775	16	8	67.7	68.0
11th St between Hill St and Broadway	Hard	30	40	40	40	760	16	8	67.6	67.9
11th St between Broadway and Main St	Hard	30	40	40	40	829	17	9	68.0	68.3
11th St between Main St and Los Angeles St	Hard	30	40	40	40	825	17	9	68.0	68.3
Olympic Blvd between Figueroa St and Flower St	Hard	55	40	40	40	4788	99	49	73.0	73.3
Olympic Blvd between Flower St and Hope St	Hard	50	40	40	40	3925	81	40	72.5	72.8
Olympic Blvd between Hope St and Grand Ave	Hard	40	40	40	40	3758	77	39	73.3	73.6
Olympic Blvd between Grand Ave and Olive St	Hard	40	40	40	40	3524	73	36	73.0	73.3
Olympic Blvd between Olive St and Hill St	Hard	40	40	40	40	3143	65	32	72.5	72.8
Olympic Blvd between Hill St and Broadway	Hard	40	40	40	40	2942	61	30	72.2	72.5
Olympic Blvd between Broadway and Main St	Hard	40	40	40	40	2377	49	25	71.3	71.6
Olympic Blvd between Main St and Los Angeles St	Hard	40	40	40	40	1988	41	20	70.5	70.8
Olive St between 8th St and 9th St	Hard	40	40	40	40	2188	45	23	70.9	71.2
Olive St between 9th St and Olympic Blvd	Hard	45	40	40	40	2033	42	21	70.1	70.4
Olive St between Olympic Blvd and 11th St	Hard	50	40	40	40	1968	41	20	69.5	69.8
Olive St between 11th St and 12th St	Hard	44	40	40	40	2351	48	24	70.8	71.1
Olive St between 12th St and Pico Blvd	Hard	40	40	40	40	2266	46	23	71.1	71.4
Olive St between Pico Blvd and Venice Boulevard	Hard	40	40	40	40	2333	48	24	71.2	71.5
Olive St between Venice Boulevard and 17th St	Hard	40	40	40	40	2266	46	23	71.1	71.4
Olive St between 17th St and 18th St	Hard	40	40	40	40	2196	45	22	70.9	71.2
Grand Ave between 8th St and 9th St	Hard	45	40	40	40	2635	54	27	71.2	71.5
Grand Ave between 9th St and Olympic Blvd	Hard	55	40	40	40	2757	56	28	70.5	70.8
Grand Ave between Olympic Blvd and 11th St	Hard	45	40	40	40	2563	52	26	71.1	71.4
Grand Ave between 11th St and Pico Blvd	Hard	40	40	40	40	2557	52	26	71.6	71.9
Grand Ave between Pico Blvd and Venice Boulevard	Hard	35	35	35	35	2225	45	23	70.0	70.3
Grand Ave between Venice Boulevard and 17th St	Hard	35	35	35	35	2028	41	21	69.6	69.9
Grand Ave between 17th St and 18th St	Hard	35	35	35	35	1367	28	14	67.9	68.2
Pico Blvd between LA Live Way and Figueroa St	Hard	40	40	40	40	3242	66	33	72.6	72.9
Pico Blvd between Figueroa St and Grand Ave	Hard	40	40	40	40	2759	56	28	71.9	72.2
Pico Blvd between Grand Ave and Olive St	Hard	35	35	35	35	2243	46	23	70.0	70.3
Pico Blvd between Olive St and Hill St	Hard	35	35	35	35	1943	40	20	69.4	69.7
8th St between Grand Ave and Olive St	Hard	35	35	35	35	2625	54	27	70.7	71.0
9th St between Grand Ave and Olive St	Hard	40	40	40	40	2592	53	26	71.7	72.0
Venice Boulevard between Grand Ave and Olive St	Hard	35	35	35	35	1210	25	12	67.4	67.7
17th St between Grand Ave and Olive St	Hard	30	35	35	35	1757	36	18	69.6	69.9
18th St between Grand Ave and Olive St	Hard	25	35	35	35	2854	58	29	72.5	72.8
Los Angeles St between 11th St and Olympic Blvd	Hard	40	40	40	40	1992	41	20	70.5	70.8
Los Angeles St north of Olympic Blvd	Hard	40	40	40	40	2012	41	21	70.6	70.9
Hill St between Olympic Blvd and 11th St	Hard	25	35	35	35	2105	43	21	71.2	71.5
Hill St between 11th St and Pico Blvd	Hard	40	40	40	40	2051	42	21	70.6	70.9
Figueroa St between Olympic Blvd and 11th St	Hard	45	30	30	30	2960	60	30	68.6	68.9
Figueroa St between 11th St and Pico Blvd	Hard	45	30	30	30	3084	63	31	68.7	69.0
Flower St between Olympic Blvd and 11th St	Hard	35	40	40	40	2682	55	27	72.4	72.7
Hope St between Olympic Blvd and 11th St	Hard	40	40	40	40	1148	23	12	68.1	68.4
Broadway between Olympic Blvd and 11th St	Hard	35	40	40	40	2121	43	22	71.4	71.7
Main St between Olympic Blvd and 11th St	Hard	40	40	40	40	2339	48	24	71.2	71.5

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: 1045 S. Olive Street
Analysis Scenario: Future with Project
Source of Traffic Volumes: The Mobility Group

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
11th St between Figueroa St and Flower St	Hard	30	40	40	40	706	15	7	67.3	67.6
11th St between Flower St and Hope St	Hard	30	40	40	40	983	20	10	68.7	69.0
11th St between Hope St and Grand Ave	Hard	30	40	40	40	961	20	10	68.6	68.9
11th St between Grand Ave and Olive St	Hard	30	40	40	40	1088	22	11	69.2	69.5
11th St between Olive St and Hill St	Hard	30	40	40	40	806	17	8	67.8	68.1
11th St between Hill St and Broadway	Hard	30	40	40	40	776	16	8	67.7	68.0
11th St between Broadway and Main St	Hard	30	40	40	40	841	17	9	68.0	68.3
11th St between Main St and Los Angeles St	Hard	30	40	40	40	830	17	9	68.0	68.3
Olympic Blvd between Figueroa St and Flower St	Hard	55	40	40	40	4813	99	50	73.0	73.3
Olympic Blvd between Flower St and Hope St	Hard	50	40	40	40	3955	82	41	72.5	72.8
Olympic Blvd between Hope St and Grand Ave	Hard	40	40	40	40	3785	78	39	73.3	73.6
Olympic Blvd between Grand Ave and Olive St	Hard	40	40	40	40	3584	74	37	73.1	73.4
Olympic Blvd between Olive St and Hill St	Hard	40	40	40	40	3161	65	33	72.5	72.8
Olympic Blvd between Hill St and Broadway	Hard	40	40	40	40	2955	61	30	72.2	72.5
Olympic Blvd between Broadway and Main St	Hard	40	40	40	40	2387	49	25	71.3	71.6
Olympic Blvd between Main St and Los Angeles St	Hard	40	40	40	40	1997	41	21	70.5	70.8
Olive St between 8th St and 9th St	Hard	40	40	40	40	2200	45	23	71.0	71.3
Olive St between 9th St and Olympic Blvd	Hard	45	40	40	40	2050	42	21	70.1	70.4
Olive St between Olympic Blvd and 11th St	Hard	50	40	40	40	2031	42	21	69.6	69.9
Olive St between 11th St and 12th St	Hard	44	40	40	40	2410	49	25	70.9	71.2
Olive St between 12th St and Pico Blvd	Hard	40	40	40	40	2317	47	24	71.2	71.5
Olive St between Pico Blvd and Venice Boulevard	Hard	40	40	40	40	2374	48	24	71.3	71.6
Olive St between Venice Boulevard and 17th St	Hard	40	40	40	40	2306	47	24	71.2	71.5
Olive St between 17th St and 18th St	Hard	40	40	40	40	2205	45	23	71.0	71.3
Grand Ave between 8th St and 9th St	Hard	45	40	40	40	2647	54	27	71.2	71.5
Grand Ave between 9th St and Olympic Blvd	Hard	55	40	40	40	2782	57	28	70.6	70.9
Grand Ave between Olympic Blvd and 11th St	Hard	45	40	40	40	2568	52	26	71.1	71.4
Grand Ave between 11th St and Pico Blvd	Hard	40	40	40	40	2577	53	26	71.6	71.9
Grand Ave between Pico Blvd and Venice Boulevard	Hard	35	35	35	35	2240	46	23	70.0	70.3
Grand Ave between Venice Boulevard and 17th St	Hard	35	35	35	35	2043	42	21	69.6	69.9
Grand Ave between 17th St and 18th St	Hard	35	35	35	35	1378	28	14	67.9	68.2
Pico Blvd between LA Live Way and Figueroa St	Hard	40	40	40	40	3256	66	33	72.7	73.0
Pico Blvd between Figueroa St and Grand Ave	Hard	40	40	40	40	2772	57	28	72.0	72.3
Pico Blvd between Grand Ave and Olive St	Hard	35	35	35	35	2255	46	23	70.1	70.4
Pico Blvd between Olive St and Hill St	Hard	35	35	35	35	1944	40	20	69.4	69.7
8th St between Grand Ave and Olive St	Hard	35	35	35	35	2633	54	27	70.7	71.0
9th St between Grand Ave and Olive St	Hard	40	40	40	40	2598	53	27	71.7	72.0
Venice Boulevard between Grand Ave and Olive St	Hard	35	35	35	35	1210	25	12	67.4	67.7
17th St between Grand Ave and Olive St	Hard	30	35	35	35	1757	36	18	69.6	69.9
18th St between Grand Ave and Olive St	Hard	25	35	35	35	2867	59	29	72.6	72.9
Los Angeles St between 11th St and Olympic Blvd	Hard	40	40	40	40	1994	41	20	70.5	70.8
Los Angeles St north of Olympic Blvd	Hard	40	40	40	40	2012	41	21	70.6	70.9
Hill St between Olympic Blvd and 11th St	Hard	25	35	35	35	2121	43	22	71.3	71.6
Hill St between 11th St and Pico Blvd	Hard	40	40	40	40	2052	42	21	70.6	70.9
Figueroa St between Olympic Blvd and 11th St	Hard	45	30	30	30	2962	60	30	68.6	68.9
Figueroa St between 11th St and Pico Blvd	Hard	45	30	30	30	3088	63	32	68.8	69.1
Flower St between Olympic Blvd and 11th St	Hard	35	40	40	40	2685	55	27	72.4	72.7
Hope St between Olympic Blvd and 11th St	Hard	40	40	40	40	1152	24	12	68.1	68.4
Broadway between Olympic Blvd and 11th St	Hard	35	40	40	40	2127	43	22	71.4	71.7
Main St between Olympic Blvd and 11th St	Hard	40	40	40	40	2346	48	24	71.2	71.5

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ± 0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

Exhibit K-4

Parking Structure Noise Calculations



Parking Related Noise Analysis

Project Name: 1045 S. Olive Project

AM or PM Peak Hour Trips

216

trips

Leq

50

dBA

$$\text{Leq}(h) = \text{SELref} + 10\log(\text{NA}/1000) - 35.6$$

Where: Leq(h) = hourly Leq noise level at 50 feet

SELref (92 dBA SEL) = reference noise level for stationary noise source
represented in sound exposure level (SEL) at 50 feet

NA = number of automobiles per hour

Exhibit K-5
Loading Dock and Refuse
Service Noise Reference Levels

Job No.	Sheet No.
	1
Date: June 15, 2016	Made by

Title Noise Data												
Description			Ref. Dist.	dB(A)								
					63	125	250	500	1k	2k	4k	8k
	Walmart Loading and refuse service noise measurement											
	Large Delivery truck	Leq	50	70.0	73.7	68.3	65.9	65.6	66.7	67.4	67.9	67.5
		Lmax	25	89.0	72.1	71.2	69.1	74.0	75.5	82.3	84.3	83.8
	Moving Trash bins	Leq	3	60.0								
	Trach compactors	Leq	50	66.0								

The loading dock facility and trash compactor noise measurements were conducted at a loading dock facility at a Wal-Mart store using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM") in June 15, 2016. The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of approximately 5 feet above the local grade.

Exhibit K-6
**Emergency Generator Noise
Reference Level**

Veriaon Monrovia Generator

Location	Number	Date	Time	Duration	Leq	SEL	Lmax	Lmin
Generator@25	0	15Nov 00	9:26:33	39	96.2	112.1	99.5	92.3
Generator@25	0	15Nov 00	9:27:53	24.8	96.1	110.5	102.9	89.3

Time Warner Cable Site in Palm Springs
17-May-16

Noise Levels dBA
102 at 15 feet from the generator louver

Verizon 100 kW emergency generator
Diesel
Measurements made before and after silencer was installed on Radiator. There was already a muffler on the exhaust.
Measured by NS, November 2000

measurement	Measured before silencer placed on radiator.									after radiator silencer	Distance
location	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA	dBA	
1	68	69	69	72	71	67	63	59	75	-	44ft
2	68	72	72	70	70	67	63	59	75	-	50ft
3	72	73	73	73	75	72	67	64	76	-	25ft
4	65	64	68	70	68	65	63	59	73	64	across alley at nearest residence building (about 46ft)
5	67	71	66	71	72	70	66	62	76	-	44ft @ sidewalk
6	68	70	71	72	75	71	66	63	78	65	44ft @ sidewalk
7	78	81	81	86	89	86	83	81	93	-	12ft from radiator (radiator faces clients building and away from neighbors)

APPENDIX L

Population and Housing

Appendix L - Population and Housing
Cumulative Estimate of New Population and Households from all Related Projects

No. [a]	Project	Address	Use	Size	Household Size [c]	Population	Household Count
1	Apartments	1247 S Grand Ave.	Apartments	115 du	2.43	279	115.00
			Commercial	4,610 sf			
2	1400 S Figueroa Residential Project	1400 S Figueroa	Apartments	106 du	2.43	258	106
3	Mixed-Use	820 S Olive St.	Apartments	522 du	2.43	1268	522
			Retail	4,500 sf			
4	Variety Arts Project	940 S Figueroa St.	Office	3,295 sf			
			Restaurant	10,056 sf			
			Bar	5,119 sf			
5	Apartments	1011 S Park View St	Apartments	108 Units	2.43	262	108
6	DTLA South Park - Site 1	1120 S Grand Ave	High-rise Apt	666 du	2.43	1618	666
			Commercial/Retail	20,690 sf			
7	DTLA South Park - Site 4	1230 S Olive St.	Apartments	360 du	2.43	875	360
			Commercial	6,400 sf			
8	Mixed-Use (Herald Examiner)	146 W 11th (11th St. / Broadway)	Apartments	391 du	2.43	950	391
			Office	39,725 sf			
		1111 S Broadway	Retail	49,000 sf			
9	Mixed-Use	327 N Fremont Ave (Fremont / Temple)	Apartments	600 du	2.43	1458	600
			Retail	30,000 sf			
10	Restaurant Project	1036 S Grand Ave.	Restaurant	7,149 sf			
11	2222 S Figueroa	2222 S Figueroa St.	Condominium	1,063 du	2.43	2583	1063
			Retail	18,000 sf			
12	LA Plaza Cultural Village	527 N Spring St. 555 N Broadway	Apartments	345 du	2.43	838	345
			Retail	23,000 sf			
			Specialty Retail	21,000 sf			
			Restaurant	11,000 sf			
13	Mixed-Use	720 W Washington Blvd.	Apartments	105 du	2.43	255	105
			Retail	2,650 sf			
14	Onyx Apartment	Pico Blvd. b/w Flower and Grand 1306 S Hope St	Apartments	419 du	2.43	1018	419
			Retail	42,000 sf			
15	G12 Project	North of Pico b/w Grand and Olive 1200 S Grand Av	Apartments	640 du	2.43	1555	640
			Retail	45,000 sf			
16	Mixed-Use	1050 S. Grand Ave (Grand Ave. / 11th St.)	Condominiums	151 du	2.43	367	151
			Retail	3,472 sf			
			Restaurant	2,200 sf			
17	Embassy Hotel	831 S Grand Ave.	Hotel	183 Rooms			
			Restaurant	3,084 sf			
			Theater	12,780 sf			
			Banquet	4,773 sf			
			Lounge	2,163 sf			
			Bar	11,840 sf			
18	11th & Hill Project	1111 S Hill St.	Condominiums	528 du	2.43	1283	528
			Retail	6,091 sf			
19	Mixed Use	SOLA Village 1900 S Broadway	Condominiums	900 du	2.43	2187	900
			Apartments (Rental)	550 du	2.43	1337	550
			Hotel	210 Rooms			
			Retail/Commercial	143,100 sf			
			Office	180,000 sf			
			Gallery/Museum	17,600 sf			
			Gym	8,000 sf			
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Wilmer St.	Imaging center, pharmacy, surgical suites, and physician offices	56,450 sf			
21	Charter High School	1552 W Rockwood St	Charter High School	600 Students			
22	Park/Fifth Project	427 W 5th 437 S Hill St	Condominiums	660 du	2.43	1604	660
			Restaurant	13,742 sf			
23	9th & Flower Project	830 S Hope St	Apartments	525 du	2.43	1276	525
			Retail	6,200 sf			
24	Mixed Use	1435 W 3rd Street	Apartment	122 du	2.43	296	122
			Retail	3,500 sf			
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street.	Condominiums	1,648 du	2.43	4005	1648
		Parcel L/M-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street	Apartments	412 du	2.43	1001	412
			Retail	225,250 sf			
			Supermarket	53,000 sf			
			Restaurant	67,000 sf			
			Health Club	50,000 sf			
			Event Facility	250 seats			
		237 S Grand Av	Hotel	275 Rooms			
			Office	681,000 sf			
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Bl/Los Angeles St 220 E Washington Bl	Residential Units	230 du	2.43	559	230
			Specialty Retail/Restaurant	19,000 sf			
			Renovate Residential Units	32 du	2.43	78	32
27	Mixed Use	2100 S Figueroa	Condominium	291 du	2.43	707	291
			Retail	7,134 sf			
28	9th / Olive Project	840/888 S. Olive St.	Apartments	303 du	2.43	736	303

			Retail	9,680 sf			
			Restaurant	1,500 sf			
29	Broadway Trade Center	801 S Broadway	Office	400,000 sf			
			Hotel	150 Rooms			
30	Beverly + Lucas Project	1430 W Beverly Bl	Apartments	157 du	2.43	382	157
31	Broadway Mixed	955 S Broadway	Apartments	201 du	2.43	488	201
			Retail	6,000 sf			
32	801 S Olive Street Project	801 S Olive St.	Apartments	363 du	2.43	882	363
			Retail	2,500 sf			
			Restaurant	10,000 sf			
33	Mixed-Use Building	233 W Washington Bl	Apartments	160 du	2.43	389	160
			Retail	24,250 sf			
34	Bixel & Lucas Project	1102 W 6th St	Apartments	649 du	2.43	1577	649
			Retail	39,996 sf			
35	Mixed-Use	215 W 14th St.	Condominiums	154 du	2.43	374	154
			Retail	10,700 sf			
36	SB OMEGA	601 S Main St.	High-rise Condo	452 du	2.43	1098	452
			Retail	25,000 sf			
37	Hill Mixed	920 S Hill	Apartments	239 du	2.43	581	239
			Retail	5,400 sf			
38	Witmer Project	1329 W. 7th St. (7th / Witmer)	Condominiums	94 du	2.43	228	94
			Retail	2,000 sf			
39	1133 Hope Street Project	1133 Hope Street	Condominiums	208 du	2.43	505	208
			Restaurant	5,029 sf			
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	Apartment	300 du	2.43	729	300
			Retail	8,000 sf			
41	Spring St. Hotel	633 S Spring	Hotel	176 Room	2.43	428	176
			Conference Space	1,200 sf			
			Restaurant	8,400 sf			
			Bar	5,290 sf			
42	Wakaba LA	southwest corner of San Pedro and 2nd	Apartments	240 du	2.43	583	240
			Retail	16,000 sf			
43	1600 S Figueroa	1600 S Figueroa St.	Condominium	202 du	2.43	491	202
			Apartments	134 du	2.43	326	134
			Hotel	250 rooms			
44	Mixed-Use	928 S Broadway	Apartments	662 du	2.43	1609	662
			Retail	47,000 sf			
			Live/Work	11,000 sf			
			Office	34,824 sf			
45	Los Angeles Street Civic Center Project	150 N Los Angeles Street	Government Office	712,500 sf			
			Retail	35,000 sf			
			Child Care Facility	2,500 sf			
46	Metropolis Mixed-Use	851 S. Francisco St. (8th St. / Francisco St.) 899 S. Francisco St.	Hotel	480 Rooms			
			Condominiums	836 du	2.43	2031	836
			Office	988,225 sf			
			Retail	46,000 sf			
47	Mixed-Use Development	1027 W. Wilshire Project (Wilshire / St. Paul St.)	Condominiums	402 du	2.43	977	402
			Retail	7,428 sf			
48	Residential Project	1027 S Olive Street	Apartments	100 du	2.43	243	100
49	Embassy Tower	848 S Grand Av	Hi-rise Condominiums	420 du	2.43	1021	420
			Market	38,500 sf			
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Figueroa St. / 11th St.	Residential	1,264 du	2.43	3072	1264
			Educational	95,706 sf			
			Retail	148,583 sf			
			Restaurants	60,000 sf			
			Health Club	12,309 sf			
			Sport Bar	6,000 sf			
			Hotel	183 Rooms			
			Office	367,300 sf			
			Production Studio	298,500 sf			
			Convention Center Expansion	250,000 sf			
51	City Market Project	San Pedro Street b/w 9th St and 12th St.	University	1,400 Students			
			Shopping Center	176,733 sf			
		1057 S San Pedro St.	Cinema	744 Seats			
			Apartments	945 du	2.43	2296	945
			Hotel	210 Rooms			
			Retail	224,862 sf			
			Office	294,641 sf			
52	Wilshire Grand Redevelopment Project	930 W Wilshire Bl 900 W Wilshire Bl	Hotel Rooms	560 Rooms			
			Residential Units	100 du	2.43	243	100
			Office	1,500,000 sf			
			Retail/Restaurant	275,000 sf			
53	Flower (1212) Mixed -Use	1212 W Flower	Apartments	730 du	2.43	1774	730
			Retail/Restaurant	10,500 sf			
			Office	70,465 sf			
54	Olympic / Hill Project	Northwest corner of Olympic / Hill	Apartments	300 du	2.43	729	300
			Retail	14,500 sf			
		301 W Olympic Bl	Restaurant	8,500 sf			

55	785 S Towne	785 S Towne Ave.	Joint Living and Work Quarters	60 du	2.43	146	60
56	1700 W Olympic Hotel	1700 W Olympic	Hotel	160 Rooms			
57	Mixed-Use	534 S Main St	Apartments	160 du	2.43	389	160
			Retail	18,000 sf			
			Restaurant	3,500 sf			
			Fast-food Restaurant	3,500 sf			
58	USC Student Housing	505 W 31st St.	Apartments	73 DU	2.43	177	73
59	400 S Broadway Mixed-Use Project	400-416 Broadway	Apartments	450 du	2.43	1094	450
			Retail	6,904 sf			
			Lounge	5,000 sf			
60	1001 S Olive	1001 S Olive St	Apartments	225 du	2.43	547	225
			Restaurant	5,000 sf			
61	Olive & Olympic	Northeast corner of Olive & Olympic 960 S Olive St.	Apartments	263 du	2.43	639	263
			Restaurant	14,500 sf			
62	L.A Trade Tech College - 5-Year Master Plan	400 Washington Blvd. (Washington Blvd. / Flower St.)	5-year Master Plan Project	21,300 Enrollment			
63	Palmetto	Northeast corner of Palmetto & Sealton	Apartments	310 du	2.43	753	310
			Commercial	11,375 sf			
			Production Space	11,736 sf			
64	Mixed Use	1335 W 1st St	Apartments	102 du	2.43	248	102
			Retail	3,514 sf			
65	Residential	459 S Hartford Ave	Apartments	94 du	2.43	228	94
66	330 S Alameda	330 S Alameda	Apartments	186 du	2.43	452	186
			Commercial	22,340 sf			
67	Mixed-Use Project	1150 W Wilshire	Apartment	80 du	2.43	194	80
			Restaurant	4,589 sf			
68	Mixed Use	737 S Spring	Apartments	320 du	2.43	778	320
			Pharmacy	25,000 sf			
69	Apartments	1218 W Ingham St	Apartments	90 du	2.43	219	90
70	Foreman and Clark Building	400,402 W 7th St. , Hill St	701, 715 S.	Apartments	165 du	2.43	401
			Bar	11,902 sf			
			Restaurant	14,032 sf			
71	Apartments	740 S Hartford St	Apartments	80 du	2.43	194	80
72	Cecil Hotel Reno	640 S Main St.	Hotel	299 Rooms			
			Apartments	301 du	2.43	731	301
73	Clinic	649 S Wall St.	Medical Office	66 employee			
			Assisted Living	55 bed			
74	Garland Building	740 S Broadway	Apartments	47 du	2.43	114	47
75	Northeast Tower	215 W 9th St	Condominiums	210 du	2.43	510	210
			Retail	9,000 sf			
76	400 S Alameda Hotel	400 S Alameda St	Hotel	66 Rooms			
			Restaurant	2,130 sf			
			Retail	840 sf			
77	Hotel + Retail	649 S Olive St	Hotel	241 Rooms			
78	Charter School (K-5)	1633 W 11th St	School	460 Students			
79	Residential	810 E Pico Blvd	Retail	181,620 sf			
80	Mixed Use	732 S Spring St	Apartments	400 du	2.43	972	400
			Pharmacy/Drug Store	15,000 sf			
81	Mixed Use	340 S Hill	Apartments	428 du	2.43	1040	428
			Retail	6,700 sf			
82	Hill Mixed	940 S Hill	Apartments	232 du	2.43	564	232
			Retail	14,000 sf			
83	Condominiums	742 S Hartford Ave	Condominiums	58 du	2.43	141	58
84	Budokan of Los Angeles	237-249 S Los Angeles St.	Sports Complex	43,453 sf			
85	Mixed Use	1145 W 7th St	Condominiums	126 du	2.43	306	126
			Apartments	100 du	2.43	243	100
			Retail	7,200 sf			
86	Sapphire Mixed Use	1111 W 6th St	Apartments	369 du	2.43	897	369
			Retail	18,600 sf			
			Quality Restaurant	2,200 sf			
			Coffee Shop	1,200 sf			
87	Vibiana Lofts	225 S Los Angeles St.	Condominiums	300 du	2.43	729	300
			Retail	3,400 sf			
88	Laborers Local 300 Headquarters	2005 W Pico Blvd.	Office	30,300 sf			
89	Pacific Charter Elementary School	1700 W Pico Blvd.	School	450 Pupils			
90	Valencia Project	1501 Wilshire Blvd.	Apartments	218 du	2.43	530	218
			Retail	6,100 sf			
			Other	1,500 sf			
91	Retail / Restaurant	201 S Broadway	Retail and Restaurant	27,765 sf			
92	Legal Aid Foundation of LA	1550 W 8th St.	Office	33,957 sf			
93	Apex Phase II	700 W 9th St.	Condominiums	341 du	2.43	829	341
			Retail	11,687 sf			
94	Pharmacy / Drug Store	1302 W Washington Blvd.	Other	16,572 sf			
95	Charter High School	1929 W Pico Blvd.	School	480 Pupils			
96	Medallion Phase II	300 S Main St.	Apartments	471 du	2.43	1145	471
			Restaurant	27,780 sf			
			Retail	5,190 sf			
97	Alexan South Broadway	850 S Hill St.	Apartments	300 du	2.43	729	300
			Restaurant	3,500 sf			
			Retail	3,500 sf			
98	Proper Hotel	1106 S Broadway	Hotel	148 Rooms			

			Restaurant	17,452 sf			
99	Catalina Building	443 S San Pedro St.	Live/Work	78 du	2.43	190	78
100	1201 S Grand	1201 S Grand Ave.	Condominiums	126 du	2.43	306	126
101	Mixed Use	118 S Astronaut Onizuka St	Apartment	77 du	2.43	187	77
102	Mixed Use	360 S Alameda	Apartment	52 du	2.43	126	52
			Restaurant	2,400 sf			
			Creative Office	6,900 sf			
103	Brooks Building	644 S Broadway	Apartments	30 du	2.43	73	30
			Bar	2,500 sf			
104	950 S Broadway	950 S Broadway	Apartments	30 du	2.43	73	30
			Retail	7,500 sf			
105	Grand Residence	1229 S Grand Ave	Condominiums	161 Units	2.43	391	161
			Restaurant	2,085 sf			
106	Hotel & Apartments	675 S Bixel St	Apartments	425 Units	2.43	1033	425
			Hotel	126 Rooms			
			Retail	4,874 sf			
107	Mixed-Use	1235 W 7th St	Condominiums	303 Units	2.43	736	303
			Retail	5,959 sf			
108	Mixed-Use Project	1800 E 7th St.	Apartments	122 du	2.43	296	122
			Office	13,600 sf			
109	1745 E 7th St	1745 E 7th St	Apartments	57 du	2.43	139	57
			Commercial	6,000 sf			
110	1322 Linwood Apts.	1322 W Linwood Ave.	Apartments	45 Units	2.43	109	45
111	Mixed-Use	1334 S Flower St.	Apartments	188 Units	2.43	457	188
			Retail / Restaurant	10,096 sf			
112	LUXE Hotel	1020 S Figueroa St.	Condo	650 Units	2.43	1580	650
	Mixed-Use		Hotel	300 Room			
			Restaurant	40,000 sf			
			Retail	40,000 sf			
113	Mixed-Use	1400 S Flower St.	Apartments	147 Units	2.43	357	147
			Retail	6,921 sf			
114	Fig + Pico Hotel	Northeast corner of Figueroa St. & Pico Blvd.	Hotel	1,162 Room			
			Retail	13,145 sf			
115	Mixed-Use Project (Mostly private club)	929 E 2nd St	Retail	41,019 sf			
			Other	63,893 sf			
116	Apartments	1300 W Court St	Apartments	43 du	2.43	104	43
117	Urban View Lofts Project	495 S Hartford	Apartments	220 du	2.43	535	220
118	Child Care	3014 S Royal St	Child Care Facility	7,997 sf			
119	1930 Wilshire MU	1930 Wilshire Blvd	Apartments	478 du	2.43	1162	478
			Theater	850 Seats			
			Classroom	50 Student			
			Hotel	220 Rooms			
120	Mixed-Use	2528 S Grand Ave	Apartments	296 du	2.43	719	296
			Retail	5,000 sf			
121		425 S Union Ave	Apartments	32 du	2.43	78	32
122	Medical Office	1122 W Washington Blvd	Office	60,000 sf			
123	Mixed-Use	945 W 8th St.	Condominium	781 du	2.43	1898	781
			Retail	6,700 sf			
124	Ferante	1000 W Temple St.	Apartments	1,500 du	2.43	3645	1500
			Retail	30,000 sf			
125	Mixed-Used	668 Alameda Street	Apartments	475 du	2.43	1154	475
			Office	43,000 sf			
			Specialty Retail	9,000 sf			
			Restaurant	17,000 sf			
			Supermarket	15,000 sf			
126	1100 E 5th St (Mixed-Use)	1100 E 5th Street	Apartment	213 du	2.43	518	213
			Retail	14,495 sf			
			Arts & Production Space	14,495 sf			
127	Figueroa Hotel	3101 S Figueroa St	Hotel	275 rooms			
			Bar	1,178 sf			
128	6th & Alameda	1206 6th St	Apartments	1,736 du	2.43	4218	1736
	Mixed-Use		Office	253,514 sf			
			Community-Serving Commercial	127,610 sf			
			Art Space	22,429 sf			
			Hotel	514 Rooms			
			School	300 Student			
129	5th & Hill Center MU	333 W 5th St	Condominiums	80 du	2.43	194	80
			Hotel	200 Rooms			
			Restaurant	5,000 sf			
			Bar	22,500 sf			
130	Tribune Media's DTLA Tower	232 West 2nd St	Condominiums	107 du	2.43	260	107
			Office	534,044 sf			
			Retail	7,200 sf			
131	433 S Main St	433 S Main	Condominiums	196 du	2.43	476	196
			Retail	5,300 sf			
			Restaurant	900 sf			
132	Mixed-Use	1100 S Main St	Apartments	379 du	2.43	921	379
			Other	25,810 sf			
133	Mixed Use	520 S Mateo St	Apartments	600 du	2.43	1458	600
			Restaurant	15,000 sf			
			Retail	15,000 sf			
			Office	30,000 sf			
134	Southern California Flower Market Project	755 S Wall St	Apartment	323 du	2.43	785	323

			Office	53,200 sf			
			Retail	4,400 sf			
			Other	4,420 sf			
			Other	125 Persons			
135	Hellman / Banco Building	354 S Spring St	Apartments	212 du	2.43	515	212
136		1301 W Colton St	Apartments	29 du	2.43	70	29
137	Downtown LA Hotel	926 W James M Wood Blvd	Hotel	247 Rooms			
138	Arts District Center (Mixed-Use)	1101 E 5th St	Apartments	228 du	2.43	554	228
			Retail	23,000 sf			
			Office	27,860 sf			
			Hotel	149 Rooms			
			Other	56,100 sf			
139	1316 Court & 1323 Colton Apts	1316 W Court St	Apartments	122 du	2.43	296	122
140	Figueroa Centre	911 S Figueroa St	Condominiums	200 du	2.43	486	200
			Hotel	220 rooms			
			Retail	44,080 sf			
			Restaurant	50,000 sf			
141	Mixed-Use	1323 Grand Ave	Apartments	284 du	2.43	690	284
			Retail	6,300 sf			
142	Times Mirror Square	100 S Broadway	Apartments	1,127 du	2.43	2739	1127
			Office	285,088 sf			
			Supermarket	50,000 sf			
			Quality Restaurant	22,200 sf			
			High Turnover Restaurant	53,389 sf			
143	Mixed-Use	1000 S Hill St	Apartments	498 du	2.43	1210	498
			Retail	8,707 sf			
144	Mixed-Use	601 S Central Ave	Apartments	236 du	2.43	573	236
			Retail	12,000 sf			
145	845 S Olive & 842 Grand MU	845 S Olive	Apartments	208 du	2.43	505	208
			Retail	810 sf			
			Other	1,620 sf			
146	Olympia Mixed-Use	1001 W Olympic	Apartments	1,367 du	2.43	3322	1367
			Retail	20,000 sf			
			Other	20,000 sf			
147	Mixed-Use	806 E 3rd St	Bar/Lounge	3,047 sf			
			Restaurant	7,720 sf			
			Retail	6,171 sf			
148	Mixed-Use	755 S Los Angeles	Retail	32,400 sf			
			Office	65,000 sf			
			Restaurant	4,000 sf			
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd	Hotel	125 Rooms			
150	USC Children's Creative Learning Center	2716 S Severance St	Other	9,955 sf			
151	Apartments	101 N Glendale Blvd	Apartments	55 du	2.43	134	55
152		1420 Bonnie Brae St	Apartments	29 du	2.43	70	29
153	Mixed-Use	609 E 5th St	Apartments	151 du	2.43	367	151
154	8th & Fig	744 S Figueroa St	Apartments	438 du	2.43	1064	438
			Retail	3,750 sf			
			Restaurant	3,750 sf			
155	Affordable Housing Development	508 E 4th St	Apartments	41 du	2.43	100	41
156	Residential	713 E 5th St	Apartments	51 du	2.43	124	51
157	Mixed-Use	401 Hewitt St	Office	255,514 sf			
			Retail	4,970 sf			
			Other	9,940 sf			
158	8th, Grand & Hope Tower	754 S Hope St	Apartments	409 du	2.43	994	409
			Retail	7,329 sf			
159	Mixed-Use	333 Alameda St	Apartments	994 du	2.43	2415	994
			Retail	99,300 sf			
160	19-story Affordable Housing Skid Row	600 S San Pedro St	Affordable Housing	303 du	2.43	736	303
			Retail	19,907 sf			
161	Hewitt & 4th MU	940 E 4th St	Apartments	93 du	2.43	226	93
			Office	6,000 sf			
			Retail	14,248 sf			
162	Affordable Housing Skid Row	552 S San Pedro St	Affordable Housing	378 du	2.43	919	378
			Apartments	4 du	2.43	10	4
			Retail	1,758 sf			
			Office	4,410 sf			
			Dining Room/Flex Space	5,932 sf			
163	2005 James M Wood Hotel	2005 W James M Wood Blvd	Hotel	100 Rooms			
164	1300 Figueroa Hotel	1300 S Figueroa St	Hotel	1,024 Rooms			
165		656 S Stanford Ave	Apartments	82 du	2.43	199	82
166	Mixed-Use	1018 W Ingham St	Apartments	37 du	2.43	90	37
			Retail	1,890 sf			
167	Apartments	1246 W Court St	Apartments	54 du	2.43	131	54
168	14th St/Hill St (DTLA) MU	1340 S Hill St	Apartments	235 du	2.43	571	235
			Retail	5,250 sf			
			Other	4,000 sf			
169		1219 S Hope St	Hotel	75 Rooms			

170	Santa Fe Freight Yard Redevelopment	950 E 3rd St.	Apartments	635 du	2.43	1543	635
			Retail	30,062 sf			
171	Mixed-Use (Coca Cola)	963 E 4th St.	Office	78,600 sf			
			Retail	25,000 sf			
			Restaurant	20,000 s.f			
172	Retail	555 S Mateo St	Retail	153,000 sf			
173	Camden Arts Project	1525 Industrial St.	Apartments	344 du	2.43	836	344
			Office	21,413 sf			
			Restaurant	6,084 sf			
174	Restaurant	500 S Mateo St.	Restaurant	12,882 sf			
175	Apartments	1255 E Elden Ave	Apartments	103 du	2.43	250	103
176	Mixed-Use	550 S Main St	Apartments	159 du	2.43	386	159
			Retail	23,000 sf			
177	Freehand Hotel	416 W 8th St	Hotel	226 rooms			
			Retail	8,000 sf			
178	Assisted Living	1030 S Lake St	Assisted Living	338 Beds			
			Senior Housing	34 du	2.43	83	34
179	Beaudry Ave & 2nd St MU	130 S Beaudry Ave	Apartments	230 du	2.43	559	230
			Other	9,000 sf			
180	Olympic & Hoover Mixed-Use	2501 W Olympic Bl	Apartments	173 du	2.43	420	173
			Retail	36,180 sf			
			Hotel	373 Rooms			
181	Olympic Tower Project MU	815 W Olympic Bl	Condominiums	374 du	2.43	909	374
			Retail	65,074 sf			
			Conference Center	10,801 sf			
			Office	33,498 sf			
182	Hotel	361 S Spring	Hotel	315 Rooms			
183	Harris Building Office Conversion	11th St & Main St	Office	52,000 sf			
184	Mixed-Use	1410 S Flower St.	Apartments	152 du	2.43	369	152
			Retail	1,184 sf			
185	Mixed-Use	1322 W Maryland St.	Apartments	47 du	2.43	114	47
			Retail	760 sf			
186	Apartments	655 San Pedro St.	Apartments	81 du	2.43	197	81
187	Fashion District Tower	222 E 7th St	Apartments	452 du	2.43	1098	452
			Commercial	13,655 sf			
188		605 E 4th St.	Restaurant	3,798 sf			
189	716 S Spring	716 S Spring	Restaurant	6,208 sf			
190	DTLA South Park/Mack Urban Site 2	1120 S Olive	Appartments	713 DU	2.43	1733	713
			Retail	7,125 sf			
			Restaurant	7,125 sf			
191	DTLA South Park/Mack Urban Site 3	1105 S. Olive	Appartments	537 DU	2.43	1305	537
			Retail	3,794 sf			
			Restaurant	3,794 sf			
Infrastructure Projects							
192	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station			Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations		
193	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Vernon Ave.			Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers		
194	Los Angeles Streetcar	Broadway between 1st St. & 11th St., 11 th St. between Figueroa St. & Broadway, Figueroa St. between 11th St. & 7 th St., 7 th St. between Figueroa St. & Hill St., Hill St. between 7th St. & 1 st St., and 1 st St. between Hill St. & Broadway			Enhance mobility and transit circulation and support the growth and revitalization of downtown.		
195	7th street Improvement Project	7th St. between SR 110 and Olive Street			Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding		
						Total Population	Total Households
						120,742	49,688

Notes:

du = dwelling units

sf = square feet

emp = employees

[a] Related Projects list was prepared as a component of the Traffic Study of this Draft EIR. Calculation do not include Infrastructure projects.

Compiled by ESA, 2019.

Appendix L - Population and Housing
Cumulative Estimate of New Employees from all Related Projects

[illegible]

	Event Facility [e][f]	250 seats																2.25	4.79	10.78	11
	Hotel	275 Rooms								275	137.50	1.13	155.38								155
	Office	681,000 sf							681.00	4.79	3,261.99										3,262
26	Residential Units	230 DU																			
	Specialty Retail/Restaurant	19,000 sf	19.00			19.00	2.71	51.49													51
	Renovate Residential Units	32 DU																			
27	Condominium	291 DU																			
	Retail	7,134 sf	7.14			7.14	2.71	19.34													19
28	Apartments	303 DU																			
	Retail	9,680 sf	9.68			9.68	2.71	26.23													26
	Restaurant	1,500 sf		1.50		1.50	2.71	4.07													4
29	Office	400,000 sf							400.00	4.79	1,916.00										1,916
	Hotel	150 Rooms												150	75.00	1.13	84.75				85
30	Apartments	157 DU																			
31	Apartments	201 DU																			
	Retail	6,000 sf	6.00			6.00	2.71	16.28													16
32	Apartments	363 DU																			
	Retail	2,500 sf	2.50			2.50	2.71	6.78													7
	Restaurant	10,000 sf		10.00		10.00	2.71	27.10													27
33	Apartments	160 DU																			
	Retail	24,250 sf	24.25			24.25	2.71	65.72													66
34	Apartments	649 DU																			
	Retail	39,996 sf	40.00			40.00	2.71	108.39													108
35	Condominiums	154 DU																			
	Retail	10,700 sf	10.70			10.70	2.71	29.00													29
36	High-Rise Condo	452 DU																			
	Retail	25,000 sf	25.00			25.00	2.71	67.75													68
37	Apartments	239 DU																			
	Retail	5,400 sf	5.40			5.40	2.71	14.63													15
38	Condominiums	94 DU																			
	Retail	2,000 sf	2.00			2.00	2.71	5.42													5
39	Condominiums	208 DU																			
	Restaurant	5,029 sf		5.03		5.03	2.71	13.63													14
40	Apartment	300 DU																			
	Retail	8,000 sf	8.00			8.00	2.71	21.68													22
41	Hotel	176 Rooms									176	88.00	1.13	99.44							99
	Conference Space [e][f]	1,200 sf															1.20	4.79	5.75		6
	Restaurant	8,400		8.40		8.40	2.71	22.76													23
	Bar	5,290 sf		5.29		5.29	2.71	14.34													14
42	Apartments	240 DU																			
	Retail	16,000 sf	16.00			16.00	2.71	43.36													43
43	Condominium	202 DU																			
	Apartments	134 DU																			
	Hotel	250 rooms									250	125.00	1.13	141.25							141
44	Apartments	662 DU																			
	Retail	47,000 sf	47.00			47.00	2.71	127.37													127
	Live/Work	11,000 sf	11.00			11.00	2.71	29.81													30
	Office	34,824 sf							34.82	4.79	166.81										167
45	Government Office	712,500 sf							712.50	4.79	3,412.88										3,413
	Retail	35,000 sf	3.50			3.50	2.71	9.49													9
	Child Care Facility [g]	2,500 sf																			4
46	Hotel	480 Rooms									480	240.00	1.13	271.20		50	0.084	4.20			271
	Condominiums	836 D.U.																			
	Office	988,225 sf							988.23	4.79	4,733.60										4,734
	Retail	46,000 sf	46.00			46.00	2.71	124.66													125
47	Condominiums	402 D.U.																			
	Retail	7,428 sf	7.43			7.43	2.71	20.13													20
48	Apartments	100 DU																			
49	Hi-Rise Condominiums	420 DU																			
	Market	38,500 sf	38.50			38.50	2.71	104.34													104
50	Residential	1,264 DU																			
	Educational [g]	95,706 sf													1,914	0.084	160.79				161
	Retail	148,583 sf	148.58			148.58	2.71	402.66													403
	Restaurants	60,000 sf		60.00		60.00	2.71	162.60													163
	Health Club	12,309 sf			12.31	12.31	2.71	33.36													33
	Sport Bar	6,000 sf		6.00		6.00	2.71	16.26													16
	Hotel	183 Rooms									183	91.50	1.13	103.40							103
	Office	367,300 sf							367.30	4.79	1,759.37										1,759
	Production Studio [e]	298,500 sf															298.50	4.79	1,429.82		1,430
	Convention Center Expansion [e][f]	250,000 sf															250.00	4.79	1,197.50		1,198

51	University	1,400 Students													1,400	0.084	117.60					118
	Shopping Center	176,733 sf	176.73			176.73	2.71	478.95														479
	Cinema [f]	744 Seats			6.70	6.70	2.71	18.15														18
	Apartments	945 DU																				
	Hotel	210 Rooms									210	105.00	1.13	118.65								119
	Retail	224,862 sf	224.86			224.86	2.71	609.38														609
	Office	294,641 sf							294.64	4.49	1,322.94											1,323
52	Hotel Rooms	560 Rooms																				
	Residential Units	100 DU									560	280.00	1.13	316.40								316
	Office	1,500,000 sf							1,500.00	4.49	6,735.00											6,735
	Retail/Restaurant	275,000 sf	275.00			275.00	2.71	745.25														745
53	Apartments	730 DU																				
	Retail/Restaurant	10,500 sf	105.00			105.00	2.71	284.55														285
	Office	70,465 sf							70.47	4.49	316.39											316
54	Apartments	300 DU																				
	Retail	14,500 sf	145.00			145.00	2.71	392.95														393
	Restaurant	8,500 sf		8.50		8.50	2.71	23.04														23
55	Joint Living and Work Quarters	60 DU																				
56	Hotel	160 Rooms																				
57	Apartments	160 DU																				
	Retail	18,000 sf	18.00			18.00	2.71	48.78														49
	Restaurant	3,500 sf		3.50		3.50	2.71	9.49														9
	Fast-food Restaurant	3,500 sf		3.50		3.50	2.71	9.49														9
58	USC Student Housing	73 DU																				
59	Apartments	450 DU																				
	Retail	6,904 sf	6.90			6.90	2.71	18.71														19
	Lounge	5,000 sf			5.00	5.00	2.71	13.55														14
60	Apartments	225 DU																				
	Restaurant	5,000 sf		5.00		5.00	2.71	13.55														14
61	Apartments	263 DU																				
	Restaurant	14,500 sf		14.50		14.50	2.71	39.30														39
62	5-year Master Plan Project [g]	21,300 Enrollment													21,300	0.084	1,789.20					1,789
63	Apartments	310 DU																				
	Commercial	11,375 sf	11.38			11.38	2.71	30.83														31
	Production Space	11,736 sf																11.74	4.79	56.22		56
64	Apartments	102 DU																				
	Retail	3,514 sf	3.51			3.51	2.71	9.52														10
65	Apartments	94 DU																				
66	Apartments	186 DU																				
	Commercial	22,340 sf	22.34			22.34	2.71	60.54														61
67	Apartment	80 DU																				
	Restaurant	4,589 sf		4.59		4.59	2.71	12.44														12
68	Apartments	320 DU																				
	Pharmacy	25,000 sf	25.00			25.00	2.71	67.75														68
69	Apartments	90 DU																				
70	Apartments	165 DU																				
	Bar	11,902 sf		11.90		11.90	2.71	32.25														32
	Restaurant	14,032 sf		14.03		14.03	2.71	38.03														38
71	Apartments	80 Units																				
72	Hotel	299 Rooms										299	149.50	1.13	168.94							169
	Apartments	301 DU																				
73	Medical Office [h]	66 employee									66.00											66
	Assisted Living	55 bed																				
74	Apartments	47 DU																				
75	Condominiums	210 DU																				
	Retail	9,000 sf	9.00			9.00	2.71	24.39														24
76	Hotel	66 Rooms										66	33.00	1.13	37.29							37
	Restaurant	2,130 sf		2.13		2.13	2.71	5.77														6
	Retail	840 sf	0.84			0.84	2.71	2.28														2
77	Hotel	241 Rooms										241	120.50	1.13	136.17							136
78	School	460 Students													460	0.084	38.64					39
79	Retail	181,620 sf	181.62			181.62	2.71	492.19														492
80	Apartments	400 DU																				
	Pharmacy/Drug Store	15,000 sf	15.00			15.00	2.71	40.65														41
81	Apartments	428 DU																				
	Retail	6,700 sf	6.70			6.70	2.71	18.16														18
82	Apartments	232 D.U																				
	Retail	14,000 sf	14.00			14.00	2.71	37.94														38
83	Condominiums	58 DU																				
84	Budkan of Los Angeles	43,453 sf																43.45	4.79	208.14		208

[illegible]

[illegible]

[illegible]

Infrastructure Projects

Notes:

sf = square feet

(a) Related Project

[b] Employee Generation Rates for these uses are based on data provided in the Los Angeles Unified School District, 2016 Developer Fee Justification Study

[d] The employee generation factor for schools is based on dividing the total school district employees by the total student enrollment, which results in 0.084 employees per student.

[e] The projects that fall under Other include a variety of uses, including bus facility, event facilities, gallery/museum, conference centers, and other uses that do not have a specific general use category.

[f] It is assumed that cinema, theater, sports complex, event facility, auditorium, convention center, conference, meeting space, and assembly hall will require approximately 9 square feet per seat.

[h] Related Project Number 73 uses the number of provided employees rather than a generation factor

Compiled by ESA, 2019.

2016 RTP/SCS DEMOGRAPHIC PROJECTIONS
LOS ANGELES COMMUNITY PLAN AREAS

county	fips	city	CPA	Name	P12	P20	P35	P40	HO12	HO20	HO35	HO40	E12	E20	E35	E40
37	44000	Los Angeles city	1010	Northeast Los Angeles	239598	245722	261893	272068	73498	79312	85096	87783	60019	68026	75863	78290
37	44000	Los Angeles city	1020	Boyle Heights	85351	89460	93966	94554	21779	23752	25894	26842	23979	28505	33154	34602
37	44000	Los Angeles city	1030	Southeast Los Angeles	283882	290022	305955	314583	64417	68223	72289	74170	50440	69786	88355	94088
37	44000	Los Angeles city	1040	West Adams - Baldwin Hills - L	176592	187902	213664	223759	61951	69958	81483	86061	42656	50273	57702	60030
37	44000	Los Angeles city	1050	South Los Angeles	273905	289723	323975	338448	76735	84705	95001	99254	43393	54404	64955	68267
37	44000	Los Angeles city	1060	Wilshire	281894	297770	337348	351547	116475	128720	144472	151104	157880	169797	184949	190701
37	44000	Los Angeles city	1070	Hollywood	202173	209096	219923	226073	95753	102194	109685	113169	96327	106357	116343	119458
37	44000	Los Angeles city	1080	Silver Lake - Echo Park - Elys	70884	74141	81048	83700	27870	30205	32968	34192	17935	21056	23988	24909
37	44000	Los Angeles city	1090	Westlake	112202	118749	132168	137751	37503	42178	48589	51172	35029	40474	45651	47262
37	44000	Los Angeles city	1100	Central City	40397	54191	121819	141559	21211	29264	68532	80891	180838	198416	216145	221679
37	44000	Los Angeles city	1110	Central City North	23394	25766	40224	44601	6309	7524	13844	15433	23748	28763	33654	35181
37	44000	Los Angeles city	2120	Sherman Oaks - Studio City - T	79613	82884	88381	90969	39349	41693	44365	45581	49559	52829	56013	57035
37	44000	Los Angeles city	2130	North Hollywood - Valley Villa	138308	144181	160615	168355	53166	57827	63839	66452	40388	45785	51080	52749
37	44000	Los Angeles city	2140	Arleta - Pacoima	104743	107700	119456	121999	22203	24290	26889	28079	18549	20841	23045	23718
37	44000	Los Angeles city	2150	Van Nuys - North Sherman Oaks	160685	165755	183291	189363	56733	61905	68463	71281	64344	71433	78179	80280
37	44000	Los Angeles city	2160	Mission Hills - Panorama City	144004	147387	159340	162554	37796	40828	44211	45699	29997	33280	36402	37378
37	44000	Los Angeles city	2170	Sun Valley - La Tuna Canyon	89901	91038	91788	92404	22947	23739	24155	24412	32049	36464	40638	41957
37	44000	Los Angeles city	2180	Sylmar	80015	82815	87824	90422	20230	21604	23099	23807	23701	27009	30279	31306
37	44000	Los Angeles city	2190	Granada Hills - Knollwood	61394	65247	69822	71918	20074	21149	22254	22795	18894	20516	22119	22622
37	44000	Los Angeles city	2200	Canoga Park - Winnetka - Woodl	177622	188210	211670	221611	62197	68543	76832	80259	89157	103406	117491	121913
37	44000	Los Angeles city	2210	Chatsworth - Porter Ranch	95639	99273	110293	115056	32840	35537	39541	41218	53113	60693	68186	70539
37	44000	Los Angeles city	2220	Northridge	67717	70037	74440	76436	22698	24260	26079	26941	28057	31091	33952	34851
37	44000	Los Angeles city	2230	Reseda - West Van Nuys	107138	109211	118823	121910	33930	36011	39349	40777	37117	40983	44687	45850
37	44000	Los Angeles city	2240	Encino - Tarzana	72647	75257	80128	81999	29883	31738	33645	34518	50769	52253	53863	54389
37	44000	Los Angeles city	2250	Sunland - Tujunga - Lake View	62505	63033	63997	64952	20944	21191	21479	21739	10500	11034	11549	11731
37	44000	Los Angeles city	3260	Westwood	52692	56233	62505	65651	19893	22105	24992	26209	110551	118949	127007	129529
37	44000	Los Angeles city	3270	West Los Angeles	75881	80646	90368	94570	35725	39204	43588	45557	103881	112879	121773	124346
37	44000	Los Angeles city	3280	Venice	37587	39918	40702	42035	19131	20393	21507	22119	14425	16183	17873	18393
37	44000	Los Angeles city	3290	Palms - Mar Vista - Del Rey	112331	121573	139414	142966	50016	55552	62777	65883	32619	35390	38170	39022
37	44000	Los Angeles city	3300	Westchester - Playa del Rey	55615	60684	64051	65985	23929	26275	28997	30228	41672	46483	51270	52773
37	44000	Los Angeles city	3310	Brentwood - Pacific Palisades	57580	58717	59358	59943	25348	25756	25864	26061	32418	32859	33789	34359
37	44000	Los Angeles city	3320	Bel Air - Beverly Crest	22337	23032	25081	26084	8727	8924	9255	9259	5208	5307	5426	5477
37	44000	Los Angeles city	3700	Los Angeles International Airp	1742	0	0	0	647	0	0	0	20671	23243	27659	28952
37	44000	Los Angeles city	4340	San Pedro	77663	80176	84609	87044	29695	31678	33735	34731	18248	18776	19290	19511
37	44000	Los Angeles city	4350	Harbor Gateway	40665	41649	43056	43561	11794	12455	12873	13106	17667	20392	22987	23800
37	44000	Los Angeles city	4360	Port of Los Angeles	1494	1493	1493	1492	328	323	322	322	3595	7203	10769	11887
37	44000	Los Angeles city	4430	Wilmington - Harbor City	77687	78286	80054	81492	21807	22387	22944	23239	17010	18401	19831	20280
City Total					3845477	4016977	4442542	4609414	1325531	1441402	1618907	1690343	1696403	1899539	2104086	2169114

From: Christina Toy [mailto:christina.toy-lee@lacity.org]
Sent: Friday, December 11, 2015 1:32 PM
To: Jessie Barkley
Subject: Fwd: Demographic Information for Central City Community Plan Area

Hi Jessie,
Attached is the demographic data you requested.
Please let me know if you need anything else.

Enjoy your weekend!
Christina

----- Forwarded message -----

From: **Jack Tsao** <jack.tsao@lacity.org>
Date: Thu, Dec 10, 2015 at 1:02 PM
Subject: Re: Demographic Information for Central City Community Plan Area
To: Christina Toy <christina.toy-lee@lacity.org>
Cc: John Butcher <john.butcher@lacity.org>, James VanGerpen <james.vangerpen@lacity.org>, Angela Chang <angela.chang@lacity.org>

Hi Christina,

The enclosed two files contained the data requested from you via your consultant.

Christina:

We would like the demographic data listed below for the Central City area to assist in the analysis for the 1020 S. Fig Project.

In the past we have gotten similar information from the demographic unit at the City (Jack Tsao). How is it to proceed to get the information at this time? Should we contact him directly or can you forward this request to him?

Let us know how you would like to follow up.

Thanks

FOR THE: Central City Community Plan Area

FROM 2010 CENSUS

2010 census: population and housing (total housing, in group housing, in households)

FROM 2012 RTP

2008, 2020 and 2035: population, households, employment.

Census Information Central City Community Plan Area

	Total Population:	Total Resident Population:	Total Group_quarter Population	Total Housing Units	Occupied Housing Units	Vacant Units
Central City	37675	32730	4945	23626	20080	3546

APPENDIX M

Public Services

M-1 Fire Protection

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

May 8, 2018

To: Vincent Bertoni, AICP, Director of Planning
Department of City Planning
Attention: Sarah Moina Pearson

From: Fire Department

Subject: Notice of Preparation of Environmental Impact Report

CASE NO.: ENV-2016-4630-EIR
PROJECT NAME: 1045 Olive Project
PROJECT APPLICANT: 1045 Olive, LLC
PROJECT LOCATION: 1033-1057 S. Olive Street, Los Angeles, CA 90015

PROJECT DESCRIPTION

The Project includes the removal of four existing commercial buildings and the construction of a mixed-use high-rise building not to exceed 751,777 square feet containing a maximum of 794 residential units and 12,504 square feet of commercial uses located at the ground and mezzanine levels. At 70 stories, with a 61-story tower above a nine-story podium structure, the Project would reach up to 810 feet in height. Neighborhood serving commercial uses and a residential lobby would front along 11th Street and Olive Street. A public plaza space would be located at the corner of 11th Street and Olive Street. In addition, the Project would provide up to 100,652 square feet of amenity/open space area for its residents located above the podium structure, at mid-tower, on a roof terrace and within private balconies. Vehicle and bicycle parking would be provided per requirements of the LAMC within up to six (6) subterranean levels and eight (8) partial levels above grade (the fifth through ninth levels will contain residential units and other active uses along the perimeter of the Podium along the 11th Street and Olive Street frontages). The maximum floor-area ratio (FAR) for the Transit Area Mixed-Use Project would be 13:1. Project construction would take place in a single phase anticipated to begin in 2019 with Project buildout projected for 2023. To provide for the new development, approximately 80,520 cubic yards of soil would be excavated, all of which is expected to be exported off site.

The following comments are furnished in response to your request for this Department to review the proposed development:

FIRE FLOW:

The adequacy of fire protection for a given area is based on required fire-flow, response distance from existing fire stations, and this Department's judgment for needs in the area. In general, the required fire-flow is closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

Fire-flow requirements vary from 2,000 gallons per minute (G.P.M.) in low density residential areas to 12,000 G.P.M. in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (P.S.I.) is to remain in the water system, with the required gallons per minute flowing. The required fire-flow for this project has been set at **4,000 G.P.M. from four adjacent fire hydrants flowing simultaneously.**

Improvements to the water system in this area may be required to provide 4,000 G.P.M. fire-flow. The cost of improving the water system may be charged to the developer. For more detailed information regarding water main improvements, the developer shall contact the Water Services Section of the Department of Water and Power.

RESPONSE DISTANCE:

Based on a required fire-flow of 4,000 G.P.M., the first-due Engine Company should be within 1 ½ mile(s), the first-due Truck Company within 2 mile(s).

FIRE STATIONS:

The Fire Department has existing fire stations at the following locations for initial response into the area of the proposed development: 133 S. Olive Street

DISTANCE	Fire Station No.	SERVICES AND EQUIPMENT	STAFF
0.8	Fire Station No. 10 1335 S. Olive Street Los Angeles, CA 90015	Task Force Truck and Engine Company Paramedic Rescue Ambulance EMT Rescue Ambulance	14
1.0	Fire Station No. 9 430 E. 7th Street Los Angeles, CA 90014	Task Force Truck and Engine Company Paramedic Rescue Ambulance Battalion 1 Headquarters	12
1.7	Fire Station No. 11 1819 W. 7th Street Los Angeles, CA 90057	Task Force Truck and Engine Company Paramedic Rescue Ambulance	14
1.7	Fire Station No. 3 108 N. Fremont Avenue Los Angeles, CA 90012	Task Force Truck and Engine Company Paramedic Rescue Ambulance EMT Rescue Ambulance - Division Headquarters	16
2.1	Fire Station No. 13 2401 W. Pico Blvd. Los Angeles, CA 90006	Single Engine Company Paramedic Rescue Ambulance	9

Based on these criteria (response distance from existing fire stations), fire protection would be considered **adequate**.

At present, there are no immediate plans to increase Fire Department staffing or resources in those areas, which will serve the proposed project.

FIREFIGHTING PERSONNEL & APPARATUS ACCESS:

Access for Fire Department apparatus and personnel to and into all structures shall be required.

One or more Knox Boxes will be required to be installed for LAFD access to project. location and number to be determined by LAFD Field inspector. (Refer to FPB Req # 75).

505.1 Address identification. New and existing buildings shall have approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property.

The entrance to a Residence lobby must be within 50 feet of the desired street address curb face.

Where above ground floors are used for residential purposes, the access requirement shall be interpreted as being the horizontal travel distance from the street, driveway, alley, or designated fire lane to the main entrance of individual units

The entrance or exit of all ground dwelling units shall not be more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

The Fire Department may require additional vehicular access where buildings exceed 28 feet in height.

2014 CITY OF LOS ANGELES FIRE CODE, SECTION 503.1.4 (EXCEPTION)

- a. When this exception is applied to a fully fire sprinklered residential building equipped with a wet standpipe outlet inside an exit stairway with at least a 2 hour rating the distance from the wet standpipe outlet in the stairway to the entry door of any dwelling unit or guest room shall not exceed 150 feet of horizontal travel AND the distance from the edge of the roadway of an improved street or approved fire lane to the door into the same exit stairway directly from outside the building shall not exceed 150 feet of horizontal travel.

- b. It is the intent of this policy that in no case will the maximum travel distance exceed 150 feet inside the structure and 150 feet outside the structure. The term “horizontal travel” refers to the actual path of travel to be taken by a person responding to an emergency in the building.
- c. This policy does not apply to single-family dwellings or to non-residential buildings.

Building designs for multi-storied residential buildings shall incorporate at least one access stairwell off the main lobby of the building; But, in no case greater than 150ft horizontal travel distance from the edge of the public street, private street or Fire Lane. This stairwell shall extend onto the roof.

Entrance to the main lobby shall be located off the address side of the building.

Any required Fire Annunciator panel or Fire Control Room shall be located within 50ft visual line of site of the main entrance stairwell or to the satisfaction of the Fire Department.

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department's review of the plot plan.

The Fire Department may require additional roof access via parapet access roof ladders where buildings exceed 28 feet in height, and when overhead wires or other obstructions block aerial ladder access.

5101.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

Recently, the Los Angeles Fire Department (LAFD) modified Fire Prevention Bureau (FPB) Requirement 10. Helicopter landing facilities are still required on all High-Rise buildings in the City. However, FPB's Requirement 10 has been revised to provide two new alternatives to a full FAA-approved helicopter landing facilities.

Each standpipe in a new high-rise building shall be provided with two remotely located FDC's for each zone in compliance with NFPA 14-2013, Section 7.12.2.

During demolition, the Fire Department access will remain clear and unobstructed.

APPENDIX N

Transportation and Traffic

N-1 LADOT Transportation Study Letter & 2019 Update Memorandum

From: Milena Zasadzien <milena.zasadzien@lacity.org>
Sent: Monday, July 15, 2019 4:24 PM
To: Wes Pringle <wes.pringle@lacity.org>
Cc: Michael Bates <mbates@mobilitygrp.com>
Subject: Re: Updated Analysis for Mixed-Use Project at 1045 Olive Street

Great, thank you.

Milena Zasadzien





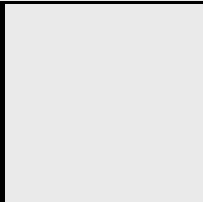
LOS ANGELES DEPARTMENT OF CITY PLANNING
MAJOR PROJECTS / ENVIRONMENTAL ANALYSIS
221 N. Figueroa St. Suite 1350, Los Angeles 90012
e: milena.zasadzien@lacity.org p: 213.847.3636

On Mon, Jul 15, 2019 at 4:06 PM Wes Pringle <wes.pringle@lacity.org> wrote:

Hi Milena,

DOT has reviewed the updated transportation study memo for the mixed-use project at 1045 Olive Street, dated June 24, 2019. DOT concurs with the analysis that the updated analysis does not change the findings of the original study and that all of the conditions in DOT's original letter, dated August 16, 2018, shall remain in effect.

Wes

			Wes Pringle, P.E. Transportation EngineerMetro Development Review100 S. Main St, 9th FloorLos Angeles, CA 90012
			Los Angeles Department of Transportation
			213.972.8482

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CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

1045 Olive Street
DOT Case No. CEN 17-45847

Date: August 16, 2018

To: Luciralia Ibarra, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION STUDY ASSESSMENT FOR THE PROPOSED MIXED-USE DEVELOPMENT LOCATED AT 1045 OLIVE STREET**

The Department of Transportation (DOT) has reviewed the transportation impact study prepared by The Mobility Group, dated May, 2018, for the proposed mixed-use development project at 1045 Olive Street. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. Based on DOT's current traffic impact criteria¹, the transportation study included the detailed analysis of 34 signalized intersections and determined that three of these study intersections would be significantly impacted by project-related traffic prior to mitigation. This report summarizes the results of the transportation analysis (see **Attachments 1-4**), which accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community. The transportation analysis identifies the transportation mitigation measures designed to reduce the project's potential traffic impacts to a less than significant level for the three intersections.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to construct 794 apartment units and approximately 12,504 square feet (sf) of commercial uses, which may include restaurant uses; an equal split between quality restaurant and high turnover restaurant. The project site is currently occupied with approximately 35,651 sf of various one-story commercial uses; of which 14,653 sf are active manufacturing space and 5,171 sf of active retail space, all of which would be removed. The project development will construct six levels

¹ Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project-related traffic, of 0.01 or more when the final ("with project") Level of Service (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.

subterranean parking and eight levels of above grade parking to provide up to 891 vehicle parking spaces on-site. Vehicle access to the project would be provided by one driveway on Olive Street and two driveways via an alley way. The project will widen the alley to meet the City's standard 20-foot total alley width. The alley way is located west of the site between 11th Street and Olympic Blvd. The project is expected to be completed by 2023.

B. Trip Generation

The project is estimated to generate a net increase of approximately 2,227 daily trips, 196 trips during the a.m. peak hour and 200 trips during the p.m. peak hour. These estimates were derived using trip generation rates from the Institute of Transportation Engineers (ITE) "Trip Generation Handbook, 10th Edition." A copy of the trip generation estimates table from the traffic study is attached and identified as **Attachments 5 & 6**. For the commercial land uses, in order to present a conservative analysis, they were assumed to be restaurant uses, split equally between quality restaurant and high turnover restaurant. These trip generation rates are typically derived from surveys of similar stand-alone (single) land use projects in suburban areas with little to no transit service. Therefore, DOT's transportation impact study guidelines allow projects to reduce their total trip generation to account for potential transit usage to and from the site and for the internal-trip making opportunities that are afforded by mixed-use projects. Consistent with these guidelines, the estimated trip generation includes trip credits to account for the mixed-use nature of the project and for the expected transit mode share.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Analysis Agreement executed between Caltrans and DOT in December 2015, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. However, the project did not meet or exceed any of the four thresholds defined in the agreement; therefore, no additional freeway analysis was required.

D. Traffic Impacts

The study determined that the project would result in significant traffic impacts, before mitigation, at the following intersections:

1. Olive Street and Olympic Boulevard (a.m. and p.m. peak hours)
2. Olive Street and Pico Boulevard (p.m. peak hours)
3. Olive Street and 17th Street (p.m. peak hours)

In consideration of the City's goals to reduce greenhouse gas emissions, the transportation study proposed a transportation mitigation program designed to reduce project-related trips and promote other travel modes. The transportation mitigation

program (discussed in the “Project Requirements” section below) fully reduces these impacts (see **Attachments 7-10**).

E. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to <http://ladot.lacity.org/what-we-do/plan-review> to determine which section to coordinate review of the work site traffic control plan. 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.

PROJECT REQUIREMENTS

A. Transportation Improvement and Mitigation Program

Consistent with City policies on sustainability and smart growth and with DOT's trip reduction and multi-modal transportation goals, the project's mitigation focuses on developing a trip reduction program and on solutions that promote other modes of travel. The traffic mitigation program includes the following:

1. **Transportation Demand Management (TDM) Program**

A TDM program, which includes design elements and trip reduction strategies, would reduce the project's overall trip generation by discouraging single occupancy vehicle use and by promoting the use of alternative travel modes. Through strategic building design and orientation, this project can facilitate access to existing transit services, provide a pedestrian-friendly environment, promote non-automobile travel and support the goals of a trip-reduction program.

A preliminary TDM program shall be prepared and provided for DOT review prior to the issuance of the first building permit for this project and a final TDM program approved by DOT is required prior to the issuance of the first certificate of occupancy for the project. The preliminary plan will include, at a minimum, measures consistent with the City's Trip Reduction Ordinance. As recommended by the transportation study, the TDM program should include, but not be limited to the following strategies:

- Promotion and support and rideshares, including parking and transit incentives;
- Preferential parking for carpools and vanpools for employees;
- Provide on-site real-time information displays to make available real-time information on car-sharing, transit, vanpools, taxis;
- Transit Welcome Package – to all new residents/employees with info on alternate modes and walk to destination opportunities;
- Unbundling of residential parking;

- Participate in a Car-Share Program to provide vehicle spaces for car-share vehicles;
- Provide access to collapsible shopping carts and/or cargo bike for ease of local shopping;
- Provide discounts for employees who utilize public transit to travel from the project site;
- On-site bicycle amenities such as access to free bicycles for residential guests, on-site repair station and bicycle racks, and lockers/showers for residents and employees;
- Provide a free bike share service for residents;
- Participate in the City's Bike Share Program by providing an area for bike share facility
- A one-time fixed-fee contribution of **\$75,000** to be deposited into the City's Bicycle Plan Trust Fund prior to the issuance of any certificates of occupancy to be used to implement bicycle improvements within the Project area;
- Make a one-time financial contribution of **\$75,000** to the City of Los Angeles Department of Transportation for the implementation of First and Last Mile transit access measures in the vicinity of the project site;
- Ridesharing Services Program which would match employees together to establish carpools and vanpools;
- Record a Covenant and Agreement to ensure that the TDM program will be maintained.

In order to assess the project's actual trip generation and any subsequent TDM Plan (if deemed necessary), a traffic monitoring plan will be implemented once the project is built and occupied to equilibrium (i.e., the level at which the owner/management deems maximum occupancy). The monitoring program should be conducted annually to ensure compliance for a period of 3 years. If the project is found to not conform to the trip reduction targets summarized in **Attachments 11 & 12**, the project will have an additional year to meet the trip reduction levels. If the project continues to not meet the TDM goals, the City and project staff will cooperate on implementing further TDM Strategies. The final traffic monitoring plan and TDM Plan will be prepared for and approved by the LADOT prior to the issuance of the first certificate of occupancy for the project.

2. Transportation System Management (TSM) Improvements

The project would contribute up to **\$100,000** toward TSM improvements to intersections within the vicinity of the project that may be considered to better accommodate intersection operations and increase intersection capacity throughout the study area.

Should the project be approved, then a final determination on how to implement the TSM improvements will be made by DOT prior to the issuance of the first building permit. These TSM improvements will be implemented **either** by the

applicant through the B-Permit process of the Bureau of Engineering (BOE), **or** through payment of a one-time fixed fee of **\$100,000** to DOT to fund the cost of the upgrades. If DOT selects the payment option, then the applicant would be required to pay **\$100,000** to DOT, and DOT shall design and construct the upgrades.

If the upgrades are implemented by the applicant through the B-Permit process, then these TSM improvements must be guaranteed prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Temporary certificates of occupancy may be granted in the events of any delay through no fault of the applicant, provided that, in each case, the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of DOT.

B. Implementation of Improvements and Mitigation Measures

The applicant should be responsible for the cost and implementation of any necessary traffic equipment modifications, bus stop relocations and lost parking meter revenues associated with the proposed TSM improvements described above. All proposed TSM improvements within the City of Los Angeles must be guaranteed through BOE's B-Permit process, prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Prior to setting the bond amount, BOE shall require that the developer's engineer or contractor contact DOT's B-Permit Coordinator, at (213) 972-8687, to arrange a pre-design meeting to finalize the proposed design. Costs related to any relocation of bus zones and shelters, and to modifying or upgrading traffic equipment and that are necessary to implement the proposed mitigations shall be incurred by the applicant.

If a proposed traffic mitigation measure does not receive the required approval during plan review, a substitute mitigation measure may be provided subject to the approval of LADOT or other governing agency with jurisdiction over the mitigation location, upon demonstration that the substitute measure is environmentally equivalent or superior to the original measure in mitigating the project's significant traffic impact. To the extent that a mitigation measure proves to be infeasible and no substitute mitigation is available, then a significant traffic impact would remain.

C. Highway Dedication and Street Widening Requirements

On September 7, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project. Per the new Mobility Element, **Olive Street** has been designated as Modified Avenue II that would require a 28-foot half-width roadway within a 45-foot half-width right-of-way. **11th Street** has been designated as Modified Collector that would require a 20-foot half-width

roadway within a 32-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

D. Parking Requirement

The project would provide up to 891 automobile spaces within the subterranean and above grade on-site parking facility. The developer should check with the Department of Building and Safety on the number of parking spaces needed.

E. Removal of Metered Parking Spaces

The project could remove up to eight adjacent on-street parking spaces on Olive Street, in order to provide the project driveway and a passenger loading zone for drop-off and pick up. When a proposal for a Development Project requires the permanent removal of any metered parking spaces, payment to LADOT for lost parking meter revenue is required. The lost revenue fee will be determined during the site plan or B-permit plan review process and will be based on the revenue collected over the last twelve continuous months for each removed parking meter, as determined by LADOT's Parking Meter Division. The removal of each on-street metered parking space will require payment to LADOT in the amount of the annual revenue projected over a ten year period. The Project applicant will also be subject to any costs incurred by LADOT during the removal of each parking meter, including but not limited to meter post removal, parking sensors (if any), sign and post removal/ relocation, stall marking, pavement messages, and curb painting.

F. Project Access and Circulation

The proposed site plan illustrated in **Attachment 13** is acceptable to DOT; however, review of the study does not constitute approval of internal circulation schemes and driveway dimensions. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Station 3, @ 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. Any changes to the project's site access, circulation scheme, or loading/unloading area after issuance of this report would require separate review and approval and should be coordinated as well.

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.

If you have any questions, please contact Eduardo Hermoso of my staff at (213) 972-8451.

Attachments

N:\letters\CEN17-45847_1045 Olive St Mixed-Use ts ltr

c: Shawn Kuk, Council District 14
 Mehrdad Moshksar, Central District Office, DOT
 Taimour Tanavoli, Citywide Planning Coordination Section, DOT
 Bert Moklebust, Central District, BOE
 Michael Bates, The Mobility Group

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No
2	Figueroa Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No
3	Figueroa Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No
4	Figueroa Street & Pico Boulevard	0.887	D	0.889	D	0.002	No
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

Daily Trips

Land Use Assumptions	Source ¹ & Code	Quantity	Units	Daily			
					Trip Rate		Total Trips
Existing Uses							
Manufacturing ^{2,3,4} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5%	ITE 140	14,653	SF		3.93		-58 9 2
Net Manufacturing							-47
Retail ^{2,3,5} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 50%	ITE 820	5,171	SF		37.75		-195 29 8 79
Net Retail							-79
Total Existing							-126
Proposed Uses							
Apartment ^{2,6} (Reduction for transit trips) - 0% (Reduction for walk/bike trips) - 0%	ITE 222	794	DU		2.07		1,644 0 0
Net Apartments							1,644
High-Turnover Restaurant ^{2,7} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 20%	ITE 932	6,252	SF		112.18		701 -105 -89 -25 -96
Net High-Turnover Restaurant							386
Quality Restaurant ^{2,8} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 10%	ITE 931	6,252	SF		83.84		524 -79 -67 -19 -36
Net Quality Restaurant							323
Total Proposed							2,353
Total Net							2,227

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour									
				Trip Rate			Total Trips			In	Out	Total	
				In	Out	Total	In	Out	Total				
Existing Uses													
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9				
(Reduction for transit trips) - 15%							1	0	1				
(Reduction for walk/bike trips) - 5%							0	0	0				
Net Manufacturing							-6	-2	-8				
Retail ^{2,3,5}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0				
(Reduction for transit trips) - 15%							0	0	0				
(Reduction for walk/bike trips) - 5%							0	0	0				
(Reduction for pass-by trips) - 50%							0	0	0				
Net Retail							0	0	0				
Total Existing							-6	-2	-8				
Proposed Uses													
Apartment ^{2,6}	ITE 222	794	DU	0.03	0.18	0.21	24	143	167				
(Reduction for transit trips) - 0%							0	0	0				
(Reduction for walk/bike trips) - 0%							0	0	0				
Net Apartments							24	143	167				
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62				
(Reduction for internal trips) - 15%							-5	-4	-9				
(Reduction for transit trips) - 15%							-4	-4	-8				
(Reduction for walk/bike trips) - 5%							-1	-1	-2				
(Reduction for pass-by trips) - 20%							-5	-4	-9				
Net High-Turnover Restaurant							19	15	34				
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5				
(Reduction for internal trips) - 15%							-1	0	-1				
(Reduction for transit trips) - 15%							0	-1	-1				
(Reduction for walk/bike trips) - 5%							0	0	0				
(Reduction for pass-by trips) - 10%							0	0	0				
Net Quality Restaurant							2	1	3				
Total Proposed							45	159	204				
Total Net							39	157	196				

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5%	ITE 140	14,653	SF	0.21	0.46	0.67	-3 0 0	-7 2 0	-10 2 0
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 50%	ITE 820	5,171	SF	1.83	1.98	3.81	-9 1 0 4	-11 2 1 4	-20 3 1 8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6} (Reduction for transit trips) - 0% (Reduction for walk/bike trips) - 0%	ITE 222	794	DU	0.13	0.06	0.19	103 0 0	48 0 0	151 0 0
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 20%	ITE 932	6,252	SF	6.06	3.71	9.77	38 -6 -5 -1 -5	23 -3 -3 -1 -3	61 -9 -8 -2 -8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 10%	ITE 931	6,252	SF	5.23	2.57	7.80	33 -5 -4 -1 -2	16 -2 -2 -1 -1	49 -7 -6 -2 -3
Net Quality Restaurant							21	10	31
Total Proposed							145	71	216
Total Net							138	62	200

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding.

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No					
2	Figueroa Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No					
3	Figueroa Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No					
4	Figueroa Street & Pico Boulevard	0.887	D	0.889	D	0.002	No					
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No					
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No					
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No					
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No					
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No					
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No					
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No					
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No					
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No					
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No					
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No					
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No					
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No					
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No					
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes	0.937	E	0.005	No	Fully Mitigates
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No					
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No					
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No					
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No					
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No					

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No					
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No					
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No					
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No					
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No					
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No					
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No					
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No					
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No					
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No					

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No					
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No					
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No					
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No					
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No					
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No					
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No					
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No					
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No					
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No					
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No					
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No					
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No					
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No					
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No					
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No					
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No					
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No					
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes	1.137	F	0.009	No	Fully Mitigates
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No					
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes	1.033	F	0.008	No	Fully Mitigates
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No					
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes	1.014	F	0.009	No	Fully Mitigates
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No					

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No					
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No					
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No					
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No					
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No					
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No					
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No					
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No					
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No					
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No					

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9
(Reduction for transit trips) -	15%						1	0	1
(Reduction for walk/bike trips) -	5%						0	0	0
Net Manufacturing							-6	-2	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0
(Reduction for transit trips) -	15%						0	0	0
(Reduction for walk/bike trips) -	5%						0	0	0
(Reduction for pass-by trips) -	50%						0	0	0
Net Retail							0	0	0
Total Existing							-6	-2	-8
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.03	0.18	0.21	24	143	167
(Reduction for transit trips) -	0%						0	0	0
(Reduction for walk/bike trips) -	0%						0	0	0
Net Apartments							24	143	167
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62
(Reduction for internal trips) -	15%						-5	-4	-9
(Reduction for transit trips) -	15%						-4	-4	-8
(Reduction for walk/bike trips) -	5%						-1	-1	-2
(Reduction for pass-by trips) -	20%						-5	-4	-9
Net High-Turnover Restaurant							19	15	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5
(Reduction for internal trips) -	15%						-1	0	-1
(Reduction for transit trips) -	15%						0	-1	-1
(Reduction for walk/bike trips) -	5%						0	0	0
(Reduction for pass-by trips) -	10%						0	0	0
Net Quality Restaurant							2	1	3
Total Proposed Project							45	159	204
Project TDM Program									
Apartment (Reduction for TDM Program) -	15%						-4	-21	-25
High-Turnover Restaurant (Reduction for TDM Program) -	15%						-3	-2	-5
Quality Restaurant (Reduction for TDM Program) -	15%						0	0	0
Total TDM Reduction							-7	-23	-30
Total Proposed Project with TDM Program							38	136	174
Total Net New Project trips with TDM Program							32	134	166

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
(Reduction for transit trips) - 15%							0	2	2
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
(Reduction for transit trips) - 15%							1	2	3
(Reduction for walk/bike trips) - 5%							0	1	1
(Reduction for pass-by trips) - 50%							4	4	8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.13	0.06	0.19	103	48	151
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
(Reduction for internal trips) - 15%							-6	-3	-9
(Reduction for transit trips) - 15%							-5	-3	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-3	-8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
(Reduction for internal trips) - 15%							-5	-2	-7
(Reduction for transit trips) - 15%							-4	-2	-6
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 10%							-2	-1	-3
Net Quality Restaurant							21	10	31
Total Proposed Project							145	71	216
Project TDM Program									
Apartment (Reduction for TDM Program) - 15%							-15	-8	-23
High-Turnover Restaurant (Reduction for TDM Program) - 15%							-3	-2	-5
Quality Restaurant (Reduction for TDM Program) - 15%							1	-6	-5
Total TDM Reduction							-17	-16	-33
Total Proposed Project with TDM Program							128	55	183
Total Net							121	46	167

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding.

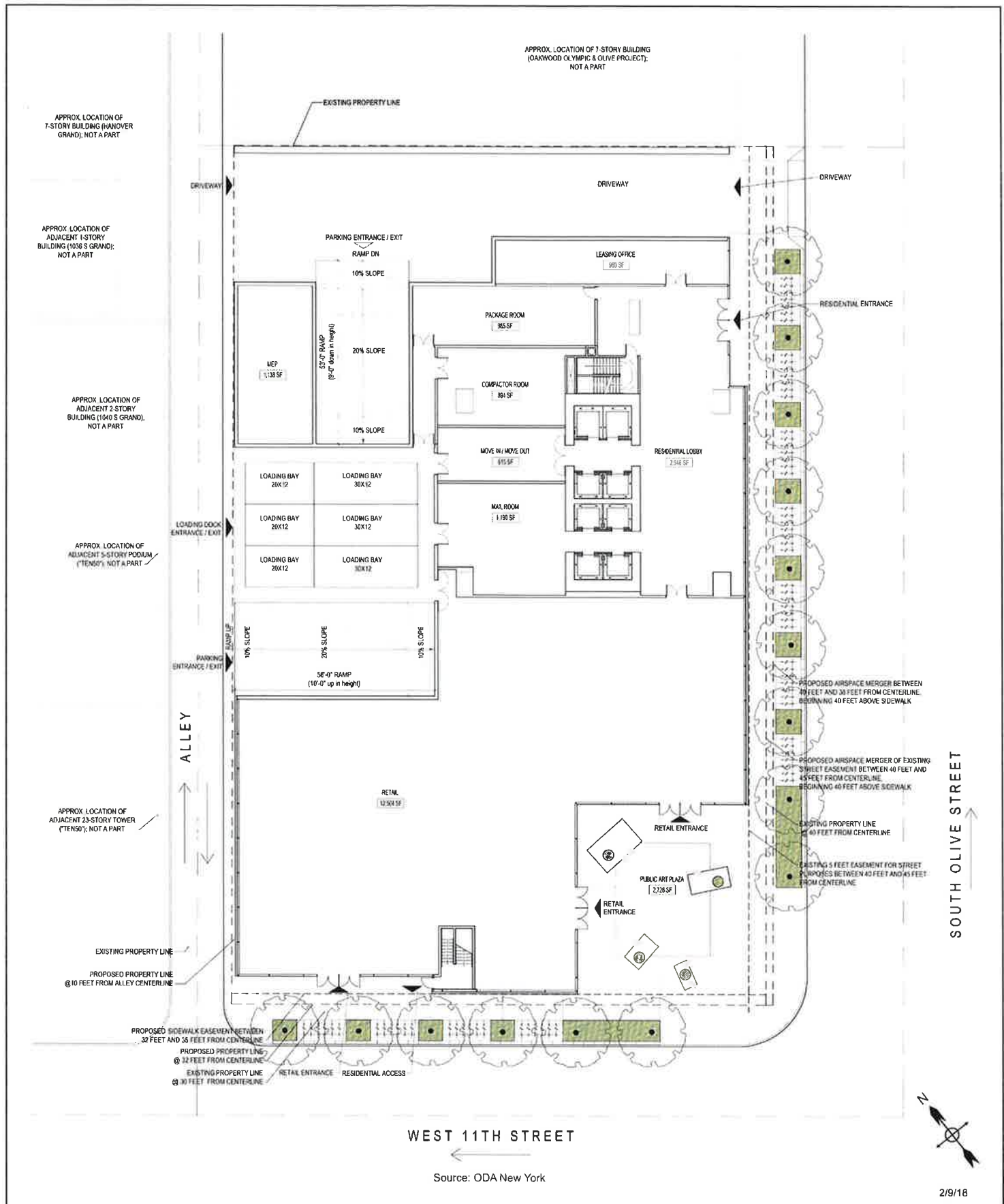


Figure 1.2
Project Site Plan

1045 Olive Project

N-2 Transportation Study – 2018



1045 Olive Project

Transportation Study

August, 2018

Prepared by

The Mobility Group

1045 Olive Project

EIR Transportation Study

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A handwritten signature in blue ink, appearing to read "M. Simons", written over a horizontal line.

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1045 Olive Project

Transportation Study

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1. Introduction

This report documents a transportation impact analysis for the Proposed 1045 Olive Project located at 1045 South Olive Street in the City of Los Angeles. The Project site is bounded by the 1001 Olive mixed-use residential project to the north, Olive Street to the east, 11th Street to the south, and an alley to the west. The Project location is shown in Figure 1.1.

1.1 Project Description and Location

The Project Site is located at the north-west corner of the Olive Street & 11th Street intersection in downtown Los Angeles. There is an existing alley at the western edge of the site that connects to 11th Street and to Olympic Boulevard.

The Project Site is currently developed with various one-story commercial uses which will be replaced. The Project will comprise approximately 794 apartment units and 12,504 sf of neighborhood serving commercial uses. On-site parking will include six levels of subterranean parking and eight levels of above ground parking. Up to 891 vehicle parking spaces will be provided.

Vehicle access to the Project Site will be provided by one driveway on Olive Street and two driveways on the alley. Truck access will occur from the alley to an on-site loading dock. A ground floor plan is shown in Figure 1.2.

The Project Site is located close to many other destination land uses in downtown, with excellent access to transit, bike lanes in downtown, and a pedestrian network with sidewalks on all streets and pedestrian crosswalks at all intersections.

1.2 Study Scope

The scope and methodology of this analysis was determined in conjunction with the City of Los Angeles Department of Transportation (LADOT), and was conducted in accordance with the LADOT Traffic Study Guidelines, and defined in a Memorandum of Understanding (see Appendix A).

The analysis addresses the following time periods:

- AM peak hour
- PM peak hour

The analysis also addresses the following scenarios:

- Existing Conditions
- Existing Conditions With Project
- Future Conditions Year Without Project
- Future Conditions Year With Project
- Future Conditions Year With Project With Mitigation

The analysis addresses a future year of 2023, which is the projected year of project completion.

1.3 Overview of Methodology

Intersection Analysis

Intersection analysis was conducted using the “Critical Movement Analysis (Planning Method)” as described in “Transportation Research Circular 212, Transportation Research Board, Washington D.C. 1980”, and as required by LADOT’s Traffic Study Policy and Procedures, to obtain volume/capacity (V/C) ratios for each intersection.

Congestion Management Program Analysis

A congestion management plan analysis was conducted addressing arterial intersections, freeway segments, and transit, as required by the *2010 Los Angeles County Congestion Management Program (Metro, 2010)* guidelines.

Freeway System

Freeway facilities were evaluated according to the MOU between LADOT and Caltrans (*Agreement Between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures (December 2015)*) that sets forth criteria for when a freeway impact analysis should be conducted. This requires an initial evaluation of freeway mainline segments and freeway off-ramps to determine if Project volumes exceed certain thresholds that would require further analysis of the freeway system. The evaluation concluded that the thresholds for analysis were not met (as shown in Appendix D), so further freeway analysis was not necessary.

State of California Senate Bill No. 743

State of California Senate Bill 743¹, requires the Governor’s Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding transportation impact analysis. Under SB 743, the focus of transportation analysis will shift

¹ SB 743(Steinberg, 2013).

from driver delay – typically measured by traffic level of service (LOS) – to a new measurement that better addresses the state’s goals on reduction of greenhouse gas emission (GHG), creation of multimodal transportation and promotion of mixed-use developments. Since 2014, the Governor’s Office of Planning and Research has been developing guidelines and has recommended that vehicle-miles traveled (VMT) replace LOS as the primary measure of transportation impacts. Fully implemented guidelines were originally scheduled to be in place by January 1, 2016. However, an extension has allowed cities more time to establish an analysis methodology. The City of Los Angeles is currently in the process of updating its travel demand model, impact evaluation methodology and transportation impact thresholds based on VMT, and has not yet adopted a methodology or guidelines. Caltrans is also pursuing VMT as a metric of Project impacts to better align with the State’s multimodal transportation and environmental actions goals, which is outlined in an interim guide¹, but has no specific adopted methodology. The transportation analysis in this study is therefore based on currently adopted rules and policies based on level of service.

1.4 Organization of this Report

This report is organized as follows. Chapter 2 describes the existing transportation conditions in the area of the Project. Chapter 3 provides a description of the Proposed Project and its transportation characteristics, including trip generation, distribution of project trips, and vehicular access. Chapter 4 analyzes potential transportation impacts for the Existing With Project conditions. Chapter 5 addresses the Future Without Project conditions (year 2023) and sets the future cumulative baseline for analysis of Project impacts at buildout. Chapter 6 addresses the Future With Project Conditions and analyzes the potential transportation impacts of the Project including: traffic conditions at intersections; and a Congestion Management Program analysis including freeway and arterial monitoring locations and transit. Chapter 7 identifies proposed transportation measures to mitigate any identified significant impacts caused by the Project. Appendices provide backup technical information, including the LADOT MOU, intersection configuration details, the Caltrans Freeway Threshold check, traffic counts, and intersection level of service calculations.

¹ Local Development – Intergovernmental Review Program Interim Guide (Caltrans Approved September 2016).



Legend

Project Site

2/9/18

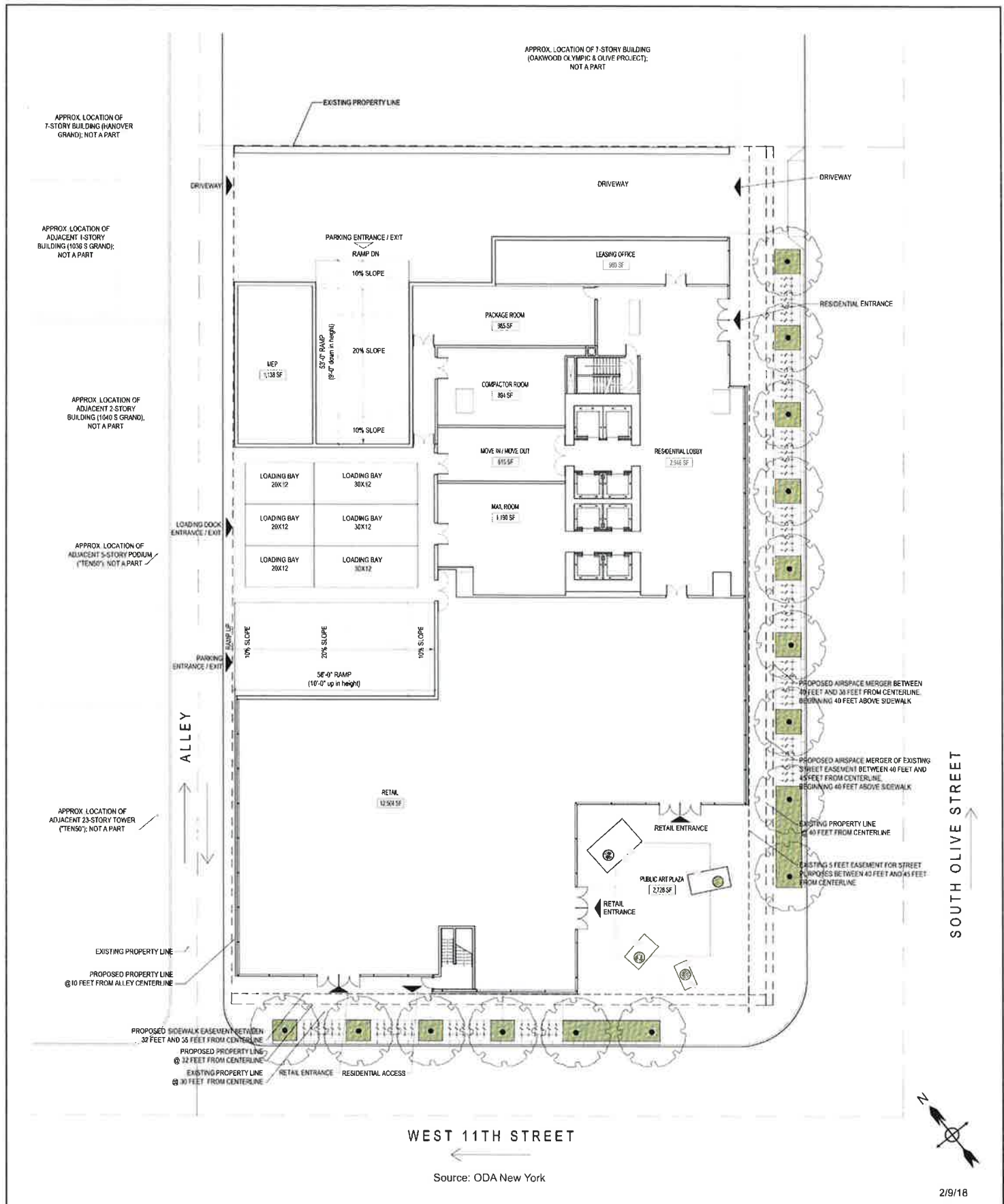


Figure 1.2
Project Site Plan

1045 Olive Project

2. Existing Conditions

2.1 Roadway System

The Project Site is located at the north-west corner of Olive Street and 11th Street. Regional access to the site is provided primarily by the Harbor/Pasadena Freeway (I-110/SR-110) and the Santa Monica Freeway (I-10). The Harbor/Pasadena Freeway runs north-south west of the site, and the Santa Monica Freeway runs in an east-west direction south of the Project Site. These two facilities also provide access to the Hollywood (US-101) and Golden State (I-5) freeways to the north, to the San Bernardino (I-10) and Pomona (SR-60) freeways to the east, and to the Santa Ana (I-5) freeway to the south.

The Project Site is served by a comprehensive grid system of downtown surface streets, with multiple access points to the freeway system. The key surface streets serving the area of the Project are described below, and shown in Figure 2.1. All street classifications are from the City's Mobility Plan 2035.

North-South Streets

Olive Street: Olive Street is a one-way northbound street providing three travel lanes and a buffered bike lane immediately east of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II. On-street metered parking is provided with some restrictions.

Grand Avenue: Grand Avenue is a one-way southbound street providing three travel lanes and a buffered bike lane immediately west of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II. On-street metered parking is provided with some restrictions.

Hope Street: Hope Street is a two-way street located to the west of the Project Site. It is classified as a Modified Avenue III between 5th Street and 6th Street, and an Avenue II south of 6th Street. In the vicinity of the Project Site, Hope Street provides two-travel lanes in each direction with no left turn lanes, and on-street metered parking is provided on both sides of the street with some restrictions.

Flower Street: Flower Street is a one-way southbound street providing four travel lanes to the west of the Project Site. In the City's Mobility Plan 2035, it is classified as an Avenue I north of 6th Street, a Modified Avenue II between 6th Street and 11th Street, and a Modified Avenue I

south of 11th Street. On-street metered parking is provided on both sides of the street with some restrictions.

Figueroa Street: Figueroa Street is a one-way northbound street located west of the Project Site. It is classified as a Boulevard II north of Wilshire Boulevard, a Modified Avenue I between Wilshire Boulevard and 7th Street, an Avenue I between 7th Street and 9th Street, a Modified Avenue I between 9th Street and Olympic Boulevard, and a Modified Boulevard II south of Olympic Boulevard. In the vicinity of the Project Site, Figueroa Street generally provides four northbound travel lanes and a peak period bus lane. A bike lane is provided north of 6th Street. On-street metered parking is provided during off-peak hours at certain locations with some restrictions.

L.A. Live Way: L.A. Live Way is a two-way street providing two travel lanes in each direction to the west of the Project Site. It is classified as a Collector. On-street parking is generally restricted on both sides of the street.

Hill Street: Hill Street is a two-way street generally providing two southbound travel lanes and one northbound travel lane in the vicinity of and east of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II. On-street metered parking is provided with some restrictions.

Broadway: Broadway is a two-way street providing two travel lanes in each direction to the east of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II. On-street parking is generally provided on the east side of the street with some restrictions.

Main Street: Main Street is a two-way street providing two travel lanes and a bike lane in each direction to the east of the Project Site. In the City's Mobility Plan 2035, it is classified as an Avenue II north of 9th Street, and a Modified Avenue I south of 9th Street. On-street parking is provided with some restrictions.

Los Angeles Street: Los Angeles Street is a north-south street providing two travel lanes in each direction to the east of the Project Site. In the City's Mobility Plan 2035, it is classified as an Avenue II. On-street parking is allowed on either side of the street with some restrictions.

East-West Streets

Olympic Boulevard: Olympic Boulevard is a two-way street providing two travel lanes in each direction on the block north of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue I. On-street metered parking is provided in some locations with some restrictions.

11th Street: 11th Street is a one-way westbound street immediately south of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Collector. Until recently 11th Street

provided two travel lanes, with on-street metered parking provided with some restrictions. The MyFig Project will reconfigure the street from Broadway to Figueroa Street, to include a buffered bike lane and one westbound travel lane with turn lanes at intersections. At the time of this study, 11th Street was under construction with the same travel lane configuration that will occur when the MyFig Project is completed. This lane configuration was therefore assumed in the Traffic Study, as shown in Figure 2.2.

12th Street: 12th Street is a one-way eastbound street providing two travel lanes to the south of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Collector. On-street metered parking is provided with some restrictions.

Pico Boulevard: Pico Boulevard is a two-way street providing two travel lanes in each direction without left turn lanes to the south of the Project Site. In the City's Mobility Plan 2035, it is classified as an Avenue I. On-street metered parking is provided with some restrictions.

Venice Boulevard: Venice Boulevard is a two-way street providing two travel lanes in each direction without left turn lanes to the south of the Project Site. In the City's Mobility Plan 2035, it is classified as an Avenue II. On-street parking is generally provided on off-peak periods with some restrictions.

17th Street: 17th Street is a one-way westbound street providing two travel lanes to the south of the Project Site. In the City's Mobility Plan 2035, it is classified as a Collector. On-street parking is provided with some restrictions.

18th Street: 18th Street is a one-way eastbound street providing three travel lanes to the south of the Project Site. In the City's Mobility Plan 2035, it is classified as a Local Street – Standard. On-street parking is generally restricted on both sides of the street.

8th Street: 8th Street is a one-way westbound street providing four travel lanes to the north of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II west of Olive Street and a Modified Avenue III east of Olive Street. On-street metered parking is provided with some restrictions.

9th Street: 9th Street is a one-way eastbound street providing three travel lanes to the north of the Project Site. In the City's Mobility Plan 2035, it is classified as a Modified Avenue II west of Olive Street and a Modified Avenue III east of Olive Street. On-street metered parking is provided with some restrictions.

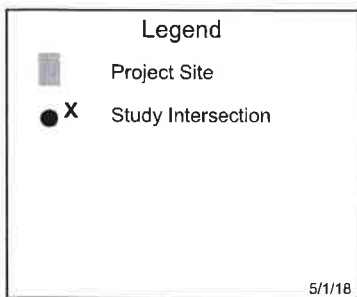
2.2 Study Intersections

A total of thirty-four study intersections were identified, in conjunction with LADOT staff, for inclusion in the traffic analysis. The analyzed locations are shown in Figure 2.1 and were identified as locations where the majority of trips associated with the Project would be focused based on the estimated trip distribution for the Project. These locations consist of the intersections through which Project trips would travel before dispersing to multiple routes and

therefore were the locations where potential traffic impacts were most likely to occur. The intersections identified for analysis are as follows:

1. LA Live Way & Pico Boulevard
2. Figueroa Street & Olympic Boulevard
3. Figueroa Street & 11th Street
4. Figueroa Street & Pico Boulevard
5. Flower Street & Olympic Boulevard
6. Flower Street & 11th Street
7. Hope Street & Olympic Boulevard
8. Hope Street & 11th Street
9. Grand Avenue & 8th Street
10. Grand Avenue & 9th Street
11. Grand Avenue & Olympic Boulevard
12. Grand Avenue & 11th Street
13. Grand Avenue & Pico Boulevard
14. Grand Avenue & 16th Street
15. Grand Avenue & 17th Street
16. Grand Avenue & 18th Street
17. Olive Street & 8th Street
18. Olive Street & 9th Street
19. Olive Street & Olympic Boulevard
20. Olive Street & 11th Street
21. Olive Street & Pico Boulevard
22. Olive Street & 16th Street
23. Olive Street & 17th Street
24. Olive Street & 18th Street
25. Hill Street & Olympic Boulevard
26. Hill Street & 11th Street
27. Broadway & Olympic
28. Broadway & 11th Street
29. Main Street & Olympic Boulevard
30. Main Street & 11th Street
31. Los Angeles Street & Olympic Boulevard
32. Los Angeles Street & 11th Street
33. Olive Street & 12th Street
34. Hill Street & Pico Boulevard

All of these intersections are signalized. The existing lane configurations for these thirty-four analyzed intersections are shown in Figure 2.2.



Not to Scale

Figure 2.1
Study Intersections

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

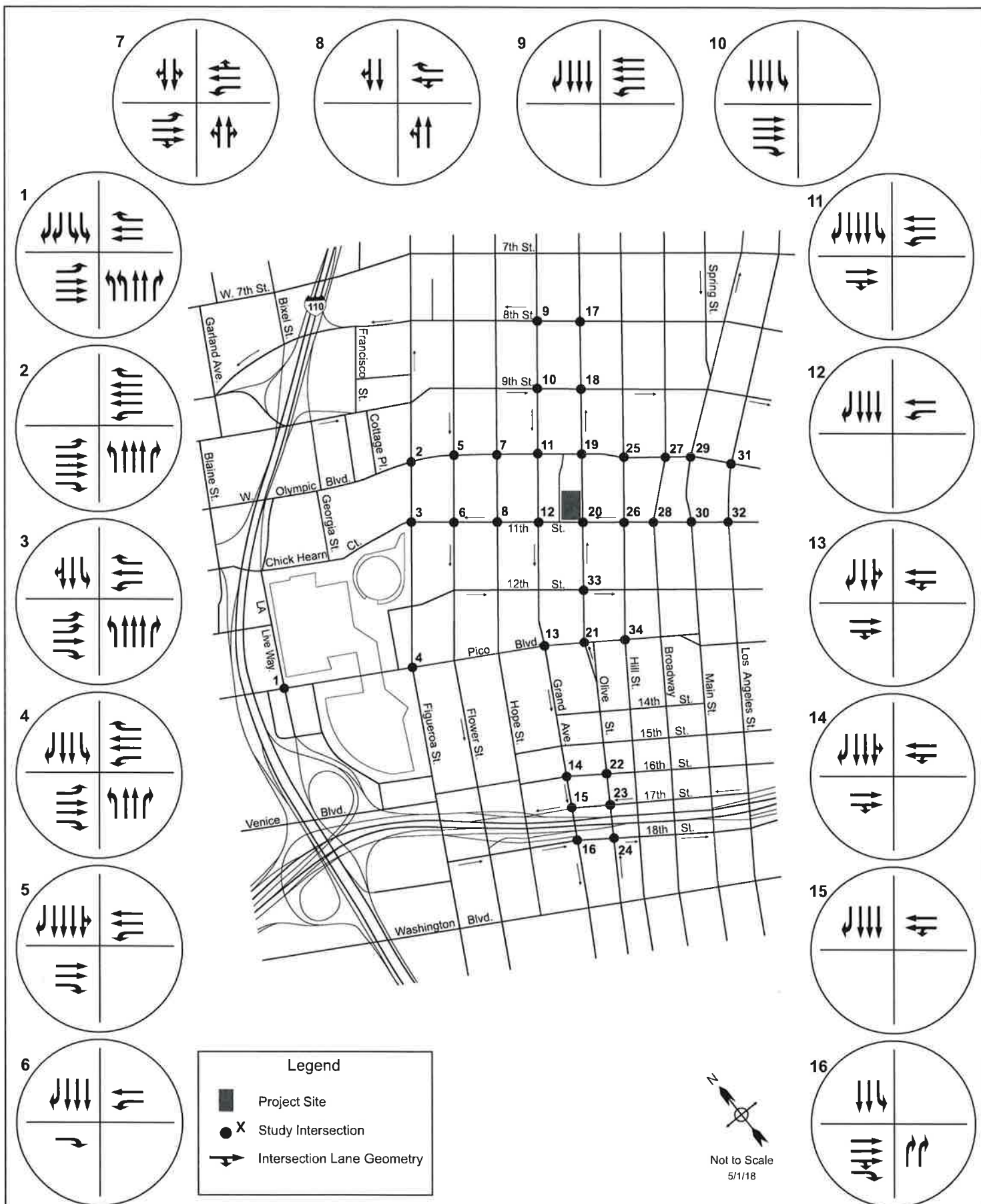


Figure 2.2
Configuration of Analyzed Intersections (1-16)

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

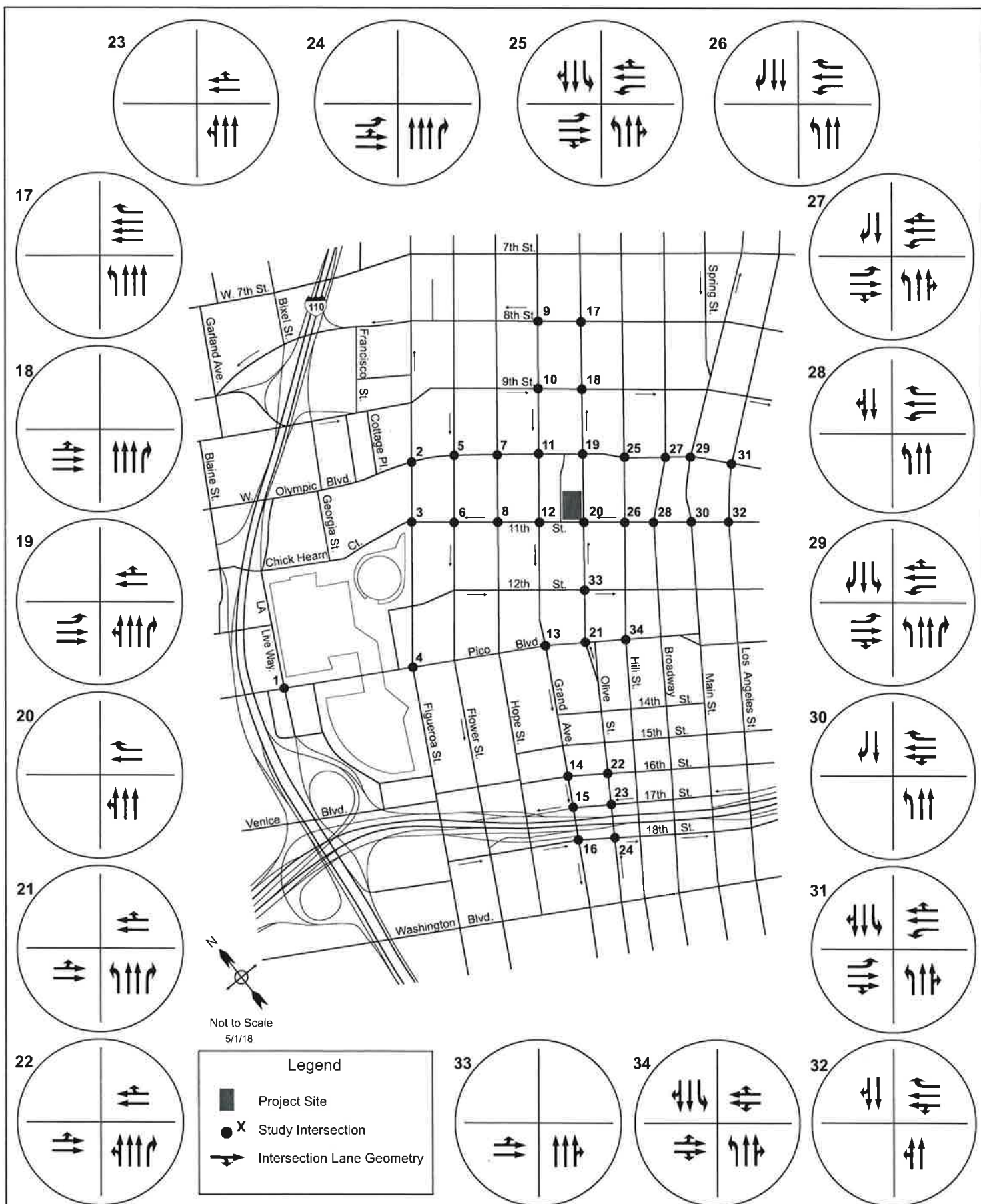


Figure 2.2
Configuration of Analyzed Intersections (17-34)

All study intersections are signalized and currently operate under the City's ATSAC system (Automated Traffic Surveillance and Control) which is a centralized control system that provides for the coordination of traffic signal timing to maximize the street capacities and to minimize traffic delays on City streets. All of these signalized intersections also operate under the City's second generation ATCS (Adaptive Traffic Control System) which utilizes enhanced surveillance and control technologies to adapt traffic signal timings to respond to actual traffic conditions on the ground to further improve the effectiveness of the ATSAC system. LADOT estimates that the effect of the ATSAC system is to improve intersection capacity by an average of 7%, and that the effect of the ATCS system is an additional increase in capacity of 3%. As all intersections in the study area operate under both ATSAC and ATCS, in accordance with LADOT procedures a capacity increase of 10% was applied to all intersections in the analysis and is reflected in the level of service calculations.

2.3 Existing Intersection Conditions

Existing Traffic Volumes

Recent traffic counts in 2017 were used for the analyzed intersections. As required by LADOT, counts were collected during the hours of 7:00 – 10:00 AM for the morning peak period and 3:00 – 6:00 PM for the PM peak period, and were conducted when schools were in session and outside of holiday periods. The existing peak hour traffic volumes are illustrated in Figures 2.3 and 2.4 for the AM and PM peak hours respectively.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F, with each level defined by a range of volume/capacity (V/C) ratios. Table 2.1 defines the ranges of V/C ratios and their corresponding levels of service for signalized intersections. Intersection analysis was conducted using the "Critical Movement Analysis (Planning Method)" as described in "Transportation Research Circular 212, Transportation Research Board, Washington D.C. 1980", and as required by LADOT's Traffic Study Policy and Procedures, to obtain volume/capacity (V/C) ratios for each intersection.

Existing Peak Hour Levels of Service

Table 2.2 summarizes the existing AM and PM peak hour V/C ratios and corresponding levels of service at the analyzed intersections.

AM Peak Hour

All of the studied intersections currently operate at LOS B or better during the AM peak hour.

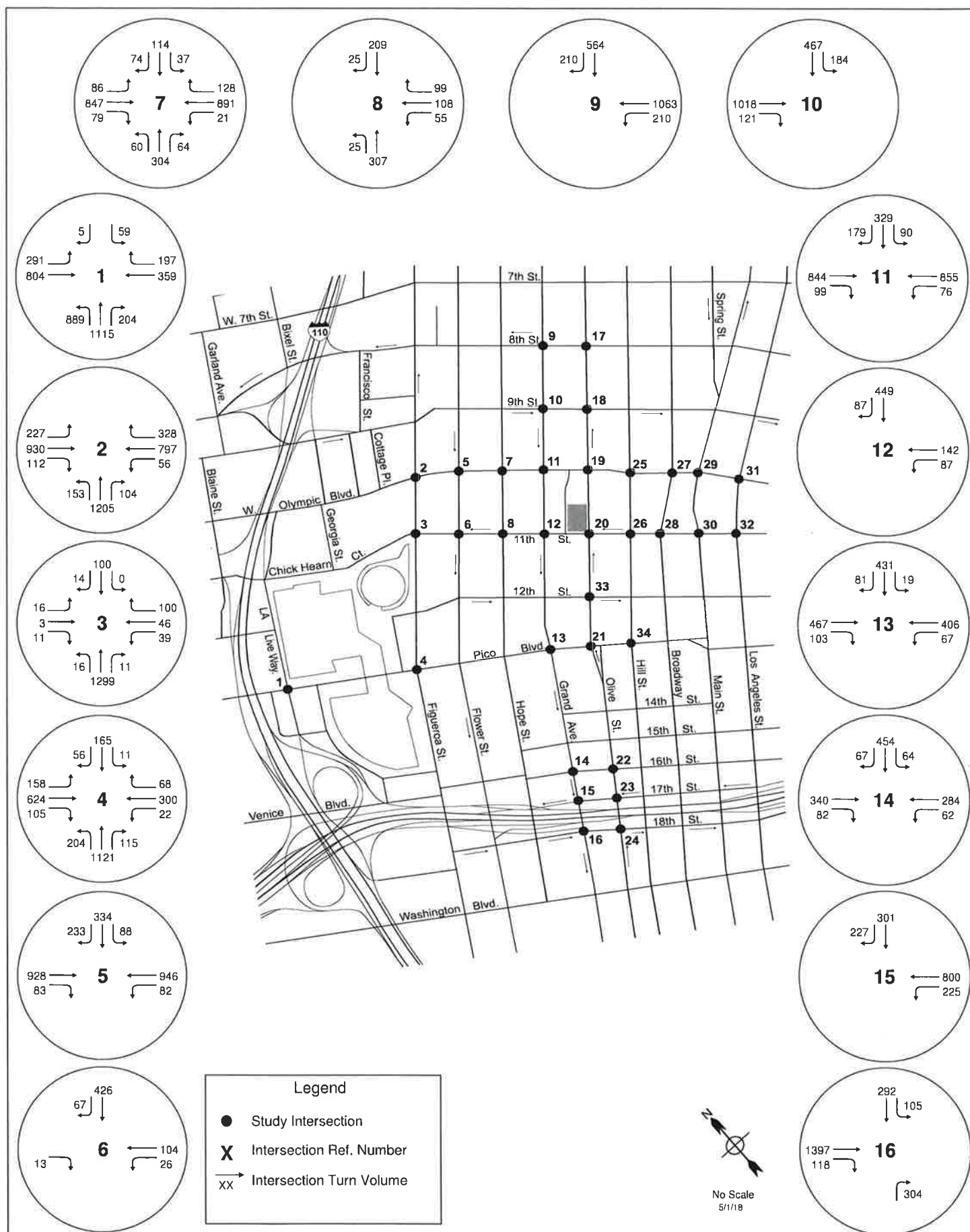


Figure 2.3
Existing Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

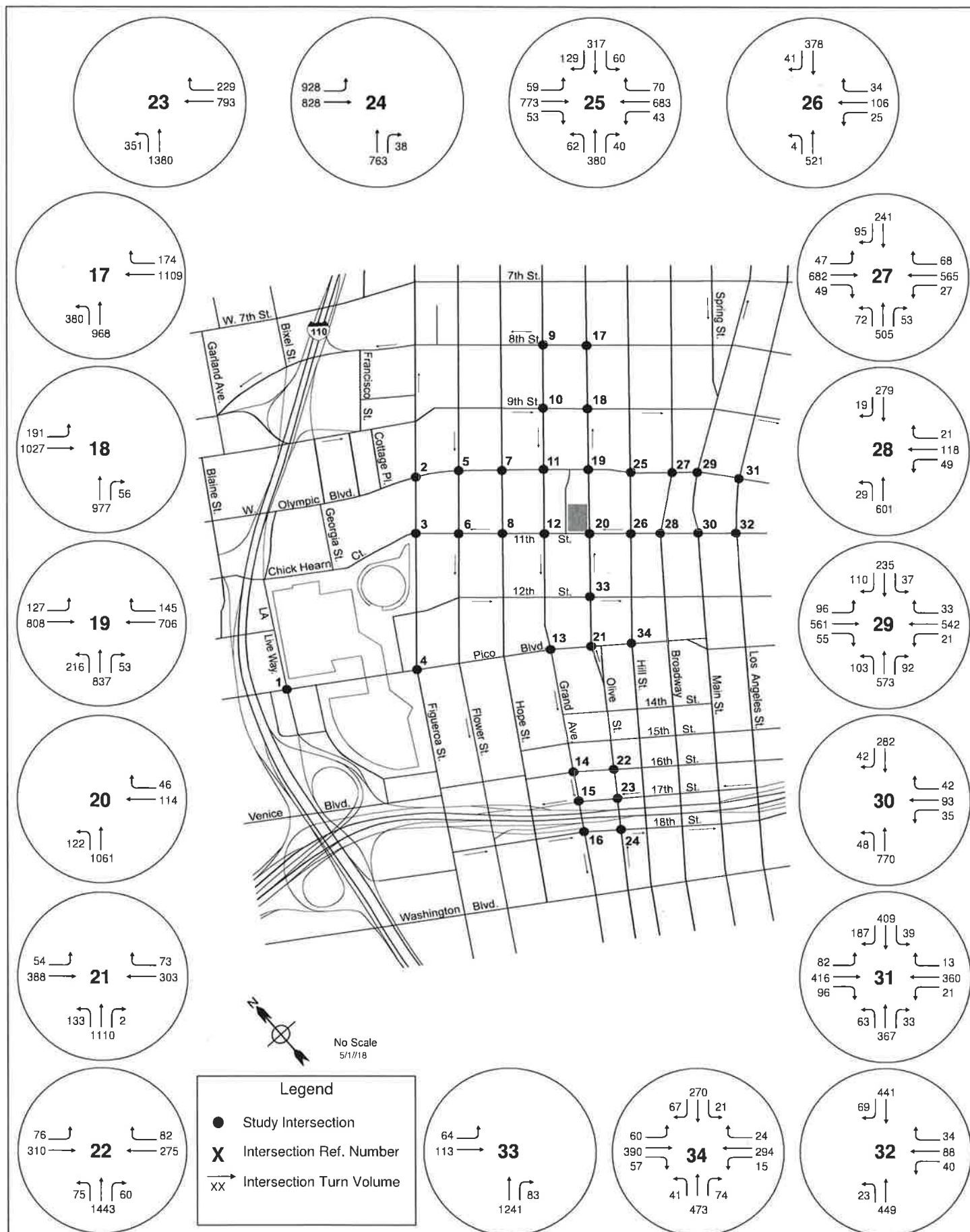


Figure 2.3
Existing Traffic Volumes - AM Peak Hour (17-34)

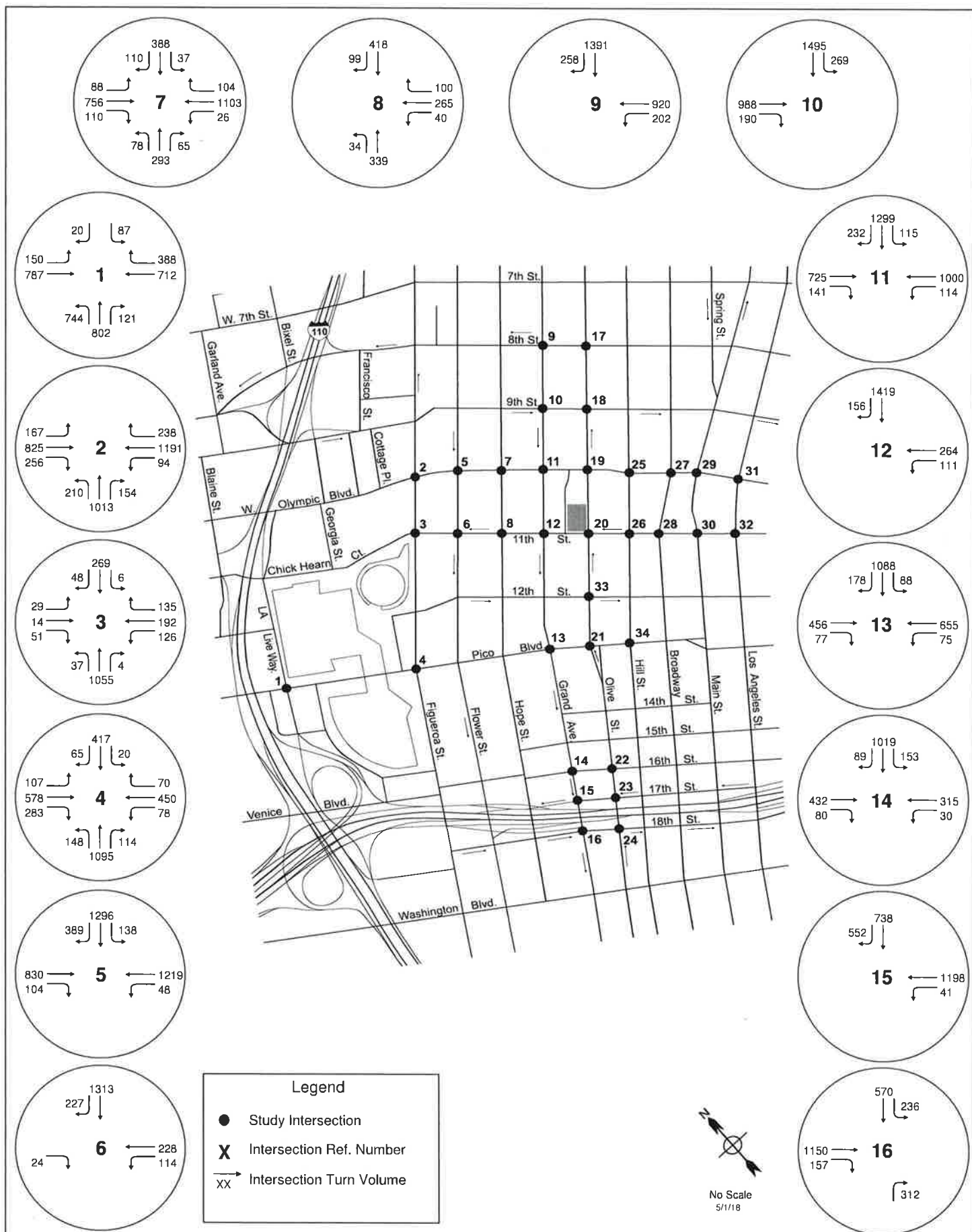


Figure 2.4
Existing Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

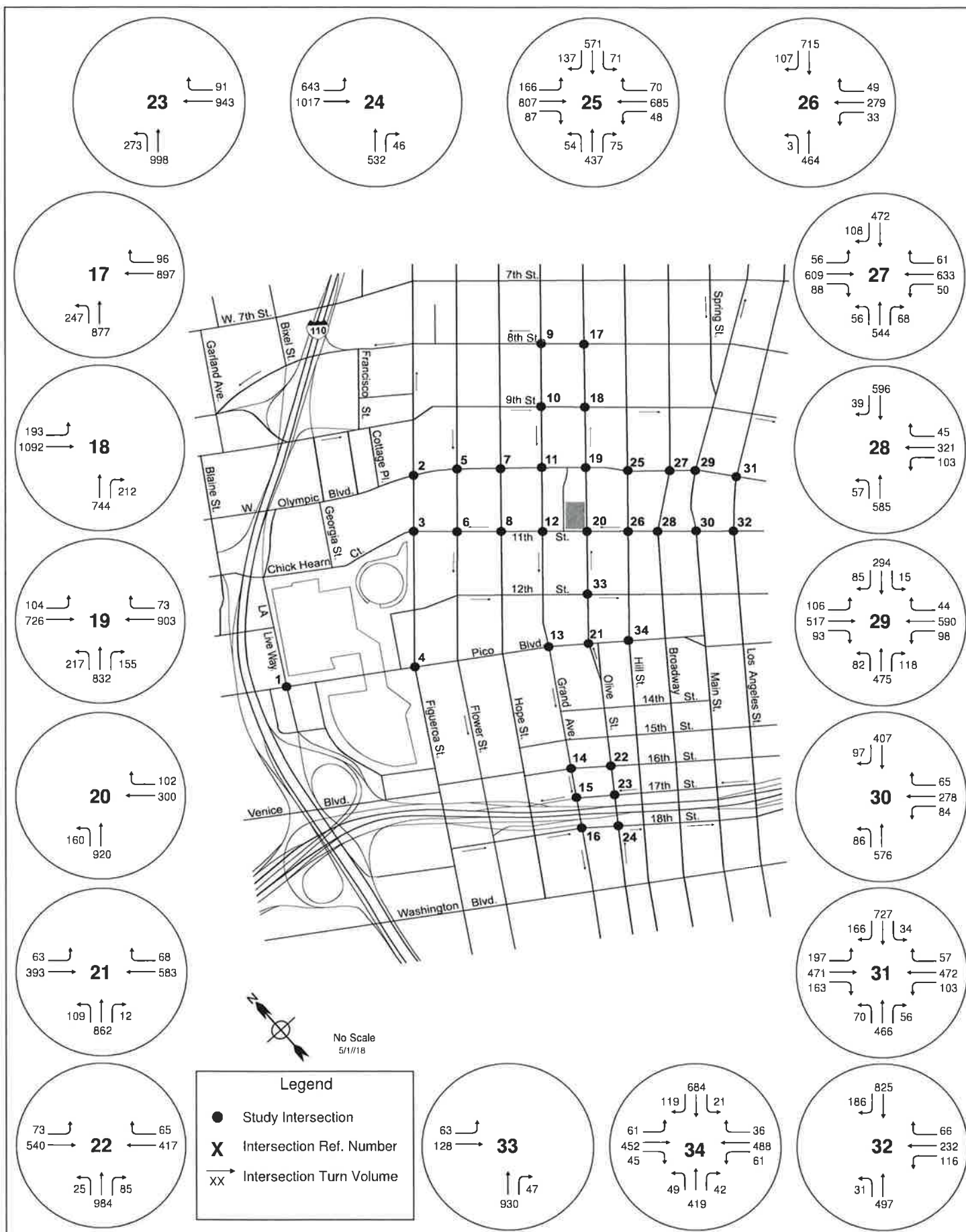


Figure 2.4
Existing Traffic Volumes - PM Peak Hour (17-34)

1045 Olive Project

Table 2.1 Level of Service Definitions for Signalized Intersections

Level of Service	Description	Volume to Capacity Ratio
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	<0.600
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	0.601 – 0.700
C	Good operation. Occasionally drivers may have to wait for more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.701 – 0.800
D	Fair operation. Cars are sometimes required to wait for more than 60 seconds during short peaks. There is no long-standing traffic queues. This level is typically associated with design practice for peak periods.	0.801 – 0.900
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	0.901 – 1.000
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersections approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	Over 1.000

Source: *Highway Capacity Manual*, Special Report 209, Transportation Research Board, Washington, D.C., 1985 and *Interim Materials on Highway Capacity*, MCHRP Circular 212, 1982.

Table 2.2 Existing Conditions - Intersection Level of Service

4/30/2018

No.	Intersection	Existing Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.645	B	0.570	A
2	Figueroa Street & Olympic Boulevard	0.572	A	0.533	A
3	Figueroa Street & Chick Hearn Court	0.294	A	0.312	A
4	Figueroa Street & Pico Boulevard	0.504	A	0.523	A
5	Flower Street & Olympic Boulevard	0.419	A	0.566	A
6	Flower Street & 11th Street	0.082	A	0.344	A
7	Hope Street & Olympic Boulevard	0.465	A	0.604	B
8	Hope Street & 11th Street	0.119	A	0.299	A
9	Grand Avenue & 8th Street	0.276	A	0.414	A
10	Grand Avenue & 9th Street	0.249	A	0.451	A
11	Grand Avenue & Olympic Boulevard	0.385	A	0.553	A
12	Grand Avenue & 11th Street	0.097	A	0.391	A
13	Grand Avenue & Pico Boulevard	0.285	A	0.561	A
14	Grand Avenue & Venice Boulevard	0.197	A	0.351	A
15	Grand Avenue & 17th Street	0.393	A	0.681	B
16	Grand Avenue & 18th Street	0.418	A	0.455	A
17	Olive Street & 8th Street	0.400	A	0.294	A
18	Olive Street & 9th Street	0.388	A	0.351	A
19	Olive Street & Olympic Boulevard	0.503	A	0.528	A
20	Olive Street & 11th Street	0.239	A	0.340	A
21	Olive Street & Pico Boulevard	0.435	A	0.447	A
22	Olive Street & 16th Street	0.407	A	0.353	A
23	Olive Street & 17th Street	0.625	B	0.527	A
24	Olive Street & 18th Street	0.459	A	0.387	A

Table 2.2 Existing Conditions - Intersection Level of Service

4/30/2018

No.	Intersection	Existing Conditions			
		AM Peak Hour		PM Peak Hour	
		V/C	LOS	V/C	LOS
25	Hill Street & Olympic Boulevard	0.394	A	0.535	A
26	Hill Street & 11th Street	0.145	A	0.327	A
27	Broadway & Olympic Boulevard	0.379	A	0.521	A
28	Broadway & 11th Street	0.179	A	0.364	A
29	Main Street & Olympic Boulevard	0.407	A	0.461	A
30	Main Street & 11th Street	0.199	A	0.349	A
31	Los Angeles Street & Olympic Boulevard	0.325	A	0.553	A
32	Los Angeles Street & 11th Street	0.128	A	0.374	A
33	Olive Street & 12th Street	0.253	A	0.181	A
34	Hill Street & Pico Boulevard	0.296	A	0.457	A

PM Peak Hour

All of the studied intersections currently operate at LOS B or better during the PM peak hour.

2.4 Existing Transit Service

The Project Site is well served by transit. It is located in downtown Los Angeles, which is the hub of the regional transit system in the Los Angeles area. The Project Site is four blocks from the Pico Station at Flower Street & 12th Street/Pico Boulevard which serves the Metro Blue Line and the Metro Expo Line, and six blocks from the 7th Street / Metro Center Station at Figueroa Street & 7th Street, which serves the Metro Red/Purple, Blue and Expo Lines. The Project Area (within approximately one quarter mile of the Project) is currently served by a total of seven local and inter-city transit operators. Metro operates two rail lines (Metro Blue and Metro Expo lines) at the Pico & Flower Station, the Silver Line, five Rapid bus lines, two Express lines and twenty-three local lines in the Project Area. The Metro Center Station at Flower Street & 7th Street (which is served by the Metro Red and Purple Lines and Blue and Expo Lines) is also within walking distance of the Project Site. Additional transit lines include nine LADOT Commuter Express lines, two LADOT DASH bus lines (DASH D and DASH F), two Orange County Transportation Authority bus lines, eight Foothill Transit bus lines, one Big Blue Bus line and one Torrance bus line operating in the Project Area. Figure 2.5 shows transit service provided in the Project Area. Table 2.3 lists the individual rail and bus lines serving the Project Area, and indicates the frequency of service (headways) during the AM and PM peak periods.

Summary of Transit Service on Major Streets in the Project Vicinity

Olive Street/Grand Avenue

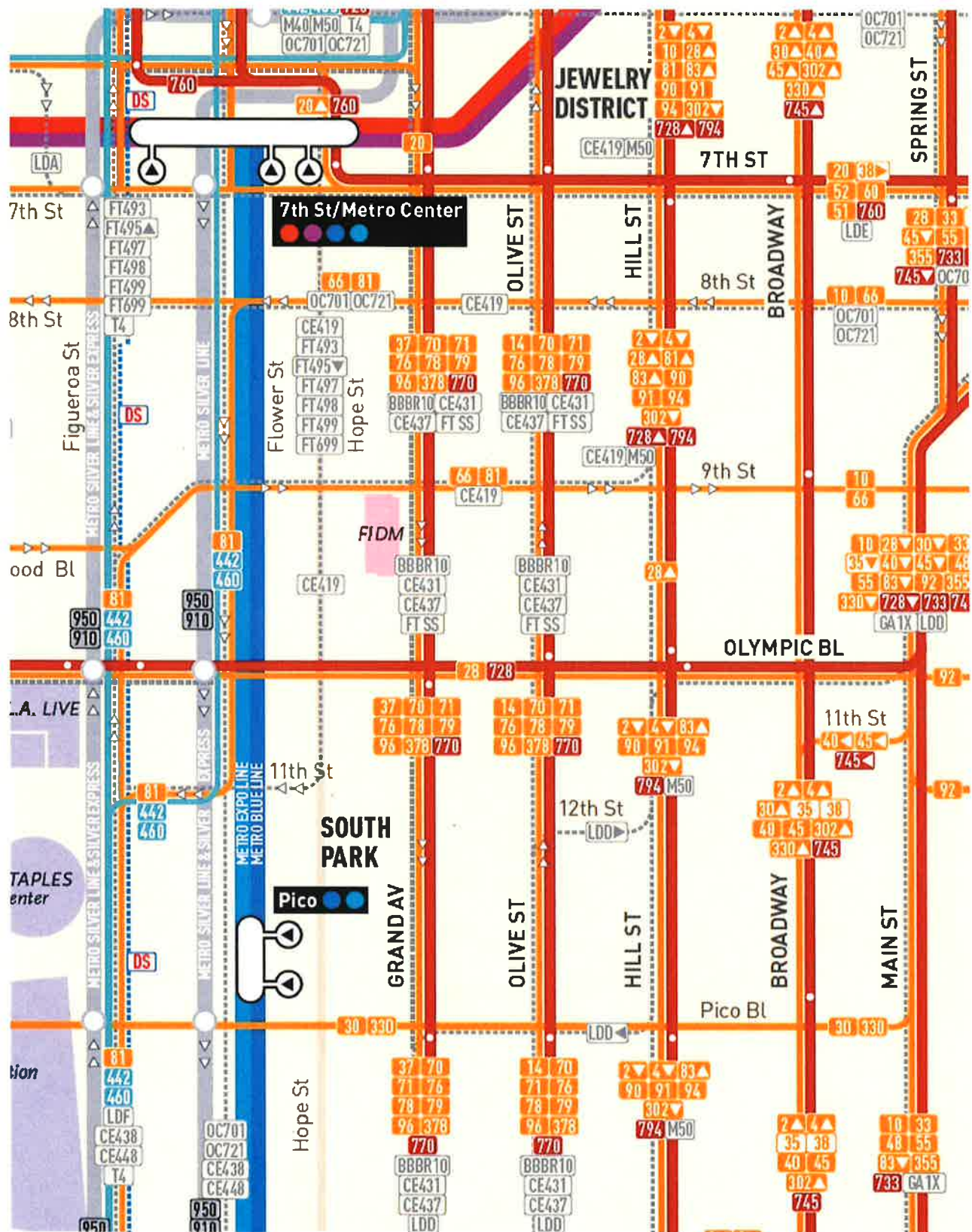
Located immediately east and west of the Project Site, Olive Street and Grand Avenue operate as a one-way couplet and carry one Metro Rapid Bus line (770), nine Metro Bus lines (14, 37, 70, 71, 76, 78, 79, 96, 378), two Commuter Express lines (CE 431, CE 437), one LADOT DASH line (DASH D), one Foothill Transit line (FT Silver Streak), one Santa Monica Transit line (BBB 10) and one Torrance Bus (T4).

Hill Street

Located one block east of the Project Site, Hill Street carries two Metro Rapid Bus lines (728, 794), ten Metro Bus lines (2, 4, 28, 48, 81, 83, 90, 91, 94, 302), one Commuter Express line (CE 419), one DASH line (DASH D).

Broadway

Located two blocks east of the Project Site, Broadway carries one Metro Rapid Bus line (745) and seven Metro Bus lines (2, 4, 30, 40, 45, 302, 330).



Source: Metro System Map

033118

Figure 2.5
Existing Transit Service
1045 Olive Project

Table 2.3 Existing Public Transit Services

4/5/2018

Provider, Routes and Service Area	Street	Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Hour		PM Peak Hour	
				NB/EB	SB/WB	NB/EB	SB/WB
Metro Rail							
Red/Purple Line - Downtown Los Angeles - North Hollywood	7th - Hill	Rail	4:50 AM - 1:30 AM (EB) 4:15 AM - 12:30 AM (WB)	5	5	5	5
Blue Line - Long Beach - Downtown Los Angeles	Flower - 7th	Rail	4:45 AM - 1:20 AM (NB) 4:45 AM - 1:30 AM (SB)	6	6	6	6
Expo Line - Santa Monica - Downtown Los Angeles	Flower - 7th	Rail	4:05 AM - 1:45 AM (EB) 4:50 AM - 1:40 AM (WB)	6	6	6	6
Metro Busway							
Silver Line 910	Figueroa - 6th / Wilshire - Flower	Busway	5:20 AM - 1:30 AM (NB) 3:55 AM - 1:20 AM (SB)	4	5	5	5
Silver Express 950x	Figueroa - 6th / Wilshire - Flower	Busway	5:20 AM - 1:30 AM (NB) 3:55 AM - 1:20 AM (SB)	4	5	5	5
Metro Bus Service							
728 - Century City - Downtown Los Angeles	Olympic - Hill/ Spring - Olympic	Rapid	5:35 AM - 9:00 PM (EB) 5:25 AM - 8:30 PM (WB)	12	20	12	15
733 - Santa Monica - Downtown Los Angeles	Main	Rapid	5:41 AM - 12:58 AM (EB) 5:12 AM - 11:20 PM (WB)	20	20	15	20
745 - Los Angeles - Downtown Los Angeles	Broadway / Main	Rapid	5:13 AM - 8:55 PM (NB) 5:08 AM - 8:50 PM (SB)	8	10	10	10
770 - Los Angeles - El Monte	Olive	Rapid	5:02 AM - 7:58 PM (EB) 5:56 AM - 9:02 PM (WB)	15	12	12	15
794 - Sylmar - Downtown Los Angeles	Hill	Rapid	4:36 AM - 8:09 PM (NB) 6:50 AM - 8:45 PM (SB)	20	20	30	30
442 - Downtown Los Angeles - Hawthorne	Figueroa - 6th/ Wilshire - Flower	Express	6:25 AM - 8:20 AM (NB) 4:15 AM - 6:30 PM (SB)	60	N/A	N/A	60

Table 2.3 Existing Public Transit Services

4/5/2018

Provider, Routes and Service Area	Street	Service Type	Hours of Operation	Average Headway (minutes)		
				AM Peak Hour		PM Peak Hour
				NB/EB	SB/WB	NB/EB
460 - Downtown Los Angeles - Anaheim	Figueroa - 6th/ Wilshire - Flower	Express	5:40 AM - 2:00 AM (NB) 4:00 AM - 10:30 PM (SB)	20	20	30
2/302 - Pacific Palisades - Downtown Los Angeles	Broadway / Hill	Local	5:53 AM - 2:20 AM (EB) 4:47 AM - 1:33 PM (WB)	20	15	20
4 - Santa Monica - Los Angeles	Broadway / Hill	Local	24 Hour	10	12	20
10 - West Hollywood - Downtown Los Angeles	Main - 8th - Hill / Hill - 9th - Main	Local	4:41 AM - 1:08 AM (EB) 5:00 AM - 11:00 PM (WB)	12	12	30
14 - Beverly Hills - Downtown Los Angeles	Olive / Grand	Local	24 Hour	7	9	9
28 - Century City - Eagle Rock	Olympic - Hill / Spring - Olympic	Local	5:09 AM - 1:30 AM (EB) 4:38 AM - 1:18 AM (WB)	12	15	15
30/330 - West Hollywood - East Los Angeles	Pico - Broadway / Main - Pico	Local	3:58 AM - 2:58 AM (EB) 4:18 AM - 3:18 AM (WB)	9	9	8
33 - Santa Monica - Downtown Los Angeles	Main	Local	6:06 AM - 5:39 AM (EB) 4:11 AM - 3:04 AM (WB)	20	15	20
37 - Los Angeles - Downtown Los Angeles	Olive / Grand	Local	4:51 AM - 12:58 AM (EB) 5:09 AM - 12:14 AM (WB)	9	10	9
40 - Redondo Beach - Downtown Los Angeles	Broadway / Main	Local	5:38 AM - 12:56 AM (NB) 4:46 AM - 11:12 PM (SB)	12	12	15
45 - Rosewood - Lincoln Heights	Broadway / Main	Local	5:00 AM - 4:00 AM (NB) 3:20 AM - 2:20 AM (SB)	9	12	10
48 - Los Angeles to Downtown Los Angeles	Main - 8th / Hill - 9th - Main	Local	5:00 AM - 11:00 PM (NB) 4:41 AM - 11:17 PM (SB)	12	20	15
55/355 - Willowbrook - Downtown Los Angeles	Main	Local	5:33 AM - 8:53 PM (NB) 5:10 AM - 8:34 PM (SB)	9	20	15
66 - Wilshire Center - Montebello	9th / 8th	Local	4:33 AM - 12:58 AM (EB) 4:29 AM - 1:16 AM (WB)	10	20	15
						8

Table 2.3 Existing Public Transit Services

4/5/2018

Provider, Routes and Service Area	Street	Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Hour		PM Peak Hour	
				NB/EB	SB/WB	NB/EB	SB/WB
70 - Los Angeles - El Monte	Olive / Grand	Local	4:51 AM - 4:12 AM (EB) 5:11 AM - 4:04 AM (WB)	15	10	15	12
71 - Los Angeles - Cal State LA Station	Olive / Grand	Local	5:59 AM - 7:28 PM (EB) 6:10 AM - 8:49 PM (WB)	20	20	30	30
76 - Downtown Los Angeles - El Monte	Olive / Grand	Local	5:10 AM - 4:12 AM (EB) 4:46 AM - 4:04 AM (WB)	15	12	15	15
78/79/378 - Downtown Los Angeles - Arcadia	Olive / Grand	Local	5:00 AM - 1:13 AM (EB) 5:09 AM - 1:05 AM (WB)	12	7	8	10
81 - South Los Angeles - Eagle Rock	Hill	Local	5:21 AM - 1:01 AM (NB) 5:17 AM - 1:06 AM (SB)	10	9	12	12
83 - Downtown Los Angeles - Eagle Rock	Broadway / Main	Local	4:57 AM - 8:21 PM (NB) 4:35 AM - 9:05 PM (SB)	60	20	30	30
90/91 - Downtown Los Angeles - Sylmar	Hill	Local	4:50 AM - 8:18 PM (NB) 5:24 AM - 9:23 PM (SB)	30	15	15	15
92 - Burbank - Downtown Los Angeles	Main	Local	5:12 AM - 10:10 PM (NB) 5:11 AM - 10:16 PM (SB)	20	20	20	20
94 - Downtown Los Angeles - Sun Valley	Hill	Local	4:21 AM - 12:02 AM (NB) 5:51 AM - 2:43 AM (SB)	20	20	30	20
96 - Downtown Los Angeles - Burbank	Olive / Grand	Local	4:22 AM - 8:00 PM (NB) 5:44 AM - 9:18 PM (SB)	30	30	30	30
Commuter Express							
CE 409 - Downtown Los Angeles - Foothill & Glonoaks	7th - Figueroa - 4th/ Flower/7th	Express	6:40 AM - 8:40 AM (SB) 4:05 PM - 5:55 PM (NB)	N/A	20	15	N/A
CE 419 - Downtown Los Angeles - Chatsworth	Figueroa - 9th - Hill/ Flower - 11th - Figueroa	Express	6:35 AM - 9:20 AM (SB) 4:00 PM - 7:20 PM (NB)	N/A	20	20	N/A
CE 422 - Downtown Los Angeles - San Fernando Valley/ Agoura Hills/Tousand Oaks	Figueroa - 4th - Hope/ Flower - 11th - Figueroa	Express	5:05 AM - 8:15 AM (NB) 4:00 PM - 8:05 PM (SB)	60	N/A	N/A	20

Table 2.3 Existing Public Transit Services

4/5/2018

Provider, Routes and Service Area	Street	Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Hour		PM Peak Hour	
				NB/EB	SB/WB	NB/EB	SB/WB
CE 423 - Downtown Los Angeles - Hollywood/San Fernando Valley	Figueroa - 4th - Hope/ Flower - 11th - Figueroa	Express	6:20 AM - 8:50 AM (NB) 3:50 PM - 6:45 PM (SB)	30	N/A	N/A	20
CE 431 - Downtown Los Angeles - Westwood	Figueroa - 4th - Hope/ Flower - 6th - Grand	Express	7:00 AM - 8:40 AM (EB) 4:40 PM - 6:15 PM (WB)	30	N/A	N/A	30
CE 437 - Downtown Los Angeles - Culver City	8th - Figueroa/ Flower - 6th - Grand	Express	6:40 AM - 8:45 AM (EB) 3:40 PM - 6:25 PM (WB)	30	N/A	N/A	30
CE 438 - Downtown Los Angeles - Redondo Beach	Figueroa - 4th - Hope/ Flower	Express	6:30 AM - 8:45 AM (NB) 3:55 PM - 6:25 PM (SB)	12	N/A	N/A	10
CE 448 - Downtown Los Angeles - Rancho Palos Verdes	Figueroa - 4th - Hope/ Flower	Express	6:25 AM - 8:20 AM (NB) 4:05 PM - 5:55 PM (SB)	30	N/A	N/A	20
CE 534 - Downtown Los Angeles - West Los Angeles	Olympic - Figueroa/ Flower - Olympic	Express	7:00 AM - 9:30 AM (WB) 4:00 PM - 6:30 PM (EB)	N/A	60	30	N/A
Montebello Bus							
50 - Montebello - Downtown Los Angeles	Hill	Local	5:24 AM - 9:47 PM (EB) 4:33 AM - 8:51 PM (WB)	30	30	60	30
DASH							
DASH D	Olive	DASH	5:50 AM - 7:00 PM	5	N/A	5	N/A
F - Financial District - Exposition Park/USC	Flower - Olympic	DASH	6:30 AM - 6:30 PM	10	N/A	10	N/A
Orange County Transportation Authority							
OC 701 - Huntington Beach - Los Angeles	Figueroa - 4th - Hope/ Hope - 4th - Flower	Express	6:35 - 7:45 AM (NB) 4:30 - 5:20 PM (SB)	0	N/A	N/A	60

Table 2.3 Existing Public Transit Services

4/5/2018

Provider, Routes and Service Area	Street	Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Hour		PM Peak Hour	
				NB/EB	SB/WB	NB/EB	SB/WB
OC 721 - Fullerton - Los Angeles	Figueroa/ Flower	Express	5:45 - 9:10 AM, 5:30 - 6:15 PM (NB) 6:15 - 7:15 AM, 3:20 - 6:45 PM (SB)	60	0	60	0
Foothill Transit							
FT 493 - Downtown Los Angeles - Diamond Bar/Rowland Heights	Figueroa - 4th - Flower/ Flower - 6th - Hope	Express	5:50 AM - 9:40 AM (WB) 2:20 PM - 6:30 PM (EB)	N/A	12	12	N/A
FT 495 - Downtown Los Angeles - Industry Park & Ride	Figueroa - 4th - Flower/ Flower - 6th - Hope	Express	6:05 AM - 9:40 AM (WB) 3:00 PM - 6:30 PM (EB)	N/A	30	20	N/A
FT 496 - Downtown Los Angeles - Azusa/West Covina	Figueroa - 4th - Flower/ Flower - 6th - Hope	Express	6:00 AM - 9:10 AM (WB) 3:05 PM - 6:05 PM (EB)	N/A	30	30	N/A
FT 497 - Downtown Los Angeles - Chino Park & Ride/Industry Park & Ride	Figueroa / Flower - 6th - Hope	Express	6:10 AM - 9:25 AM (WB) 2:35 PM - 6:35 PM (EB)	N/A	15	12	N/A
FT 498 - Downtown Los Angeles - Azusa/West Covina	Figueroa / Hope	Express	5:20 AM - 9:50 AM (WB) 2:05 PM - 6:45 PM (EB)	N/A	10	8	N/A
FT 499 - Downtown Los Angeles - San Dimas Park & Ride	Figueroa / Flower - 6th - Hope	Express	6:20 AM - 9:10 AM (WB) 2:45 PM - 6:40 PM (EB)	N/A	12	15	N/A
FT 699 - Downtown Los Angeles- Montclair/Fairplex Park & Ride	Figueroa / Flower - 6th - Hope	Express	5:10 AM - 9:55 AM (WB) 2:05 PM - 6:35 PM (EB)	N/A	10	8	N/A
FT Silver Streak - Montclair to Los Angeles	Olive / Grand	Express	24 Hour	15	8	10	15
Big Blue Bus							
R10 - Downtown Santa Monica to Downtown Los Angeles	Olive - 7th / Wilshire - Grand	Rapid	6:16 AM - 8:30 PM (EB) 5:45 AM - 8:55 PM (WB)	20	20	20	20
Torrance Bus							
T4 - Torrance - Downtown Los Angeles	Figueroa - 6th - Olive/ Grand - 5th - Flower	Express	6:10 AM - 9:05 AM (NB) 3:55 PM - 6:45 PM (SB)	0	N/A	N/A	30

Olympic Boulevard

Located north of the Project Site, Olympic Boulevard carries one Metro Rapid line (728), one Metro Bus line (28) and one Commuter Express line (CE 534) in an east-west direction.

8th Street/9th Street

Located two blocks north of the Project Site, 8th and 9th Streets operate as a one-way couplet and carry four Metro Local Bus lines (10, 48, 66, and 81) and one Commuter Express line (CE 419).

Pico Boulevard

Located three blocks south of the Project Site, Pico Boulevard carries one Metro Local line (30/330) and one LADOT DASH line (DASH D) in an east-west direction.

Bus Stops within one Block of the Project

Within one block of the Project Site, there are seven bus stops, which are located at the following locations:

- Olive Street - north of Olympic Boulevard
- Olive Street - south of Olympic Boulevard
- Olive Street - south of 11th Street
- Olive Street - north of 12th Street
- Grand Avenue - north of Olympic Boulevard
- Grand Avenue - south of Olympic Boulevard
- Grand Avenue - north of 11th Street

2.4 Bicycle Facilities

Bicycle Facilities

The Mobility Plan 2035 designates a network of bicycle lanes (Tier 1, Tier 2 and Tier 3) and bicycle paths in the area of project.

Tier 1 Bicycle Lanes are bicycle facilities on arterial roadways with physical separation.

Tier 2 and Tier 3 Bicycle Lanes are bicycle facilities on arterial roadways with striped separation.

Bicycle Paths are facilities outside of the roadway.

Bicycle Routes are identified routes for bikes and are streets signed to alert drivers to bicyclists sharing the roadway spaces – often with the use of “sharrow” symbols painted on the street.

Existing bicycle facilities in the project area comprise a Bicycle Lane or Bicycle Route on the following streets, as shown in Figure 2.6:

- Grand Avenue – bicycle lane
- Olive Street – bicycle lane
- Broadway, north of 11th Street – bicycle route
- Main Street – bicycle lane
- Spring Street – bicycle lane
- Figueroa Street, south of Olympic Boulevard – bicycle route
- 7th Street west of Main Street – bicycle lane
- 11th Street, between Broadway and Maple Avenue – bicycle lane

The Mobility Plan 2035 identifies designated bicycle facilities planned for implementation over the longer term. For the area of the Project, these are discussed in Chapter 5 under Future Conditions.

Metro Bike Share Facilities

There are sixteen existing Metro Bike Share stations in the in the area of the project, with a total of 182 bike-share docks, at the following approximate locations, as shown in Figure 2.6:

- 7th Street and Main Street
- 7th Street and Spring Street
- 7th Street and Broadway
- 7th Street and Grand Avenue
- 8th Street and Olive
- 8th Street and Figueroa Street
- 9th Street and Los Angeles Street
- 9th Street and Main Street
- 9th Street and Broadway
- 9th Street and Figueroa
- Olympic Boulevard and Grand Avenue
- Olympic Boulevard and Hope Street
- 11th Street and Hope Street
- 12th Street and Hill Street
- Pico Boulevard and Flower Street
- 14th Street and Grand Avenue

2.5 Pedestrian Facilities

The Project Site is located in an area with well-developed pedestrian facilities, including sidewalks on all streets and crosswalks at all intersections. There is currently a seventeen-foot sidewalk on Olive Street adjacent to the Project site, and a ten-foot sidewalk on 11th Street adjacent to the Project site.



Project Site

Bicycle Lane

Bicycle Route

B

Metro Bike Share Station

4/4/18



Not to Scale

Figure 2.6
Existing Bicycle Facilities

1045 Olive Project

According to Walkscore.com¹, the area of the Project has a walkability score of 96 (out of 100) – which is described as a “walkers paradise” where ‘daily errands do not require a car’. (Walkscore also allocates a transit score of 100 - ‘riders paradise, world class public transportation’, and a bike score of 82 – very bikeable, flat, excellent bike lanes’) to the area of the Project.

Vision Zero

The City of Los Angeles Department of Transportation is implementing a program called Vision Zero Los Angeles², which represents a citywide effort to eliminate traffic deaths in the City of Los Angeles by 2025. Vision Zero has two goals: a 20% reduction in traffic deaths by 2017 and zero traffic deaths by 2025. In order to achieve these goals, LADOT identified a network of streets, called the High Injury Network (HIN), which has a higher incidence of severe and fatal collisions, and where LADOT has determined that pedestrian enhancement improvements will be most effective in meeting these goals. The HIN is comprised of 386 corridors that represent 6% of Los Angeles’ street miles, and 65% of all deaths and severe injuries involving people walking and biking occur on these 6% of streets.

This Project is not located in the High Injury Network (HIN). Streets in the vicinity of the Project Site that are located on the High Injury Network are as follows:

- Olympic Boulevard – west of Main Street
- 9th Street – east of Figueroa Street
- Olive Street – 12th Street to Pico Boulevard
- Pico Boulevard – Grand Avenue to Broadway

¹ Walk Score is a large-scale, public access walkability index that assigns a numerical walkability score to any address in the United States, Canada, and Australia. Walk Score is based on analysis of walking routes to nearby amenities, as well as measuring pedestrian friendliness by analyzing population density and road metrics such as block length and intersection density.

² Vision Zero Los Angeles 2015-2025 – Action Plan, January 2017.

3. Project Description & Transportation Characteristics

This report section provides a description of, and identifies the transportation characteristics of, the Proposed Project including trip generation totals and trip distribution characteristics.

3.1 Project Description

The Project Site is located at the north-west corner of the Olive Street & 11th Street intersection in downtown Los Angeles. The Project site is currently developed with various one-story commercial uses which will be replaced. The existing commercial uses total 35,651 sq. ft. At the time of this study, 14,653 sq. ft. were in active use as manufacturing space and 5,171 sq. ft. were in active use as retail space.

The Proposed Project will comprise approximately 794 apartment units and 12,504 sf of neighborhood serving commercial uses (which for the purposes of preparing a conservative analysis are analyzed as restaurant uses). On-site parking will include six levels of subterranean parking and eight levels of above ground parking. Up to 891 vehicle parking spaces will be provided.

Vehicle access to the Project Site will be provided by one driveway on Olive Street and two driveways on the alley. Truck access will occur from the alley to an on-site loading dock. A site plan of the project is shown in Figure 1.2 earlier in this report. Trips to the commercial uses are expected to utilize the driveway on Olive Street. Trips to the residential uses are expected to use the Olive Street driveway and both alley driveways.

Project Trip Generation

The trip generation estimates for the Project are shown in Table 3.1. These are based on trip rates found in *ITE Trip Generation 10th Edition* (Institute of Transportation Engineers, 2017), and adjustment factors considered appropriate to the type and location of the proposed Project which were developed in conjunction with, and with the approval of, LADOT. Table 3.1 summarizes the trip generation estimates for the daily, AM peak & PM peak hour periods respectively.

Background

The Project is located in an area where transit, walk and bike trips will occur due to the following factors. The Project is located in the densely developed downtown core area of Los Angeles, with many employment, retail and entertainment land uses in close proximity and within easy walking distance.

The project is located within one-quarter mile of numerous transit lines, including the Metro Blue and Exposition Lines, five Metro Rapid Bus Lines; two Metro Express Bus Lines; nine LADOT Express Bus Lines; twenty-three Metro Local Lines; and two DASH shuttle routes, as well as other regional transit operator services.

The project is also located on 11th Street where the MyFig Project is implementing a planned bicycle lane on 11th Street from Broadway to Figueroa Street that will pass directly by the Project, and improved sidewalks. The planned LA Streetcar that will circulate in downtown will also run along 11th Street adjacent to the Project (see Chapter 4 for more details).

Trip Estimates for This Study

ITE trip rates from Trip Generation, 10th Edition were used in the analysis, with the adjustments described below. The recently released 10th Edition includes numerous updates and enhancements to the trip rate information in the 9th Edition. The ITE 10th Edition no longer has separate trip rates for condominiums and apartments. Instead it has rates for multifamily housing. It also lists rates for high rise buildings, by location – “General Urban/Suburban”, “Dense Multi-Use Urban”, and “Center City Core”, thereby providing more accurate trip rates for the type (low rise or high rise) and location of the building. Although the 10th Edition provides residential trip rates for a “Center City Core” location (such as the Proposed Project), it is an extremely small sample size, so is not used for this study. Instead the trip generation rates for “Dense Multi-Use Urban” are applied to the residential units as the next most appropriate category. Because the 10th Edition trip rates are based on the type and location of building, they already account for higher walking, bicycling, and transit use in dense urban areas. Therefore, no further adjustment factors for use of these modes were applied.

For the commercial land uses, in order to present a conservative analysis, they were assumed to be restaurant uses, split equally between quality restaurant and high turnover restaurant. For the commercial land uses, in the ITE 10th Edition either no trip rates are available for the “Dense Multi-Use Urban” or “Center City Core” categories, or the sample sizes are small for those categories, so trip rates for the “General Urban/Suburban” category were used. These rates were adjusted to reflect the Project’s type and location. These adjustments, approved by LADOT and shown in Table 3.1, reflect the synergy of mixed uses in the Project and that some trips to the restaurants would come from residents of the building, that the proximity to transit would result in some residents and visitors using transit, that the proximity of the Project to other nearby destination land uses would lead to walk and bicycle trips, as well as LADOT approved reductions for pass-by trips (trips already on the road system).

The demolition of existing uses on the Project Site, would result in a small amount of existing peak hour trips being removed as shown in Table 3.1. As also shown in Table 3.1, the Project would generate net totals of 2,227 new daily vehicle trips, 196 new AM peak hour vehicle trips and 200 new PM peak hour vehicle trips.

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

Daily Trips

Land Use Assumptions	Source ¹ & Code	Quantity	Units	Daily		
					Trip Rate	Total Trips
Existing Uses						
Manufacturing ^{2,3,4} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5%	ITE 140	14,653	SF		3.93	-58 9 2
Net Manufacturing						-47
Retail ^{2,3,5} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 50%	ITE 820	5,171	SF		37.75	-195 29 8 79
Net Retail						-79
Total Existing						-126
Proposed Uses						
Apartment ^{2,6} (Reduction for transit trips) - 0% (Reduction for walk/bike trips) - 0%	ITE 222	794	DU		2.07	1,644 0 0
Net Apartments						1,644
High-Turnover Restaurant ^{2,7} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 20%	ITE 932	6,252	SF		112.18	701 -105 -89 -25 -96
Net High-Turnover Restaurant						386
Quality Restaurant ^{2,8} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 10%	ITE 931	6,252	SF		83.84	524 -79 -67 -19 -36
Net Quality Restaurant						323
Total Proposed						2,353
Total Net						2,227

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour						
				Trip Rate			Total Trips			
				In	Out	Total	In	Out	Total	
Existing Uses										
Manufacturing ^{2,3,4} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5%	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9	
Net Manufacturing							-6	-2	-8	
Retail ^{2,3,5} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 50%	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0	
Net Retail							0	0	0	
Total Existing							-6	-2	-8	
Proposed Uses										
Apartment ^{2,6} (Reduction for transit trips) - 0% (Reduction for walk/bike trips) - 0%	ITE 222	794	DU	0.03	0.18	0.21	24	143	167	
Net Apartments							24	143	167	
High-Turnover Restaurant ^{2,7} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 20%	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62	
Net High-Turnover Restaurant							19	15	34	
Quality Restaurant ^{2,8} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 10%	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5	
Net Quality Restaurant							2	1	3	
Total Proposed							45	159	204	
Total Net							39	157	196	

Table 3.1 1045 Olive - Trip Generation Estimates

1/5/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5%	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5} (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 50%	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6} (Reduction for transit trips) - 0% (Reduction for walk/bike trips) - 0%	ITE 222	794	DU	0.13	0.06	0.19	103	48	151
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 20%	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8} (Reduction for internal trips) - 15% (Reduction for transit trips) - 15% (Reduction for walk/bike trips) - 5% (Reduction for pass-by trips) - 10%	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
Net Quality Restaurant							21	10	31
Total Proposed							145	71	216
Total Net							138	62	200

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding.

Trip Distribution

The likely distribution of Project trips was identified based on the type of land uses in the Project, the likely destinations of Project residents based on the local and regional distributions of employment and commercial destinations, the likely origins of commercial visitors based on the local distribution of population, existing traffic volumes, and the characteristics of the street system in the area of the Project. The general trip distribution pattern was developed in consultation with LADOT and the following distribution was assumed:

- 25% of the trips towards the north
- 20% of the trips towards the south
- 20% of the trips towards the east
- 35% of the trips towards the west

3.2 Project Traffic Projections

Project traffic was assigned to the roadway network on the basis of the parameters described above. The Proposed Project traffic volumes forecast on the roadway network are shown in Figure 3.1 for the AM peak hour, and in Figure 3.2 for the PM peak hour.

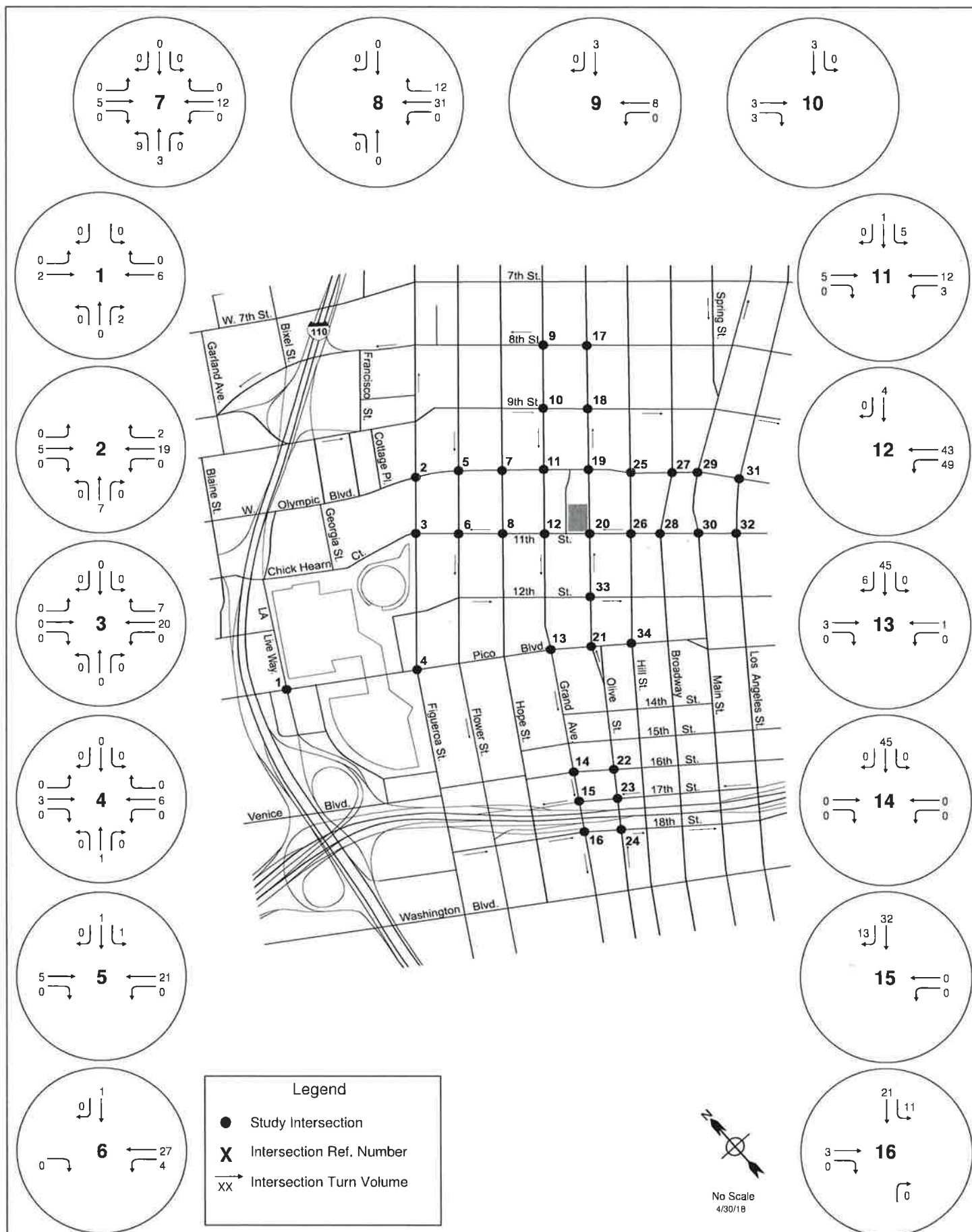


Figure 3.1
Project Only Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project

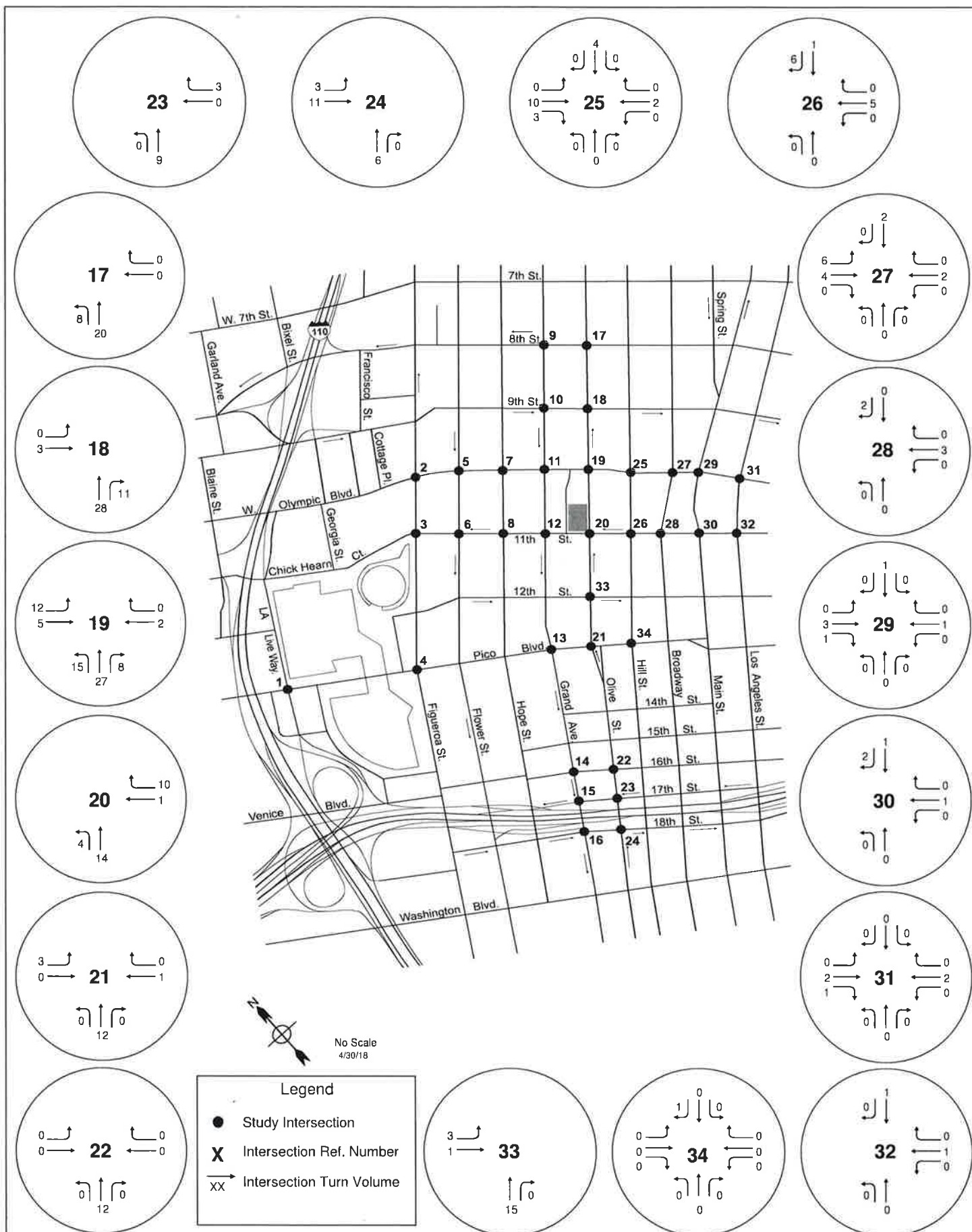
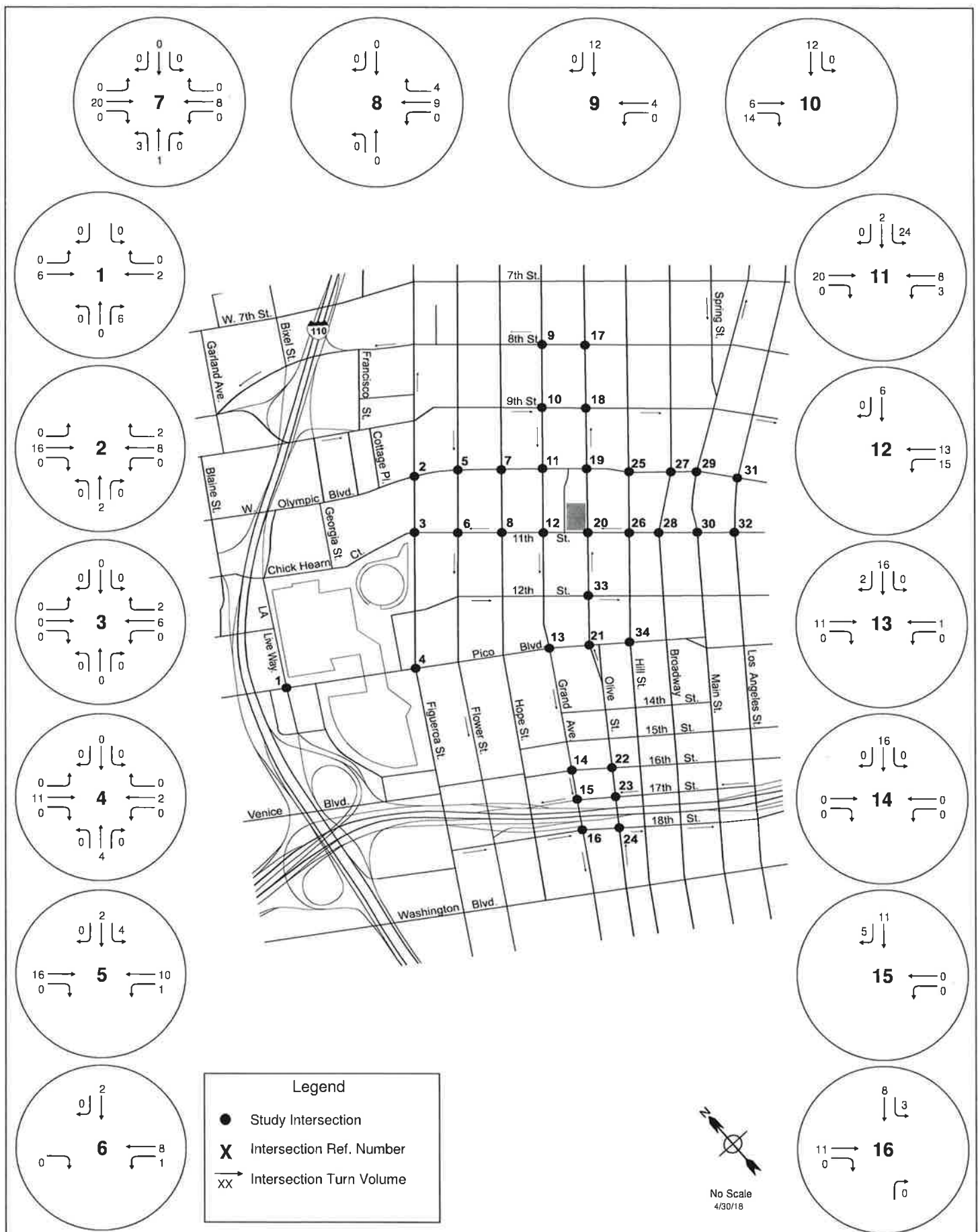
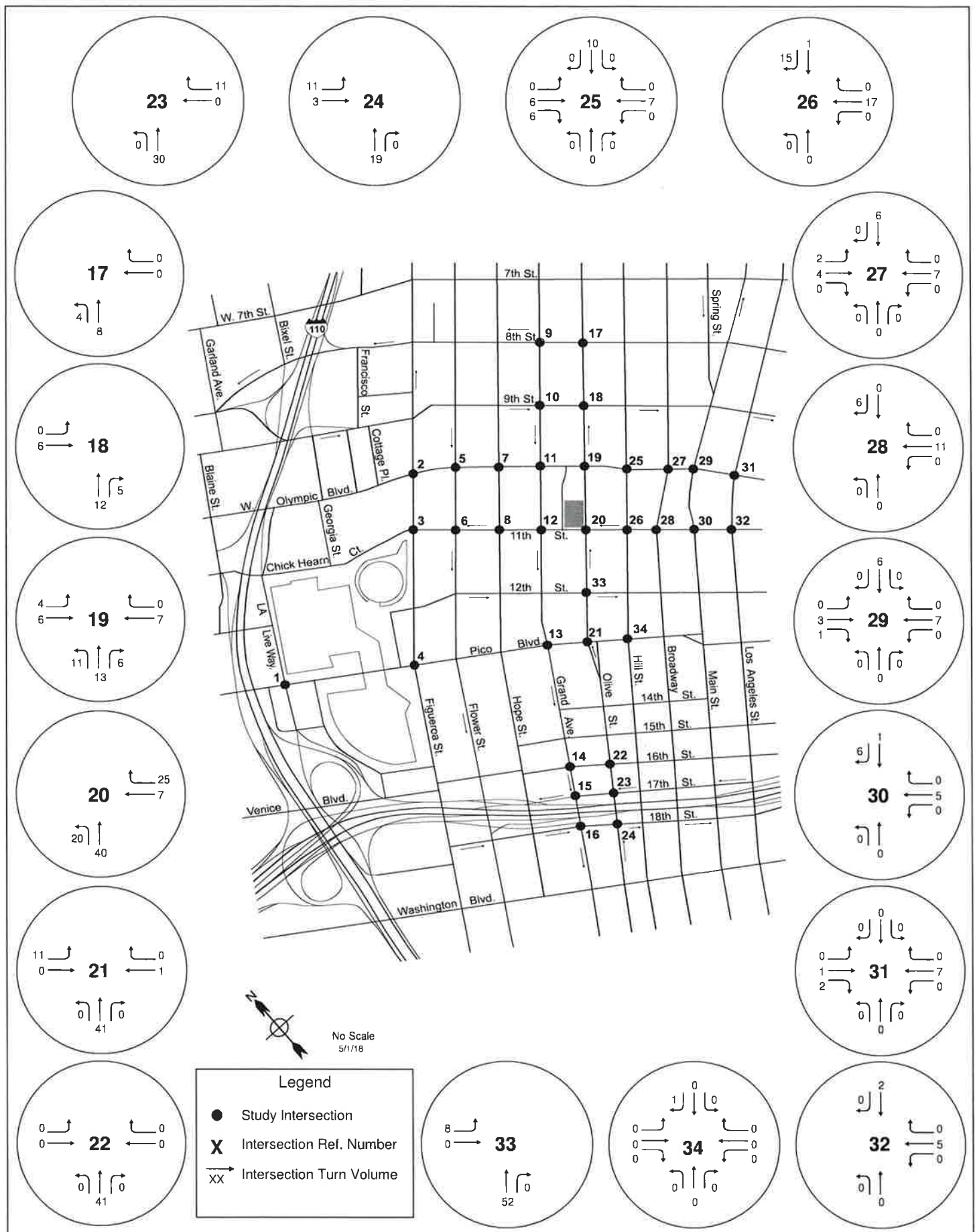


Figure 3.1
Project Only Traffic Volumes - AM Peak Hour (17-34)

1045 Olive Project





4. Existing With Project Conditions

This section of the report documents the analysis of potential Project traffic impacts in the study area for the Existing With Project conditions. Project traffic was added to existing traffic volumes and the potential for impacts evaluated. The total Existing With Project Conditions peak hour traffic volumes are illustrated in Figures 4.1 and 4.2 for the AM and PM peak hours respectively.

4.1 Project Impacts - Intersections

Significant Impact Thresholds

LADOT has established criteria to determine if project impacts are significant at an intersection. These criteria are shown below.

Definition of Significant Impact at Intersection

With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using these criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS C after the addition of project traffic and the incremental change in the volume/capacity (V/C) ratio is less than 0.040. However, in another example, if the intersection is operating at LOS E or LOS F and the incremental change in V/C ratio is 0.010 or greater, then the project would be considered to have a significant impact at that location.

Existing With Project Intersection Level of Service

The total Existing With Project conditions peak hour traffic volumes are illustrated in Figures 4.1 and 4.2 for the AM and PM peak hours. Tables 4.1 and 4.2 summarize the level of service for the Existing With Project conditions at the analyzed intersections for the AM and PM peak hours respectively, as well as the increase in V/C ratio at each intersection, and identify if the increase constitutes a significant impact.

AM Peak Hour

The analysis summarized in Table 4.1 indicates that for the AM peak hour, the addition of project traffic would not cause the level of service to change at any of the study intersections. All increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur. It is therefore concluded that the Project would cause no significant traffic impacts in the AM peak hour.

PM Peak Hour

The analysis summarized in Table 4.2 indicates that for the PM peak hour, the addition of project traffic would not cause the level of service to change at any of the study intersections. All increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur. It is therefore concluded that the Project would cause no significant traffic impacts in the PM peak hour.

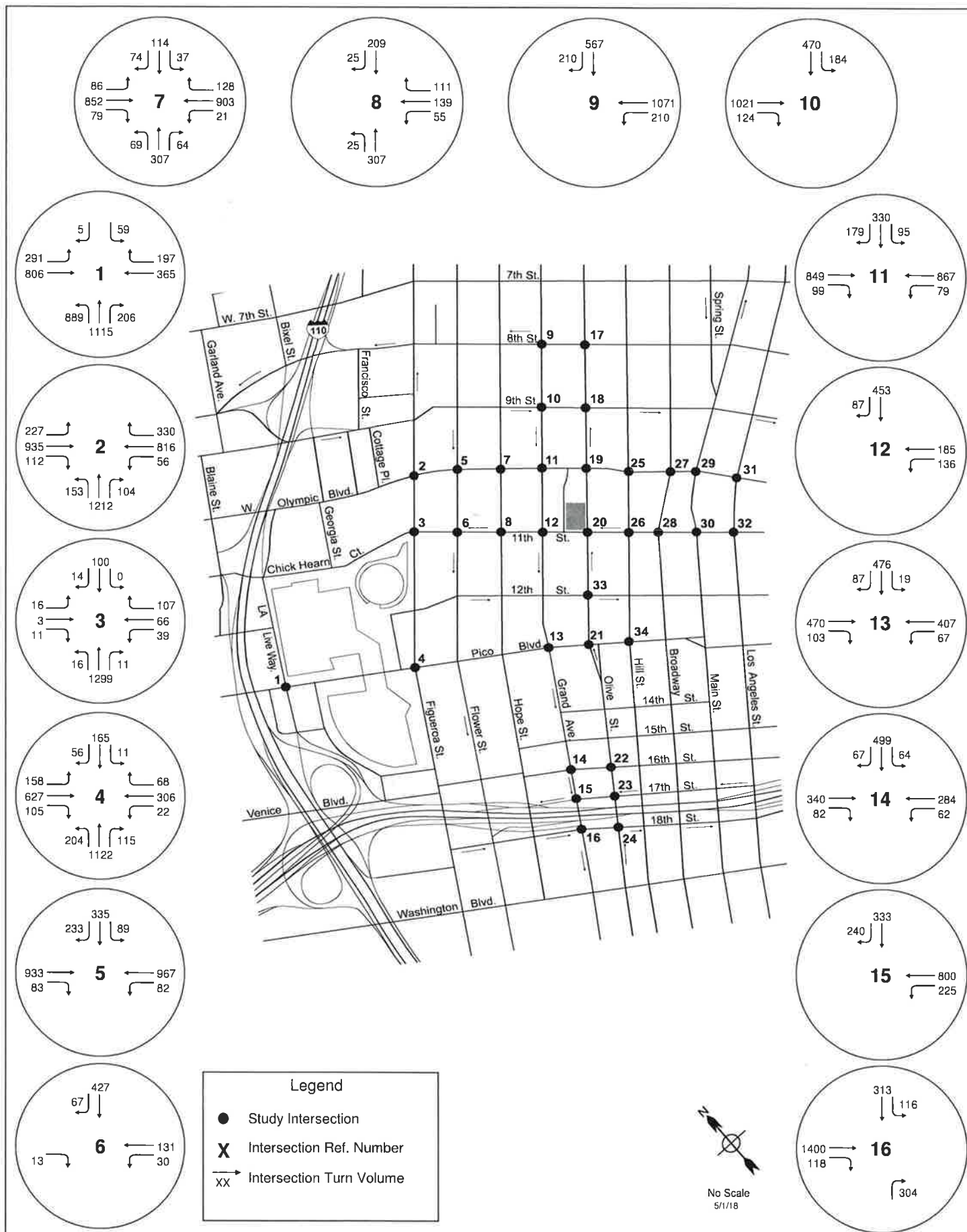


Figure 4.1
Existing With Project Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project

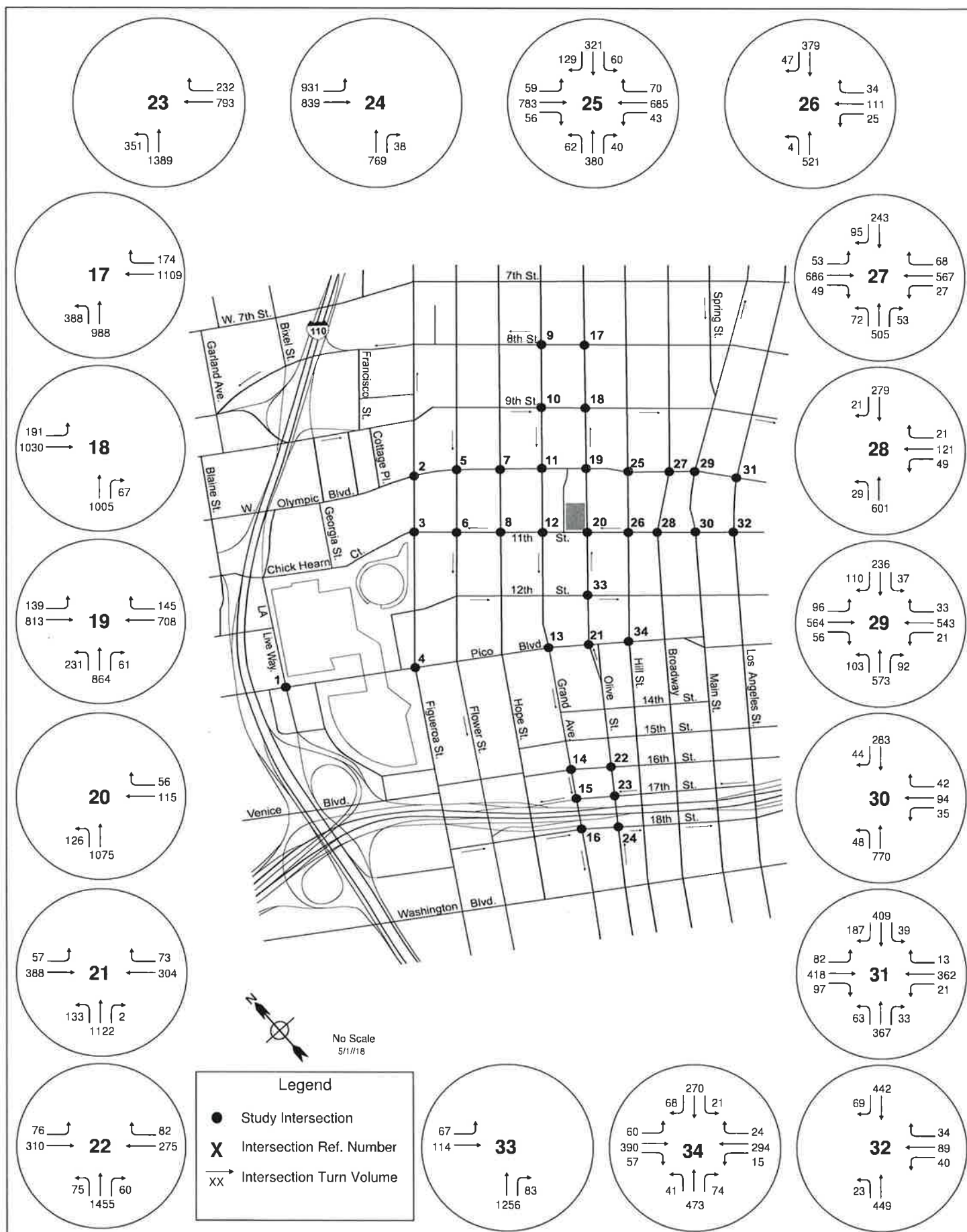


Figure 4.1
Existing With Project Traffic Volumes - AM Peak Hour (17-34)

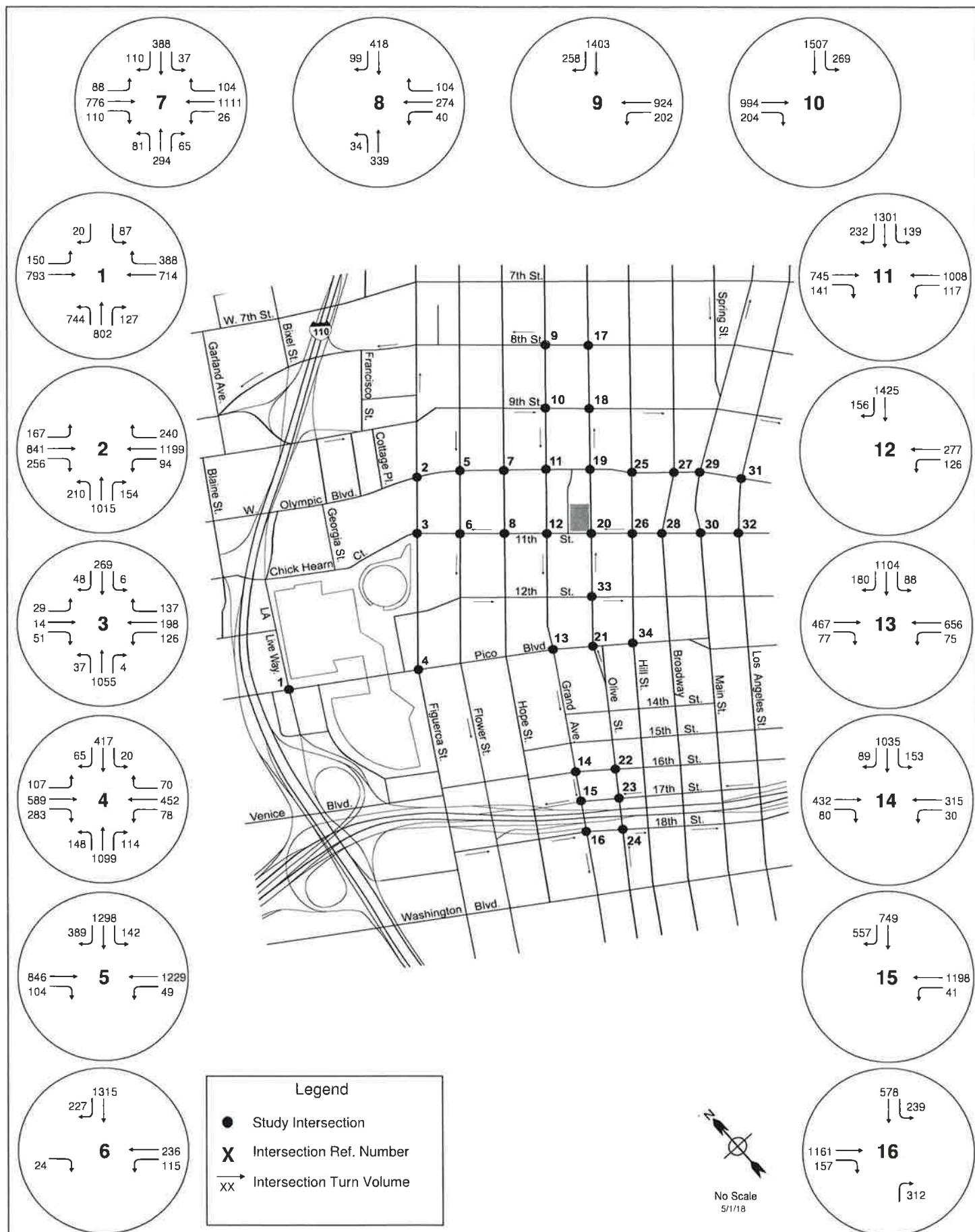


Figure 4.2
Existing With Project Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

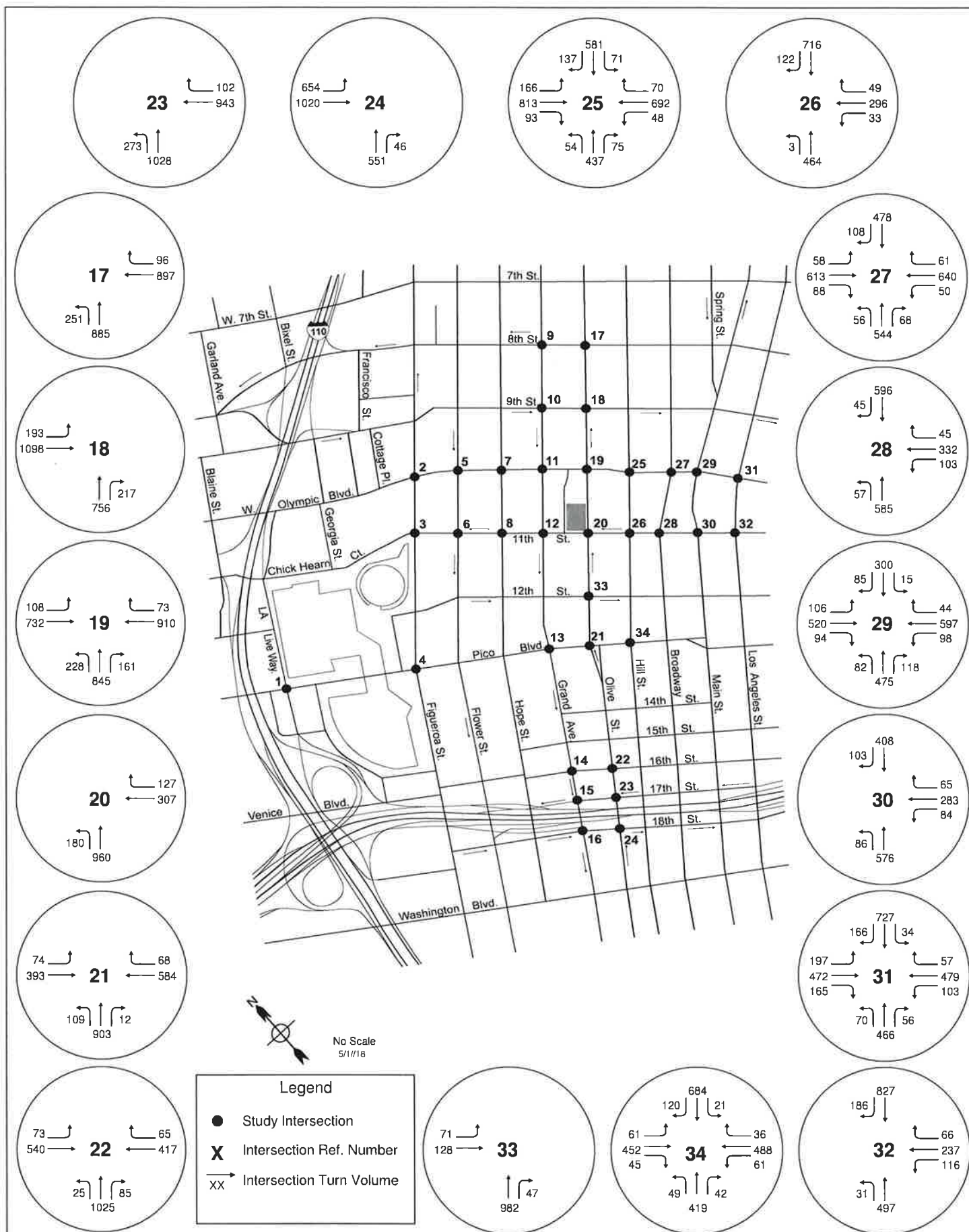


Figure 4.2
Existing With Project Traffic Volumes - PM Peak Hour (17-34)

1045 Olive Project

**Table 4.1 Existing With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.645	B	0.647	B	0.002	No
2	Figueroa Street & Olympic Boulevard	0.572	A	0.574	A	0.002	No
3	Figueroa Street & Chick Hearn Court	0.294	A	0.299	A	0.005	No
4	Figueroa Street & Pico Boulevard	0.504	A	0.505	A	0.001	No
5	Flower Street & Olympic Boulevard	0.419	A	0.421	A	0.002	No
6	Flower Street & 11th Street	0.082	A	0.091	A	0.009	No
7	Hope Street & Olympic Boulevard	0.465	A	0.473	A	0.008	No
8	Hope Street & 11th Street	0.119	A	0.140	A	0.021	No
9	Grand Avenue & 8th Street	0.276	A	0.278	A	0.002	No
10	Grand Avenue & 9th Street	0.249	A	0.249	A	0.000	No
11	Grand Avenue & Olympic Boulevard	0.385	A	0.388	A	0.003	No
12	Grand Avenue & 11th Street	0.097	A	0.124	A	0.027	No
13	Grand Avenue & Pico Boulevard	0.285	A	0.301	A	0.016	No
14	Grand Avenue & Venice Boulevard	0.197	A	0.207	A	0.010	No
15	Grand Avenue & 17th Street	0.393	A	0.402	A	0.009	No
16	Grand Avenue & 18th Street	0.418	A	0.426	A	0.008	No
17	Olive Street & 8th Street	0.400	A	0.405	A	0.005	No
18	Olive Street & 9th Street	0.388	A	0.395	A	0.007	No
19	Olive Street & Olympic Boulevard	0.503	A	0.521	A	0.018	No
20	Olive Street & 11th Street	0.239	A	0.243	A	0.004	No
21	Olive Street & Pico Boulevard	0.435	A	0.441	A	0.006	No
22	Olive Street & 16th Street	0.407	A	0.410	A	0.003	No
23	Olive Street & 17th Street	0.625	B	0.629	B	0.004	No
24	Olive Street & 18th Street	0.459	A	0.464	A	0.005	No

**Table 4.1 Existing With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.394	A	0.400	A	0.006	No
26	Hill Street & 11th Street	0.145	A	0.148	A	0.003	No
27	Broadway & Olympic Boulevard	0.379	A	0.380	A	0.001	No
28	Broadway & 11th Street	0.179	A	0.181	A	0.002	No
29	Main Street & Olympic Boulevard	0.407	A	0.407	A	0.000	No
30	Main Street & 11th Street	0.199	A	0.200	A	0.001	No
31	Los Angeles Street & Olympic Boulevard	0.325	A	0.327	A	0.002	No
32	Los Angeles Street & 11th Street	0.128	A	0.129	A	0.001	No
33	Olive Street & 12th Street	0.253	A	0.258	A	0.005	No
34	Hill Street & Pico Boulevard	0.296	A	0.296	A	0.000	No

**Table 4.2 Existing With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.570	A	0.571	A	0.001	No
2	Figueroa Street & Olympic Boulevard	0.533	A	0.535	A	0.002	No
3	Figueroa Street & Chick Hearn Court	0.312	A	0.316	A	0.004	No
4	Figueroa Street & Pico Boulevard	0.523	A	0.529	A	0.006	No
5	Flower Street & Olympic Boulevard	0.566	A	0.569	A	0.003	No
6	Flower Street & 11th Street	0.344	A	0.349	A	0.005	No
7	Hope Street & Olympic Boulevard	0.604	B	0.609	B	0.005	No
8	Hope Street & 11th Street	0.299	A	0.305	A	0.006	No
9	Grand Avenue & 8th Street	0.414	A	0.417	A	0.003	No
10	Grand Avenue & 9th Street	0.451	A	0.455	A	0.004	No
11	Grand Avenue & Olympic Boulevard	0.553	A	0.563	A	0.010	No
12	Grand Avenue & 11th Street	0.391	A	0.401	A	0.010	No
13	Grand Avenue & Pico Boulevard	0.561	A	0.566	A	0.005	No
14	Grand Avenue & Venice Boulevard	0.351	A	0.355	A	0.004	No
15	Grand Avenue & 17th Street	0.681	B	0.685	B	0.004	No
16	Grand Avenue & 18th Street	0.455	A	0.460	A	0.005	No
17	Olive Street & 8th Street	0.294	A	0.296	A	0.002	No
18	Olive Street & 9th Street	0.351	A	0.355	A	0.004	No
19	Olive Street & Olympic Boulevard	0.528	A	0.539	A	0.011	No
20	Olive Street & 11th Street	0.340	A	0.358	A	0.018	No
21	Olive Street & Pico Boulevard	0.447	A	0.468	A	0.021	No
22	Olive Street & 16th Street	0.353	A	0.362	A	0.009	No
23	Olive Street & 17th Street	0.527	A	0.538	A	0.011	No
24	Olive Street & 18th Street	0.387	A	0.395	A	0.008	No

**Table 4.2 Existing With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Existing With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.535	A	0.540	A	0.005	No
26	Hill Street & 11th Street	0.327	A	0.338	A	0.011	No
27	Broadway & Olympic Boulevard	0.521	A	0.529	A	0.008	No
28	Broadway & 11th Street	0.364	A	0.373	A	0.009	No
29	Main Street & Olympic Boulevard	0.461	A	0.468	A	0.007	No
30	Main Street & 11th Street	0.349	A	0.352	A	0.003	No
31	Los Angeles Street & Olympic Boulevard	0.553	A	0.555	A	0.002	No
32	Los Angeles Street & 11th Street	0.374	A	0.377	A	0.003	No
33	Olive Street & 12th Street	0.181	A	0.195	A	0.014	No
34	Hill Street & Pico Boulevard	0.457	A	0.457	A	0.000	No

5. Future Conditions Without The Project

5.1 Traffic Forecasts

In order to evaluate the potential traffic impacts of the Project, it was necessary to first estimate and then analyze future traffic conditions without the Project. The year selected for this analysis was 2023, which is the expected year of completion of the Project.

Future traffic forecasts were estimated by forecasting two separate components of traffic growth in the study area.

The first component is the ambient growth that represents a general growth in traffic volumes due to minor new developments in the Project Area, and regional growth and development outside the study area. A growth rate of 1.0 percent per year was applied for this ambient traffic growth based on historical trends and in conjunction with LADOT¹. The existing traffic counts were therefore adjusted upward by a total of 1.0 percent a year for six years to represent the ambient growth to the Project completion year.

The second component of future growth relates to specific development projects located in the study area. These developments are projects located within an approximately 1.5-mile radius from the Project Site that are currently under construction, have received formal approval, or are under formal planning consideration and potentially could be in place by the year 2023 when the Project will be completed, and that could add traffic growth to the roadways in the study area. The following section of this chapter describes the process of estimating traffic from these related projects.

This approach is consistent with procedures outlined in Section 15130 of the CEQA Guidelines which provide two options for developing future traffic forecasts:

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

“(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions

¹ It is noted that the CMP provides growth factors based on regional modeling. For the Central Los Angeles area the CMP estimates an average ambient growth factor of approximately 0.2% per year, between the years of 2017 and 2023 (Exhibit D-1 of the CMP). However, an ambient growth factor of 1% per year, compounded annually, was conservatively used to adjust the existing traffic volumes to reflect the effects of the regional growth and development by year 2023, following agreement with LADOT through the MOU process. The total ambient growth adjustment applied over the six-year period was 6.2%.

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

As described above and further below, the methodology used in this study incorporates both Option A – through the incorporation of a related project list, and Option B – through the incorporation of an ambient growth factor. This approach is conservative because the analysis includes both a list of specific related projects and a general background growth factor, and also in that not all of the related projects may be ultimately built, and not all may be built by 2023 (the buildout year of the Project). The analysis therefore likely overstates the future growth in traffic for the horizon year without the Project.

5.2 Related Projects

Project List

A list of proposed development projects that could affect traffic conditions in the Project Area by adding traffic volumes to study area intersections was prepared based on information obtained from LADOT, Department of City Planning, other studies and reports, and field verification and field observations. A total of 193 potential development projects were identified, the locations of which are shown in Figure 5.1 and are listed in Appendix B. This list was verified and approved by the Department of City Planning and LADOT.

It should also be noted that, again for purposes of preparing a conservative analysis, no potential street improvements or transportation mitigation measures that might be associated with any of the related projects were included in the future conditions traffic analysis (with the exception of the MyFig Project discussed later).

Project Trip Generation and Distribution

Trip generation estimates for the related projects were prepared, as shown in Appendix B. These were generally taken from the lists provided by the City, and from environmental and/or traffic studies prepared for the individual projects. Where the information was not available from previous reports, the trip generation was estimated using standard trip rates. These estimates are considered conservative in that they do not account for trip interaction between projects, and they do not in every case account for the possible use of non-auto modes such as transit, walk and bicycling.

Similarly, trip distribution estimates were also taken from the environmental/traffic studies conducted for the individual projects where available or were estimated based on an

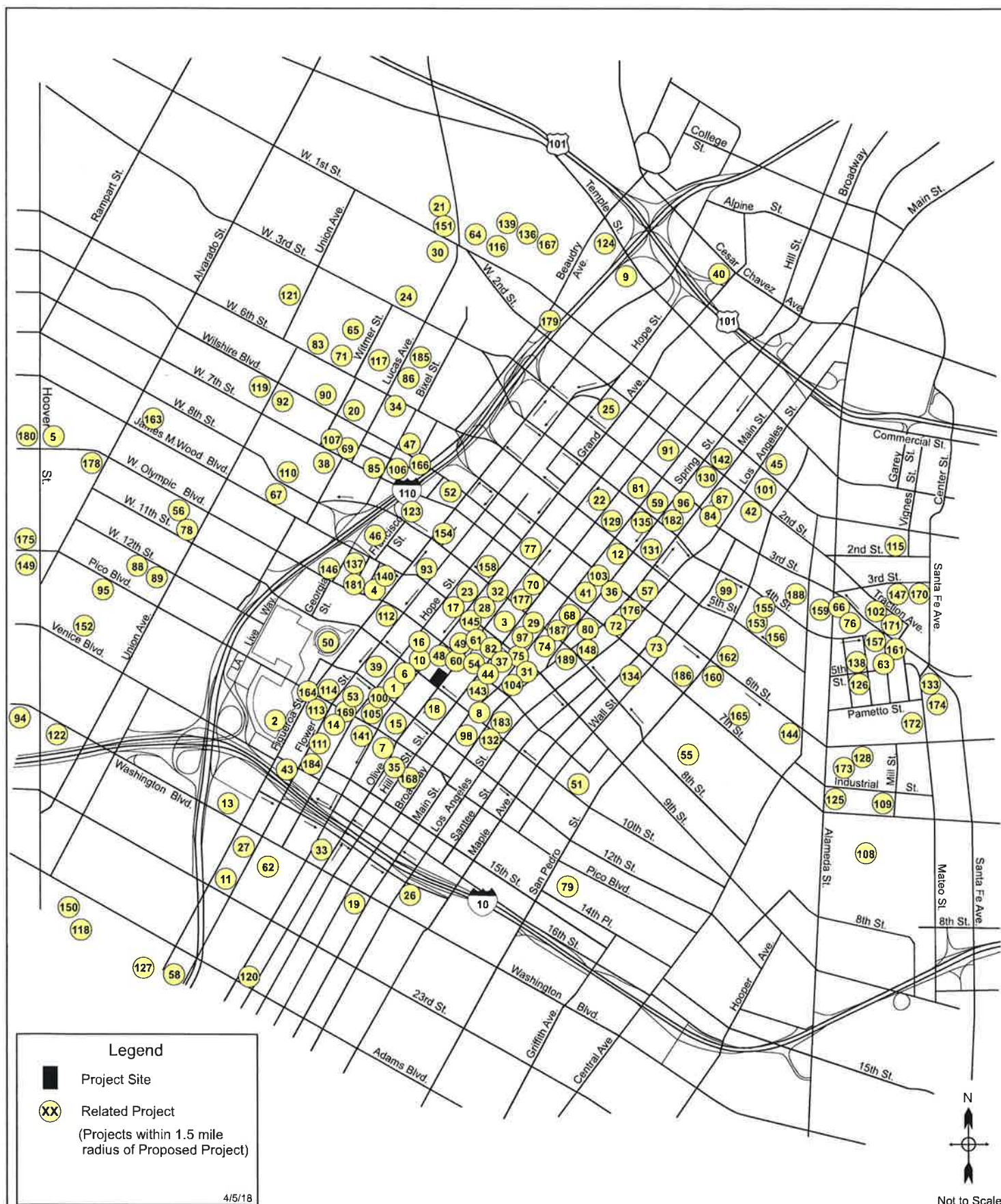


Figure 5.1
Location of Related Projects

1045 Olive Project

understanding of the type of the project, its location, the geographic distribution of population and employment from which project trips may be drawn, and the surrounding roadway and circulation system. It should be noted that because of the large geographic distribution of these projects, that not all of the related project trips would travel through the study area and traverse the study intersections.

Future Traffic Forecasts for 2023 Without Project Condition

The trip estimates shown in Appendix B were then added to the roadway network and combined with existing volumes and ambient traffic growth (described earlier) to provide forecasts of future baseline traffic conditions in the study area in 2023, for both the AM and PM peak periods, representing the Future Without Project conditions.

The Future Without Project peak hour traffic volumes are illustrated in Figures 5.2 and 5.3 for the AM and PM peak hours respectively.

Transportation System Changes

Figueroa Corridor Streetscape Project (MyFig)

The Figueroa Streetscape (MyFig) project extends on Figueroa Street from 41st Drive to 7th Street, and on 11th Street between Broadway and Figueroa Street, and includes streetscape improvements and installation of bike lanes. In the vicinity of the Proposed Project, the MyFig Project will install a buffered bicycle lane and wider sidewalk on the north side of 11th Street. The number of traffic lanes will be reduced from two lanes to one lane, except at intersections where turning lanes will be provided. The My Fig Project improvements on 11th Street will be completed in 2018, so based on the latest available plans received from LADOT, these modifications have been incorporated in the future conditions analysis.

Planned Bicycle Facilities

As shown in Figure 5.4, the Mobility Plan 2035 designates approximately 1,200 miles of street in the City's Bicycle Network that includes a Bicycle Enhanced Network and a Bicycle Lane Network. The Bicycle Enhanced Network consists of Bicycle Paths, Tier 1 Bicycle Lane (Protected Bicycle Lane) and Neighborhood Enhanced Network. The Bicycle Lane Network consists of Tier 2 and Tier 3 Bicycle Lanes.

In the area of the Project, the Mobility Plan 2035 recommends Tier 1 bike lanes along Figueroa Street south of 7th Street, on Grand Avenue north of Washington Boulevard, on Olive Street between 7th Street and Washington Boulevard, on Main Street, on 11th Street between Figueroa Street and Main Street, and on 7th Street; Tier 2 bike lanes along Figueroa Street north of 7th Street, on 11th Street east of Main Street, and on 16th Street; Tier 3 bike lanes on Flower Street,

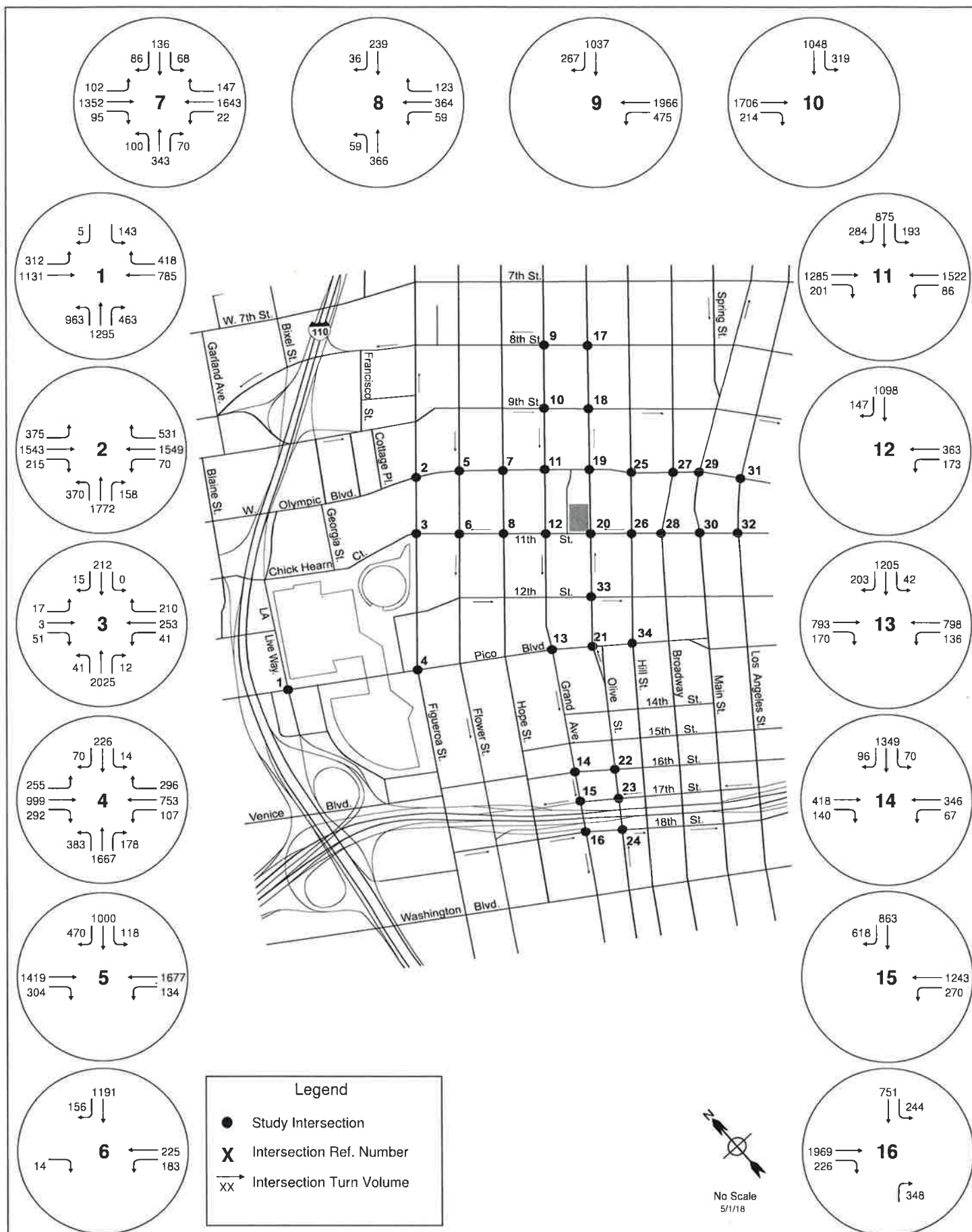


Figure 5.2
Future Without Project Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project

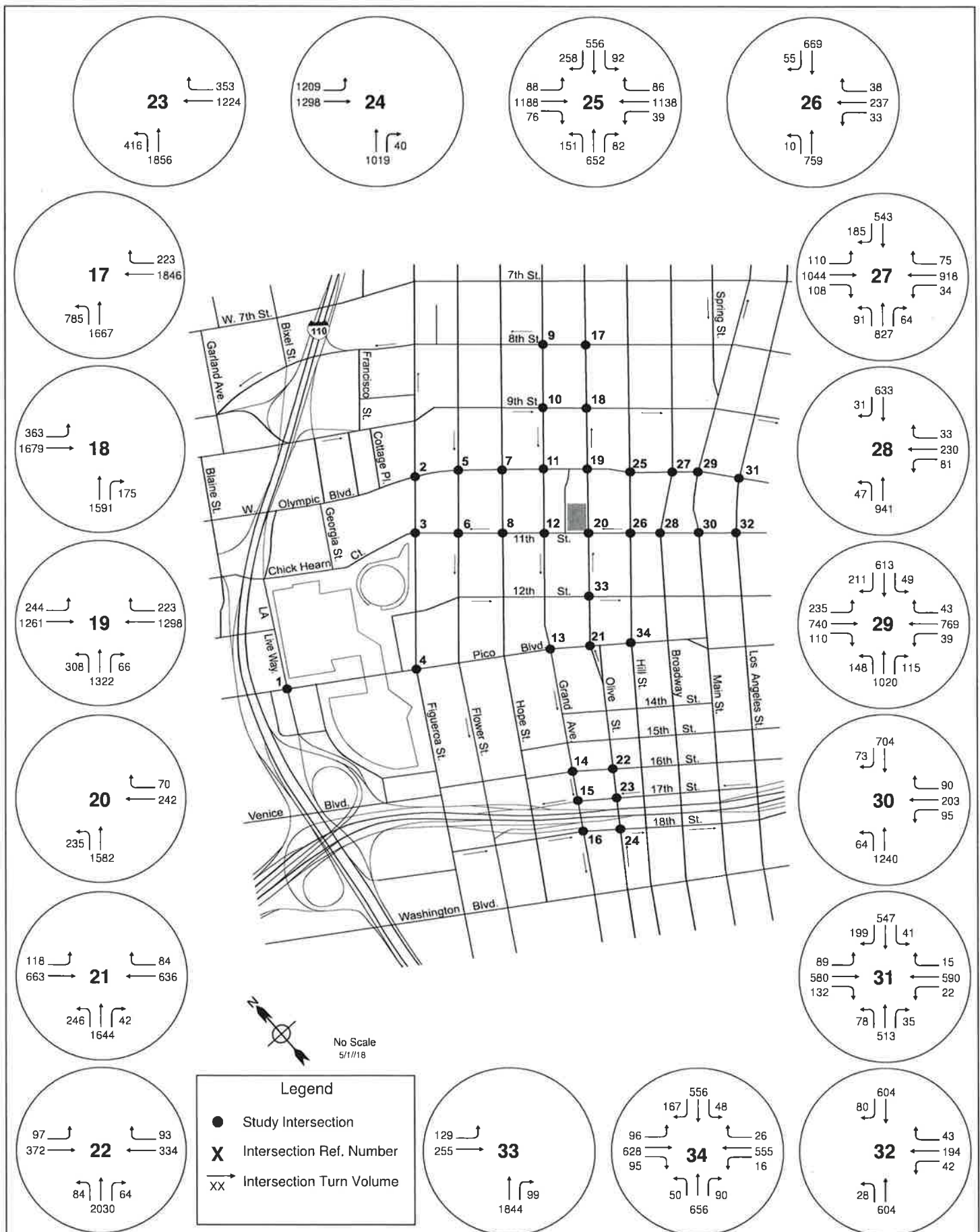


Figure 5.2
Future Without Project Traffic Volumes - AM Peak Hour (17-34)

1045 Olive Project

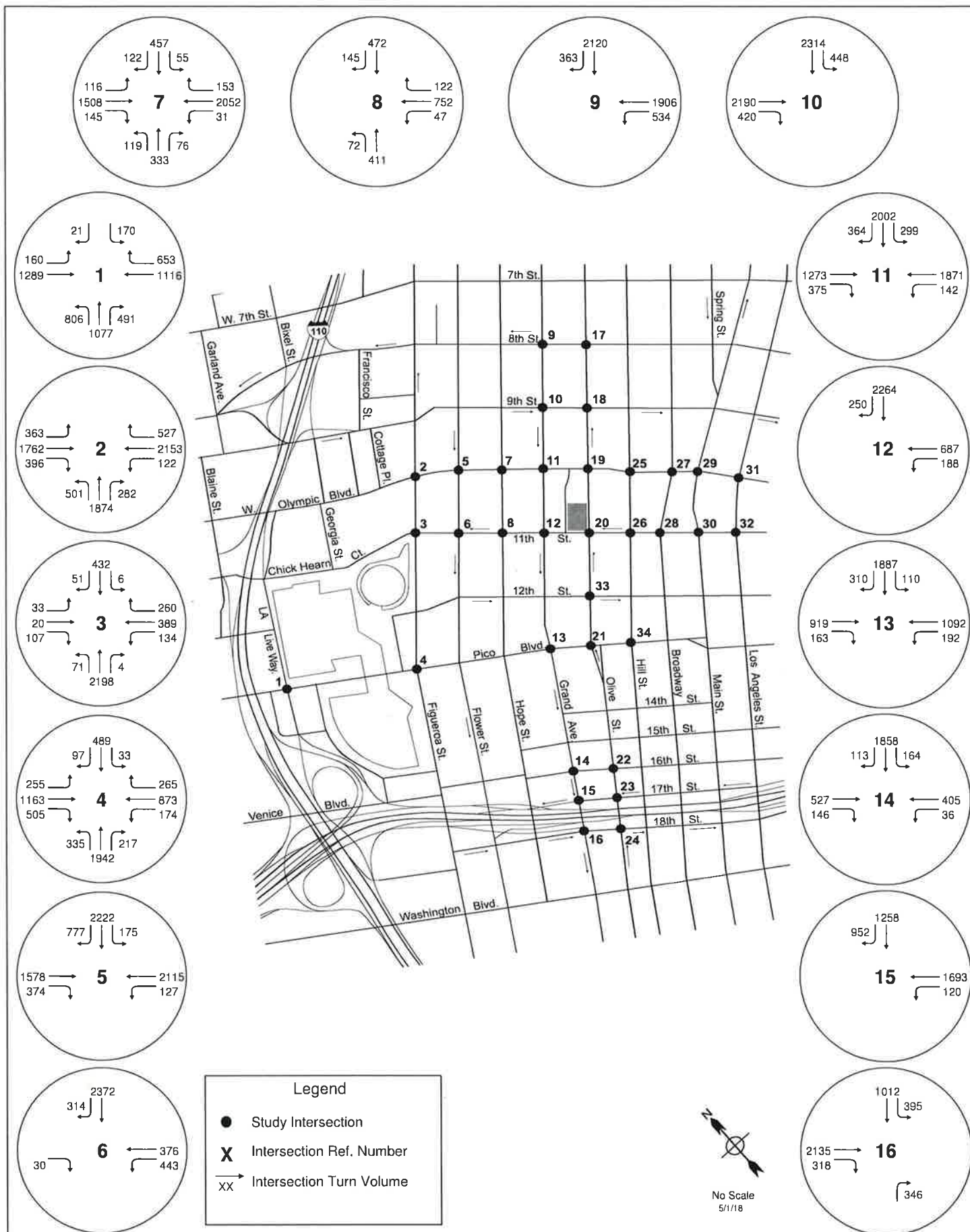


Figure 5.3
Future Without Project Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

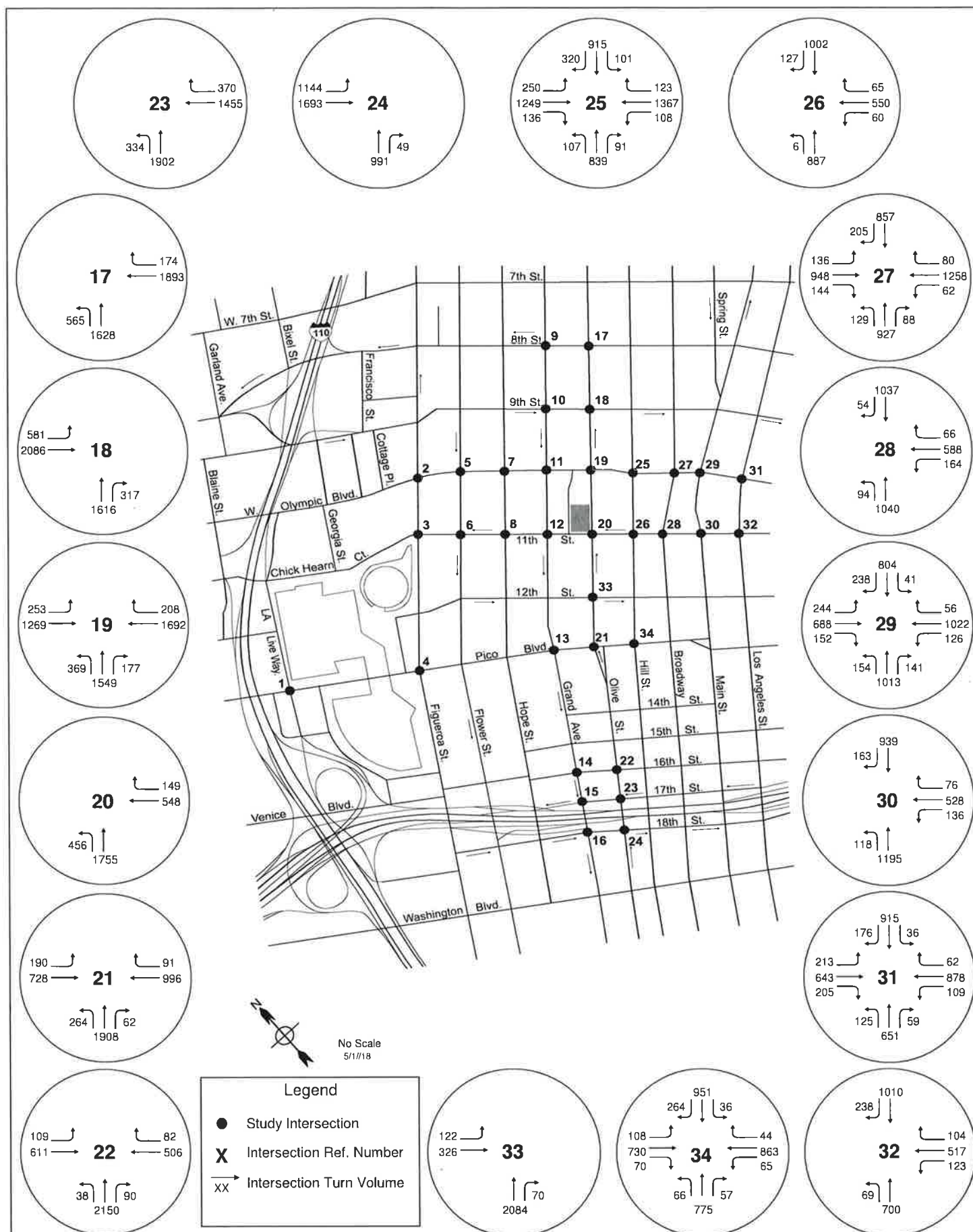


Figure 5.3
Future Without Project Traffic Volumes - PM Peak Hour (17-34)



Figure 5.4
Designated Bicycle Facilities

1045 Olive Project

on Hill Street north of Washington Boulevard, on Pico Boulevard, and on Washington Boulevard.

Several facilities have already been implemented, including a bike lane on Olive Street, a bike lane on Grand Avenue, a bike lane on Main Street, and a bike lane on 7th Street. These facilities are therefore all included in the Existing Conditions analysis prepared in Chapter 2.

For the remaining facilities, the Mobility Plan 2035 will implement the overall list of improvements in phases over many years, and in many cases the proposals are conceptual and the plan does not identify the specific street configurations or geometries that will be necessary to accommodate the proposed bike lanes on those streets – which are details to be worked out in the future.

At the time of preparing this report, with the exception of the MyFig Project, none of the designated planned facilities in the area as identified above and shown in Figure 5.4 are programmed for completion before the Project design year of 2023 so there are no definitive details on roadway layouts to accommodate the improvements, and so they are not included in the following analysis. These facilities will be evaluated by LADOT over time as the Mobility Plan 2035 is implemented in future phases.

*Los Angeles Streetcar (Restoration of Historic Streetcar Service in Downtown Los Angeles)
(CRA/Metro/Los Angeles Streetcar Inc)*

The Streetcar Project is located in downtown Los Angeles and would consist of a 3.8-mile project alignment that would run along 1st Street, Broadway, 11th Street, Figueroa Street, 7th Street, and Hill Street. The streetcar system would run within existing traffic lanes and would consist of a fleet of electric-powered vehicles utilizing a track and roadway configuration allowing for mixed-flow operations of streetcar vehicles and automobiles.

An Environmental Impact Report (EIR) has been certified for this project. The adopted alignment is as follows:

- Construct and implement streetcar service along a one-way loop that would run from 1st Street on the north, travel south through downtown Los Angeles on Broadway to 11th Street, turn west along 11th Street and continue to Figueroa Street, turn north on Figueroa Street and continue to 7th Street, turn along 7th Street and continue to Hill Street and turn north on Hill Street back to 1st Street.

The Streetcar alignment would run adjacent to the southern edge of the Project Site in the shared traffic lane. Access to the alley would be maintained. The implementation date for the Streetcar Project is currently uncertain. No street configuration changes are therefore included in this study. While the introduction of the streetcar could potentially reduce traffic volumes by providing an increase in transit options and service, no such reduction was included in the impact analysis for this project in order to prepare a conservative analysis.

Metro Regional Connector

The Regional Connector Transit Corridor is a 1.9 mile fully underground light-rail transit line that will connect the Metro Gold Line to the Metro Blue Line and the Metro Expo Line. The line will run north from 7th Street/Metro Center Station to 2nd Street where it will turn east and connect with the Gold Line in Little Tokyo and then to Union Station. Metro is constructing stations that will be located at 2nd Street/Hope Place, at 2nd Street/ Broadway, and at 1st Street/Central Avenue. This will enable the provision of continuous service between the Blue/Exposition Lines and the Gold Line through Downtown. From the Metro Gold Line, passengers will be able to travel from Azusa to Long Beach and from East Los Angeles to Santa Monica without transferring lines. This project will improve the connectivity of the regional transit system and improve access to Downtown from the region. Metro expects completion of this project by 2020. As the line is entirely underground it will not alter the configuration of any intersections along its alignment, which is to the north of the Project study area. While the introduction of the regional connector could potentially reduce traffic volumes in downtown by providing an increase in transit options and service, no such reduction was included in the impact analysis for this project in order to prepare a conservative analysis.

Pedestrian Network

The Mobility Plan 2035 defines Pedestrian Enhanced Districts to identify “where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to/from many destinations within communities.” The Mobility Plan 2035 aims to promote walking and reduce reliance on other modes for shorter trips by providing more attractive and wider sidewalks, and adding pedestrian signalization, street trees, and other design features that encourage people to take trips on foot instead of by car.

The Mobility Plan 2035, in identifying Pedestrian Enhanced Districts, has designated the following arterial streets in the area of the Project as Pedestrian Street Segments:

- Figueroa Street
- Flower Street
- Hope Street
- Grand Avenue
- Olive Street
- Hill Street
- Broadway
- Main Street
- 7th Street
- 8th Street
- 9th Street
- Olympic Boulevard
- Pico Boulevard

5.3 Future Intersection Conditions Without the Project

Future Without Project Intersection Level of Service

The Future Without Project traffic forecasts were evaluated to determine the V/C ratio and LOS for the analyzed intersections for both the AM peak hour and the PM peak hour. The results are shown in Table 5.1 and Table 5.2, which summarize the intersection levels of service calculated for the Future Without Project conditions, and compares them to existing conditions levels of service.

AM Peak Hour

All studied intersections would operate at LOS D or better during the AM peak hour, except the following four intersections that would operate at LOS E or LOS F:

1.	LA Live Way & Pico Boulevard	LOS E
19.	Olive Street & Olympic Boulevard	LOS E
23.	Olive Street & 17th Street	LOS E
2.	Figueria Street & Olympic Boulevard	LOS F

PM Peak Hour

Nineteen of the studied intersections would operate at LOS D or better during the PM peak hour. The remaining fifteen intersections that would operate at LOS E or LOS F:

3.	Figueria Street & Chick Hearn Court	LOS E
10.	Grand Avenue & 9th Street	LOS E
11.	Grand Avenue & Olympic Boulevard	LOS E
2.	Figueria Street & Olympic Boulevard	LOS F
4.	Figueria Street & Pico Boulevard	LOS F
5.	Flower Street & Olympic Boulevard	LOS F
7.	Hope Street & Olympic Boulevard	LOS F
13.	Grand Avenue & Pico Boulevard	LOS F
15.	Grand Avenue & 17th Street	LOS F
19.	Olive Street & Olympic Boulevard	LOS F
21.	Olive Street & Pico Boulevard	LOS F
23.	Olive Street & 17th Street	LOS F
25.	Hill Street & Olympic Boulevard	LOS F
27.	Broadway & Olympic Boulevard	LOS F
29.	Main Street & Olympic Boulevard	LOS F

**Table 5.1 Future Without Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.645	B	0.905	E
2	Figueroa Street & Olympic Boulevard	0.572	A	1.158	F
3	Figueroa Street & Chick Hearn Court	0.294	A	0.827	D
4	Figueroa Street & Pico Boulevard	0.504	A	0.887	D
5	Flower Street & Olympic Boulevard	0.419	A	0.776	C
6	Flower Street & 11th Street	0.082	A	0.315	A
7	Hope Street & Olympic Boulevard	0.465	A	0.781	C
8	Hope Street & 11th Street	0.119	A	0.324	A
9	Grand Avenue & 8th Street	0.276	A	0.567	A
10	Grand Avenue & 9th Street	0.249	A	0.512	A
11	Grand Avenue & Olympic Boulevard	0.385	A	0.647	B
12	Grand Avenue & 11th Street	0.097	A	0.386	A
13	Grand Avenue & Pico Boulevard	0.285	A	0.763	C
14	Grand Avenue & Venice Boulevard	0.197	A	0.446	A
15	Grand Avenue & 17th Street	0.393	A	0.817	D
16	Grand Avenue & 18th Street	0.418	A	0.666	B
17	Olive Street & 8th Street	0.400	A	0.833	D
18	Olive Street & 9th Street	0.388	A	0.707	C
19	Olive Street & Olympic Boulevard	0.503	A	0.932	E
20	Olive Street & 11th Street	0.239	A	0.465	A
21	Olive Street & Pico Boulevard	0.435	A	0.827	D
22	Olive Street & 16th Street	0.407	A	0.577	A
23	Olive Street & 17th Street	0.625	B	0.931	E
24	Olive Street & 18th Street	0.459	A	0.684	B

**Table 5.1 Future Without Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
25	Hill Street & Olympic Boulevard	0.394	A	0.739	C
26	Hill Street & 11th Street	0.145	A	0.311	A
27	Broadway & Olympic Boulevard	0.379	A	0.729	C
28	Broadway & 11th Street	0.179	A	0.367	A
29	Main Street & Olympic Boulevard	0.407	A	0.884	D
30	Main Street & 11th Street	0.199	A	0.511	A
31	Los Angeles Street & Olympic Boulevard	0.325	A	0.462	A
32	Los Angeles Street & 11th Street	0.128	A	0.225	A
33	Olive Street & 12th Street	0.253	A	0.460	A
34	Hill Street & Pico Boulevard	0.296	A	0.497	A

**Table 5.2 Future Without Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.570	A	0.849	D
2	Figueroa Street & Olympic Boulevard	0.533	A	1.316	F
3	Figueroa Street & Chick Hearn Court	0.312	A	1.000	E
4	Figueroa Street & Pico Boulevard	0.523	A	1.073	F
5	Flower Street & Olympic Boulevard	0.566	A	1.123	F
6	Flower Street & 11th Street	0.344	A	0.743	C
7	Hope Street & Olympic Boulevard	0.604	B	1.022	F
8	Hope Street & 11th Street	0.299	A	0.687	B
9	Grand Avenue & 8th Street	0.414	A	0.795	C
10	Grand Avenue & 9th Street	0.451	A	0.901	E
11	Grand Avenue & Olympic Boulevard	0.553	A	0.989	E
12	Grand Avenue & 11th Street	0.391	A	0.861	D
13	Grand Avenue & Pico Boulevard	0.561	A	1.294	F
14	Grand Avenue & Venice Boulevard	0.351	A	0.598	A
15	Grand Avenue & 17th Street	0.681	B	1.139	F
16	Grand Avenue & 18th Street	0.455	A	0.810	D
17	Olive Street & 8th Street	0.294	A	0.697	B
18	Olive Street & 9th Street	0.351	A	0.852	D
19	Olive Street & Olympic Boulevard	0.528	A	1.128	F
20	Olive Street & 11th Street	0.340	A	0.757	C
21	Olive Street & Pico Boulevard	0.447	A	1.025	F
22	Olive Street & 16th Street	0.353	A	0.663	B
23	Olive Street & 17th Street	0.527	A	1.005	F
24	Olive Street & 18th Street	0.387	A	0.751	C

**Table 5.2 Future Without Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
25	Hill Street & Olympic Boulevard	0.535	A	1.047	F
26	Hill Street & 11th Street	0.327	A	0.605	B
27	Broadway & Olympic Boulevard	0.521	A	1.094	F
28	Broadway & 11th Street	0.364	A	0.719	C
29	Main Street & Olympic Boulevard	0.461	A	1.122	F
30	Main Street & 11th Street	0.349	A	0.826	D
31	Los Angeles Street & Olympic Boulevard	0.553	A	0.803	D
32	Los Angeles Street & 11th Street	0.374	A	0.575	A
33	Olive Street & 12th Street	0.181	A	0.528	A
34	Hill Street & Pico Boulevard	0.457	A	0.811	D

6. Future With Project Conditions

This section of the report documents the analysis of potential Project traffic impacts in the study area for the Future With Project conditions. Traffic generated by the Project was added to the Future Without Project traffic volumes and the potential for impacts evaluated. The total Future With Project conditions peak hour traffic volumes are illustrated in Figures 6.1 and 6.2 for the AM and PM peak hours, respectively. These traffic forecasts were then used to evaluate potential Project traffic impacts, as described in the following sections.

6.1 Project Impacts - Intersections

Significant Impact Thresholds

LADOT has established criteria to determine if project impacts are significant at an intersection. These criteria are shown below.

Definition of Significant Impact at Intersection

With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using these criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS C after the addition of project traffic and the incremental change in the volume/capacity (V/C) ratio is less than 0.040. However, in another example, if the intersection is operating at LOS E or LOS F and the incremental change in V/C ratio is 0.010 or greater, then the project would be considered to have a significant impact at that location.

Project Impact Analysis - Future With Project Intersection Level of Service

The intersection level of service analysis for the Future With Project conditions is summarized in Table 6.1 for the AM peak hour and in Table 6.2 for the PM peak hour. These tables also compare the level of service for Without Project and With Project conditions, show the increase in V/C ratios at each intersection due to the Project, and identify if the increase constitutes a significant impact.

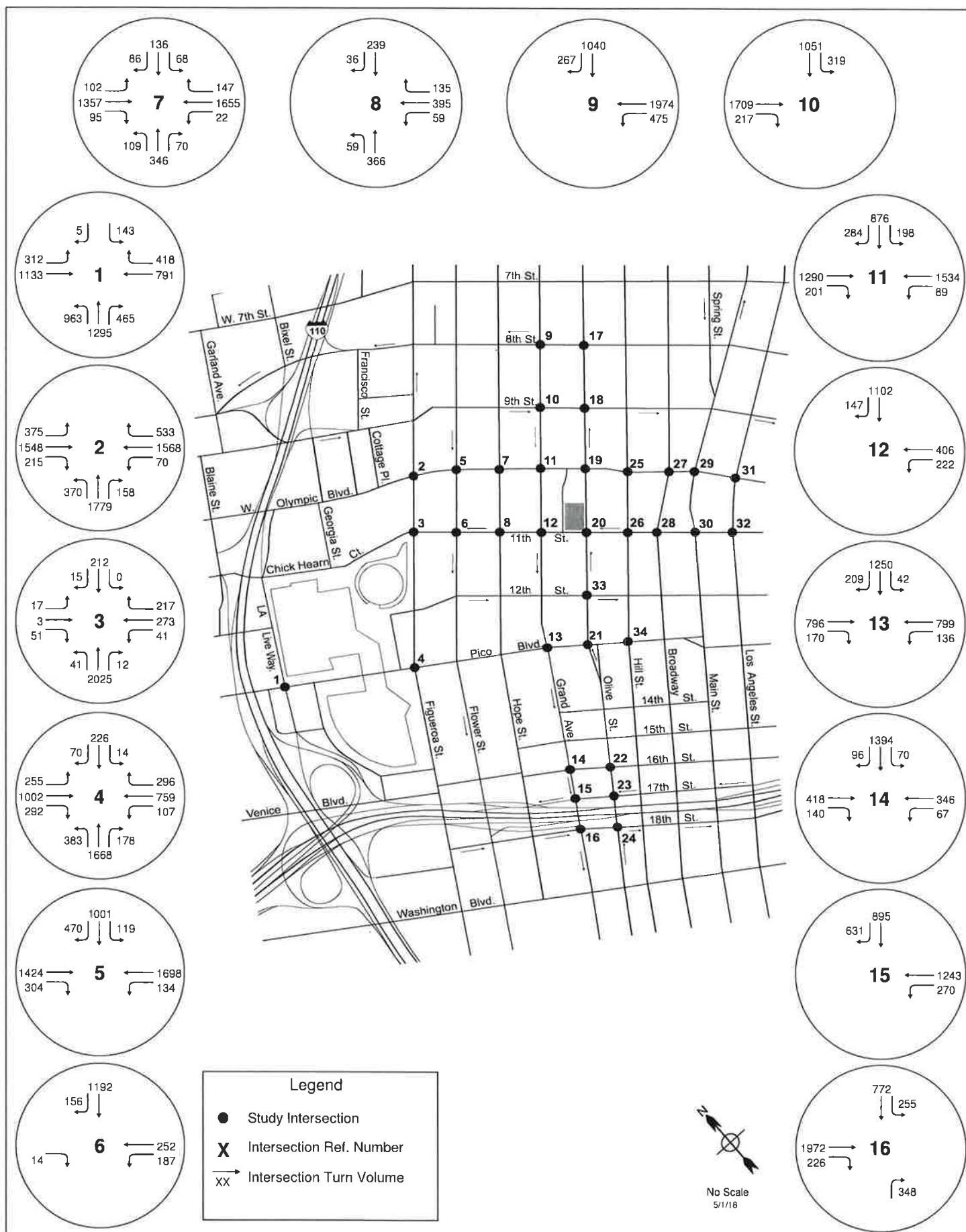


Figure 6.1
Future With Project Traffic Volumes - AM Peak Hour (1-16)

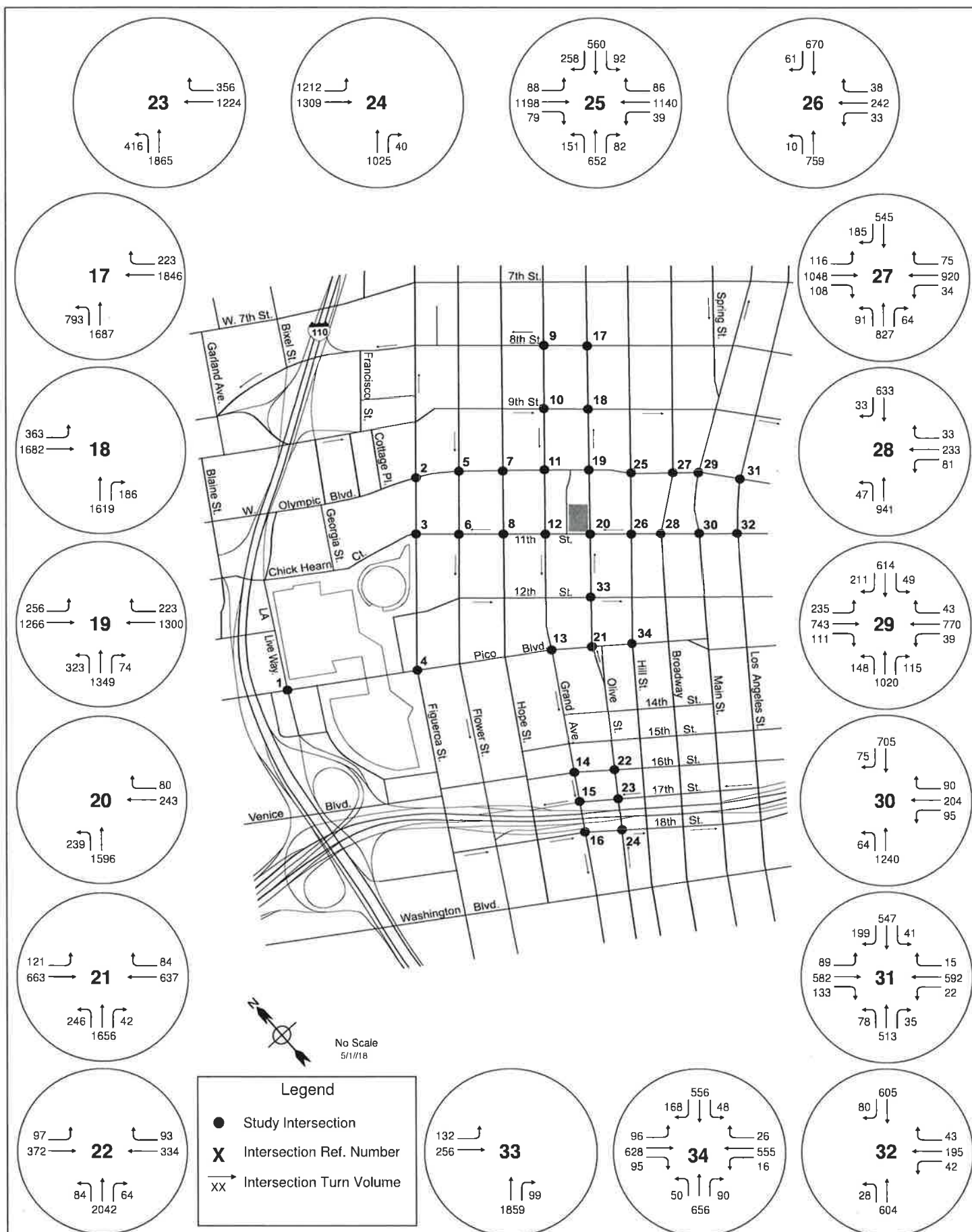


Figure 6.1
Future With Project Traffic Volumes - AM Peak Hour (17-34)

1045 Olive Project

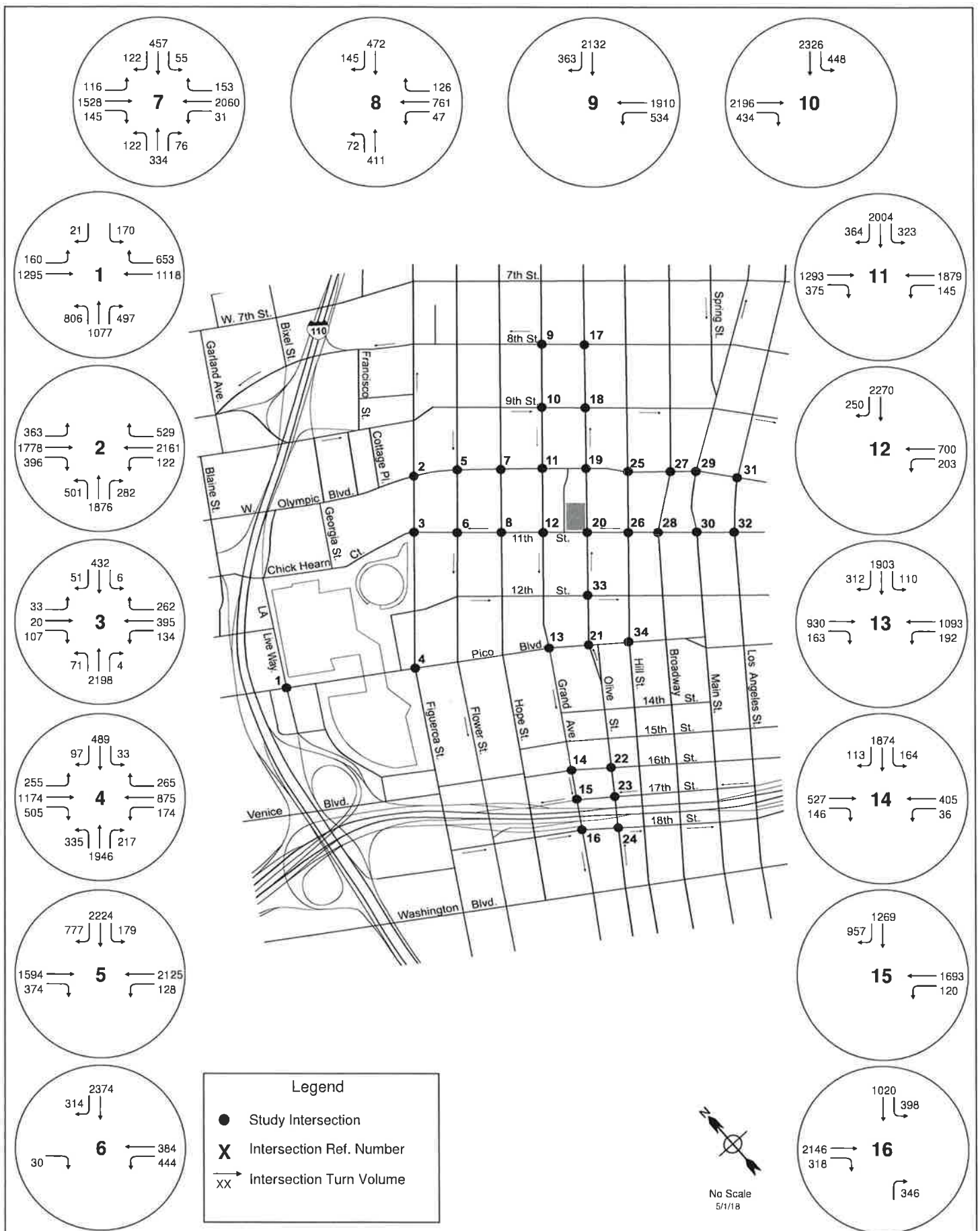


Figure 6.2
Future With Project Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

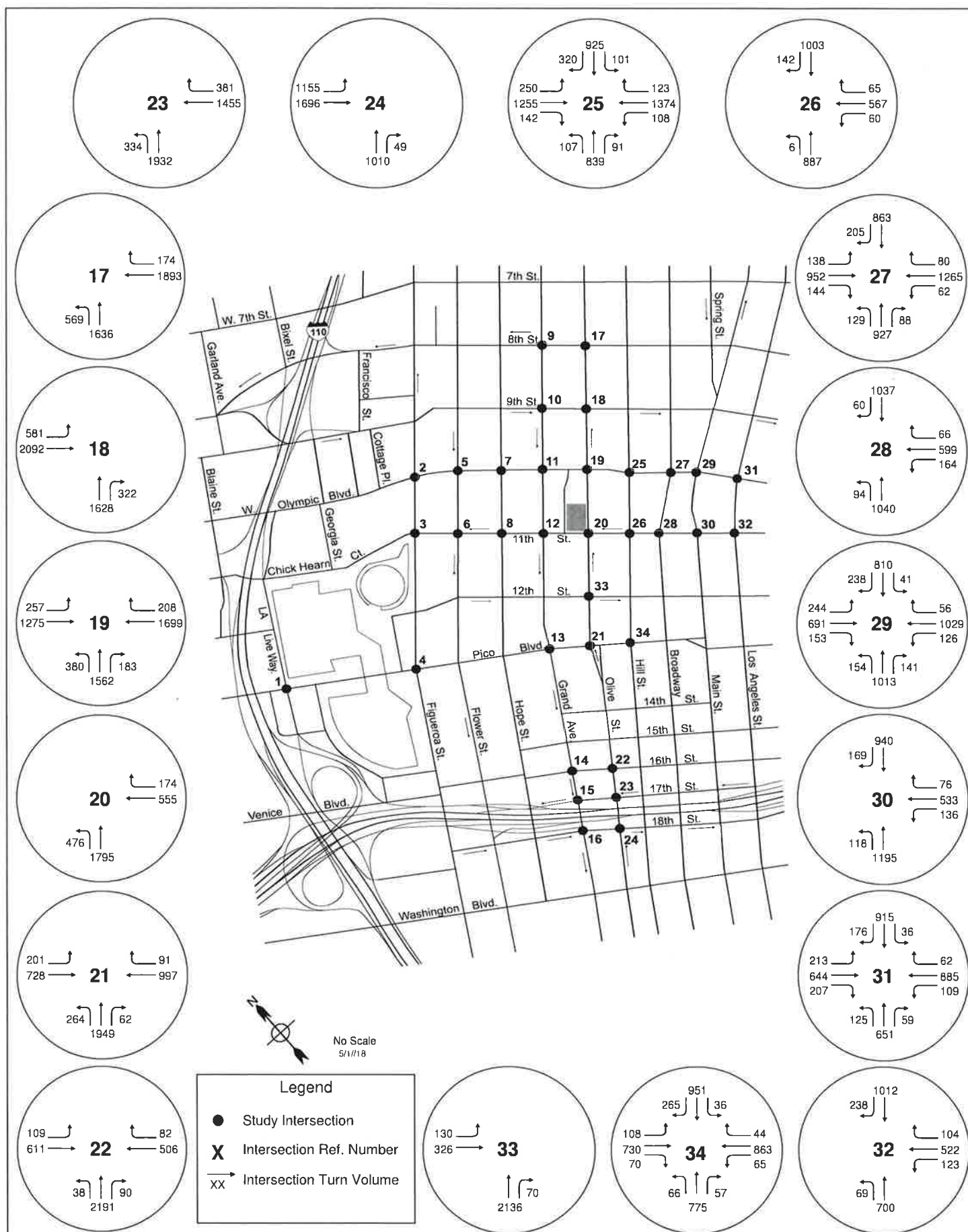


Figure 6.2
Future With Project Traffic Volumes - PM Peak Hour (17-34)

1045 Olive Project

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No
2	Figueroa Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No
3	Figueroa Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No
4	Figueroa Street & Pico Boulevard	0.887	D	0.889	D	0.002	No
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No

**Table 6.1 Future With Project - Intersection Level of Service
AM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No

**Table 6.2 Future With Project - Intersection Level of Service
PM Peak Hour**

4/30/2018

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No

AM Peak Hour

As shown in Table 6.1 and in the following table, the number of intersections operating at LOS D or better, LOS E, and LOS F would not change between the Future Without Project and Future With Project conditions. Under the Future Without Project conditions, 30 intersections would operate at LOS D or better, three intersections would operate at LOS E, and one intersection operates at LOS F. With the Project, 30 intersections would continue to operate at LOS D or better, three intersections would continue to operate at LOS E, and one intersection would continue to operate at LOS F.

Intersection Level of Service Summary – AM Peak Hour

<i>LOS</i>	<i>AM Peak Hour</i>		
	<i>Future Without Project</i>	<i>Future With Project</i>	<i>No. of Impacts</i>
≤D	30	30	0
E	3	3	1
F	1	1	0
Total	34	34	1

The analysis summarized in Table 6.1 indicates that for the AM peak hour, all increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur, except at one location where the increase would be sufficient to cause a significant impact, as listed below:

19. Olive Street & Olympic Boulevard LOS E

It is therefore concluded that the Project would cause 1 significant impact in the AM peak hour.

PM Peak Hour

As shown in Table 6.2 and the following table, the number of intersections operating at LOS D or better, LOS E, and LOS F would be very similar between the Future Without Project and Future With Project conditions. Under the Future Without Project conditions, 19 intersections would operate at LOS D or better, three intersections would operate at LOS E, and 12 intersections would operate at LOS F. With the Project, 19 intersections would continue to operate at LOS D or better, two intersections would operate at LOS E, and 13 intersections would operate at LOS F.

The analysis summarized in Table 6.2 indicates that for the PM peak hour, all increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur,

Intersection Level of Service Summary – PM Peak Hour

<i>LOS</i>	<i>PM Peak Hour</i>		
	<i>Future Without Project</i>	<i>Future With Project</i>	<i>No. of Impacts</i>
≤D	19	19	0
E	3	2	0
F	12	13	3
Total	34	34	3

except at 3 locations where the increase would be sufficient to cause a significant impact, as listed below:

- | | | |
|-----|----------------------------------|-------|
| 19. | Olive Street & Olympic Boulevard | LOS F |
| 21. | Olive Street & Pico Boulevard | LOS F |
| 23. | Olive Street & 17th Street | LOS F |

All of the significantly impacted intersections would also operate at LOS F without the Project.

It is therefore concluded that the Project would cause 3 significant impacts in the PM peak hour.

6.2 Project Impacts – CMP Analysis

The Los Angeles County Congestion Management Program (CMP) requires that new development projects analyze potential project impacts on CMP monitoring locations if an EIR is prepared for the Project. When a CMP analysis is needed, the CMP methodology requires that the Traffic Study analyze traffic conditions at all CMP arterial monitoring intersections where the Project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic. The CMP also requires that traffic studies analyze mainline freeway monitoring stations where the Project will add 150 or more trips in either direction during either AM or PM weekday peak hours. If, based on these criteria, the Traffic Study identifies no facilities for study then no further traffic analysis is required.

CMP Arterial Monitoring Locations

A review of the 2010 CMP indicated the following arterial monitoring stations that are closest to the Project Site:

- Wilshire Boulevard & Alvarado Street
- Wilshire Boulevard & Western Avenue
- Western Avenue & 9th Street
- Alameda Street & Washington Boulevard
- Sunset Boulevard & Alvarado Street

The additional trips added by Project at these intersections are shown Table 6.3 below.

Table 6.3 CMP Arterial Analysis – Number of Trips added by Project

<i>Location</i>	<i>No. of Trips Added by Project</i>	
	<i>AM</i>	<i>PM</i>
Wilshire Blvd. & Alvarado St.	3	3
Wilshire Blvd. & Western Ave.	1	1
Western Ave. & 9th St.	6	6
Alameda St. & Washington Blvd.	10	10
Sunset Blvd. & Alvarado St.	9	9

These CMP monitoring locations are between approximately 1.5 and 3.5 miles from the Project Site. Based on the trip generation and trip distribution characteristics of the Project as described earlier, the maximum number of trips that the Project would add to any station would be 10 trips in both AM and PM peak hours. Many project trips will disperse onto numerous roadways away from the site before reaching these locations.

Because the Project will not add more than 50 trips to any CMP monitoring location, it is therefore concluded that the Project would not exceed the threshold to require analysis and would not create any significant traffic impacts at any CMP arterial monitoring locations.

CMP Freeway Monitoring Stations

A review of the 2010 CMP also indicated the following freeway monitoring stations that are closest to the Project Site.

- I-10 at Budlong Avenue
- I-10 at East LA City Limit
- SR 60 East of Indiana Street
- SR-110 South of US-101
- SR-110 at Alpine Street
- I-110 at Slauson Avenue
- US-101 North of Vignes Street

- US-101 South of Santa Monica Boulevard

The monitoring locations are located between 1.3 and 6.2 miles from the site. The number of Project vehicle trips expected to pass through these stations was estimated based on the Project trip distribution and the Project trip generation. The additional trips added by Project at these locations are shown in Table 6.4 below.

The maximum number of one-way Project trips that would be added to these freeway segments would be 16 AM trips and 14 PM peak hour trips at the SR-110 south of US-101 station. These low incremental volumes are well below the CMP threshold of 150 trips. It is therefore concluded that the Project would not exceed the threshold to require analysis, and that the Project would not cause any significant impacts at CMP freeway monitoring locations.

Table 6.4 CMP Freeway Analysis – Number of Trips added by Project

<i>Location</i>	<i>Direction</i>	<i>No. of Trips Added by Project</i>	
		<i>AM</i>	<i>PM</i>
I-10 at Budlong Avenue	EB	3	11
	WB	13	5
I-10 at East LA City Limit	EB	5	2
	WB	1	4
SR 60 East of Indiana Street	EB	5	2
	WB	1	4
SR-110 South of US-101	NB	16	6
	SB	4	14
SR-110 at Alpine Street	NB	6	2
	SB	2	6
I-110 at Slauson Avenue	NB	2	6
	SB	6	2
US-101 North of Vignes Street	NB	0	0
	SB	0	0
US-101 South of Santa Monica Boulevard	NB	9	4
	SB	2	8

CMP Transit Impact Analysis

As an EIR is being prepared for the Project, an analysis of potential Project impacts on the transit system was also performed, per the CMP requirements and guidelines.

Significant Impact Thresholds

Based on factors in the “*L.A. CEQA Thresholds Guide*,” City of Los Angeles (2006), the following criterion was established to determine if there would be any significant transit impacts due to the Project:

- The capacity of the transit system serving the Project area would be substantially exceeded.

Transit Analysis

The number of transit trips that would be generated by the Project was estimated based on the trip generation methodology described in Chapter 3. The estimate of base vehicle trips (unadjusted) for each Project land use (from Table 3.1) was converted to person trips by applying a conversion factor of 1.4, as per CMP guidelines. The person trip numbers were then multiplied by the estimated percent taking transit for each land use, as previously determined and discussed earlier in Chapter 3. These numbers are project specific and more appropriate than the default countywide guidelines in the CMP as they reflect the estimated transit use that would occur for the Project because of its location near numerous transit lines.

The estimated number of transit trips for the CMP analysis is shown in Table 6.5. In the AM peak hour, the Project would generate an estimated 53 net additional transit trips (10 inbound trips and 43 outbound trips), and in the PM peak hour approximately 53 additional transit trips (37 inbound and 16 outbound), as shown in Table 6.5.

The two directional peak capacity of the transit system serving the Project Site (based on transit service information in Table 2.3) is approximately 36,990 persons during the AM peak hour and 36,475 persons during the PM peak hour. The highest total volume of peak hour trips added by the Project would be 53 trips, which would represent approximately 0.14% of the total transit capacity during the peak hour. It is concluded that the Project would not cause the capacity of the transit system to be substantially exceeded, and therefore that the Project would not create a significant impact on the transit systems serving the Project area.

Table 6.5

Transit Trips Generated by The Project

4/5/2018

Land Use	Base (Unadjusted) ¹ Vehicle Trips		Person Trips ²		% By Transit ³		Transit Trips					
							AM Peak Hour			PM Peak Hour		
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	Total	In ⁴	Out ⁴	Total	In ⁴	Out ⁴
Existing Uses												
Manufacturing	-9	-10	-13	-14	15%	15%	-2	-2	0	-2	-1	-1
Retail	0	-20	0	-28	15%	15%	0	0	0	-4	-2	-2
Proposed Uses												
Apartments ⁶	209	189	293	265	15%	15%	43	5	38	39	27	12
High Turnover Restaurant	53	52	74	73	15%	15%	11	6	5	11	7	4
Quality Restaurant	4	42	6	59	15%	15%	1	1	0	9	6	3
Total	257	253	360	355			53	10	43	53	37	16

1. From Table 3.1 - Trip Generation Estimates. Excludes internal trips.

2. Person trips excludes trips that would stay internal to the Project.

3. Conversion factor of 1.4 from vehicle trips to person trips, per CMP guidelines.

4. Transit percentage from Table 3.1 - Trip Generation Estimates.

5. In/out distribution from Table 3.1 - Trip Generation Estimates.

6. Table 3.1 shows trips for apartments for Dense Multi-Use Urban that already takes account of and excludes non-vehicle trips. ITE provides no information on transit and walk trips.

Based on LADOT, total transit and walk adjustment for apartments in downtown is typically 20% (15% transit and 5% walk). So ITE Dense Multi-Use Urban trips in Table 3.1 factored up by 20% to get the total vehicle trips. Then transit trips estimated as 15% of total trips.

6.3 Driveway and Site Circulation

Vehicle Access

As shown in Figure 1.2, vehicular access will be provided by one driveway on Olive Street and two driveways on the alley. The Olive Street driveway will be two lanes (one in and one out) and will provide in and out access for commercial and residential uses and will access the on-site subterranean parking levels. It will be designed to LADOT standards with adequate visibility. The two alley driveways, which are consistent with City policy for residential project access to occur from alleys where they exist (Section 5.A.11 and Figure 5-3 of the Downtown Design Guide), will provide access to the residential parking, with the northern driveway accessing the subterranean parking levels and the southern driveway accessing the above-grade parking levels. Each driveway will be two lanes (one in and one out). The Olive Street driveway and the northern alley driveway will connect across the Project site to provide access to the subterranean parking levels. The alley provides access to Olympic Boulevard and to 11th Street. At Olympic Boulevard all turn movements are possible at the alley as Olympic Boulevard is a two-way street. At 11th Street only right in and right out turns are possible at the alley as 11th Street is one way westbound. The Project will widen the alley to a 10-foot half width to meet the City's standard 20-foot total alley width. An on-site loading dock will be provided on the alley, to enable deliveries and move-ins/moves-outs to occur without stationary vehicles in the alley. The alley driveways will be perpendicular to the alley, with adequate visibility, and will be designed to LADOT standards to ensure there will be no hazardous conditions created.

Because alley intersections are unsignalized and traffic signals are not implemented at alleys, LADOT has no guidelines for analysis of, nor thresholds for significant impacts, for alleys or for alley intersections. To this end, the Project would provide a widened alley, loading within the Project building, a driveway access off Olive Street, and through access between the alley and Olive Street, which taken together would minimize impacts to the alley. For informational purposes an analysis of the alley traffic conditions was conducted. This addressed traffic volumes on the alley and the vehicle queues that currently occur (Existing Conditions) and that are forecast for the alley in the Future Without Project and Future with Project conditions. The queue analysis represents the 95th percentile queues (essentially the maximum queue length - the vehicle queue length that would be exceeded only 5% of the time). The analysis is shown in Appendix C, and is summarized below.

The analysis included traffic from all of the projects on the same block as the Proposed Project. It should be noted that the Ten50 Project (across the alley from the Proposed Project) has a driveway only on the alley, the 1001 Olive Project (to the north of the Proposed Project on Olive Street) has a driveway on both Olive Street and the alley, and the 1000 Grand Project (to the north of the Project and on the west side of the alley) has a driveway on Grand Avenue and the alley). For each of these projects loading occurs from the alley.

For the existing conditions the maximum queue on the alley at both Olympic Boulevard and 11th Street is one vehicle for both the AM and PM peak hours.

The 1001 Olive Project has a driveway on the alley that is approximately 110 feet from the Olympic Boulevard curb line. However, the curb traffic lane is currently 14 foot from the curb due to a striped-out area adjacent to the curb that is used for parking and is not used for traffic. So traffic exiting the alley will most probably use this roadway area to queue prior to turning to allow visibility to the west down Olympic Boulevard. The 1000 Grand Project (across the alley) has a driveway slightly further south on the alley that is approximately 140 feet from the Olympus Boulevard curb line.

For the Future Without Project conditions, due to the increased traffic on the street system¹, the maximum queue on the alley at Olympic Boulevard would increase from one vehicle to five vehicles in the AM peak hour, but would remain at one vehicle in the PM peak hour. In the Future Without Project condition the maximum queue on the alley at Olympic Boulevard would extend 110 feet from the travel lane line and 96 feet from the curb line. At 11th Street the queue on the alley would remain at one vehicle in both peak hours.

With the Future With Project conditions, the queue on the alley at Olympic Boulevard in the AM peak hour would increase from five to six vehicles with the Proposed Project, and in the PM peak hour would increase from one to two vehicles. The queue in the alley at 11th Street would remain at one vehicle With the Project in both the AM and PM peak hours.

With the Proposed Project, the maximum queue in the AM peak hour at Olympic Boulevard would increase to 132 feet from the traffic lane line and 118 feet from the curb line, so could occasionally extend to the 1001 Olive Project driveway on the alley. Although because these are the effective maximum queues (95th percentile) these queues would only occur intermittently and not on a regular basis. The 1001 Olive Project also has a driveway to Olive Street as an alternate to use of the alley.

It should be noted that this analysis is conservative for the reasons discussed above regarding the future forecasts, and because both the 1001 Olive and 1000 Grand project traffic could use the driveways to Olive Street and Grand Avenue respectively instead of the alley, or could exit the alley via 11th Street, thereby having alternatives to use of the alley.

As shown in Table C-1, queue lengths in the PM peak at Olympic Boulevard and at 11th Street in both the AM and PM peak hours would be minimal (one to two cars).

¹ The volumes on Olympic Boulevard and 11th Street increase in the future with the related projects included in the traffic analysis. As previously noted in Chapter 5, the future street traffic forecasts are very conservative because the analysis includes both a list of specific related projects and a general background growth factor, and also not all of the related projects may be ultimately built, and not all may be built by 2023 (the buildout year of the Project). The future forecast analysis therefore likely overstates the future growth in traffic for the horizon year without the Project.

Pedestrian and Bicycle Access

Pedestrian access will be provided from Olive Street and 11th Street with direct access from the sidewalks to commercial uses and the residential lobby. The Project will maintain the existing seventeen foot sidewalk on Olive Street, and provide a fifteen foot sidewalk on 11th Street (including a three foot easement). A pedestrian plaza will be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The Project will enhance the pedestrian streetscape and walkability adjacent to the Project. Design of the pedestrian realm will ensure no hazardous conditions are created.

Bicycle access to the Project will be facilitated by the existing bicycle lanes on Olive Street and 11th Street. On-site bicycle parking will be provided to LAMC requirements, with some short-term bicycle parking located along the adjacent sidewalks.

Transit and Parking

There are no bus stops adjacent to the Project Site. There would therefore be no impacts on transit stops during construction.

The Project could remove up to eight adjacent on-street parking spaces on Olive Street, in order to provide the Project driveway and a passenger loading zone for drop-off and pick up. Parking for the Project commercial uses would be provided in the building garage. Existing parking availability would remain on many streets and in numerous off-street parking facilities in the vicinity of the Project.

6.4 Freeway Analysis

An MOU between LADOT and Caltrans (Agreement Between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures (December 2015)) sets forth criteria for when a freeway impact analysis should be conducted. This requires an initial evaluation of freeway mainline segments and freeway off-ramps to determine if Project volumes exceed certain thresholds that would require further analysis of the freeway system. A freeway evaluation of Project volumes against these thresholds was conducted according to the procedures in the MOU and is included in the MOU in Appendix A. The initial evaluation concluded that neither the freeway mainline thresholds or the freeway off-ramp threshold were met by Project traffic volumes, so no further analysis of the freeway system was necessary.

Nevertheless, in the interests of providing a comprehensive study, a freeway analysis was conducted, and is included in Appendix D for informational purposes. The analysis addressed five freeway mainline segments, four freeway off-ramps, and five freeway on-ramps, at the key locations that would be used by Proposed Project traffic. The analysis addressed Existing, Existing With Project, Future Without Project, and Future With Project conditions. Caltrans does not have published criteria for determination of significant impacts. In its Traffic Impact

Study Guide, Caltrans states that it endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, and to maintain the existing LOS in cases where a facility is operating at less than the target LOS. This guideline was therefore used. For off-ramps, Caltrans' primary concern is if peak hour traffic queues on an off-ramp exceed the storage length on the ramp and result in queues backing onto the mainline freeway. The off-ramp analysis therefore addressed vehicle queues. For on-ramps, the analysis evaluated if the traffic volumes would exceed the capacity of an on-ramp.

The analysis showed that the volume of traffic that would be added to any freeway mainline or ramp locations would be very small. The Project would cause an increase in mainline freeway trips of 0.1% to 0.2%. The analysis has shown that the Project would not cause any changes in mainline levels of service and would not cause Caltrans freeway mainline level of service targets to be exceeded. The analysis has also shown that the Project would not appreciably increase queue lengths on freeway off-ramps and would not cause queue lengths on any off-ramps to exceed total storage lengths. Finally, the analysis also indicated that the Project would not cause the capacities of any on-ramp to be exceeded.

6.5 Construction Traffic Impacts

The L.A. CEQA Thresholds Guide identifies four types of street construction impacts, as follows:

- Temporary Traffic Impacts – potential impacts on vehicular travel.
- Temporary Loss of Access – potential impacts to vehicles and pedestrians.
- Temporary Loss of Bus Stops or Rerouting of Bus Lines – potential impacts on bus patrons.
- Temporary Loss of On-Street Parking – potential impacts on parking users.

The potential for construction traffic impacts was evaluated by considering the following aspects of Project construction.

- Construction Truck Traffic
- Construction Worker Traffic
- Sidewalk and/or Traffic Lane Closures
- Bus Stops/Routes Relocation
- Construction Worker Parking

Construction Phases and Durations

Construction of the proposed Project is expected to last approximately 42 months and is scheduled to begin in 2019 and continue through 2022. For the purposes of evaluating potential traffic impacts during construction, there would be four principal phases: (1) site demolition and preparation; (2) excavation and grading (including drainage, utilities and trenching); (3) foundations work; and (4) building construction (which would include paving and architectural coating).

Some of the construction phases are expected to overlap. The following analysis is based on total construction activity at the site. The demolition and site preparation phase would occur for approximately four weeks with up to 28 truckloads per day, and up to 25 employees on site. The excavation and grading phase would occur for approximately four months with up to 250 truckloads per day, and up to 66 employees on site. The building foundations work would comprise the mat pour which would occur over two days with a total of 608 trucks, and 175 workers per day, and would occur on a single weekend. The building construction phase would occur for approximately thirty nine months, and is expected to generate up to 87 truckloads per day to the Project Site, with up to 400 workers on site.

The construction haul route from the Project Site would travel north on Olive Street, east on Olympic Boulevard, south on Hill Street, east on 18th Street and via the Los Angeles Street on-ramp to the eastbound I-10 freeway. The route to the Project Site would exit the westbound I-10 freeway at Los Angeles Street, travel west on 17th Street and north on Olive Street to the site. This haul route may be modified in compliance with City policies, provided LADOT and/or the Department of Street Services approves any such modification.

Project Design Features

A number of Project Design Features are proposed by the Project during the construction period to minimize potential construction impacts with respect to construction trucks, worker trips, and any possible sidewalks and lane closures.

- Maintain access for land uses in the vicinity of the Project site during construction.
- Schedule construction material deliveries to off-peak periods to the extent possible.
- Minimize obstruction of traffic lanes on Olive Street and 11th Street adjacent to the Project Site.
- Organize site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways,

- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the site and impact roadway traffic. If needed, utilize an organized off-site staging area.
- Control truck and vehicle access to the Project Site with flagmen.
- Sidewalk access on Olive Street and 11th Street will be maintained during construction through the use of covered protective walkways. A Worksite Traffic Control Plan will be prepared for approval by the City, to facilitate pedestrian and traffic movement, in order to minimize any potential impacts.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project Site and neighboring businesses.
- Parking for construction workers will be provided off-site in off-street locations. Parking will not be allowed on streets in the vicinity of the Project.
- A Construction Traffic Management Plan will be prepared for approval by the City prior to the issuance of any construction permits, to incorporate the measures identified above, as well as a Worksite Traffic Control Plan specifying the details of any sidewalk or lane closures. The Worksite Traffic Control Plan will be developed by the Applicant, and will identify all traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. The Worksite Traffic Control Plan would minimize the potential conflicts between construction activities, street traffic, bicyclists and pedestrians. The plan will be reviewed and approved by LADOT prior to commencement of construction.

Construction Truck Traffic

The highest volume of truck trips would occur during the four months of the Project's excavation and grading phase (with the exception of the mat pour discussed separately below). During this phase there would be a maximum of 250 daily truckloads expected for approximately 23 days of hauling (for the remaining days the total truckloads would be lower).

Assuming these trips would be spread equally over an eight-hour workday between 7:00am and 3:00pm, there would be up to 31 truckloads per hour. This represents a total of 62 daily truck trips (31 trips in to the site and 31 trips out from the site). The Transportation Research Board (HCM2010 Highway Capacity Manual) identifies a passenger car equivalent (PCE) factor of 2.0 for trucks (as trucks are larger and less maneuverable than

passenger cars), so 62 hourly truck trips is the equivalent of 124 passenger car trips (62 trip inbound and 62 trips outbound).

Daily truck activity would typically be completed prior to the PM peak hour. However, truck trips could occur during the AM peak hour. The peak estimate of 124 PCE trips per hour would be less than 196 AM peak hour trips that would be generated on a regular basis by the operational Project upon completion. (It is noted that in the Existing With Project analysis for the operational Project in Chapter 4 it was concluded that the Project would not cause any significant impacts in the AM or PM peak hours). Based on the above information, construction truck trips would not cause any significant traffic impacts during the AM peak hour or the PM peak hour.

During other phases of construction, there would typically be fewer truck loads/trips. They would range from up to 28 truckloads per day during the site preparation/demolition phase (4 weeks) to up to 87 truckloads per day for the thirty-nine month building construction phase. These figures would represent 14 truck trips per hour and 44 truck trips per hour respectively – much lower than the peak activity described above. These truck trips during the remainder of the Project's construction phase would therefore not cause significant traffic impacts.

Off-site staging will be used when necessary to ensure trucks do not wait or line up on streets adjacent to or near the Project Site.

The mat pour for the foundation would occur over a two-day period at the weekend when street traffic volumes are much lower than weekday conditions. Truck activity at the Project site would be carefully managed, including the use of flagmen, and off-site staging could occur where feasible. The mat pour activity would be closely coordinated with LADOT and neighboring land uses, to minimize impacts to the extent feasible. With these measures and the implementation of the Construction Traffic Control Plan it is expected that truck impacts would be temporary and not significant.

Construction Worker Traffic & Parking

Construction is expected to occur between the hours of 7:00 AM and 3:00 PM. on Monday through Saturday. No construction would occur on Sundays or federal holidays (with the exception of the mat pour which could occur on a Sunday).

The number of construction workers working on-site at one time would vary throughout the construction process in order to maintain an effective schedule of completion. It is estimated that during the construction period the number of workers that would be on-site would typically range from approximately 19 during the site preparation phase to a maximum of 400 workers, with the peak of approximately 400 workers occurring during the 39-month building construction phase.

Not all workers would drive as some workers would be expected to take transit and to rideshare. Construction workers would generally be on-site before 7:00 AM and the vast majority would leave the Project Site around 3:00 PM, meaning that the workers would therefore travel before the morning and evening peak commute hours. Up to potentially 10% of workers could leave after 3:00 PM. Based on the 400 maximum number of workers expected on-site, and assuming 20% of workers would take transit or rideshare, approximately 32 worker trips could occur in the PM peak hour (if all the remaining workers at the site left in the same hour). This conservative estimate would be only slightly greater than the number of trips generated by the existing land uses on the Project Site (16 PM peak hour trips), and would be only 16% of the PM peak hour trips that would be generated by the Project when it would be in operation. Traffic impacts from construction worker trips on the surrounding roadways and intersections during the AM and PM peak hours would therefore be less than significant.

Parking for construction workers would be provided off-site. Off-site locations have not yet been determined but they would be within walking distance of the Project Site in existing commercial parking lots or garages (typically through arrangements with lot/garage operators). The Project is therefore not expected to cause any significant impacts from construction parking.

The combined effect of the truck and worker trips would be insignificant. In the AM peak hour, as described earlier the number of truck trips would not constitute a significant impact, and worker trips would occur before the AM peak hour. In the PM peak hour, as described earlier there would be no truck trips, and worker trips would not constitute a significant impact.

Roadway Lane and Sidewalk Closures

It is expected that construction activities will necessitate the closure of the parking lane on the west side of Olive Street adjacent to the Project Site. The sidewalk would remain open (discussed further below). The existing traffic lanes on Olive Street would remain open. Truck loading and unloading would occur from Olive Street within the work zone created. While no traffic lanes on Olive Street would be closed on a permanent basis during construction, day-to-day construction activities could sometimes result in partial lane closures on Olive Street adjacent to the Project Site on a temporary and/or intermittent basis for utility relocations/hook-ups, delivery of materials, and other construction activities, as may be required. Such activities would occur only during off-peak hours and only on certain days, and would not be a regular event. In these instances, flagmen would be used to control traffic movement during the ingress and egress of trucks and heavy equipment. Any such closures would need to be coordinated with and approved by LADOT prior to being implemented. Because partial lane closures would be temporary in nature, and would not require long-term complete closures of adjacent roadway lanes, these construction activities would not have long-term adverse impacts, and as such, impacts would be less than significant.

It is expected that the sidewalk would not be closed on 11th Street during construction, and that the bicycle lane being constructed as part of the MyFig Project and the traffic lane on 11th Street would remain open during construction.

The alley would remain fully open during Project construction. All construction material delivery would occur on Olive Street so none would occur on the alley. For a short period of time some construction work may be necessary in the alley as it is widened and repaved, and utility work is conducted. During those times the Project would ensure that the alley would remain open with access to the Ten50 Project maintained at all times.

As the existing traffic lanes on the adjacent through streets will remain open during construction, particularly during peak hours, the Project construction would not cause significant traffic impacts.

The pedestrian sidewalks adjacent to the Project Site would remain open during construction. Pedestrian access to the sidewalks would be maintained by providing a covered protected walkway for pedestrians on both Olive Street and 11th Street adjacent to the Project. There would therefore be no impacts through loss of pedestrian access to other adjacent land uses. The Construction Traffic Management Plan and Worksite Traffic Control Plan that will be prepared for the Project will identify the proposed covered sidewalks and signage for the safe routing for pedestrians. With this measure, there would be no loss of access to other land uses in the vicinity of the site, and no significant impacts to pedestrian circulation.

Parking, Access and Transit

There are currently eight on-street parking spaces on Olive Street adjacent to the Project Site. During construction these would be temporarily removed. As there is on-street parking on many streets as well as off-street parking facilities in the surrounding area, parking would remain available in the vicinity of the Project.

Project construction would not close, or block access to any properties in the vicinity of the Project Site. There would therefore be no significant impacts on access to adjacent projects.

There are no bus stops adjacent to the Project Site. There would therefore be no impacts on transit stops during construction.

7. Mitigation Measures

This report Chapter addresses an evaluation of feasible mitigation measures to address the potential significant impacts identified for the Project.

7.1 Review of Significant Impacts

Existing With Project Conditions

In both AM and PM peak hours, the Proposed Project would not cause any significant impacts.

Future With Project Conditions

In the AM peak hour, the Proposed Project would cause one significant impact at the following intersection.

19. Olive Street & Olympic Boulevard	LOS E
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In the PM peak hour, the Proposed Project would result in significant impacts at the following three intersections.

19. Olive Street & Olympic Boulevard	LOS F
21. Olive Street & Pico Boulevard	LOS F
23. Olive Street & 17th Street	LOS F

All three intersections would also operate at LOS F without the Project.

7.2 Review of Potential Mitigations

Physical Improvement Measures

The Project is located in a dense urban area in downtown Los Angeles, where the street system is essentially fully built out, and is already typically striped for the maximum traffic capacity and operational effectiveness within the available right-of-way. The feasibility of physical roadway/intersection improvements was nonetheless investigated for the intersection locations where the Project would cause significant traffic impacts.

This evaluation, which was conducted in conjunction with LADOT staff, looked at the feasibility of re-striping traffic lanes and/or adding traffic lanes to modify intersection lane configurations, roadway widenings, and potential changes to signal timing and phasing.

Roadway widenings were generally not feasible (due to the lack of available right-of-way because of existing buildings or conflicts with the Mobility Plan 2035, an element of the City's General Plan); lane re-stripings were generally not feasible as they would result in inadequate lane widths; and signal timing/phasing changes were generally not feasible as they would worsen rather than improve intersection operations or potentially cause other problems and/or impacts elsewhere.

Furthermore, roadway widening at the expense of narrower sidewalks, or additional traffic lanes at the expense of pedestrian crossing convenience are not consistent with City goals. The City's Mobility Plan calls for the transportation system to achieve a balance in serving vehicular traffic, transit, and pedestrians. Roadway widenings – while benefiting traffic – often have adverse impacts on pedestrians and may have adverse impacts on bus transit service.

In addition, the MyFig Project being implemented along 11th Street constrains roadway improvements for additional lanes – which would in any case be inconsistent with goals of that project.

The significant impact locations were however reviewed to investigate potential physical mitigations and no improvements were found to be feasible for the reasons outlined above. It was therefore concluded that there are no feasible physical mitigations at impacted intersections.

Transportation System Management Measures

In general, potential feasible improvements include intersection traffic signal upgrades. At some intersections in the city, traffic signal controllers¹ need upgrading to newer Type 2070 Controllers which provide for enhanced real time operation of traffic signal timing. The newer controllers allow LADOT to respond to real time traffic situations by making immediate adjustments to an intersection's signal timing, and providing for more efficient traffic flows. In addition additional CCTV cameras are needed at some locations. These are an integral part of the City's ATSAC/ATCS traffic signal control system and provide visual information to the City's ATSAC Traffic Control Center, and allow LADOT to monitor traffic operations and respond in real time to traffic conditions that delay vehicles and transit service. System detection loops at key intersection locations constitute another integral part of the City's ATSAC/ATCS traffic signal control system. These provide real-time information to the City's ATSAC Traffic Control Center, and allow LADOT to monitor traffic operations and respond in real time to traffic conditions that delay vehicles and transit service. These loops sometimes need replacement. LADOT has determined that when implemented the traffic system management improvements described above increase the capacity of intersections along corridors in the system by 1% (0.01 improvement in the V/C ratio).

¹ Traffic signal controllers are physical equipment at the intersection that control the operation of the traffic signal, and that are linked back to the ATSAC Traffic Center for areawide coordination of signals.

The Project will make a one-time contribution of \$100,000 to LADOT for ATSAC/ATCS signal improvements in the area of the Project. As a result, and as approved by LADOT, a 1% increase in the intersection capacity (0.01 improvement in the v/c ratio) has been included in the mitigation analysis for the intersections of Olive Street & Olympic Boulevard and Olive Street & Pico Boulevard.

7.3 Project Design Features

The Project includes the following features to improve pedestrian facilities and to provide a safe and walkable pedestrian environment, to increase the number of walking trips, and provide for on-site facilities to reduce the need to make vehicle trips off-site.

- Improve sidewalks adjacent to and within the Project.
- Add pedestrian amenities such as: landscaping and setbacks, shade, benches, pedestrian-scale lighting, etc, along the Olive Street and 11th Street edges of the Project Site.
- Provide pedestrian-scale retail commercial uses along street frontages.
- Provide an on-site transit information kiosk.
- Provide on-site concierge service to facilitate use of transit, taxis, shuttles, and transportation network companies.

7.4 Vehicle Trip Reduction Measures – TDM Program

The Project proposes a TDM package to encourage the use of non-auto modes and reduce vehicle trips, that could include the following measures:

- Promotion and support of carpools and rideshares, including parking and transit incentives.
- Preferential parking for carpools and vanpools for employees.
- Provide on-site real-time information displays to make available real-time information on car-sharing, transit, vanpools, taxis.
- External and internal multimodal wayfinding signage.
- Enroll tenants in trip tracking applications, if applicable.
- Transit Welcome Package – to all new residents/employees with info on alternate modes and walk to destination opportunities.
- Unbundling of residential parking.
- Provide off-street residential and retail parking, and freight-loading spaces, and participate in a Car-Share Program to provide spaces for car-share vehicles.
- Pursue with the City the implementation of on-street commercial loading spaces for deliveries and drop-off.
- Pursue with the City the implementation of on-street passenger drop-off spaces.
- Provide access to collapsible shopping carts and/or cargo bike for ease of local shopping.

- Provide amenities to encourage the use of delivery services.
- Discounts for employees who utilize public transit to travel to the site.
- On-site bicycle amenities such as access to free bicycles for residential guests, on-site repair station and bicycle racks, and lockers / showers for residents and employees, etc.
- Provide a free bike share service for residents.
- Participate in the City's Bike Share Program by providing an area for bike share facilities.

7.5 Additional Potential Mitigation Measures

- Make a one-time financial contribution of \$75,000 to the City of Los Angeles Department of Transportation, the monies to be used in the implementation of First and Last Mile transit access measures in the vicinity of the Proposed Project.
- Make a one-time financial contribution of \$75,000 to the City's Bicycle Trust Fund, the monies to be used to improve and/or maintain bicycle facilities in the area of the Proposed Project.

7.6 Effectiveness of Vehicle Trip Reduction Measures

The proposed trip reduction measures would be beneficial to traffic flow, transit service, pedestrian circulation, and overall mobility in the area. Research indicates that these measures can reduce vehicle trips by 5% to over 20%. In conjunction with LADOT it was conservatively estimated that the above combination of measures could reduce the overall number of vehicle trips generated by the Project (as shown in Chapter 3) by approximately 15%. Table 7.1 shows Project trip generation with the TDM Program reduction.

7.7 Results of Mitigation Measures Analysis – AM and PM Peak Hours

Existing With Project Conditions

As the Project would not cause any significant impacts, no mitigation measures are necessary.

Future With Project Conditions

AM Peak Hour

The results of the mitigation program are summarized in Table 7.2 for the AM peak hour. The mitigation program would fully mitigate the one significant impact and there would be no remaining significant impacts.

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9
(Reduction for transit trips) - 15%							1	0	1
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-6	-2	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0
(Reduction for transit trips) - 15%							0	0	0
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 50%							0	0	0
Net Retail							0	0	0
Total Existing							-6	-2	-8
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.03	0.18	0.21	24	143	167
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							24	143	167
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62
(Reduction for internal trips) - 15%							-5	-4	-9
(Reduction for transit trips) - 15%							-4	-4	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-4	-9
Net High-Turnover Restaurant							19	15	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5
(Reduction for internal trips) - 15%							-1	0	-1
(Reduction for transit trips) - 15%							0	-1	-1
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 10%							0	0	0
Net Quality Restaurant							2	1	3
Total Proposed Project							45	159	204
Project TDM Program									
Apartment (Reduction for TDM Program) - 15%							-4	-21	-25
High-Turnover Restaurant (Reduction for TDM Program) - 15%							-3	-2	-5
Quality Restaurant (Reduction for TDM Program) - 15%							0	0	0
Total TDM Reduction							-7	-23	-30
Total Proposed Project with TDM Program							38	136	174
Total Net New Project trips with TDM Program							32	134	166

Table 7.1 1045 Olive - Trip Generation with TDM Program Reduction

7/31/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3,4}	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
(Reduction for transit trips) - 15%							0	2	2
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-3	-5	-8
Retail ^{2,3,5}	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
(Reduction for transit trips) - 15%							1	2	3
(Reduction for walk/bike trips) - 5%							0	1	1
(Reduction for pass-by trips) - 50%							4	4	8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ^{2,6}	ITE 222	794	DU	0.13	0.06	0.19	103	48	151
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							103	48	151
High-Turnover Restaurant ^{2,7}	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
(Reduction for internal trips) - 15%							-6	-3	-9
(Reduction for transit trips) - 15%							-5	-3	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-3	-8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ^{2,8}	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
(Reduction for internal trips) - 15%							-5	-2	-7
(Reduction for transit trips) - 15%							-4	-2	-6
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 10%							-2	-1	-3
Net Quality Restaurant							21	10	31
Total Proposed Project							145	71	216
Project TDM Program									
Apartment (Reduction for TDM Program) - 15%							-15	-8	-23
High-Turnover Restaurant (Reduction for TDM Program) - 15%							-3	-2	-5
Quality Restaurant (Reduction for TDM Program) - 15%							1	-6	-5
Total TDM Reduction							-17	-16	-33
Total Proposed Project with TDM Program							128	55	183
Total Net							121	46	167

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Manufacturing analyzed as ITE 140 - Manufacturing. Used trip rates for General Urban/Suburban.
5. Retail analyzed as ITE 820 - Shopping Center. Used trip rates for General Urban/Suburban.
Existing Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
6. Apartments analyzed as ITE 222 - Multifamily Housing (High Rise). Used trip rates for Dense Multi-Use Urban.
7. High-Turnover Restaurant analyzed as ITE 932 - High-Turnover (Sit-Down) Restaurant. Used trip rates for General Urban/Suburban.
8. Quality Restaurant analyzed as ITE 931 - Quality Restaurant. Used trip rates for General Urban/Suburban.
Directional Distribution for AM peak from High-Turnover Restaurant, as none published for Quality Restaurant.

Note : Some numbers may not add up exactly due to rounding.

PM Peak Hour

The results of the mitigation program are summarized in Tables 7.3 for the PM peak hour. The mitigation program would fully mitigate the three significant impacts, and there would be no remaining significant impacts.

Remaining Significant and Unavoidable Traffic Impacts – Future With Project Conditions

With the proposed mitigation program, there would be no remaining significant impacts.

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.905	E	0.907	E	0.002	No					
2	Figuerola Street & Olympic Boulevard	1.158	F	1.162	F	0.004	No					
3	Figuerola Street & Chick Hearn Court	0.827	D	0.842	D	0.015	No					
4	Figuerola Street & Pico Boulevard	0.887	D	0.889	D	0.002	No					
5	Flower Street & Olympic Boulevard	0.776	C	0.779	C	0.003	No					
6	Flower Street & 11th Street	0.315	A	0.333	A	0.018	No					
7	Hope Street & Olympic Boulevard	0.781	C	0.789	C	0.008	No					
8	Hope Street & 11th Street	0.324	A	0.345	A	0.021	No					
9	Grand Avenue & 8th Street	0.567	A	0.570	A	0.003	No					
10	Grand Avenue & 9th Street	0.512	A	0.513	A	0.001	No					
11	Grand Avenue & Olympic Boulevard	0.647	B	0.651	B	0.004	No					
12	Grand Avenue & 11th Street	0.386	A	0.415	A	0.029	No					
13	Grand Avenue & Pico Boulevard	0.763	C	0.779	C	0.016	No					
14	Grand Avenue & Venice Boulevard	0.446	A	0.456	A	0.010	No					
15	Grand Avenue & 17th Street	0.817	D	0.825	D	0.008	No					
16	Grand Avenue & 18th Street	0.666	B	0.674	B	0.008	No					
17	Olive Street & 8th Street	0.833	D	0.839	D	0.006	No					
18	Olive Street & 9th Street	0.707	C	0.715	C	0.008	No					
19	Olive Street & Olympic Boulevard	0.932	E	0.950	E	0.018	Yes	0.937	E	0.005	Yes	Fully Mitigates
20	Olive Street & 11th Street	0.465	A	0.470	A	0.005	No					
21	Olive Street & Pico Boulevard	0.827	D	0.835	D	0.008	No					
22	Olive Street & 16th Street	0.577	A	0.580	A	0.003	No					
23	Olive Street & 17th Street	0.931	E	0.933	E	0.002	No					
24	Olive Street & 18th Street	0.684	B	0.688	B	0.004	No					

Table 7.2 Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	0.739	C	0.741	C	0.002	No					
26	Hill Street & 11th Street	0.311	A	0.315	A	0.004	No					
27	Broadway & Olympic Boulevard	0.729	C	0.733	C	0.004	No					
28	Broadway & 11th Street	0.367	A	0.369	A	0.002	No					
29	Main Street & Olympic Boulevard	0.884	D	0.885	D	0.001	No					
30	Main Street & 11th Street	0.511	A	0.513	A	0.002	No					
31	Los Angeles Street & Olympic Boulevard	0.462	A	0.463	A	0.001	No					
32	Los Angeles Street & 11th Street	0.225	A	0.227	A	0.002	No					
33	Olive Street & 12th Street	0.460	A	0.465	A	0.005	No					
34	Hill Street & Pico Boulevard	0.497	A	0.497	A	0.000	No					

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.849	D	0.849	D	0.000	No					
2	Figueroa Street & Olympic Boulevard	1.316	F	1.318	F	0.002	No					
3	Figueroa Street & Chick Hearn Court	1.000	E	1.004	F	0.004	No					
4	Figueroa Street & Pico Boulevard	1.073	F	1.078	F	0.005	No					
5	Flower Street & Olympic Boulevard	1.123	F	1.127	F	0.004	No					
6	Flower Street & 11th Street	0.743	C	0.743	C	0.000	No					
7	Hope Street & Olympic Boulevard	1.022	F	1.027	F	0.005	No					
8	Hope Street & 11th Street	0.687	B	0.693	B	0.006	No					
9	Grand Avenue & 8th Street	0.795	C	0.799	C	0.004	No					
10	Grand Avenue & 9th Street	0.901	E	0.905	E	0.004	No					
11	Grand Avenue & Olympic Boulevard	0.989	E	0.998	E	0.009	No					
12	Grand Avenue & 11th Street	0.861	D	0.871	D	0.010	No					
13	Grand Avenue & Pico Boulevard	1.294	F	1.300	F	0.006	No					
14	Grand Avenue & Venice Boulevard	0.598	A	0.601	B	0.003	No					
15	Grand Avenue & 17th Street	1.139	F	1.143	F	0.004	No					
16	Grand Avenue & 18th Street	0.810	D	0.814	D	0.004	No					
17	Olive Street & 8th Street	0.697	B	0.700	C	0.003	No					
18	Olive Street & 9th Street	0.852	D	0.856	D	0.004	No					
19	Olive Street & Olympic Boulevard	1.128	F	1.139	F	0.011	Yes	1.137	F	0.009	No	Fully Mitigates
20	Olive Street & 11th Street	0.757	C	0.775	C	0.018	No					
21	Olive Street & Pico Boulevard	1.025	F	1.047	F	0.022	Yes	1.033	F	0.008	Yes	Fully Mitigates
22	Olive Street & 16th Street	0.663	B	0.672	B	0.009	No					
23	Olive Street & 17th Street	1.005	F	1.015	F	0.010	Yes	1.014	F	0.009	No	Fully Mitigates
24	Olive Street & 18th Street	0.751	C	0.758	C	0.007	No					

Appendix A
Memorandum Of Understanding (MOU)



Transportation Impact Study Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Impact Study for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Impact Study Guidelines:

I. PROJECT INFORMATION

Project Name: 1045 Olive

Project Address: 1045 South Olive Street, Los Angeles, CA 90015

Project Description: See Attachment A

LADOT Project Case Number: _____ Project Site Plan attached? (Required) ☒ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 25.00 % S 20.00 % E 20.00 % W 35.00 %

Illustration of Project trip distribution percentages at Study intersections attached? (Required) ☐ Yes ☐ No

Trip Generation Adjustments (Exact amount of credit subject to approval by LADOT)

	Yes	No
Transit Usage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Existing Active Land Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Previous Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Internal Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source of Trip Generation Rate(s)? ☐ ITE 9th Edition ☒ Other: ITE 10th Edition plus adjustments, see Attachment B

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? (Required) ☒ Yes ☐ No

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	<u>39</u>	<u>157</u>	<u>196</u>
PM Trips	<u>138</u>	<u>62</u>	<u>200</u>

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient or CMP Growth Rate: 1.0 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? (Required) ☒ Yes ☐ No

Subject to Freeway Impact Analysis, in addition to CMP Analysis? (Freeway analysis screening filter must be included in this MOU; selecting "yes" implies that at least one criteria was satisfied) ☐ Yes ☒ No

Map of Study Intersections attached? (May be subject to LADOT revision after initial impact analysis) ☒ Yes ☐ No

Is this Project located on a street within the High Injury Network? ☐ Yes ☒ No

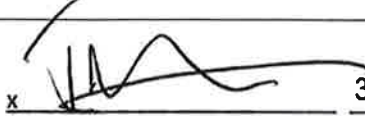
IV. CONTACT INFORMATIONCONSULTANT

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Approved by: x



3-1-18

Consultant's Representative

Date

x



3/6/18

LADOT Representative

Date

Attachment A

Project Description & Site Plan

1045 Olive – Project Description

The proposed project (the Project) is located at 1045 South Olive Street in the City of Los Angeles. The Project is generally bounded by private property to the north, Olive Street to the east, 11th Street to the south, and an alley to the west. Access to the Project Site will be provided by one driveway on Olive Street and two driveways on the alley. Truck access will occur from the alley to an on-site loading dock. The Project will comprise approximately 794 apartment units and 12,504 sf of commercial uses, analyzed for conservative purpose of the traffic study as restaurant uses. The location of the Project Site and a site plan are shown in Figure A.1 and A.2.

There are currently four buildings on the Project Site with a total square footage of 35,651 sq. ft. At this time 14,653 sq. ft. are in active use as manufacturing space and 5,171 sq. ft. are in active use as retail space.



Figure A.1
Project Location

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

Attachment B

Trip Generation Estimates

1045 Olive – Trip Generation

The proposed trip generation estimates are shown in Table B-1. These are based on trip rates found in *ITE Trip Generation 10th Edition*, and adjustment factors considered appropriate to the type and location of the proposed Project.

Background

The project is located in an area where transit, walk and bike trips will occur due to the following factors.

The project is located within one-quarter mile of numerous transit lines, including the Metro Blue and Exposition Lines; five Metro Rapid Bus lines; two Metro Express Bus Lines; nine LADOT Express Bus Lines; twenty-three Metro Local Lines; and two DASH shuttle routes.

The project is also located on 11th Street where the MyFig Project will implement a planned bike lane on 11th Street that will pass by the Project.

Trip Estimates for This Study

ITE trip rates from Trip Generation, 10th Edition were used in the analysis, with the adjustments described below. Where there are changes in the 10th Edition beyond any updates to the trip rates themselves, the changes are noted in the discussion below.

The ITE 10th Edition no longer has separate trip rates for condominiums and apartments. Instead it has rates for multifamily housing. It also lists rates for high rise buildings, by location – “General Urban/Suburban”, “Dense Multi-Use Urban”, and “Center City Core”, thereby providing more accurate trip rates for the type (low rise or high rise) and location of the building. Although the 10th Edition provides trip rates for a “Center City Core” location (such as the proposed Project), it is an extremely small size, so will not be used for this study. Instead the trip generation rates for “Dense Multi-Use Urban” will be applied to the residential units as the next most appropriate category. Because the 10th Edition trip rates are based on the type and location of building, they already account for higher walking, bicycling, and transit use in dense urban areas. Therefore, no further adjustment factors for use of these modes were applied.

For other land uses in the Project, trip rates for the “General Urban/Suburban” category were used, as either no trip rates were available for the “Dense Multi-Use Urban” or “Center City Core” categories, or because of the small sample size for those categories.

Table B-1 1045 Olive - Trip Generation Estimates

1/5/2018

Daily Trips

Land Use Assumptions	Source ¹ & Code	Quantity	Units	Daily			
					Trip Rate	Total Trips	
Existing Uses							
Manufacturing ^{2,3}	ITE 140	14,653	SF		3.93	-58	
(Reduction for transit trips) - 15%							
(Reduction for walk/bike trips) - 5%							
Net Manufacturing						-47	
Retail ^{2,3}	ITE 820	5,171	SF		37.75	-195	
(Reduction for transit trips) - 15%							
(Reduction for walk/bike trips) - 5%							
(Reduction for pass-by trips) - 50%							
Net Retail						-79	
Total Existing						-126	
Proposed Uses							
Apartment ²	ITE 222	794	DU		2.07	1,644	
(Reduction for transit trips) - 0%							
(Reduction for walk/bike trips) - 0%							
Net Apartments						1,644	
High-Turnover Restaurant ²	ITE 932	6,252	SF		112.18	701	
(Reduction for Internal trips) - 15%							
(Reduction for transit trips) - 15%							
(Reduction for walk/bike trips) - 5%							
(Reduction for pass-by trips) - 20%							
Net High-Turnover Restaurant						386	
Quality Restaurant ²	ITE 931	6,252	SF		83.84	524	
(Reduction for Internal trips) - 15%							
(Reduction for transit trips) - 15%							
(Reduction for walk/bike trips) - 5%							
(Reduction for pass-by trips) - 10%							
Net Quality Restaurant						323	
Total Proposed						2,353	
Total Net						2,227	

AM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	AM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3}	ITE 140	14,653	SF	0.48	0.14	0.62	-7	-2	-9
(Reduction for transit trips) - 15%							1	0	1
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-6	-2	-8
Retail ^{2,3,4}	ITE 820	5,171	SF	0.00	0.00	0.00	0	0	0
(Reduction for transit trips) - 15%							0	0	0
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 50%							0	0	0
Net Retail							0	0	0
Total Existing							-6	-2	-8
Proposed Uses									
Apartment ²	ITE 222	794	DU	0.03	0.18	0.21	24	143	167
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							24	143	167
High-Turnover Restaurant ²	ITE 932	6,252	SF	5.47	4.47	9.94	34	28	62
(Reduction for internal trips) - 15%							-5	-4	-9
(Reduction for transit trips) - 15%							-4	-4	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-4	-9
Net High-Turnover Restaurant							19	15	34
Quality Restaurant ^{2,5}	ITE 931	6,252	SF	0.40	0.33	0.73	3	2	5
(Reduction for internal trips) - 15%							-1	0	-1
(Reduction for transit trips) - 15%							0	-1	-1
(Reduction for walk/bike trips) - 5%							0	0	0
(Reduction for pass-by trips) - 10%							0	0	0
Net Quality Restaurant							2	1	3
Total Proposed							45	159	204
Total Net							39	157	196

Table B-1 1045 Olive - Trip Generation Estimates

1/5/2018

PM Peak

Land Use Assumptions	Source ¹ & Code	Quantity	Units	PM Peak Hour					
				Trip Rate			Total Trips		
				In	Out	Total	In	Out	Total
Existing Uses									
Manufacturing ^{2,3}	ITE 140	14,653	SF	0.21	0.46	0.67	-3	-7	-10
(Reduction for transit trips) - 15%							0	2	2
(Reduction for walk/bike trips) - 5%							0	0	0
Net Manufacturing							-3	-5	-8
Retail ^{2,3}	ITE 820	5,171	SF	1.83	1.98	3.81	-9	-11	-20
(Reduction for transit trips) - 15%							1	2	3
(Reduction for walk/bike trips) - 5%							0	1	1
(Reduction for pass-by trips) - 50%							4	4	8
Net Retail							-4	-4	-8
Total Existing							-7	-9	-16
Proposed Uses									
Apartment ²	ITE 222	794	DU	0.13	0.08	0.19	103	48	151
(Reduction for transit trips) - 0%							0	0	0
(Reduction for walk/bike trips) - 0%							0	0	0
Net Apartments							103	48	151
High-Turnover Restaurant ²	ITE 932	6,252	SF	6.06	3.71	9.77	38	23	61
(Reduction for internal trips) - 15%							-6	-3	-9
(Reduction for transit trips) - 15%							-5	-3	-8
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 20%							-5	-3	-8
Net High-Turnover Restaurant							21	13	34
Quality Restaurant ²	ITE 931	6,252	SF	5.23	2.57	7.80	33	16	49
(Reduction for internal trips) - 15%							-5	-2	-7
(Reduction for transit trips) - 15%							-4	-2	-6
(Reduction for walk/bike trips) - 5%							-1	-1	-2
(Reduction for pass-by trips) - 10%							-2	-1	-3
Net Quality Restaurant							21	10	31
Total Proposed							145	71	216
Total Net							138	62	200

Notes:

1. ITE Rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, Washington, DC, 2017, except otherwise noted.
2. Trip rate reductions were applied per LADOT's Transportation Impact Study Guidelines, December 2016.
3. Existing land use data from Crescent Heights and site observations on 9/5/2017.
4. Existing Specialty Retail is closed on weekday mornings, therefore no existing trip credit is claimed for the AM peak hour.
5. Directional Distribution for AM peak from High-Turnover Restaurant, as non published for Quality Restaurant.

Note : Some numbers may not add up due to rounding.

Land Use: 140 Manufacturing

Description

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. General light industrial (Land Use 110) and industrial park (Land Use 130) are related uses.

Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the 17 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 6:30 and 7:30 a.m. and 3:00 and 4:00 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Minnesota, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, and Washington.

Source Numbers

177, 184, 241, 357, 384, 418, 443, 583, 598, 611, 728, 747, 875, 940, 969

Manufacturing (140)

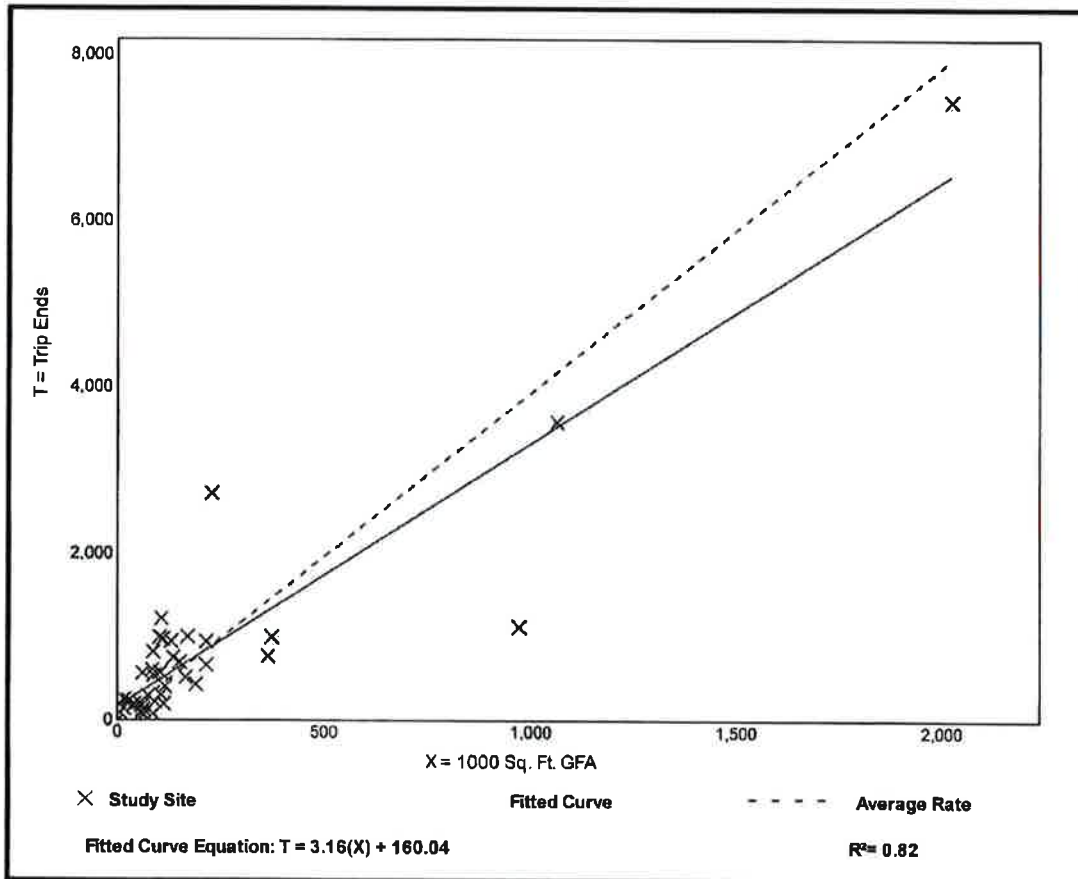
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 39
1000 Sq. Ft. GFA: 209
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.93	0.83 - 49.50	2.62

Data Plot and Equation



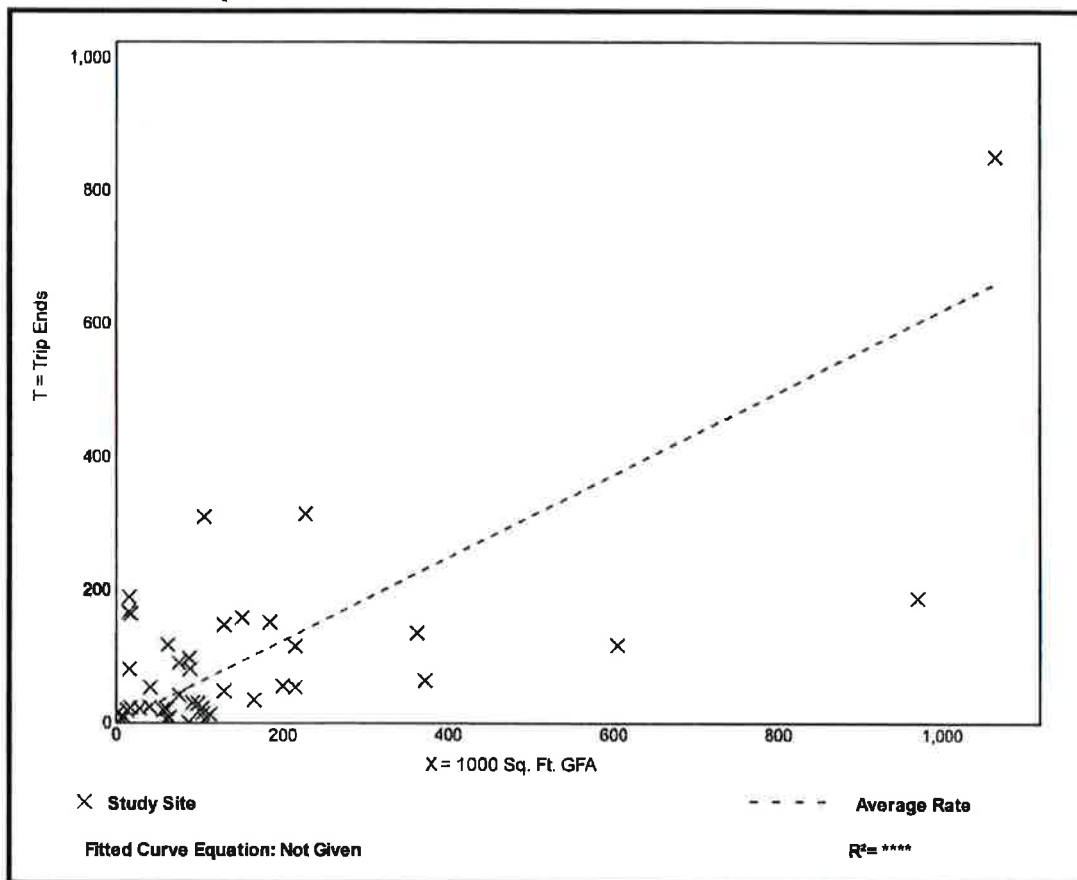
Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 45
 1000 Sq. Ft. GFA: 149
 Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.62	0.01 - 11.93	1.03

Data Plot and Equation



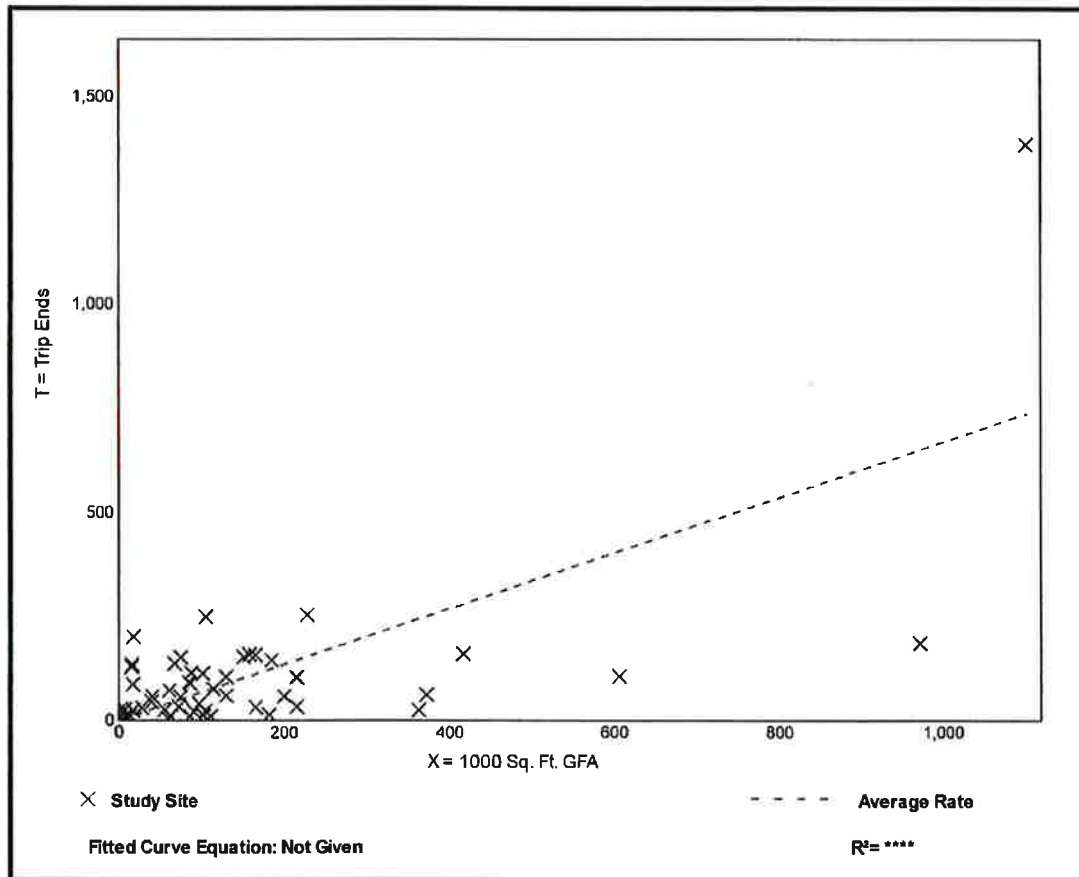
Manufacturing (140)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 52
 1000 Sq. Ft. GFA: 152
 Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.67	0.07 - 11.37	0.94

Data Plot and Equation



Land Use: 820 Shopping Center

Description

A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands. Factory outlet center (Land Use 823) is a related use.

Additional Data

Shopping centers, including neighborhood centers, community centers, regional centers, and super regional centers, were surveyed for this land use. Some of these centers contained non-merchandising facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs, and recreational facilities (for example, ice skating rinks or indoor miniature golf courses).

Many shopping centers, in addition to the integrated unit of shops in one building or enclosed around a mall, include outparcels (peripheral buildings or pads located on the perimeter of the center adjacent to the streets and major access points). These buildings are typically drive-in banks, retail stores, restaurants, or small offices. Although the data herein do not indicate which of the centers studied included peripheral buildings, it can be assumed that some of the data show their effect.

The vehicle trips generated at a shopping center are based upon the total GLA of the center. In cases of smaller centers without an enclosed mall or peripheral buildings, the GLA could be the same as the gross floor area of the building.

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:15 and 1:15 p.m., respectively.

The average numbers of person trips per vehicle trip at the 27 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.31 during Weekday, AM Peak Hour of Generator
- 1.43 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.46 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), British Columbia (CAN), California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

Source Numbers

105, 110, 154, 156, 159, 186, 190, 198, 199, 202, 204, 211, 213, 239, 251, 259, 260, 269, 294, 295, 299, 300, 301, 304, 305, 307, 308, 309, 310, 311, 314, 315, 316, 317, 319, 358, 365, 376, 385, 390, 400, 404, 414, 420, 423, 428, 437, 440, 442, 444, 446, 507, 562, 580, 598, 629, 658, 702, 715, 728, 868, 870, 871, 880, 899, 908, 912, 915, 926, 936, 944, 946, 960, 961, 962, 973, 974, 978

Shopping Center (820)

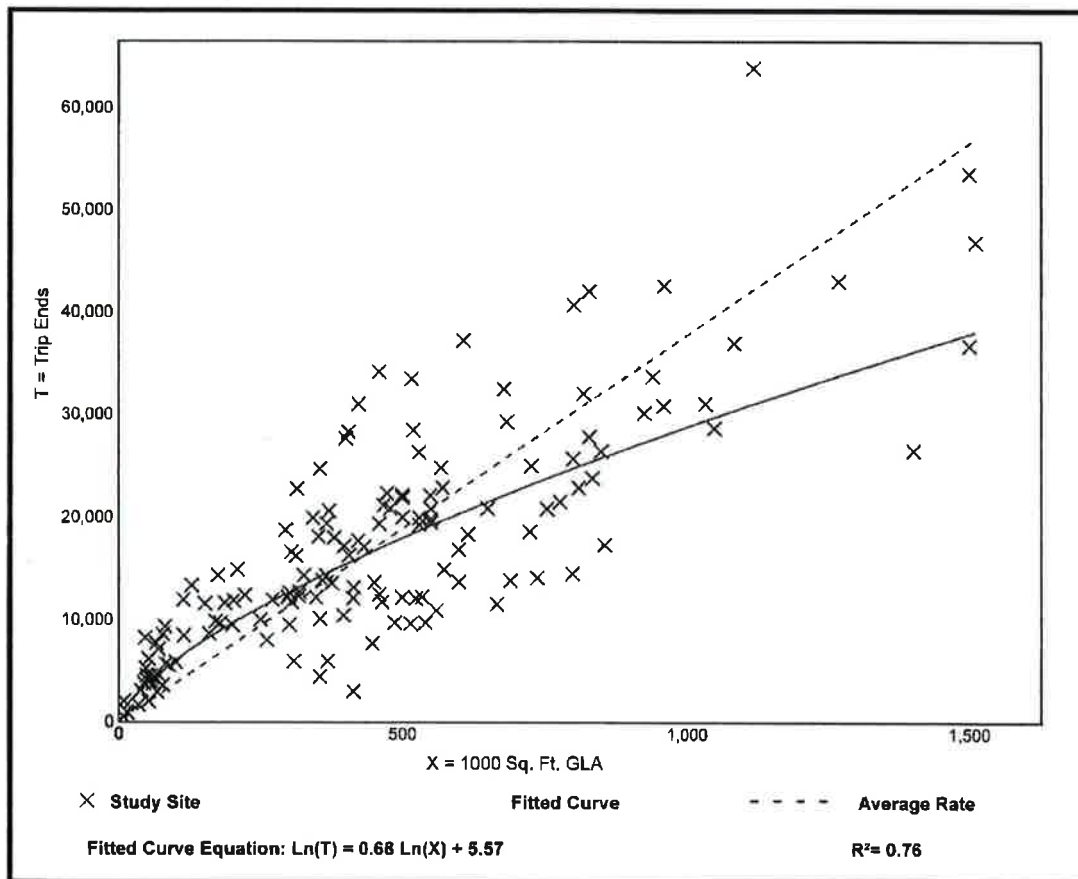
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



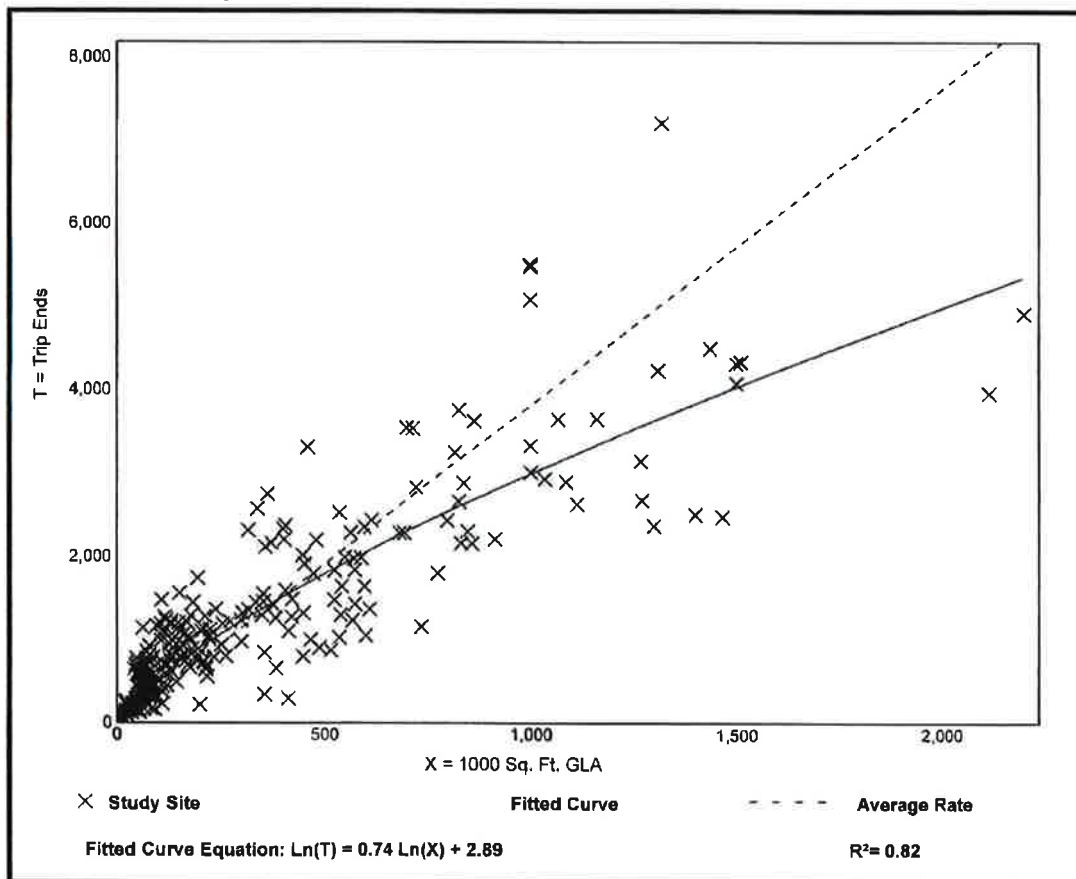
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 261
 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Land Use: 222

Multifamily Housing (High-Rise)

Description

High-rise multifamily housing includes apartments, townhouses, and condominiums that have more than 10 levels (floors). They are likely to have one or more elevators. Multifamily housing (low-rise) (Land Use 220), multifamily housing (mid-rise) (Land Use 221), off-campus student apartment (Land Use 225), and high-rise residential with 1st-floor commercial (Land Use 232) are related land uses.

Additional Data

In prior editions of *Trip Generation Manual*, the high-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the 12 sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 1.57 residents per occupied dwelling unit.

For the 26 sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 98.4 percent of the total dwelling units were occupied.

Time-of-day distribution data for this land use are presented in Appendix A. For the eight dense multi-use sites for which 24-hour time-of-day person trip data were collected, the overall highest vehicle volumes during the AM and PM on a weekday were between 7:30 and 8:30 a.m. and 5:30 and 6:30 p.m., respectively. The Saturday and Sunday peak hours for person trips were between 5:00 and 6:00 p.m. and 4:45 and 5:45 p.m., respectively.

For the six center city core sites for which 24-hour time-of-day person trip data were collected, the overall highest vehicle volumes during the AM and PM on a weekday were between 8:00 and 9:00 a.m. and 6:00 and 7:00 p.m., respectively. The Saturday and Sunday peak hours for person trips were between 11:30 a.m. and 12:30 p.m. and 11:00 a.m. and 12:00 p.m., respectively.

For the 12 sites for which data were provided for both occupied dwelling units and residents, there was an average of 1.57 residents per occupied dwelling unit.

For the 26 sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 98.4 percent of the units were occupied.

The average numbers of person trips per vehicle trip at the three center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 2.52 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.70 during Weekday, AM Peak Hour of Generator
- 1.88 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.22 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the six dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 2.81 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.49 during Weekday, AM Peak Hour of Generator
- 2.17 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 2.85 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 2000s, and the 2010s in California, District of Columbia, Maryland, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, Virginia, and Washington.

Source Numbers

105, 168, 169, 187, 305, 321, 356, 818, 862, 901, 910, 949, 963, 964, 966, 967

Multifamily Housing (High-Rise) (222)

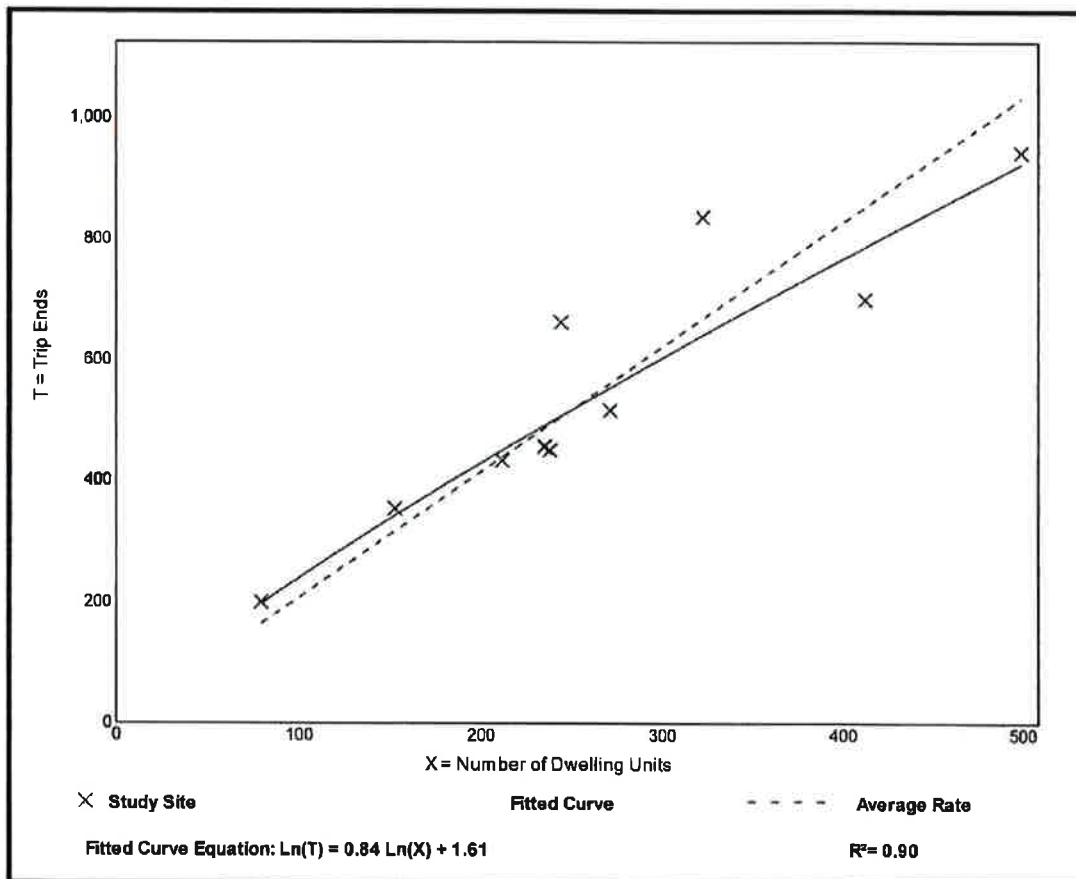
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: Dense Multi-Use Urban
Number of Studies: 11
Avg. Num. of Dwelling Units: 264
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
2.07	1.70 - 2.71	0.34

Data Plot and Equation



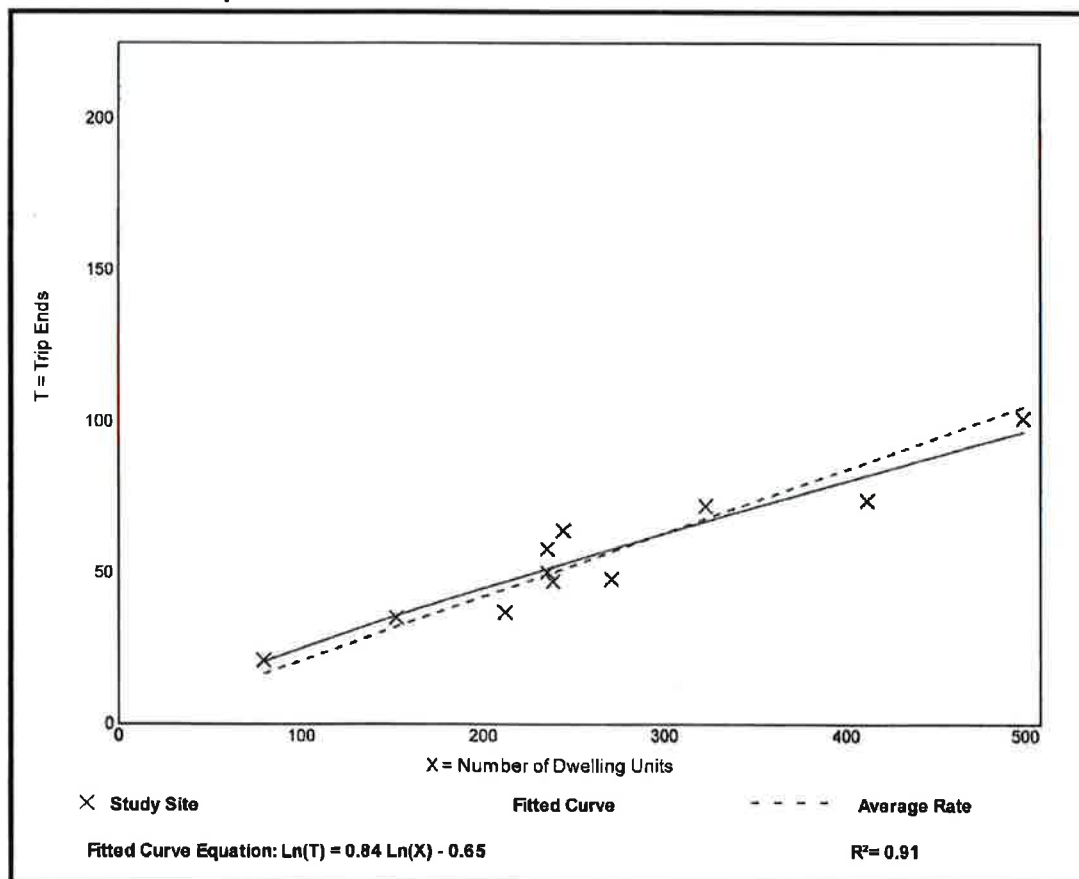
Multifamily Housing (High-Rise) (222)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: Dense Multi-Use Urban
 Number of Studies: 11
 Avg. Num. of Dwelling Units: 264
 Directional Distribution: 12% entering, 88% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.21	0.17 - 0.27	0.03

Data Plot and Equation



Multifamily Housing (High-Rise) (222)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: Dense Multi-Use Urban

Number of Studies: 11

Avg. Num. of Dwelling Units: 264

Directional Distribution: 70% entering, 30% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate

0.19

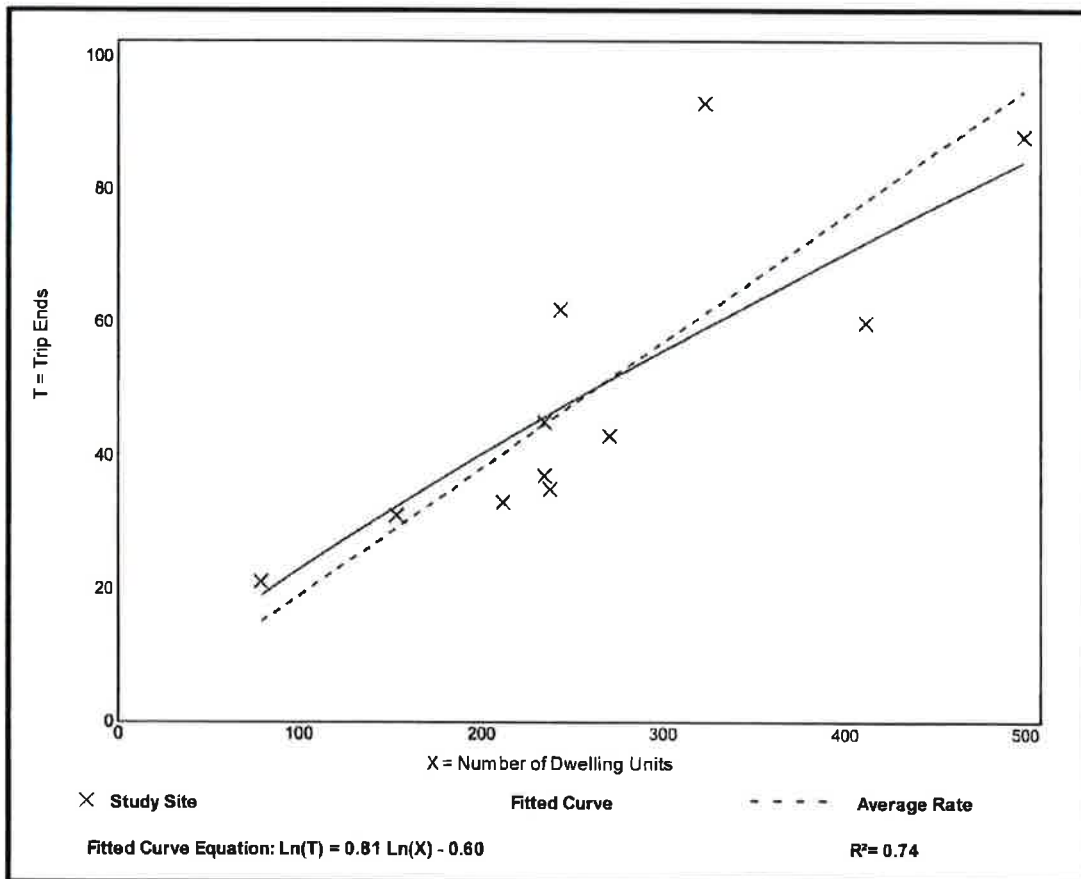
Range of Rates

0.15 - 0.29

Standard Deviation

0.05

Data Plot and Equation



Land Use: 932

High-Turnover (Sit-Down) Restaurant

Description

This land use consists of sit-down, full-service eating establishments with typical duration of stay of approximately one hour. This type of restaurant is usually moderately priced and frequently belongs to a restaurant chain. Generally, these restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day. These restaurants typically do not take reservations. Patrons commonly wait to be seated, are served by a waiter/waitress, order from menus and pay for their meal after they eat. Some facilities contained within this land use may also contain a bar area for serving food and alcoholic drinks. Fast casual restaurant (Land Use 930), quality restaurant (Land Use 931), fast-food restaurant without drive-through window (Land Use 933), fast-food restaurant with drive-through window (Land Use 934), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 38 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:00 and 1:00 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Florida, Georgia, Indiana, Kentucky, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Vermont, and Wisconsin.

Source Numbers

126, 269, 275, 280, 300, 301, 305, 338, 340, 341, 358, 384, 424, 432, 437, 438, 444, 507, 555, 577, 589, 617, 618, 728, 868, 884, 885, 903, 927, 944, 961, 962, 977

High-Turnover (Sit-Down) Restaurant (932)

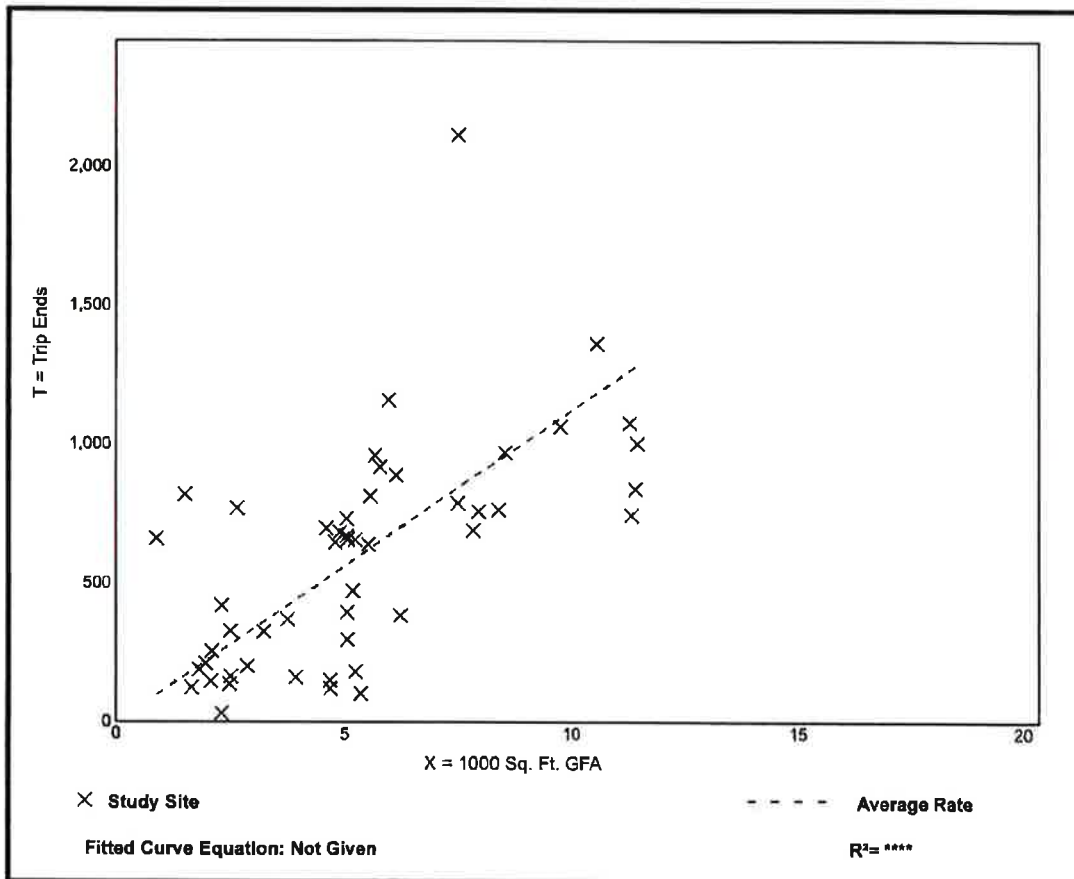
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 50
1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
112.18	13.04 - 742.41	72.51

Data Plot and Equation



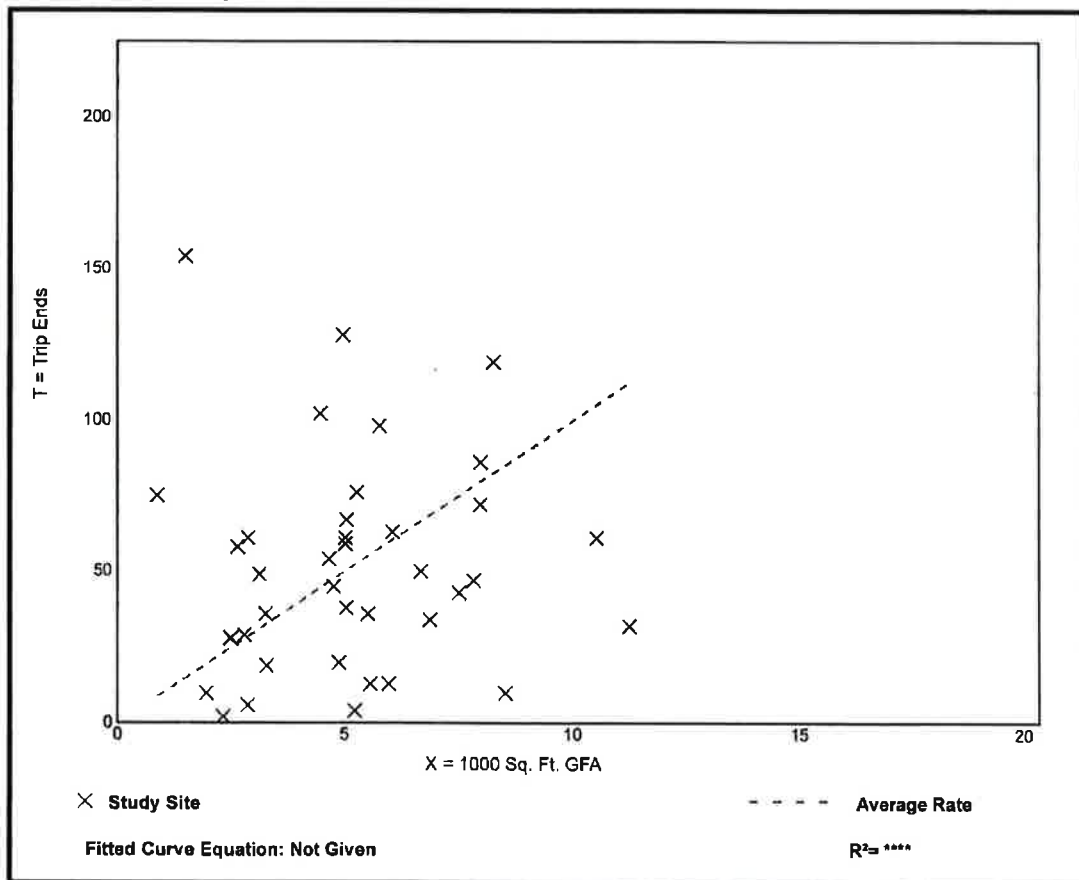
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 39
 1000 Sq. Ft. GFA: 5
 Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.94	0.76 - 102.39	11.33

Data Plot and Equation



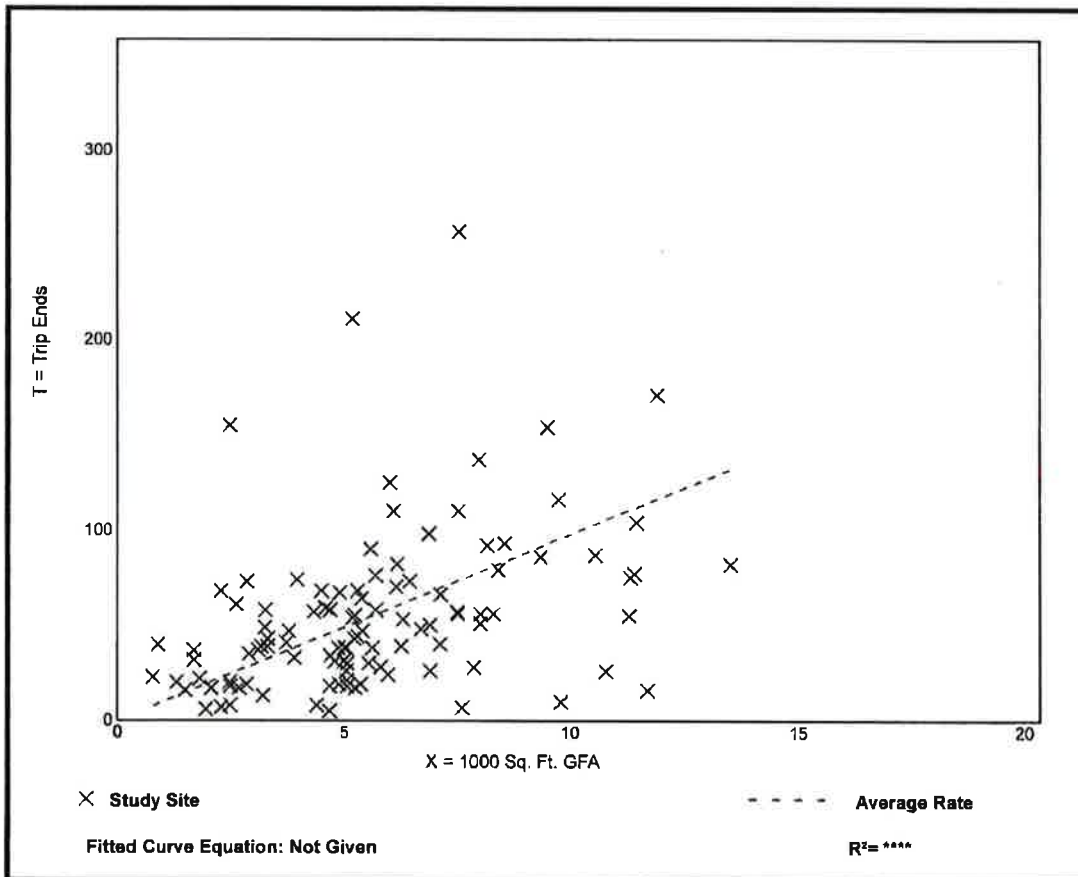
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 107
 1000 Sq. Ft. GFA: 6
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.77	0.92 - 62.00	7.37

Data Plot and Equation



Land Use: 931 Quality Restaurant

Description

This land use consists of high quality, full-service eating establishments with a typical duration of stay of at least one hour. Quality restaurants generally do not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires reservations and is generally not part of a chain. Patrons commonly wait to be seated, are served by a waiter/waitress, order from menus and pay for meals after they eat. While some of the study sites have lounge or bar facilities (serving alcoholic beverages), they are ancillary to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

Additional Data

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

The sites were surveyed in the 1980s and the 1990s in Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, New Jersey, and Utah.

Source Numbers

126, 260, 291, 301, 338, 339, 368, 437, 440, 976

Quality Restaurant (931)

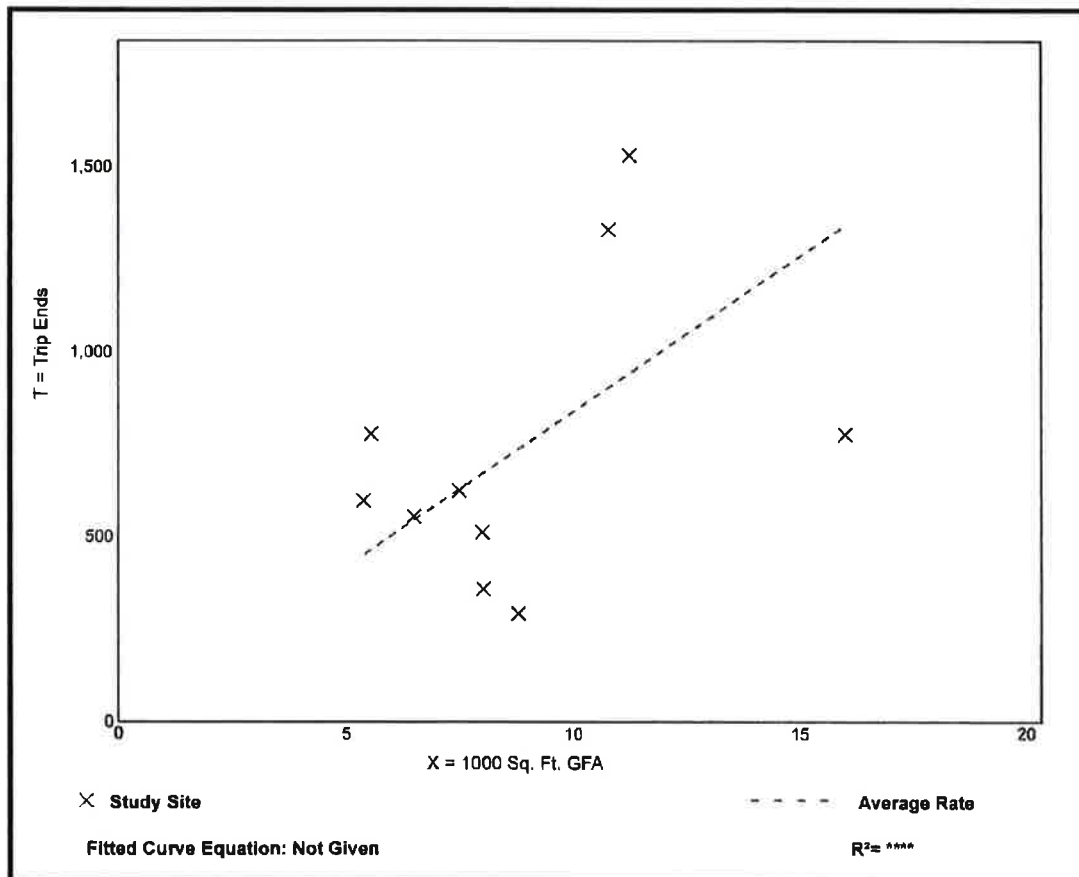
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
1000 Sq. Ft. GFA: 9
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
83.84	33.45 - 139.93	40.01

Data Plot and Equation



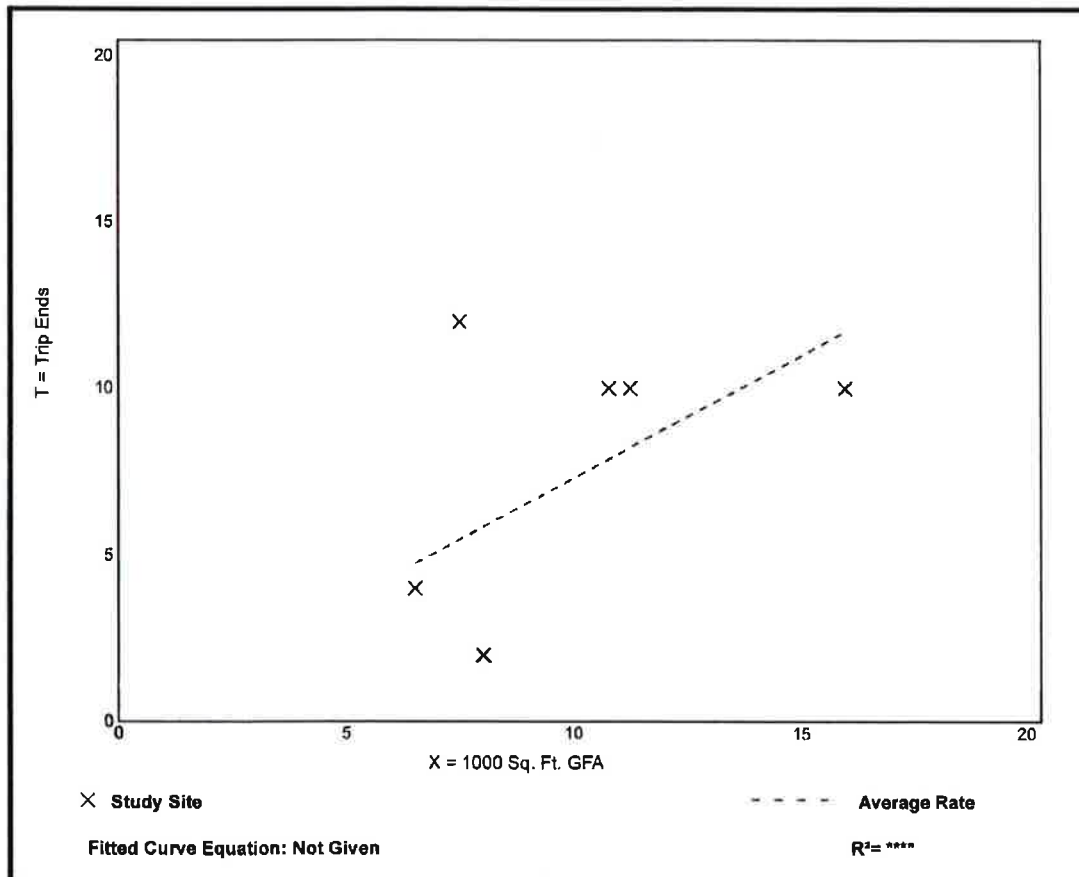
Quality Restaurant (931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 7
 1000 Sq. Ft. GFA: 10
 Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



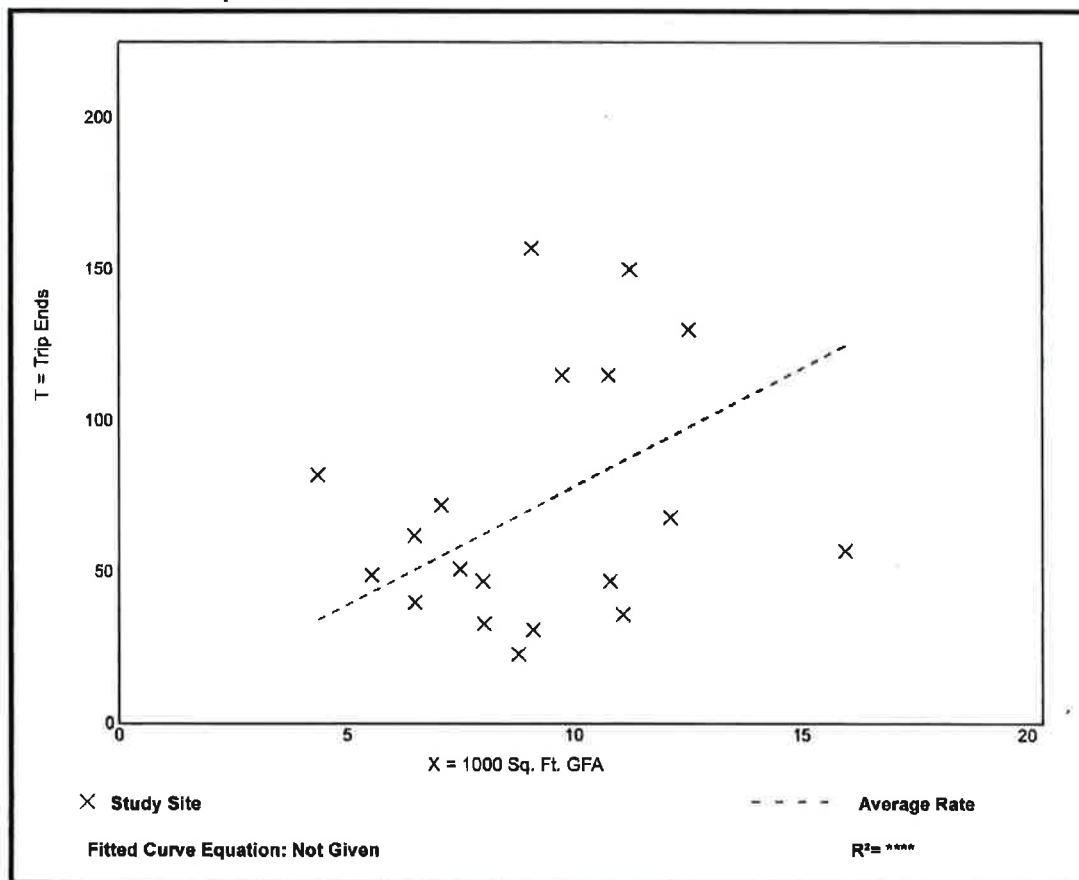
Quality Restaurant (931)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 19
 1000 Sq. Ft. GFA: 9
 Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



Attachment C
Trip Distribution

1045 Olive – Trip Distribution

The likely distribution of Project trips was identified based on the type of land uses in the Project, the likely origins and destinations of Project users, and the characteristics of the street system in the area of the Project. The following distribution was assumed:

- 25% of the trips towards the north
- 20% of the trips towards the south
- 20% of the trips towards the east
- 35% of the trips towards the west

Attachment D

Related Projects

1045 Olive - Related Projects

The attached list represents a current list as of December 21st 2017 (the date of the NOP for the Project). This list has been coordinated with previous related projects lists from other projects approved by DCP, and with the most current information from DCP regarding project application submittal.

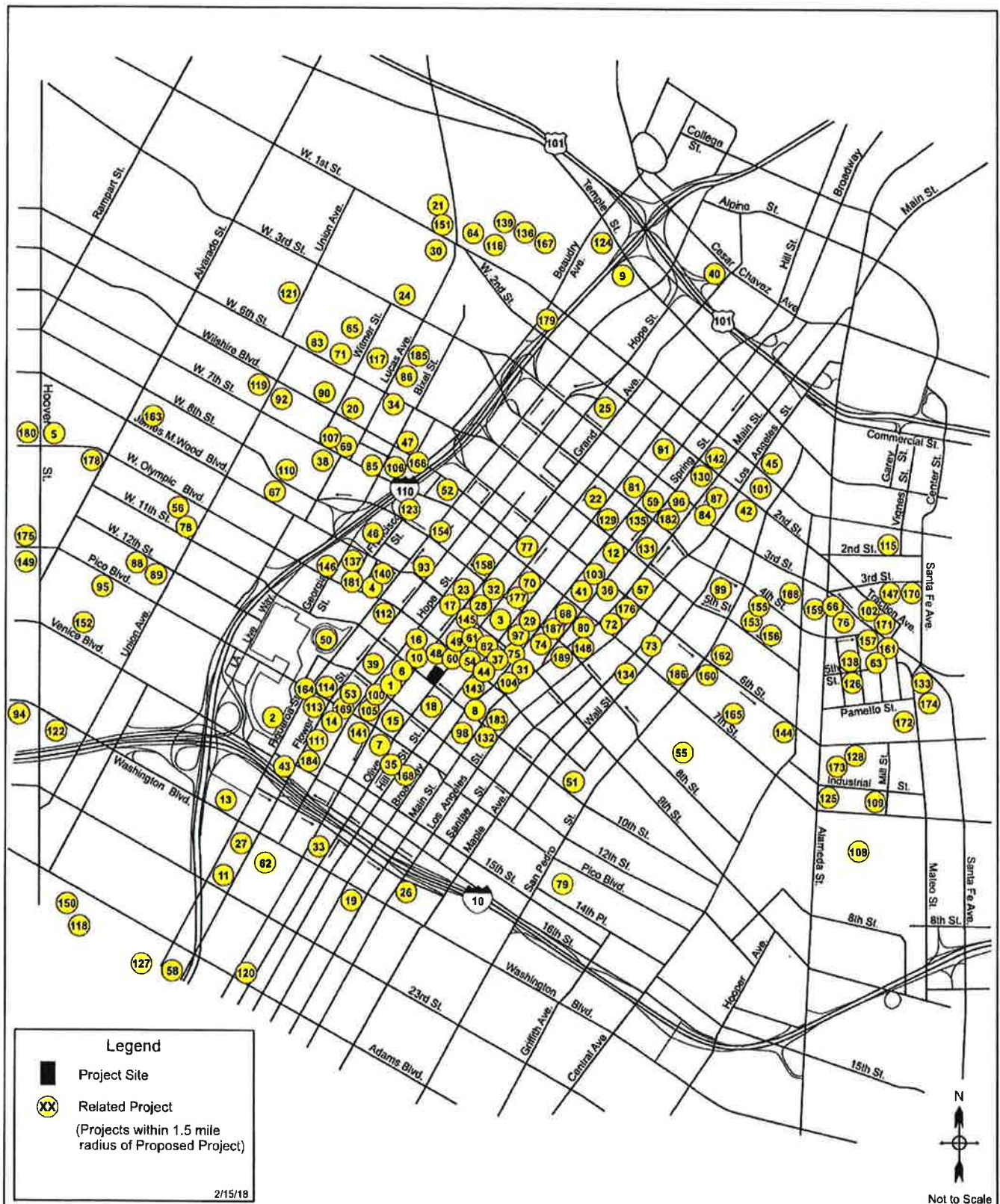


Figure D.1
Location of Related Projects

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Apartments	1247 S Grand Ave	115 DU 4,510 sf Apartments Commercial	763	10	41	51	42	25	67
2	1400 S Figueroa Residential Project	1400 S Figueroa	106 DU	647	10	38	48	39	32	71
3	Mixed-Use	920 S Olive St	522 DU 4,500 sf Apartments Retail	3,309	63	202	265	196	106	301
4	Variety Arts Project	940 S Figueroa St	3,295 sf 10,056 sf 5,119 sf Office Restaurant Bar	2,237	5	4	9	99	37	136
5	Apartments	1011 S Park View St	108 Units	594	9	38	47	38	19	57
6	DTLA South Park - Site 1	1120 S Grand Ave	666 DU 20,690 sf High-rise Apt Commercial/Retail	2,730	42	127	169	136	93	229
7	DTLA South Park - Site 4	1230 S Olive St	360 DU 6,400 sf Apartments Commercial	2,114	31	126	157	127	59	196
8	Mixed-Use (Herald Examiner)	146 W 11th (11th St / Broadway)	391 D U 39,725 sf 49,000 sf Apartments Office Retail	5,198	144	176	320	258	274	532
9	Mixed-Use	327 N Fremont Ave (Fremont / Temple)	600 D U 30,000 sf Apartments Retail	5,457	113	248	361	266	217	503
10	Restaurant Project	1036 S Grand Ave	7,149 sf Restaurant	492	2	3	5	27	14	41
11	2222 S Figueroa	2222 S Figueroa St	1,063 du 18,000 sf Condominium Retail	4,568	60	284	344	273	125	398
12	LA Plaza Cultura Village	527 N Spring St 555 N Broadway	345 DU 23,000 sf 21,000 sf 11,000 sf Apartments Retail Specialty Retail Restaurant	3,565	69	175	244	244	180	424

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
13	Mixed-Use	720 W Washington Blvd	105 Units 2,650 sf Apartments Retail	350	7	12	19	13	12	25
14	Onyx Apartment	Pico Blvd b/w Flower and Grand 1306 S Hope St	419 DU 42,000 sf Apartments Retail	4,280	88	105	193	136	102	238
15	G12 Project	North of Pico b/w Grand and Olive 1200 S Grand Av	540 DU 45,000 sf Apartments Retail	4,865	92	148	240	181	134	315
16	Mixed-Use	1050 S Grand Ave (Grand Ave / 11th St.)	151 DU 3,472 sf 2,200 sf Condominiums Retail Restaurant	1,084	15	54	69	64	35	99
17	Embassy Hotel	831 S Grand Ave	163 Rooms 3,084 sf 12,780 sf 4,773 sf 2,163 sf 11,840 sf Hotel Restaurant Theater Banquet Lounge Bar	2,493	57	43	100	130	59	189
18	11th & Hill Project	1115 S Hill St.	172 D.U 6,850 sf Condominiums Retail	543	45	40	5	50	7	43
19	Mixed Use	SOLA Village 1900 S Broadway	900 D.U 550 D.U 210 Rooms 143,100 sf 180,000 sf 17,500 sf 8,000 sf Condominiums Apartments (Rental) Hotel Retail/Commercial Office Gallery/Museum Gym	12,737	390	552	942	537	566	1,203
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Wilmer St	56,450 sf Imaging center, pharmacy, surgical suites, and physician offices	3,956	180	70	260	106	246	352
21	Charter High School	1552 W Rockwood St	500 Students Charter High School	715	122	58	180	26	29	55
22	Park/Film Project	427 W 5th 437 S Hill St	660 D.U 13,742 sf Condominiums Restaurant	4,707	71	273	344	279	158	437
23	9th & Flower Project	830 S Hope St	525 D.U 6,200 sf Apartments Retail	3,067	47	183	230	185	101	286

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
24	Mixed Use	1435 W 3rd Street	122 DU 3,500 sf Apartment Retail	711	11	42	53	41	25	66
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street. Parcel L/M-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street 237 S Grand Av	1,648 D.U 412 D.U 225,250 sf 53,000 sf 67,000 sf 50,000 sf 250 seats 275 Rooms 681,000 sf Condominiums Apartments Retail Supermarket Restaurant Health Club Event Facility Hotel Office	21,631	919	632	1,551	1,120	1,344	2,464
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Bl/Los Angeles St 220 E Washington Bl	230 DU 19,000 sf 32 DU Residential Units Specialty Retail/Restaurant Renovate Residential Units	2,113	38	118	156	125	53	178
27	Mixed Use	2100 S Figueroa	291 DU 7,134 sf Retail	870	-82	66	-16	67	-28	39
28	9th / Olive Project	840/888 S. Olive St	303 DU 9,680 sf 1,500 sf Apartments Retail Restaurant	3,071	81	166	247	174	96	270
29	Broadway Trade Center	801 S Broadway	400,000 sf 150 Rooms Office Hotel	5,638	596	108	704	147	539	686
30	Beverly + Lucas Project	1430 W Beverly Bl	157 DU Apartments	760	13	47	60	47	26	73
31	Broadway Mixed	955 S Broadway	201 D.U 6,000 sf Apartments Retail	1,275	21	72	93	74	43	117
32	801 S Olive Street Project	801 S Olive St	363 D.U 2,500 sf 10,000 sf Apartments Retail Restaurant	2,557	33	129	162	140	83	223

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
33	Mixed-Use Building	233 W Washington Bl	160 DU 24,250 sf Apartments Retail	438	25	56	81	89	71	160
34	Bixel & Lucas Project	1102 W 8th St	649 DU 39,996 sf Apartments Retail	4,200	61	195	256	232	155	387
35	Mixed-Use	215 W 14th St	154 DU 10,700 sf Condominiums Retail	1,700	51	82	133	89	57	146
36	SB OMEGA	601 S Main St	452 DU 25,000 sf High-rise Condo Retail	2,688	36	144	180	152	87	239
37	Hill Mixed	920 S Hill	239 DU 5,400 sf Apartments Retail	1,956	26	94	120	98	56	154
38	Wilmer Project	1329 W. 7th St. (7th / Wilmer)	94 DU 2,000 sf Condominiums Retail	662	16	37	53	39	22	61
39	1133 Hope Street Project	1133 Hope Street	208 DU 5,029 sf Condominiums Restaurant	1,543	20	74	94	91	50	141
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	300 DU 8,000 sf Apartment Retail	1,511	7	89	96	99	54	153
41	Spring St. Hotel	633 S Spring	176 Room 1,200 sf 1,200 sf 8,400 5,290 sf Apartments Conf. Spc. Restaurant Bar	2,045	83	33	116	97	99	196
42	Wakaba LA	Southwest corner of San Pedro and 2nd	240 DU 16,000 sf Apartments Retail	1,527	22	70	92	84	56	140
43	1600 S Figueroa	1600 S Figueroa St	202 DU 134 DU 250 rooms Condominium Apartments Hotel	3,492	90	157	247	170	117	287
44	Mixed-Use	928 S Broadway	662 DU 47,000 sf 11,000 sf 34,824 sf Apartments Retail Live/Work Office	4,715	21	228	250	272	109	381

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
45	Los Angeles Street Civic Center Project	150 N Los Angeles Street	712,500 sf 35,000 sf 2,500 sf Government Office Retail Child Care Facility	13,534	930	118	1,048	435	942	1,377
46	Metropolis Mixed-Use	851 S Francisco St (8th St / Francisco St) 899 S Francisco St	480 Rooms 836 D U 988,225 sf 46,000 sf Hotel Condominiums Office Retail	8,010	307	318	625	387	512	899
47	Mixed-Use Development	1027 W Wilshire Project (Wilshire / St Paul St)	402 D U 7,428 sf Condominiums Retail	1,498	21	92	113	83	53	136
48	Residential Project	1027 S Olive Street	100 DU Apartments	632	9	39	48	38	21	59
49	Embassy Tower	848 S Grand Av	420 DU 38,500 sf Hi-rise Condominiums Market	3,862	66	144	210	212	165	377
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext Projects)	Figueras St / 11th St	1,264 DU 95,706 sf 146,583 sf 60,000 sf 12,309 sf 6,000 sf 183 Rooms 367,300 sf 298,500 sf 250,000 sf Residential Educational Retail Restaurants Health Club Sport Bar Hotel Office Production Studio Convention Center Expansion	22,171	403	287	690	561	1,025	1,586
51	City Market Project	San Pedro Street b/w 9th St and 12th St 1057 S San Pedro St	1,400 Students 176,733 sf 744 Seats 945 DU 210 Rooms 224,862 sf 294,541 sf University Shopping Center Cinema Apartments Hotel Retail Office	16,433	837	434	1,271	532	957	1,589

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
52	Wishire Grand Redevelopment Project	930 W Wishire Bl 900 W Wishire Bl	Hotel Rooms Residential Units Office Retail/Restaurant	3,624	725	75	800	94	764	858
53	Flower (1212) Mixed -Use	1212 W Flower	Apartment Retail/Restaurant Office	3,956	78	233	311	229	121	350
54	Olympic / Hill Project	Northwest corner of Olympic / Hill 301 W Olympic Bl	Apartment Retail Restaurant	2,496	30	104	134	143	82	225
55	785 S Towne	785 S Towne Ave	Joint Living and Work Quarters	359	5	25	31	24	13	37
56	1700 W Olympic Hotel	1700 W Olympic	Hotel	1,157	44	32	76	45	42	87
57	Mixed-Use	534 S Main St	Apartment Retail Restaurant Fast-food Restaurant	2,213	52	75	127	87	56	145
58	USC Student Housing	505 W 31st St	Apartment	380	7	23	30	23	13	36
59	400 S Broadway Mixed-Use Project	400-416 Broadway	Apartment Retail Lounge	3,282	50	187	237	193	112	305
60	1001 S Olive	1001 S Olive St	Apartment Restaurant	1,581	22	78	101	94	51	145
61	Olive & Olympic	Northeast corner of Olive & Olympic 960 S Olive St	Apartment Restaurant	2,266	25	91	116	48	23	71
82	L.A. Trade Tech College - 5-Year Master Plan	400 Washington Blvd. (Washington Blvd. / Flower St.)	5-year Master Plan Project	8,420	336	127	463	574	268	842

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
63	Palmetto	Northeast corner of Palmetto & Sealton	310 DU 11,375 sf 11,736 sf Apartments Commercial Production Space	3,293	59	154	213	191	104	295
64	Mixed Use	1335 W 1st St	102 DU 3,514 sf Apartments Retail	714	10	40	50	42	24	66
65	Residential	455 S Hartford Ave	94 DU Apartments	838	9	37	46	43	23	66
66	330 S Alameda	330 S Alameda	166 DU 22,340 sf Apartments Commercial	1,662	36	76	112	91	65	156
67	Mixed-Use Project	1150 W Wishire	80 DU 4,589 sf Apartment Restaurant	511	-22	26	4	39	-5	34
68	Mixed Use	737 S Spring	320 DU 25,000 sf Apartments Pharmacy	3,942	72	141	213	167	116	283
69	Apartments	1215 W Ingraham St	90 DU Apartments	532	8	33	41	33	17	50
70	Foreman and Clark Building	400 402 W 7th St 701, 715 S Hill St	165 DU 11,902 sf 14,032 sf Apartments Bar Restaurant	2,752	18	57	75	132	127	259
71	Apartments	740 S Hartford St	80 Units Apartments	479	7	30	37	30	15	45
72	Cecil Hotel Reno.	640 S Main St	289 Rooms 301 DU Hotel Apartments	4,445	124	188	312	212	154	366
73	Clinic	649 S Wall St	66 employee 55 bed Medical Office Assisted Living	104	24	5	29	3	24	27
74	Garland Building	740 S Broadway	47 DU Apartments	313	5	19	24	19	10	29
75	Northeast Tower	215 W 9th St	210 DU 9,000 sf Condominiums Retail	1,140	14	56	70	64	38	102
76	400 S Alameda Hotel	400 S Alameda St	66 Rooms 2,130 sf 840 sf Hotel Restaurant Retail	508	19	17	36	23	14	37

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
77	Hotel + Retail	549 S Olive St	241 Rooms Hotel	1,574	65	44	109	63	50	123
78	Charter School (K-5)	1533 W 11th St	450 Students School	970	194	158	352	29	37	66
79	Residential	810 E Pico Blvd	181,620 sf Retail	1,869	54	34	88	59	53	122
80	Mixed Use	732 S Spring St	400 DU 15,000 sf Apartments Pharmacy/Drug Store	3,408	59	152	211	164	104	268
81	Mixed Use	340 S Hill	428 DU 6,700 sf Apartments Retail	2,361	34	129	163	141	79	220
82	Hill Mixed	940 S Hill	232 DU 14,000 sf Apartments Retail	1,861	20	80	100	115	53	168
83	Condominiums	742 S Hartford Ave	58 DU Condominiums	333	5	21	26	20	11	31
84	Buddhan of Los Angeles	237-249 S Los Angeles St	43,453 sf Sports Complex	1,969	79	50	129	161	98	259
85	Mixed Use	1145 W 7th St	126 DU 100 DU 7,200 sf Condominiums Apartments Retail	1,084	4	85	70	67	35	102
86	Sapphire Mixed Use	1111 W 6th St	369 DU 18,600 sf 2,200 sf 1,200 sf Apartments Retail Quality Restaurant Coffee Shop	587	-71	117	46	104	-51	53
87	Viviana Lofts	225 S Los Angeles St	300 DU 3,400 sf Condominiums Retail	1,910	88	136	224	75	52	127
88	Laborers Local 300 Headquarters	2005 W Pico Blvd	30,300 sf Office	224	28	4	32	5	25	30
89	Pacific Charter Elementary School	1700 W Pico Blvd.	450 Pupils School	482	105	89	195	31	28	60
90	Valencia Project	1501 Wilshire Blvd	216 DU 6,100 sf 1,500 sf Apartments Retail Other	1,163	-11	18	7	38	23	61

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
91	Retail / Restaurant	201 S Broadway	27,765 sf Retail and Restaurant	1,638	-40	-41	-81	53	17	70
92	Legal Aid Foundation of LA	1550 W 8th St.	33,957 sf Office	230	29	4	33	6	26	32
93	Apex Phase II	700 W 9th St.	341 DU 11,687 sf Condominiums Retail	2,624	37	146	183	143	95	238
94	Pharmacy / Drug Store	1302 W Washington Blvd	16,572 sf Other	414	-33	-18	-51	21	12	33
95	Charter High School	1929 W Pico Blvd	480 Pupils School	821	140	66	206	20	42	62
96	Medallion Phase II	300 S Main St.	471 DU 27,780 sf 5,190 sf Apartments Restaurant Retail	4,691	143	243	386	257	153	410
97	Alexan South Broadway	850 S Hill St.	300 DU 3,500 sf 3,500 sf Apartments Restaurant Retail	1,998	29	108	137	117	67	184
98	Proper Hotel	1106 S Broadway	148 Rooms 17,452 sf Hotel Restaurant	2,622	53	38	91	124	83	207
99	Catalina Building	443 S San Pedro St.	78 DU LiveWork	519	8	32	40	31	17	48
100	1201 S Grand	1201 S Grand Ave.	126 DU Condominiums	732	9	46	55	44	22	66
101	Mixed Use	1118 S Astronaut es Onizuka St.	77 DU Apartment	97	-1	20	19	19	6	25
102	Mixed Use	360 S Alameda	52 DU 2,400 sf 6,900 sf Apartment Restaurant Creative Office	648	25	33	58	35	26	61
103	Brooks Building	644 S Broadway	30 DU 2,500 sf Apartments Bar	480	3	12	15	31	16	47
104	950 S Broadway	950 S Broadway	30 DU 7,500 sf Apartments Retail	299	4	12	16	15	12	27
105	Grand Residence	1229 S Grand Ave	161 Units 2,085 sf Condominiums Restaurant	1,398	27	78	105	77	41	118

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
106	Hotel & Apartments	675 S Bixel St.	425 Units 126 Rooms 4,874 sf	3,451	74	173	247	184	116	300
107	Mixed-Use	1235 W 7th St	303 Units 5,959 sf	1,725	23	95	118	100	54	154
108	Mixed-Use Project	1800 E 7th St.	122 DU 13,600 sf	616	26	45	71	45	37	82
109	1745 E 7th St	1745 E 7th St	57 DU 6,000 sf	635	10	25	35	34	23	57
110	1322 Linwood Apts	1322 W Linwood Ave	45 Units	449	5	30	35	28	14	42
111	Mixed-Use	1334 S Flower St.	188 Units 10,096 sf	1,038	-3	63	60	67	22	89
112	LUXE Hotel Mixed-Use	1020 S Figueroa St	650 Units 300 Room 40,000 sf 40,000 sf	6,563	204	274	478	312	227	539
113	Mixed-Use	1400 S Flower St.	147 Units 6,921 sf	801	-1	49	48	51	17	68
114	Fig + Pico Hotel	Northeast corner of Figueroa St. & Pico Blvd.	1,162 Room 13,145 sf	5,720	192	125	317	203	212	415
115	Mixed-Use Project (Mostly private club)	929 E 2nd St	41,019 sf 53,893 sf	2,014	61	9	70	101	88	189
116	Apartments	1300 W Court St	43 DU	286	4	18	22	17	10	27
117	Urban View Lots Project	495 S Hartford	220 DU	1,033	16	63	79	62	34	96
118	Child Care	3014 S Royal St	7,997 sf	499	48	43	91	43	49	92

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
119	1930 Wilshire MU	1530 Wilshire Blvd	478 DU 850 Seats 50 Student 220 Rooms Apartments Theater Classroom Hotel	1,355	-44	128	84	103	-41	62
120	Mixed-Use	2528 S Grand Ave	296 DU 5,000 sf Apartments Retail	2,118	36	120	156	123	73	196
121		425 S Union Ave	32 DU Apartments	213	3	13	16	13	7	20
122	Medical Office	1122 W Washington Blvd	60,000 sf Office	2,060	107	29	136	57	146	203
123	Mixed-Use	945 W 8th St	781 DU 6,700 sf Condominium Retail	2,869	63	146	209	144	91	235
124	Ferante	1000 W Temple St	1,500 DU 30,000 sf Apartments Retail	1,804	-851	439	-412	393	-582	-189
125	Mixed-Used	668 Alameda Street	475 DU 43,000 sf 9,000 sf 17,000 sf 15,000 sf Apartments Office Specialty Retail Restaurant Supermarket	4,004	120	184	304	215	153	368
126	1100 E 5th St (Mixed-Use)	1100 E 5th Street	213 DU 14,495 sf 14,495 sf Apartment Retail Arts & Production Space	1,471	7	77	84	83	36	119
127	Figuerola Hotel	3101 S Figueroa St	275 rooms 1,178 sf Hotel Bar	1,167	48	33	81	48	51	99
128	6th & Alameda Mixed-Use	1206 6th St	1,736 253,514 sf 127,610 sf 22,429 sf 514 Rooms 300 Student Apartments Office Community-Serving Commercial Art Space Hotel School	15,167	474	624	1,098	758	692	1,450

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
129	5th & Hill Center MU	333 W 5th St	80 DU 200 Rooms 5,000 sf 22,500 sf Condominiums Hotel Restaurant Bar	3,271	63	66	129	196	126	322
130	Tribune Media's DTLA Tower	232 West 2nd St	107 DU 534,044 DU 7,200 sf Condominiums Office Retail	4,006	467	93	560	118	423	541
131	433 S Main St	433 S Main	196 DU 5,300 sf 900 sf Condominiums Retail Restaurant	1,450	32	72	104	61	37	98
132	Mixed-Use	1100 S Main St	379 DU 25,610 sf Apartments Other	385	9	103	112	78	14	92
133	Mixed-Use	520 S Mateo St	600 DU 15,000 sf 15,000 s.f 30,000 s.f Apartments Restaurant Retail Office	4,985	157	220	377	274	223	497
134	Southern California Flower Market Project	755 S Wall St	323 DU 53,200 sf 4,400 sf 4,420 sf 125 Persons Apartment Office Retail Other Other	2,499	108	82	190	164	141	305
135	Hellman / Banco Building	354 S Spring St	212 D.U.	1,410	22	86	108	85	46	131
136		1301 W Collon St	29 DU	193	3	12	15	12	6	18
137	Downtown LA Hotel	926 W James M Wood Blvd	247 Rooms	1,714	65	46	111	65	61	126
138	Arts District Center (Mixed-Use)	1101 E 5th St	228 DU 23,000 sf 27,860 sf 149 Rooms 56,100 sf Apartments Retail Office Hotel Other	4,266	102	121	223	179	102	281

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
139	1316 Court & 1323 Colton Apts	1316 W Court St	122 DU Apartments	745	11	46	57	45	24	69
140	Figuerola Centre	911 S Figuerola St	200 DU 220 rooms 44,060 sf 50,000 sf Condominiums Hotel Retail Restaurant	7,367	454	115	569	703	191	894
141	Mixed-Use	1323 Grand Ave	284 DU 6,300 sf Apartments Retail	2,158	33	118	151	125	74	199
142	Times Mirror Square	100 S Broadway	1,127 DU 285,088 sf 50,000 sf 22,200 sf 53,389 sf Apartments Office Supermarket Quality Restaurant Hight Turnover Restaurant	8,535	94	341	435	294	38	332
143	Mixed-Use	1000 S Hill St	498 DU 8,707 sf Apartments Retail	3,392	49	183	242	181	104	285
144	Mixed-Use	801 S Central Ave	236 DU 12,000 sf Apartments Retail	1,074	17	79	96	70	32	102
145	845 S Olive & 842 Grand MU	845 S Olive	208 DU 810 sf 1,620 sf Apartments Retail Other	1,305	25	76	101	77	42	119
146	Olympia Mixed-Use	1001 W Olympic	1,367 DU 20,000 sf 20,000 sf Apartments Retail Other	8,063	116	510	626	503	209	712
147	Mixed-Use	806 E 3rd St	3,047 sf 7,720 sf 6,171 sf Bar/Lounge Restaurant Retail	1,847	41	34	75	92	54	146
148	Mixed-Use	755 S Los Angeles	32,400 65,000 4,000 Retail Office Restaurant	2,482	110	57	167	105	100	205

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd	125 Rooms	409	25	19	45	10	9	19
150	USC Children's Creative Learning Center	2716 S Severance St	9,955 sf	737	64	57	121	58	65	123
151	Apartments	101 N Glendale Blvd.	55 DU	366	6	22	28	22	12	34
152		1420 Bonnie Brae St	29 DU	193	3	12	15	12	6	18
153	Mixed-Use	809 E 5th St	151 DU	1,004	15	62	77	61	33	94
154	8th & Fig	744 S Figueroa St	438 DU	2,644	37	146	183	159	86	244
			3,750 Retail							
			3,750 Restaurant							
155	Affordable Housing Development	508 E 4th St	41 DU	167	8	12	20	8	5	14
156	Residential	713 E 5th St	51 DU	208	15	10	25	9	8	17
157	Mixed-Use	401 Hewitt St	255,614 sf 4,970 sf 9,940 sf	3,488	366	75	441	100	322	422
			Office							
			Retail							
			Other							
158	8th, Grand & Hope Tower	754 S Hope St	408 DU 7,329 sf	2,315	35	137	172	137	78	215
159	Mixed-Use	333 Alameda St	994 DU 99,300 sf	8,445	134	260	394	390	329	719
			Apartments							
			Retail							
160	19-story Affordable Housing Skid Row	500 S San Pedro St	303 DU 19,907 sf	636	38	25	63	30	37	67
			Affordable Housing							
			Retail							
161	Hewitt & 4th MU	940 E 4th St	93 DU 6,000 sf 14,248 sf	788	14	37	51	44	31	75
			Apartments							
			Office							
			Retail							
162	Affordable Housing Skid Row	552 S San Pedro St	378 DU 4 DU 1,758 sf 4,410 sf 5,932 sf	2,186	107	138	245	96	88	184
			Affordable Housing							
			Apartments							
			Retail							
			Office							
			Dining Room/Flex Space							

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
163	2005 James M Wood Hotel	2005 W James M Wood Blvd	100 Rooms Hotel	545	24	18	42	20	18	38
164	1300 Figueroa Hotel	1300 S Figueroa St	1,024 Rooms Hotel	8,366	320	223	543	313	301	614
165		656 S Standford Ave	82 DU Apartments	1,463	8	34	42	33	18	51
166	Mixed-Use	1018 W Ingraham St	37 DU Apartments 1,950 sf Retail	327	5	16	21	18	12	30
167	Apartments	1246 W Court St	54 DU Apartments	359	6	22	28	21	12	33
168	14th St/Hill St (DTLA) MU	1340 S Hill St	235 DU Retail 5,250 sf 4,000 sf Other	1,755	11	103	114	108	30	138
169		1219 S Hope St	75 Rooms Hotel	613	24	16	40	23	22	45
170	Santa Fe Freight Yard Redevelopment	950 E 3rd St	635 DU Retail 30,062 sf	4,618	72	207	279	266	158	424
171	Mixed-Use (Coca Cola)	963 E 4th St	78,600 sf Retail 25,000 sf Restaurant 20,000 sf	2,512	106	22	128	113	138	251
172	Retail	555 S Mateo St	153,000 sf Retail	4,300	5	30	35	220	205	425
173	Camden Arts Project	1525 Industrial St	344 DU Office 21,413 sf 6,084 sf Restaurant	2,331	54	77	131	87	66	152
174	Restaurant	500 S Mateo St	12,882 sf Restaurant	1,052	48	41	89	50	31	81
175	Apartments	1255 E Elden Ave	103 DU Apartments	376	0	32	32	28	10	38
176	Mixed-Use	550 S Main St	159 DU Apartments 23,000 sf Retail	2,039	30	73	103	105	79	184
177	Freehand Hotel	416 W 8th St	226 rooms Hotel 8,000 sf Retail	2,017	73	51	124	151	76	227
178	Assisted Living	1030 S Lake St	338 Beds 34 DU Assisted Living Senior Housing	939	39	23	62	49	48	97

Table D.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
179	Beauty Ave & 2nd St MU	130 S Beauty Ave	230 DU 9,000 sf Apartments Other	1,159	8	75	84	76	29	105
180	Olympic & Hoover Mixed-Use	2501 W Olympic Bl	173 DU 36,180 sf Apartments Retail	1,911	27	72	99	100	73	173
181	Olympic Tower Project MU	815 W Olympic Bl	373 Rooms 374 DU 65,074 sf 10,801 sf 33,498 sf Hotel Condominiums Retail Conference Center Office	4,423	186	170	356	189	185	374
182	Hotel	361 S Spring	315 Rooms Hotel	2,273	91	59	150	84	85	169
183	Harris Building Office Conversion	11th St & Main St	52,000 sf Office	364	40	1	41	-1	38	37
184	Mixed-Use	1410 S Flower St	152 DU 1,184 sf Apartments Retail	1,062	17	62	79	63	35	98
185	Mixed-Use	1322 W Maryland St	47 DU 760 sf Apartments Retail	344	6	19	25	20	12	32
186	Apartments	655 San Pedro St	81 DU Apartments	539	8	33	41	33	17	50
187	Fashion District Tower	222 E 7th St	452 DU 13,655 sf Apartments Commercial	3,749	82	199	281	211	124	335
188		605 E 4th St	3,798 sf Restaurant	342	2	1	3	19	9	28
189	716 S Spring	716 S Spring	6,208 sf Restaurant	558	3	2	5	31	15	46

Table D.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project 2/14/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Infrastructure Projects										
190	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station	Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations	0	0	0	0	0	0	0
191	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Fig St. & Vernon Ave.	Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers.	0	0	0	0	0	0	0
192	Los Angeles Streetcar	Broadway between 1st St. & 11th St. between Fig St. & Broadway, Fig St. between 7th St. & 11th St., Hill St. between 1st St. & 7th St. & Hill St.	Enhance mobility and transit circulation and support the growth and revitalization of downtown	0	0	0	0	0	0	0
193	7th Street Improvement Project	7th St. between SR 110 and Olive St.	Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding	0	0	0	0	0	0	0
Total				483,654	13,841	18,848	32,689	24,350	19,472	43,822

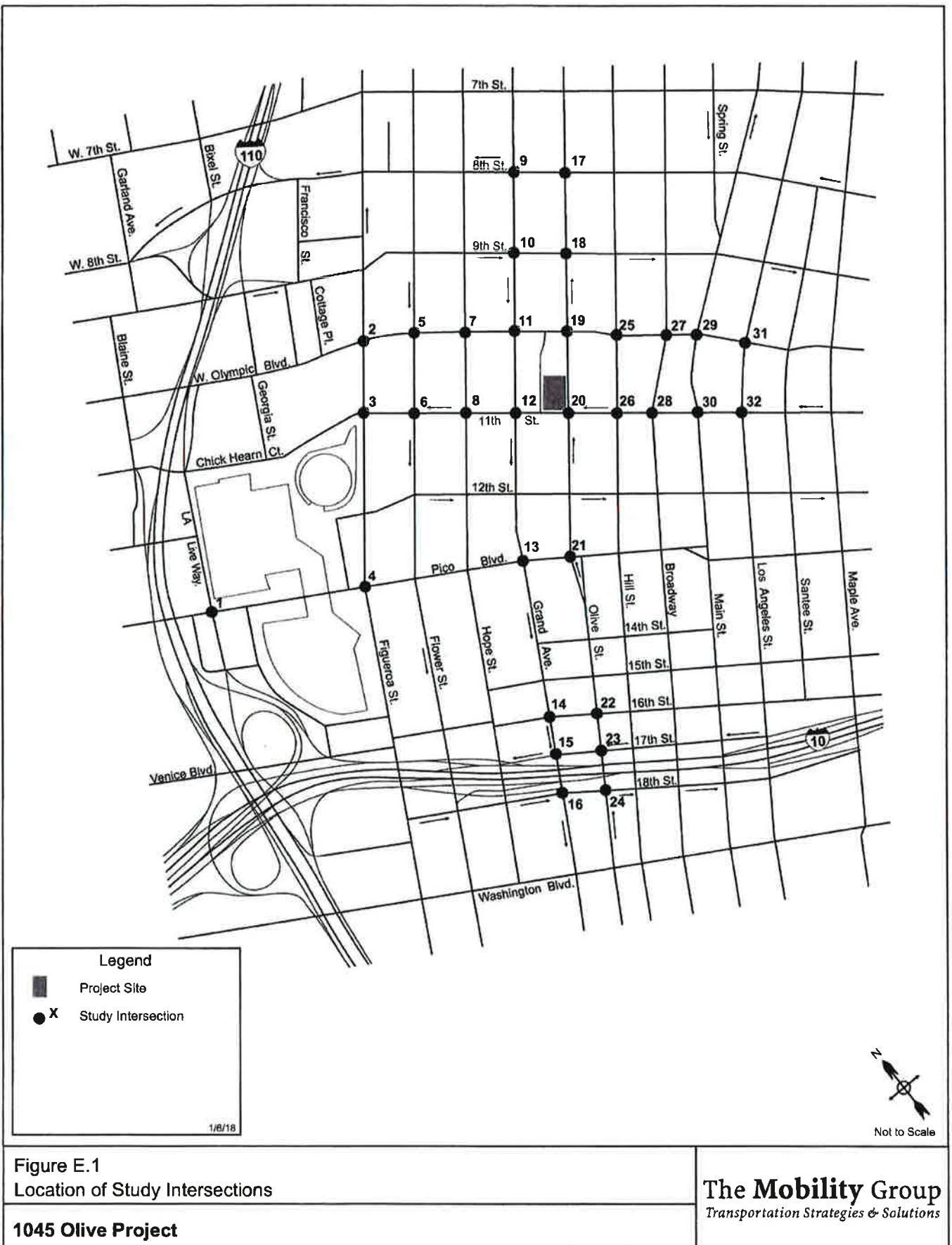
Attachment E
Study Intersections

1045 Olive – Study Intersections

After a review of the Project location, surrounding street network and location of signalized intersections, TMG proposes the following study intersections for the impact analysis:

1. LA Live Way & Pico Boulevard
2. Figueroa Street & Olympic Boulevard
3. Figueroa street & 11th Street
4. Figueroa street & Pico Boulevard
5. Flower Street & Olympic Boulevard
6. Flower Street & 11th Street
7. Hope Street & Olympic Boulevard
8. Hope Street & 11th Street
9. Grand Avenue & 8th Street
10. Grand Avenue & 9th Street
11. Grand Avenue & Olympic Boulevard
12. Grand Avenue & 11th Street
13. Grand Avenue & Pico Boulevard
14. Grand Avenue & 16th Street
15. Grand Avenue & 17th Street
16. Grand Avenue & 18th Street
17. Olive Street & 8th Street
18. Olive Street & 9th Street
19. Olive Street & Olympic Boulevard
20. Olive Street & 11th Street
21. Olive Street & Pico Boulevard
22. Olive Street & 16th Street
23. Olive Street & 17th Street
24. Olive Street & 18th Street
25. Hill Street & Olympic Boulevard
26. Hill Street & 11th Street
27. Broadway & Olympic
28. Broadway & 11th Street
29. Main Street & Olympic Boulevard
30. Main Street & 11th Street

31. Los Angeles Street & Olympic Boulevard
32. Los Angeles Street & 11th Street



Attachment F

Freeway Threshold Check

1045 Olive – Freeway Threshold Check

The following freeway mainline and off-ramp locations were evaluated as part of the Freeway Threshold Check required by the December 2015 LADOT/Caltrans MOU.

This MOU between LADOT and Caltrans (Agreement Between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures, December 2015) sets forth criteria for when a freeway impact analysis should be conducted, including that if certain thresholds are exceeded then analysis of the freeway system is required.

The Agreement outlines the specific criteria and thresholds designed to identify if a Project is required to conduct the additional freeway analysis. Per the Agreement executed by LADOT and Caltrans, if a Project exceeds any of the following thresholds then the additional freeway analysis would be required:

Freeway Mainline

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

Freeway Ramps

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

An evaluation threshold check was conducted for the five freeway mainline locations and four freeway off-ramp locations closest to the Project. The evaluation tables are included in the following pages.

Freeway Mainline Locations:

The freeway mainline check was conducted at the following location.

- I-110 South of US-101
- I-110 South of 9th Street
- I-110 North of Exposition Boulevard
- I-10 East of Los Angeles Street
- I-10 West of Vermont Avenue

The number of Project vehicle trips expected to travel along these freeway mainline segments was estimated based on the Project trip generation and Project trip distribution. The freeway mainline volume increase that would be created by Project vehicle trips was compared against the thresholds provided in the LADOT/Caltrans Agreement.

The analysis shown in Table F-1 and Table F-2 for the AM and PM peak hours respectively, shows that the threshold would not be exceeded at any of the freeway segments in either peak hour. It is concluded that no further analysis is necessary.

Freeway Ramp Locations:

The freeway ramp check was conducted for the following off-ramps.

- SR-110 SB off-ramp at James M Wood Boulevard
- SR-110 NB off-ramp at L.A. Live Way
- I-10 EB off-ramp at Grand Avenue
- I-10 WB off-ramp at Los Angeles Street

The number of Project vehicle trips expected to travel on these freeway off-ramps was estimated based on the Project trip generation and Project trip distribution.

An analysis was conducted of these off-ramps using HCM 2010 methodology and the level of service (LOS) results are shown in Table F.3. The analysis shows that none of the off-ramps are operating at LOS D or worse. The thresholds are therefore not applicable. It was therefore concluded that no further analysis is necessary.

Table F-1 1045 Olive Project - Freeway Segment - Threshold Check - AM Peak Hour

No.	Location	DIR	No of Lanes	Capacity	Project Trips	Project Trip %	Threshold %	Exceed Threshold ?
1	I-110 South of US-101	NB	4G	8,000	16	0.2%	1%	No
		SB	3G	6,000	4	0.1%	1%	No
2	I-110 South of 9th Street	NB	4G + 2C-D	12,000	0	0.0%	1%	No
		SB	5G	10,000	0	0.0%	1%	No
3	I-110 North of Exposition Boulevard	NB	5G	10,000	2	0.0%	1%	No
		SB	5G	10,000	6	0.1%	1%	No
4	I-10 East of Los Angeles Street	EB	4G + 1A	9,000	13	0.1%	1%	No
		WB	4G + 1A	9,000	3	0.0%	1%	No
5	I-10 West of Vermont Avenue	EB	4G+2A	10,000	3	0.0%	1%	No
		WB	4G+2A	10,000	13	0.1%	1%	No

Note: The freeway segment analysis shown in the above table was conducted assuming the subject freeway segments were operating at LOS E or F. This methodology was chosen to represent the most conservative conditions, per the MOU thresholds.

Table F-2 1045 Olive Project - Freeway Segment - Threshold Check - PM Peak Hour

No.	Location	DIR	No of Lanes	Capacity	Project Trips	Project Trip %	Threshold %	Exceed Threshold ?
1	I-110 South of US-101	NB	4G	8,000	6	0.1%	1%	No
		SB	3G	6,000	14	0.2%	1%	No
2	I-110 South of 9th Street	NB	4G + 2C-D	12,000	0	0.0%	1%	No
		SB	5G	10,000	0	0.0%	1%	No
3	I-110 North of Exposition Boulevard	NB	5G	10,000	6	0.1%	1%	No
		SB	5G	10,000	2	0.0%	1%	No
4	I-10 East of Los Angeles Street	EB	4G + 1A	9,000	5	0.1%	1%	No
		WB	4G + 1A	9,000	11	0.1%	1%	No
5	I-10 West of Vermont Avenue	EB	4G+2A	10,000	11	0.1%	1%	No
		WB	4G+2A	10,000	5	0.1%	1%	No

Note: The freeway segment analysis shown in the above table was conducted assuming the subject freeway segments were operating at LOS E or F. This methodology was chosen to represent the most conservative conditions, per the MOU thresholds.

Table F-3 1045 Olive Project - Freeway Off Ramp - Threshold Check Analysis - AM & PM

No.	Location	Time Period	Volume	Off-Ramp Delay	Off-Ramp LOS	Intersection Delay	Intersection LOS	Threshold ¹ Applicable	Project Trips	Exceed Threshold ?
1	SR-110 SB off-ramp at James M Wood Boulevard	AM	1,592	9.8	A	12.2	B	NA	4	N/A
		PM	1,147	7.3	A	11.5	B	NA	14	N/A
2	SR-110 NB off-ramp at L.A. Live Way ¹	AM	1,884	2.0	A	2.5	A	NA	2	N/A
		PM	1,865	1.9	A	2.4	A	NA	6	N/A
3	I-10 EB off-ramp at Grand Avenue	AM	1,357	26.1	C	23.3	C	NA	3	N/A
		PM	1,400	32.0	C	25.5	C	NA	11	N/A
4	I-10 WB off-ramp at Los Angeles Street	AM	1,016	25.4	C	20.5	C	NA	3	N/A
		PM	953	30.1	C	21.7	C	NA	11	N/A

General Notes:

Source of count: 2017 traffic counts, except location #1 2016 factored to 2017.

Note: 1. Thresholds not applicable if level of service is LOS C or better.

Attachment G

CMP Analysis Locations

1045 Olive - CMP Analysis Locations

Based on the monitoring locations in CMP, we anticipate investigation of the following:

Arterial Monitoring Stations:

- Washington Boulevard & Alameda Street
- Wilshire Boulevard & Alvarado Street
- Sunset Boulevard & Alvarado Street

Freeway Monitoring Stations:

- I-10 at Budlong Avenue
- I-10 east of LA City Limit
- SR-60 east of Indiana Street
- US-101 north of Vignes Street
- SR-110 south of US-101
- SR-110 north of Alpine Street
- SR-110 at Slauson Avenue
- US-101 south of Santa Monica Boulevard

Appendix B
Related Projects Map and List

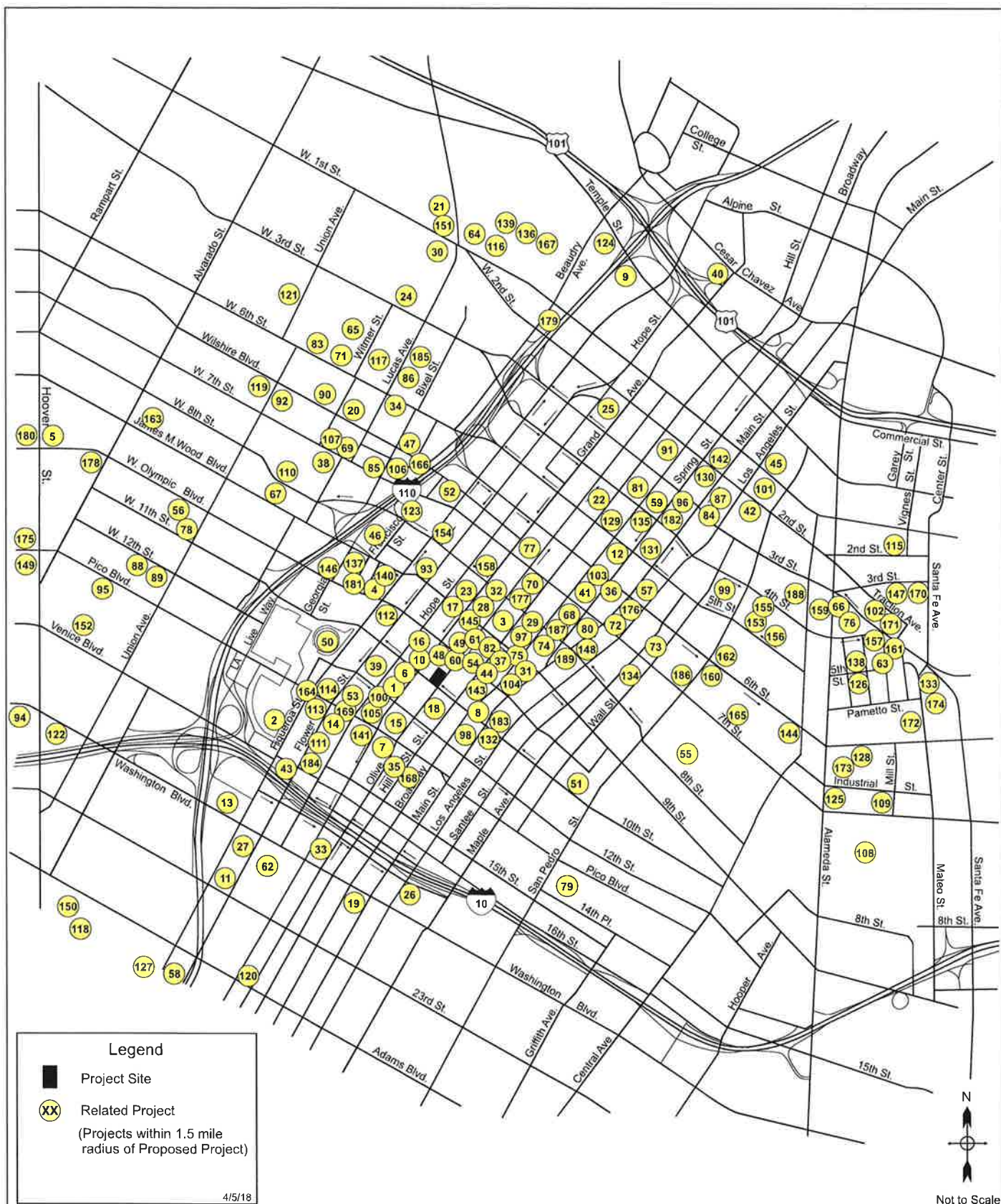


Figure B.1
Location of Related Projects

1045 Olive Project

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Apartment	1247 S Grand Ave	115 DU 4,610 sf Apartments Commercial	763	10	41	51	42	25	67
2	1400 S Figueroa Residential Project	1400 S Figueroa	106 DU Apartments	647	10	38	48	39	32	71
3	Mixed-Use	820 S Olive St	522 DU 4,500 sf Apartments Retail	3,309	63	202	265	195	106	301
4	Variety Arts Project	940 S Figueroa St	3,285 sf 10,056 sf 5,119 sf Office Restaurant Bar	2,237	5	4	9	99	37	136
5	Apartment	1011 S Park View St	108 Units Apartments	594	9	38	47	38	19	57
6	DTLA South Park - Site 1	1120 S Grand Ave	666 DU 20,690 sf High-rise Apt Commercial/Retail	2,730	42	127	169	136	93	229
7	DTLA South Park - Site 4	1230 S Olive St	360 DU 6,400 sf Apartments Commercial	2,114	31	126	157	127	69	196
8	Mixed-Use (Herald Examiner)	146 W 11th (11th St / Broadway) 1111 S Broadway	391 DU 39,725 sf 49,000 sf Apartments Office Retail	5,198	144	176	320	258	274	532
9	Mixed-Use	327 N Fremont Ave. (Fremont / Temple)	600 DU 30,000 sf Apartments Retail	5,457	113	248	361	286	217	503
10	Restaurant Project	1036 S Grand Ave	7,149 sf Restaurant	492	2	3	5	27	14	41
11	2222 S Figueroa	2222 S Figueroa St	1,063 du 18,000 sf Condominium Retail	4,568	60	284	344	273	125	398
12	LA Plaza Cultura Village	527 N Spring St 555 N Broadway	345 DU 23,000 sf 21,000 sf 11,000 sf Apartments Retail Specialty Retail Restaurant	3,565	69	175	244	244	180	424

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
13	Mixed-Use	720 W Washington Blvd.	105 Units 2,650 sf Apartments Retail	350	7	12	19	13	12	25
14	Onyx Apartment	Pico Blvd. b/w Flower and Grand 1306 S Hope St	419 DU 42,000 sf Apartments Retail	4,280	88	105	193	136	102	238
15	G12 Project	North of Pico b/w Grand and Olive 1200 S Grand Av	640 DU 45,000 sf Apartments Retail	4,886	92	148	240	181	134	315
16	Mixed-Use	1050 S. Grand Ave (Grand Ave. / 11th St.)	151 DU 3,472 sf 2,200 sf Condominiums Retail Restaurant	1,084	15	54	69	64	35	99
17	Embassy Hotel	831 S Grand Ave.	183 Rooms 3,084 sf 12,780 sf 4,773 sf 2,163 sf 11,840 sf Hotel Restaurant Theater Banquet Lounge Bar	2,493	57	43	100	130	59	189
18	11th & Hill Project	1115 S Hill St.	172 DU 6,850 sf Condominiums Retail	543	-45	40	-5	50	-7	43
19	Mixed Use	SOLA Village 1900 S Broadway	900 DU 550 DU 210 Rooms 143,100 sf 180,000 sf 17,600 sf 8,000 sf Condominiums Apartments (Rental) Hotel Retail/Commercial Office Gallery/Museum Gym	12,737	390	552	942	637	566	1,203
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Wilmer St.	56,450 sf Imaging center, pharmacy, surgical suites, and physician offices	3,996	190	70	260	106	246	352
21	Charter High School	1552 W Rockwood St	600 Students Charter High School	715	122	58	180	26	29	55
22	Park/Fifth Project	427 W 5th 437 S Hill St	660 DU 13,742 sf Condominiums Restaurant	4,707	71	273	344	279	158	437
23	9th & Flower Project	830 S Hope St	525 DU 6,200 sf Apartments Retail	3,067	47	183	230	185	101	286

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
24	Mixed Use	1435 W 3rd Street	122 DU 3,500 sf Apartment Retail	711	11	42	53	41	25	66
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street. Parcel L/M-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street 237 S Grand Av	1,648 D.U 412 D.U 225,250 sf 53,000 sf 67,000 sf 50,000 sf 250 seats 275 Rooms 681,000 sf Condominiums Apartments Retail Supermarket Restaurant Health Club Event Facility Hotel Office	21,631	919	632	1,551	1,120	1,344	2,464
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Bl/Los Angeles St 220 E Washington Bl	230 DU 19,000 sf 32 DU Residential Units Specialty Retail/Restaurant Renovate Residential Units	2,113	38	118	156	125	53	178
27	Mixed Use	2100 S Figueroa	291 DU 7,134 sf Retail	870	-82	66	-16	67	-28	39
28	9th / Olive Project	840/868 S. Olive St	303 DU 9,680 sf 1,500 sf Apartments Retail Restaurant	3,071	81	166	247	174	96	270
29	Broadway Trade Center	801 S Broadway	400,000 sf 150 Rooms Office Hotel	5,538	596	108	704	147	539	686
30	Beverly + Lucas Project	1430 W Beverly Bl	157 DU Apartments	780	13	47	60	47	26	73
31	Broadway Mixed	955 S Broadway	201 D.U 6,000 sf Apartments Retail	1,275	21	72	93	74	43	117
32	801 S Olive Street Project	801 S Olive St	363 D.U 2,500 sf 10,000 sf Apartments Retail Restaurant	2,557	33	129	162	140	83	223

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
33	Mixed-Use Building	233 W Washington Bl	160 DU 24,250 sf Apartments Retail	438	25	56	81	89	71	160
34	Bixel & Lucas Project	1102 W 6th St	649 DU 39,996 sf Apartments Retail	4,200	61	195	256	232	155	387
35	Mixed-Use	215 W 14th St	154 DU 10,700 sf Condominiums Retail	1,700	51	82	133	89	57	146
36	SB OMEGA	601 S Main St	452 DU 25,000 sf High-rise Condo Retail	2,686	36	144	180	152	87	239
37	Hill Mixed	920 S Hill	239 DU 5,400 sf Apartments Retail	1,656	26	94	120	98	56	154
38	Wilmer Project	1329 W 7th St (7th / Wilmer)	94 DU 2,000 sf Condominiums Retail	662	16	37	53	39	22	61
39	1133 Hope Street Project	1133 Hope Street	208 DU 5,029 sf Condominiums Restaurant	1,543	20	74	94	91	50	141
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	300 DU 8,000 sf Apartment Retail	1,511	7	89	96	99	54	153
41	Spring St. Hotel	633 S Spring	176 Room 1,200 sf Conf Spc Restaurant Bar	2,045	83	33	116	97	99	196
42	Wakaba LA	southwest corner of San Pedro and 2nd	240 DU 16,000 sf Apartments Retail	1,527	22	70	92	84	56	140
43	1600 S Figueroa	1600 S Figueroa St	202 DU 134 DU 250 rooms Condominium Apartments Hotel	3,482	90	157	247	170	117	287
44	Mixed-Use	928 S Broadway	662 DU 47,000 sf 11,000 sf 34,824 sf Apartments Retail Live/Work Office	4,715	21	229	250	272	109	381

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
45	Los Angeles Street Civic Center Project	150 N Los Angeles Street	Government Office Retail Child Care Facility	13,534	930	118	1,048	435	942	1,377
46	Metropolis Mixed-Use	851 S. Francisco St. (8th St. / Francisco St.) 899 S. Francisco St.	Hotel Condominiums Office Retail	8,010	307	318	625	387	512	899
47	Mixed-Use Development	1027 W. Wilshire Project (Wilshire / St. Paul St.)	Condominiums Retail	1,498	21	92	113	83	53	136
48	Residential Project	1027 S Olive Street	Apartments	632	9	39	48	38	21	59
49	Embassy Tower	848 S Grand Av	Hi-rise Condominiums Market	3,882	66	144	210	212	165	377
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Figueroa St. / 11th St.	Residential Educational Retail Restaurants Health Club Sport Bar Hotel Office Production Studio Convention Center Expansion	22,171	403	287	690	661	1,025	1,686
51	City Market Project	San Pedro Street b/w 9th St and 12th St. 1057 S San Pedro St.	University Shopping Center Cinema Apartments Hotel Retail Office	16,433	837	434	1,271	632	957	1,589

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
52	Wilshire Grand Redevelopment Project	930 W Wilshire Bl 900 W Wilshire Bl	560 Rooms 100 DU Residential Units 1,500,000 sf Office 275,000 sf Retail/Restaurant	3,624	725	75	800	94	764	858
53	Flower (1212) Mixed-Use	1212 W Flower	730 DU 10,500 sf Retail/Restaurant 70,465 sf Office	3,956	78	233	311	229	121	350
54	Olympic / Hill Project	Northwest corner of Olympic / Hill 301 W Olympic Bl	300 DU 14,500 sf Retail 8,500 sf Restaurant	2,496	30	104	134	143	82	225
55	785 S Towne	785 S Towne Ave.	60 DU Joint Living and Work Quarters	399	6	25	31	24	13	37
56	1700 W Olympic Hotel	1700 W Olympic	160 Rooms Hotel	1,157	44	32	76	45	42	87
57	Mixed-Use	534 S Main St	160 DU 18,000 sf Retail 3,500 sf Restaurant 3,500 sf Fast-food Restaurant	2,213	52	75	127	87	58	145
58	USC Student Housing	505 W 31st St.	73 DU Apartments	380	7	23	30	23	13	36
59	400 S Broadway Mixed-Use Project	400-416 Broadway	450 DU Apartments 6,904 sf Retail 5,000 sf Lounge	3,292	50	187	237	193	112	305
60	1001 S Olive	1001 S Olive St	225 DU Apartments 5,000 sf Restaurant	1,581	22	79	101	94	51	145
61	Olive & Olympic	Northeast corner of Olive & Olympic 960 S Olive St.	263 DU Apartments 14,500 sf Restaurant	2,266	25	91	116	48	23	71
62	L.A Trade Tech College - 5-Year Master Plan	400 Washington Blvd. (Washington Blvd / Flower St.)	21,300 Enrollment 5-year Master Plan Project	8,420	336	127	463	574	268	842

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
63	Palmetto	Northeast corner of Palmetto & Seaton	310 DU 11,375 sf 11,736 sf Apartments Commercial Production Space	3,283	59	154	213	191	104	295
64	Mixed Use	1335 W 1st St	102 DU 3,514 sf Apartments Retail	714	10	40	50	42	24	66
65	Residential	459 S Hartford Ave	94 DU Apartments	658	9	37	46	43	23	66
66	330 S Alameda	330 S Alameda	186 DU 22,340 sf Apartments Commercial	1,662	36	76	112	91	65	156
67	Mixed-Use Project	1150 W Wilshire	80 DU 4,589 sf Apartment Restaurant	511	-22	26	4	39	-5	34
68	Mixed Use	737 S Spring	320 DU 25,000 sf Apartments Pharmacy	3,942	72	141	213	167	115	283
69	Apartments	1218 W Ingraham St	90 DU Apartments	532	8	33	41	33	17	50
70	Foreman and Clark Building	400 402 W 7th St 701, 715 S Hill St	165 DU 11,902 sf 14,032 sf Apartments Bar Restaurant	2,792	18	57	75	132	127	259
71	Apartments	740 S Hartford St	80 Units Apartments	479	7	30	37	30	15	45
72	Cecil Hotel Reno	640 S Main St	299 Rooms 301 DU Hotel Apartments	4,445	124	188	312	212	154	366
73	Clinic	649 S Wall St	66 employee 55 bed Medical Office Assisted Living	104	24	5	29	3	24	27
74	Garland Building	740 S Broadway	47 DU Apartments	313	5	19	24	19	10	29
75	Northeast Tower	215 W 9th St	210 DU 9,000 sf Condominiums Retail	1,140	14	56	70	64	38	102
76	400 S Alameda Hotel	400 S Alameda St	66 Rooms 2,130 sf 840 sf Hotel Restaurant Retail	508	19	17	36	23	14	37

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
77	Hotel + Retail	649 S Olive St	241 Rooms Hotel	1,674	65	44	109	63	60	123
78	Charter School (K-5)	1633 W 11th St	460 Students School	970	194	158	352	29	37	66
79	Retail	810 E Pico Blvd	181,820 sf Retail	1,889	54	34	88	59	63	122
80	Mixed Use	732 S Spring St	400 DU 15,000 sf Apartments Pharmacy/Drug Store	3,409	59	152	211	164	104	268
81	Mixed Use	340 S Hill	428 DU 6,700 sf Apartments Retail	2,361	34	129	163	141	79	220
82	Hill Mixed	940 S Hill	232 D U 14,000 sf Apartments Retail	1,881	20	80	100	115	53	168
83	Condominiums	742 S Hartford Ave	58 DU Condominiums	333	5	21	26	20	11	31
84	Budokan of Los Angeles	237-249 S Los Angeles St	43,453 sf Sports Complex	1,869	79	50	129	161	98	259
85	Mixed Use	1145 W 7th St	126 DU 100 DU 7,200 sf Condominiums Apartments Retail	1,084	4	66	70	67	35	102
86	Sapphire Mixed Use	1111 W 6th St	369 DU 18,600 sf 2,200 sf 1,200 sf Apartments Retail Quality Restaurant Coffee Shop	587	-71	117	46	104	-51	53
87	Vibiana Lofts	225 S Los Angeles St	300 DU 3,400 sf Condominiums Retail	1,910	88	136	224	75	52	127
88	Laborers Local 300 Headquarters	2005 W Pico Blvd	30,300 sf Office	224	28	4	32	5	25	30
89	Pacific Charter Elementary School	1700 W Pico Blvd	450 Pupils School	492	106	89	195	31	29	60
90	Valencia Project	1501 Wilshire Blvd	218 DU 6,100 sf 1,500 sf Apartments Retail Other	1,163	-11	18	7	38	23	61

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
91	Retail / Restaurant	201 S Broadway	27,765 sf Retail and Restaurant	1,638	-40	-41	-81	53	17	70
92	Legal Aid Foundation of LA	1550 W 8th St.	33,957 sf Office	230	29	4	33	6	26	32
93	Apex Phase II	700 W 9th St.	341 DU 11,687 sf Condominiums Retail	2,624	37	146	183	143	95	238
94	Pharmacy / Drug Store	1302 W Washington Blvd.	16,572 sf Other	414	-33	-18	-51	21	12	33
95	Charter High School	1929 W Pico Blvd.	480 Pupils School	821	140	66	206	20	42	62
96	Medallion Phase II	300 S Main St.	471 DU 27,780 sf 5,190 sf Apartments Restaurant Retail	4,691	143	243	386	257	153	410
97	Alexan South Broadway	850 S Hill St.	300 DU 3,500 sf 3,500 sf Apartments Restaurant Retail	1,998	29	108	137	117	67	184
98	Proper Hotel	1106 S Broadway	148 Rooms 17,452 sf Hotel Restaurant	2,622	53	38	91	124	83	207
99	Catalina Building	443 S San Pedro St.	78 DU Live/Work	519	8	32	40	31	17	48
100	1201 S Grand	1201 S Grand Ave.	126 DU Condominiums	732	9	46	55	44	22	66
101	Mixed Use	118 S Astronaut es Ortizuka St.	77 DU Apartment	97	-1	20	19	19	6	25
102	Mixed Use	360 S Alameda	52 DU 2,400 sf 6,900 sf Apartment Restaurant Creative Office	648	25	33	58	35	26	61
103	Brooks Building	644 S Broadway	30 DU 2,500 sf Apartments Bar	480	3	12	15	31	16	47
104	950 S Broadway	950 S Broadway	30 DU 7,500 sf Apartments Retail	299	4	12	16	15	12	27
105	Grand Residence	1229 S Grand Ave	161 Units 2,085 sf Condominiums Restaurant	1,398	27	78	105	77	41	118

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
106	Hotel & Apartments	675 S Bixel St	425 Units 126 Rooms 4,874 sf Apartments Hotel Retail	3,461	74	173	247	184	116	300
107	Mixed-Use	1235 W 7th St	303 Units 5,959 sf Condominiums Retail	1,725	23	95	118	100	54	154
108	Mixed-Use Project	1800 E 7th St	122 DU 13,600 sf Apartments Office	816	26	45	71	45	37	82
109	1745 E 7th St	1745 E 7th St	57 DU 6,000 sf Apartments Commercial	635	10	25	35	34	23	57
110	1322 Linwood Apts.	1322 W Linwood Ave	45 Units Apartments	449	5	30	35	28	14	42
111	Mixed-Use	1334 S Flower St	188 Units 10,096 sf Apartments Retail / Restaurant	1,038	-3	63	60	67	22	89
112	LUXE Hotel Mixed-Use	1020 S Figueroa St	650 Units 300 Room 40,000 sf 40,000 sf Condo Hotel Restaurant Retail	6,583	204	274	478	312	227	539
113	Mixed-Use	1400 S Flower St	147 Units 6,921 sf Apartments Retail	801	-1	49	48	51	17	68
114	Fig + Pico Hotel	Northeast corner of Figueroa St & Pico Blvd	1,162 Room 13,145 sf Hotel Retail	5,720	192	125	317	203	212	415
115	Mixed-Use Project (Mostly private club)	929 E 2nd St	41,019 sf 63,893 sf Retail Other	2,014	61	9	70	101	88	189
116	Apartments	1300 W Court St	43 DU Apartments	286	4	18	22	17	10	27
117	Urban View Lofts Project	495 S Hartford	220 DU Apartments	1,033	16	63	79	62	34	96
118	Child Care	3014 S Royal St	7,997 sf Child Care Facility	499	48	43	91	43	49	92

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
119	1930 Wishire MU	1930 Wishire Blvd	478 DU 850 Seats 50 Student 220 Rooms Apartments Theater Classroom Hotel	1,355	-44	128	84	103	-41	62
120	Mixed-Use	2528 S Grand Ave	296 DU 5,000 sf Apartments Retail	2,118	36	120	156	123	73	196
121		425 S Union Ave	32 DU Apartments	213	3	13	16	13	7	20
122	Medical Office	1122 W Washington Blvd	60,000 sf Office	2,060	107	29	136	57	146	203
123	Mixed-Use	945 W 8th St	781 DU 6,700 sf Condominium Retail	2,869	63	146	209	144	91	235
124	Ferante	1000 W Temple St	1,500 DU 30,000 sf Apartments Retail	1,804	-851	439	-412	393	-562	-189
125	Mixed-Used	668 Alameda Street	475 DU 43,000 sf 9,000 sf 17,000 sf 15,000 sf Apartments Office Specialty Retail Restaurant Supermarket	4,004	120	184	304	215	153	368
126	1100 E 5th St (Mixed-Use)	1100 E 5th Street	213 DU 14,495 sf 14,495 sf Apartments Retail Arts & Production Space	1,471	7	77	84	83	36	119
127	Figuerola Hotel	3101 S Figuerola St	275 rooms 1,178 sf Hotel Bar	1,167	48	33	81	48	51	99
128	6th & Alameda Mixed-Use	1206 6th St	1,736 253,514 sf 127,610 sf 22,429 sf 514 Rooms 300 Student Apartments Office Community-Serving Commercial Art Space Hotel School	15,167	474	624	1,098	758	692	1,450

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
129	5th & Hill Center MU	333 W 5th St	80 DU 200 Rooms 5,000 sf 22,500 sf Condominiums Hotel Restaurant Bar	3,271	63	66	129	196	126	322
130	Tribune Media's DTLA Tower	232 West 2nd St	107 DU 534,044 sf 7,200 sf Condominiums Office Retail	4,006	467	93	560	118	423	541
131	433 S Main St	433 S Main	196 DU 5,300 sf 900 sf Condominiums Retail Restaurant	1,450	32	72	104	61	37	98
132	Mixed-Use	1100 S Main St	379 DU 25,810 sf Apartments Other	385	9	103	112	78	14	92
133	Mixed-Use	520 S Mateo St	600 DU 15,000 sf 15,000 s.f 30,000 s.f Apartments Restaurant Retail Office	4,995	157	220	377	274	223	497
134	Southern California Flower Market Project	755 S Wall St	323 DU 53,200 sf 4,400 sf 4,420 sf 125 Persons Apartment Office Retail Other Other	2,499	108	82	190	164	141	305
135	Heilman / Banco Building	354 S Spring St.	212 D.U.	1,410	22	86	108	85	46	131
136		1301 W Colton St	29 DU	193	3	12	15	12	6	18
137	Downtown LA Hotel	925 W James M Wood Blvd	247 Rooms	1,714	65	46	111	65	61	125
138	Arts District Center (Mixed-Use)	1101 E 5th St	228 DU 23,000 sf 27,860 sf 149 Rooms 56,100 sf Apartments Retail Office Hotel Other	4,266	102	121	223	179	102	281

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
139	1316 Court & 1323 Colton Apts	1316 W Court St	Apartments 122 DU	745	11	46	57	45	24	69
140	Figueroa Centre	911 S Figueroa St	Condominiums Hotel Retail Restaurant 220 rooms 44,080 sf 50,000 sf	7,367	454	115	569	703	191	894
141	Mixed-Use	1323 Grand Ave	Apartments Retail 284 DU 6,300 sf	2,158	33	118	151	125	74	199
142	Times Mirror Square	100 S Broadway	Apartments Office Supermarket Quality Restaurant Hight Turnover Restaurant 1,127 DU 285,088 sf 50,000 sf 22,200 sf 53,389 sf	8,535	94	341	435	294	38	332
143	Mixed-Use	1000 S Hill St	Apartments Retail 498 DU 8,707 sf	3,392	49	193	242	181	104	285
144	Mixed-Use	601 S Central Ave	Apartments Retail 236 DU 12,000 sf	1,074	17	79	96	70	32	102
145	845 S Olive & 842 Grand MU	845 S Olive	Apartments Retail Other 208 DU 810 sf 1,620 sf	1,305	25	76	101	77	42	119
146	Olympia Mixed-Use	1001 W Olympic	Apartments Retail Other 1,367 DU 20,000 sf 20,000 sf	8,063	116	510	626	503	209	712
147	Mixed-Use	806 E 3rd St	Bar/Lounge Restaurant Retail 3,047 sf 7,720 sf 6,171 sf	1,647	41	34	75	92	54	146
148	Mixed-Use	755 S Los Angeles	Retail Office Restaurant 32,400 65,000 4,000	2,482	110	57	167	105	100	205

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd	125 Rooms	409	26	19	45	10	9	19
150	USC Children's Creative Learning Center	2716 S Severance St	9,955 sf	737	64	57	121	58	65	123
151	Apartments	101 N Glendale Blvd	55 DU	366	6	22	28	22	12	34
152		1420 Bonnie Brae St	29 DU	193	3	12	15	12	6	18
153	Mixed-Use	609 E 5th St	151 DU	1,004	15	62	77	61	33	94
154	8th & Fig	744 S Figueroa St	438 DU 3,750 Retail 3,750 Restaurant	2,644	37	146	183	158	86	244
155	Affordable Housing Development	508 E 4th St	41 DU	167	8	12	20	8	6	14
156	Residential	713 E 5th St	51 DU	208	15	10	25	9	8	17
157	Mixed-Use	401 Hewitt St	255,514 sf 4,970 sf 9,940 sf	3,488	366	75	441	100	322	422
158	8th, Grand & Hope Tower	754 S Hope St	409 DU 7,329 sf	2,315	35	137	172	137	78	215
159	Mixed-Use	333 Alameda St	994 DU 98,300 sf	8,445	134	260	394	380	329	719
160	19-story Affordable Housing Skid Row	600 S San Pedro St	303 DU 19,907 sf	636	38	25	63	30	37	67
161	Hewitt & 4th MU	940 E 4th St	93 DU 6,000 sf 14,248 sf	788	14	37	51	44	31	75
162	Affordable Housing Skid Row	552 S San Pedro St	378 DU 4 DU 1,756 sf 4,410 sf 5,932 sf	2,186	107	138	245	96	88	184

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
163	2005 James M Wood Hotel	2005 W James M Wood Blvd	Hotel	545	24	18	42	20	18	38
164	1300 Figueroa Hotel	1300 S Figueroa St	Hotel	8,366	320	223	543	313	301	614
165		656 S Standford Ave	Apartments	1,463	8	34	42	33	18	51
166	Mixed-Use	1018 W Ingraham St	Apartments Retail	327	5	16	21	18	12	30
167	Apartments	1246 W Court St	Apartments	359	6	22	28	21	12	33
168	14th St/Hill St (DTLA) MU	1340 S Hill St	Apartments Retail Other	1,755	11	103	114	108	30	138
169		1219 S Hope St	Hotel	613	24	16	40	23	22	45
170	Santa Fe Freight Yard Redevelopment	950 E 3rd St	Apartments Retail	4,618	72	207	279	266	158	424
171	Mixed-Use (Coca Cola)	963 E 4th St	Office Retail Restaurant	2,512	106	22	128	113	138	251
172	Retail	555 S Mateo St	Retail	4,300	5	30	35	220	205	425
173	Camden Arts Project	1525 Industrial St	Apartments Office Restaurant	2,331	54	77	131	67	65	152
174	Restaurant	500 S Mateo St	Restaurant	1,052	48	41	89	50	31	81
175	Apartments	1255 E Elden Ave	Apartments	376	0	32	32	28	10	38
176	Mixed-Use	550 S Main St	Apartments Retail	2,039	30	73	103	105	79	184
177	Freehand Hotel	416 W 8th St	Hotel	2,017	73	51	124	151	76	227
178	Assisted Living	1030 S Lake St	Retail Assisted Living Senior Housing	939	39	23	62	49	48	97

Table B.1 Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
179	Beaudry Ave & 2nd St MU	130 S Beaudry Ave	Apartments Other 230 DU 9,000 sf	1,159	8	76	84	76	29	105
180	Olympic & Hoover Mixed-Use	2501 W Olympic Bl	Apartments Retail 173 DU 36,180 sf	1,911	27	72	99	100	73	173
181	Olympic Tower Project MU	815 W Olympic Bl	Hotel Condominiums Retail Conference Center Office 373 Rooms 374 DU 65,074 sf 10,801 sf 33,498 sf	4,423	166	170	336	189	185	374
182	Hotel	361 S Spring	Hotel 315 Rooms	2,273	91	59	150	84	85	169
183	Harris Building Office Conversion	11th St & Main St	Office 52,000 sf	364	40	1	41	-1	38	37
184	Mixed-Use	1410 S Flower St	Apartments Retail 152 DU 1,184 sf	1,062	17	62	79	63	35	98
185	Mixed-Use	1322 W Maryland St	Apartments Retail 47 DU 760 sf	344	6	19	25	20	12	32
186	Apartments	655 San Pedro St	Apartments 81 DU	539	8	33	41	33	17	50
187	Fashion District Tower	222 E 7th St	Apartments Commercial 452 DU 13,655 sf	3,749	82	199	281	211	124	335
188		605 E 4th St	Restaurant 3,798 sf	342	2	1	3	19	9	28
189	716 S Spring	716 S Spring	Restaurant 6,208 sf	558	3	2	5	31	15	46

Table B.1

Related Projects List and Trip Generation Estimation - 1045 Olive Project

2/20/2018

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Infrastructure Projects								
190	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station	Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations.	0	0	0	0	0
191	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Fig St. & Broadway, and Martin Luther King Jr. Blvd. between Fig St. & Vernon Ave.	Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers.	0	0	0	0	0
192	Los Angeles Streetcar	Broadway between 1st St. & 11th St. between Fig St. & Broadway, Fig St. between 7th St. & 11th St., Hill St. between 1st St. & 7th St./9th St. between Fig St. & Hill St.	Enhance mobility and transit circulation and support the growth and revitalization of downtown.	0	0	0	0	0
193	7th Street Improvement Project	7th St. between SR 110 and Olive St.	Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding.	0	0	0	0	0
Total				483,654	13,841	18,848	24,350	19,472
								43,822

Appendix C

Driveway & Site Circulation

Appendix C Driveway and Site Circulation

Vehicle Access

Vehicular access will be provided by one driveway on Olive Street and two driveways on the alley. The Olive Street driveway will be two lanes (one in and one out) and will provide in and out access for commercial and residential uses and will access the on-site subterranean parking levels. It will be designed to LADOT standards with adequate visibility. The two alley driveways, which are consistent with City policy for residential project access to occur from alleys where they exist (Section 5.A.11 and Figure 5-3 of the Downtown Design Guide), will provide access to the residential parking, with the northern driveway accessing the subterranean parking levels and the southern driveway accessing the above-grade parking levels. Each driveway will be two lanes (one in and one out). The Olive Street driveway and the northern alley driveway will connect across the Project site to provide access to the subterranean parking levels. The alley provides access to Olympic Boulevard and to 11th Street. At Olympic Boulevard all turn movements are possible at the alley as Olympic Boulevard is a two-way street. At 11th Street only right in and right out turns are possible at the alley as 11th Street is one way westbound. The Project will widen the alley to a 10-foot half width to meet the City's 20' standard 20-foot total alley width. An on-site loading dock will be provided on the alley, to enable deliveries and move-ins/moves-outs to occur without stationary vehicles in the alley. The alley driveways will be perpendicular to the alley, with adequate visibility, and will be designed to LADOT standards to ensure there will be no hazardous conditions created.

Because alley intersections are unsignalized and traffic signals are not implemented at alleys, LADOT has no guidelines for analysis of, nor thresholds for significant impacts, for alleys or for alley intersections. To this end, the Project would provide a widened alley, loading within the Project building, a driveway access off Olive Street, and through access between the alley and Olive Street, which taken together would minimize impacts to the alley. For informational purposes an analysis of the alley traffic conditions was conducted. This addressed traffic volumes on the alley and the vehicle queues that currently occur (Existing Conditions) and that are forecast for the alley in the Future Without Project and Future with Project conditions.

Existing traffic volumes on the alley, and on the adjacent streets of Olympic Boulevard, 11th Street, and Olive Street, are shown in Figures C-1 and C-2, and in Figures C-3 and C-4 for the Future Without Project conditions. Figures C-5 and C-6 show the Project only traffic forecasts, and Figures C-7 and C-8 show the Future With Project volumes. These include traffic from all of the projects on the same block as the Proposed Project, and were obtained from traffic counts conducted in March 2018. It should be noted that the Ten50 Project (across the alley from the Proposed Project) has a driveway only on the alley, the 1001 Olive Project (to the north of the Proposed Project on Olive Street) has a driveway on both Olive Street and the alley, and the 1000 Grand Project (to the north of the Project and on the west side of the alley) has a driveway on Grand Avenue and the alley). For each of these projects loading occurs from the alley.

Table C-1 shows the existing levels of service estimates for the alley movements and the calculated queue lengths exiting the alley at Olympic Boulevard and at 11th Street for the Existing, Future Without Project, and Future With Project conditions. These represent the 95th percentile queues (essentially the maximum queue length - the vehicle queue length that would be exceeded only 5% of the time).

As shown in Table C-1, for both the AM and PM peak hours for the existing conditions the maximum queue on the alley at both Olympic Boulevard and 11th Street is one vehicle.

Forecast volumes for the Future Without Project are shown in Figures C-3 and C-4. The alley volumes are the same as existing conditions (no changes to land uses adjacent to the alley), but the volumes on Olympic Boulevard and 11th Street increase in the future with the related projects included in the traffic analysis. As previously noted in Chapter 5, the future street traffic forecasts are very conservative because the analysis includes both a list of specific related projects and a general background growth factor, and also not all of the related projects may be ultimately built, and not all may be built by 2023 (the buildout year of the Project). The future forecast analysis therefore likely overstates the future growth in traffic for the horizon year without the Project.

The 1001 Olive Project has a driveway on the alley that is approximately 110 feet from the Olympic Boulevard curb line. The 1000 Grand Project (across the alley) has a driveway slightly further south on the alley that is approximately 140 feet from the Olympus Boulevard curb line.

For the Future Without Project conditions, as shown in Table C-1, due to the increased traffic on the street system, the maximum queue on the alley at Olympic Boulevard would increase from one vehicle to five vehicles in the AM peak hour, but would remain at one vehicle in the PM peak hour. At 11th Street the queue on the alley would remain at one vehicle in both peak hours.

In the Future Without Project condition, the maximum AM peak hour queue on the alley at Olympic Boulevard would extend approximately 110 feet¹ from the Olympic Boulevard curb. However, the curb traffic lane is currently 14 foot from the curb due to a striped-out area adjacent to the curb that is used for parking and is not used for traffic. So traffic exiting the alley will most probably use this roadway area to queue prior to turning to allow visibility to the west down Olympic Boulevard. So typically the maximum queue distance would extend 110 feet from the travel lane line and 96 feet from the curb line for the Future Without Project Condition.

Figure C-5 and C-6 show the estimated vehicle volumes for the Proposed Project on the Project driveways and on the alley in the AM and PM peak hours respectively. These were estimated assuming that the traffic from the commercial uses would use the Olive Street driveway, and that the traffic from the residential uses would use the Olive Street driveway and both alley driveways, according to their likely destinations on leaving the Project, likely origins from arriving traffic, the

¹ Assumes 22 feet per vehicle.

street circulation patterns, and the most convenient route². Figures C-7 and C-8 show the Future With Project volumes for the AM and PM peak hours respectively.

As shown in Table C-1, with the Future With Project conditions, the queue on the alley at Olympic Boulevard in the AM peak hour would increase from five to six vehicles with the Proposed Project, and in the PM peak hour would increase from one to two vehicles. As also shown in Table C-1 the queue in the alley at 11th Street would remain at one vehicle with the Project in both the AM and PM peak hours. At Olympic Boulevard, the AM peak hour maximum queue would increase to approximately 132 feet from the traffic lane line or 118 feet from the curb line with the Proposed Project, so could occasionally extend to the 1001 Olive Project driveway. Although, because these are the effective maximum queues (95th percentile), these queues would only occur intermittently and not on a regular basis. The 1001 Olive Project also has a driveway to Olive Street as an alternate to use of the alley.

It should be noted however, that this analysis is conservative for the reasons discussed above regarding the future forecasts, and because both the 1001 Olive and the 1000 Grand project traffic could use the driveways to Olive Street and Grand Avenue respectively instead of the alley, or could exit the alley via 11th Street, thereby having alternatives to the use of the alley at Olympic Boulevard.

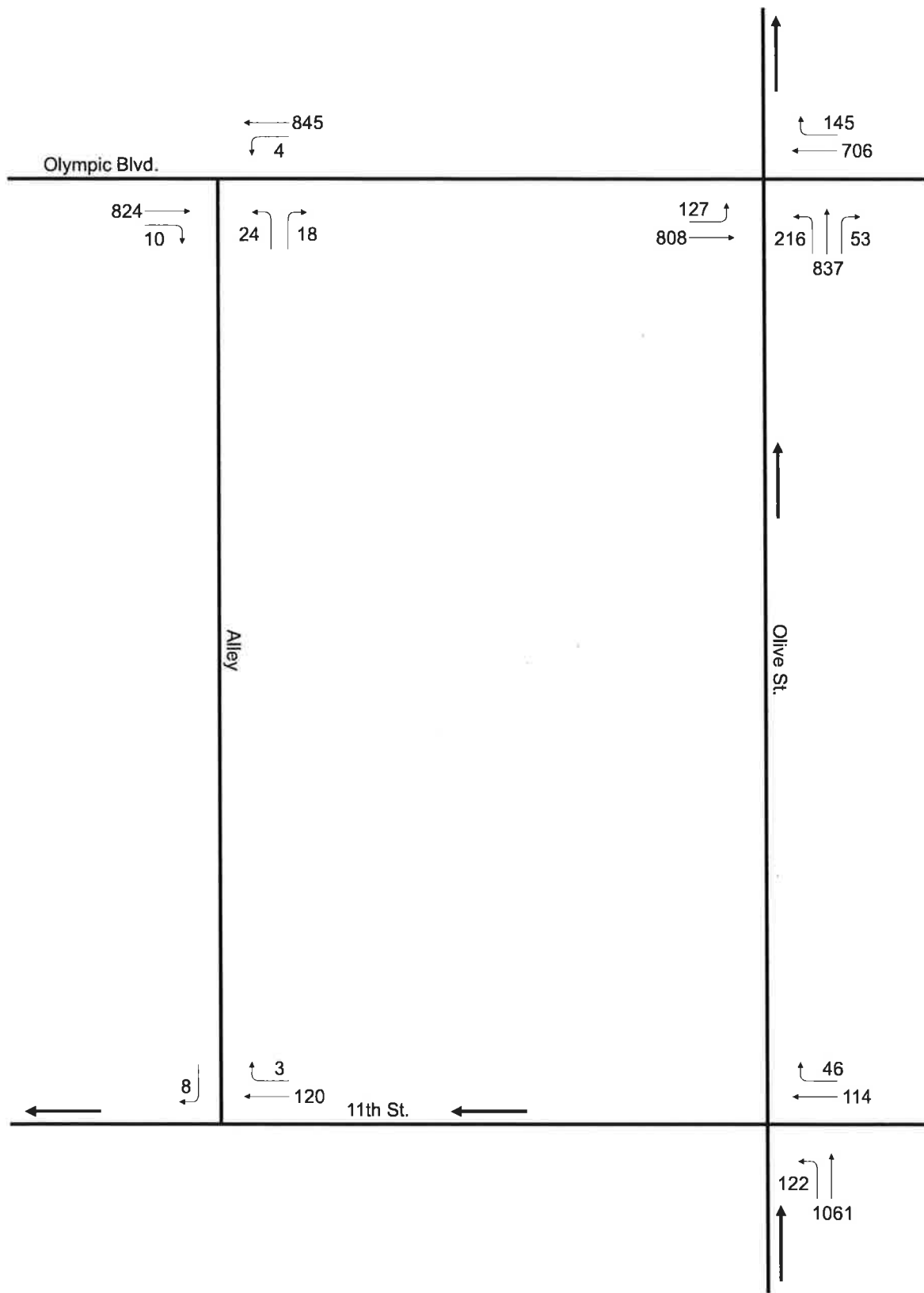
As shown in Appendix C, queue lengths with the Project in the PM peak at Olympic Boulevard and at 11th Street in both the AM and PM peak hours would be minimal (one to two cars).

Pedestrian and Bicycle Access

Pedestrian access will be provided from Olive Street and 11th Street with direct access from the sidewalks to commercial uses and the residential lobby. The Project will maintain the existing seventeen foot sidewalk on Olive Street, and provide a fifteen foot sidewalk on 11th Street (including a three foot easement). A pedestrian plaza will be provided at the corner of Olive Street and 11th Street to enhance pedestrian circulation. The Project will enhance the pedestrian streetscape and walkability adjacent to the Project. Design of the pedestrian realm will ensure no hazardous conditions are created.

Bicycle access to the Project will be facilitated by the existing bicycle lanes on Olive Street and 11th Street. On-site bicycle parking will be provided to LAMC requirements, with some short-term bicycle parking located along the adjacent sidewalks.

² Project traffic was not assigned to the northbound left turn out from the alley to Olympic Boulevard, due to the projected difficulty of making that move in the future. Project traffic was not assigned to the right turn out of the north alley driveway of the Project, as that traffic would use the Olive Street driveway.



5/4/18

Figure C.1
Existing Traffic Volumes - AM Peak Hour

1045 Olive Project

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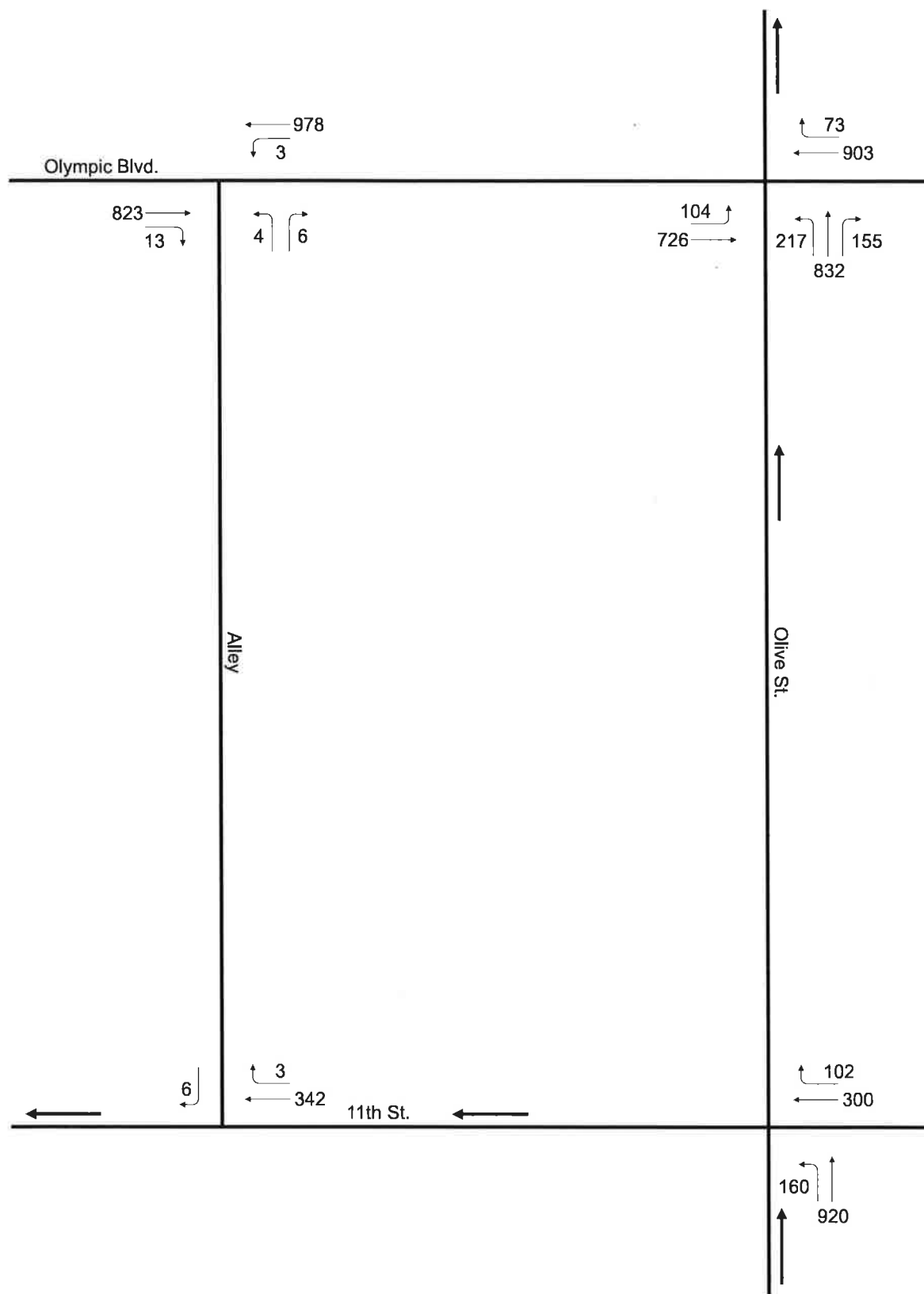
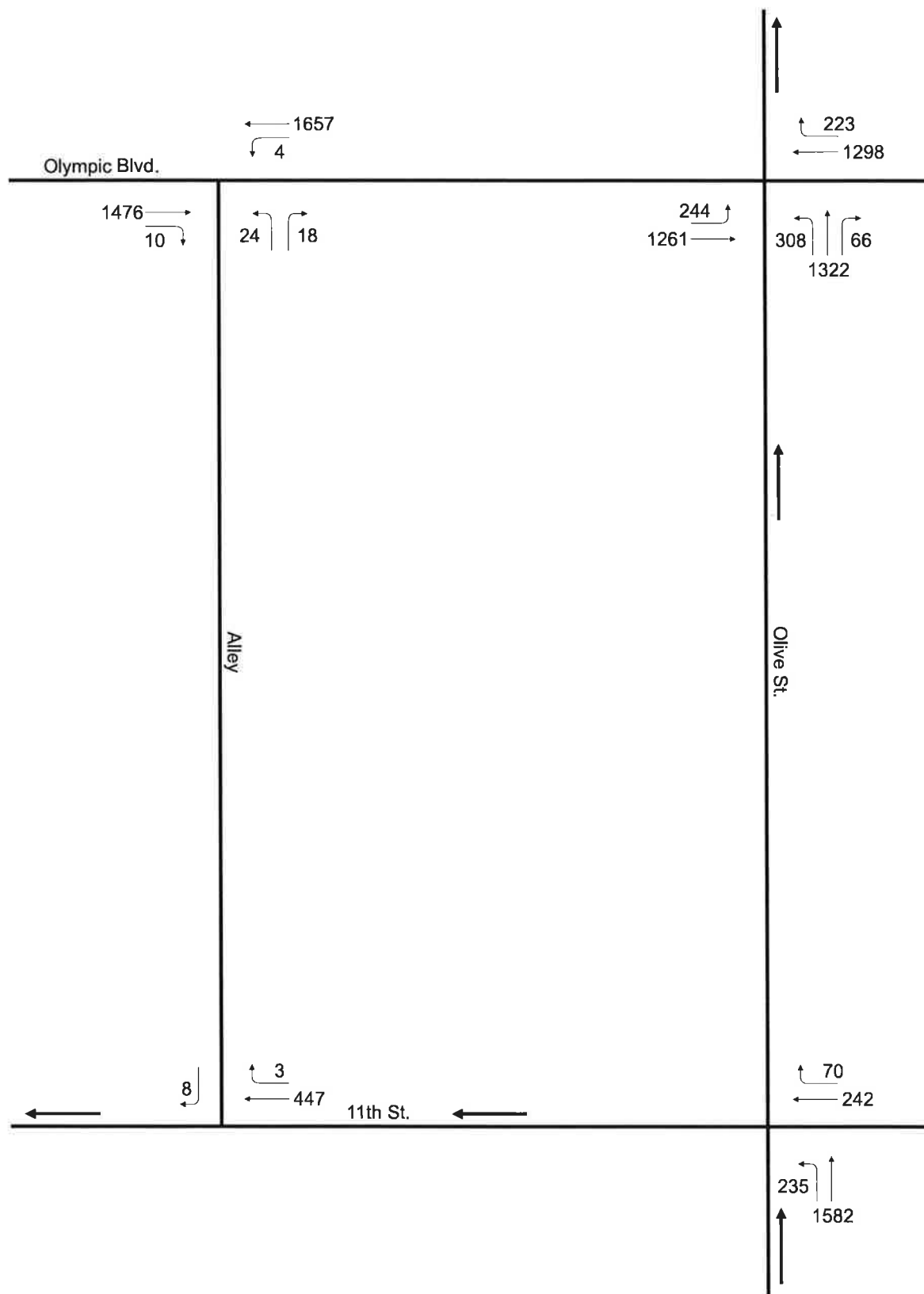


Figure C.2
Existing Traffic Volumes - PM Peak Hour

1045 Olive Project



5/4/18

Figure C.3
Future Without Project Traffic Volumes - AM Peak Hour

1045 Olive Project

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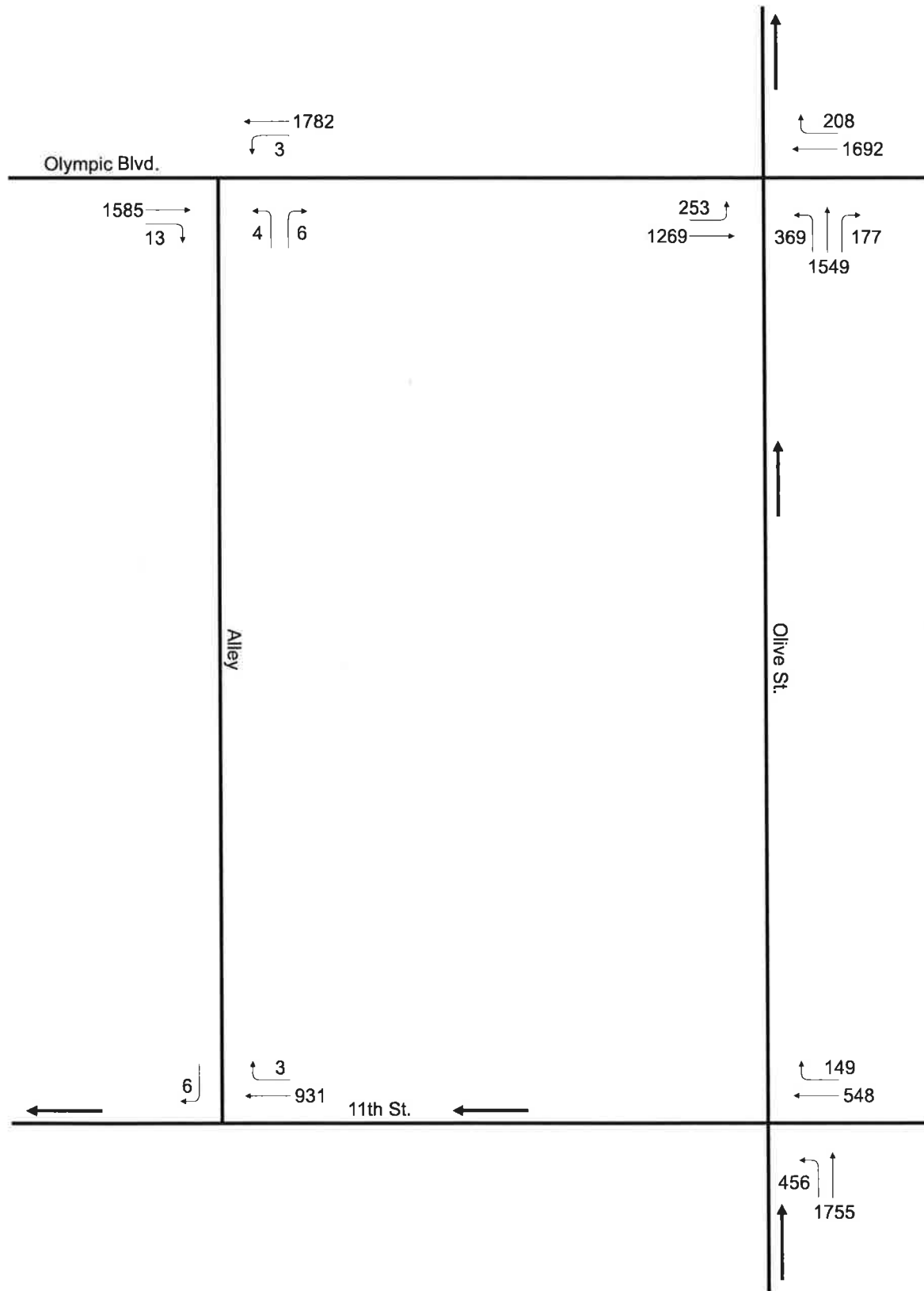
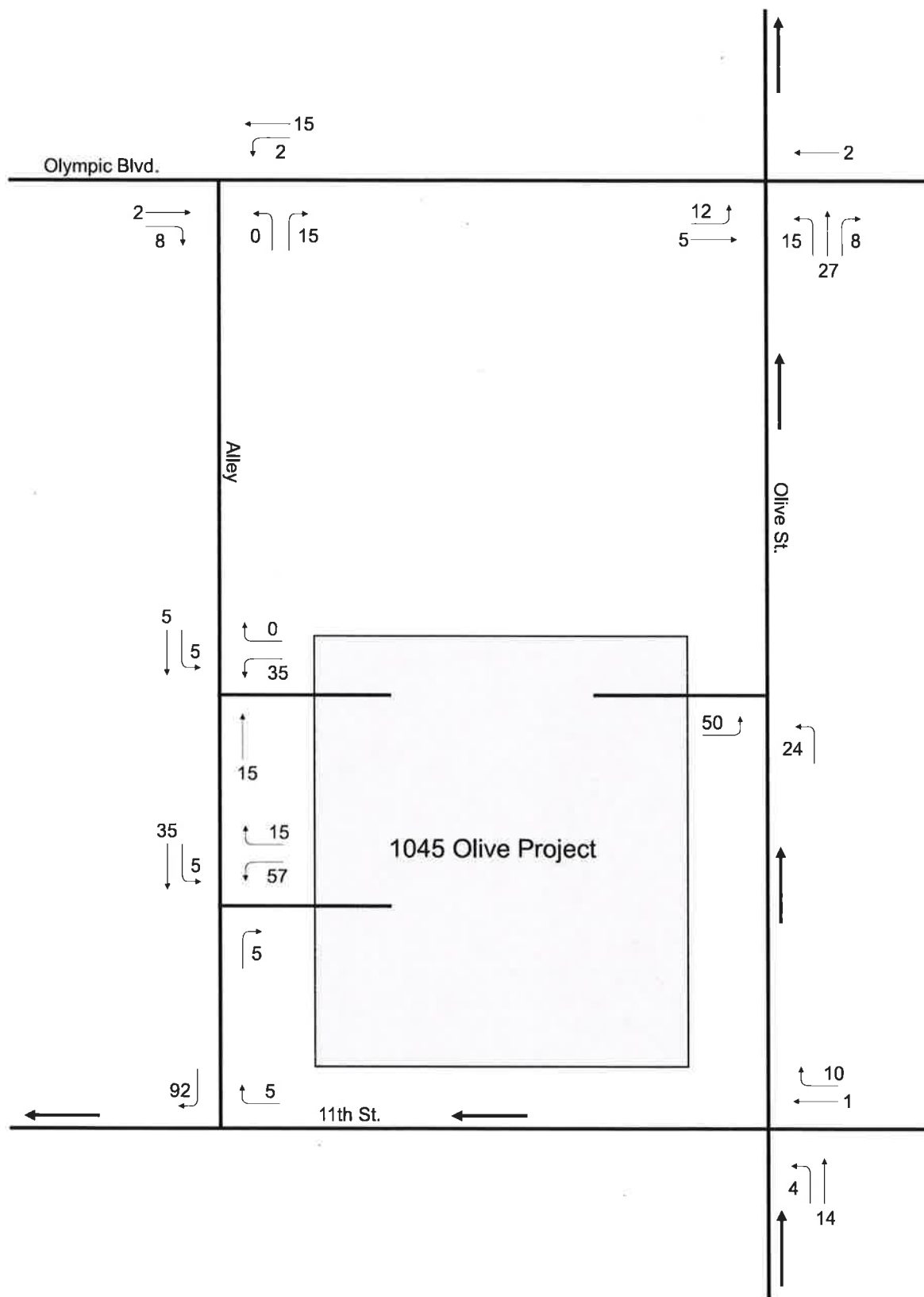


Figure C.4
Future Without Project Traffic Volumes - PM Peak Hour

1045 Olive Project

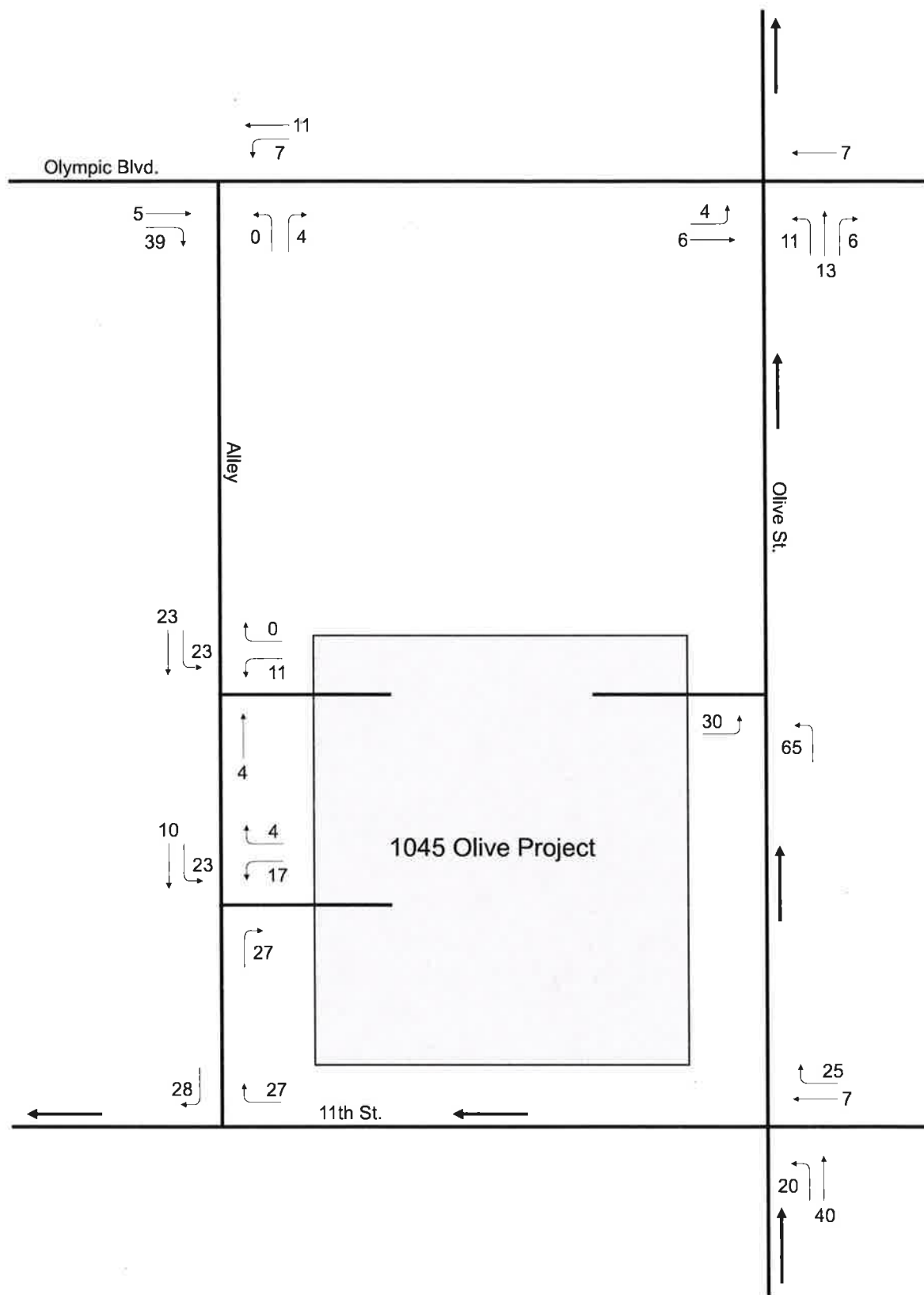


5/4/18

Figure C.5
Project Only Traffic Volumes - AM Peak Hour

1045 Olive Project

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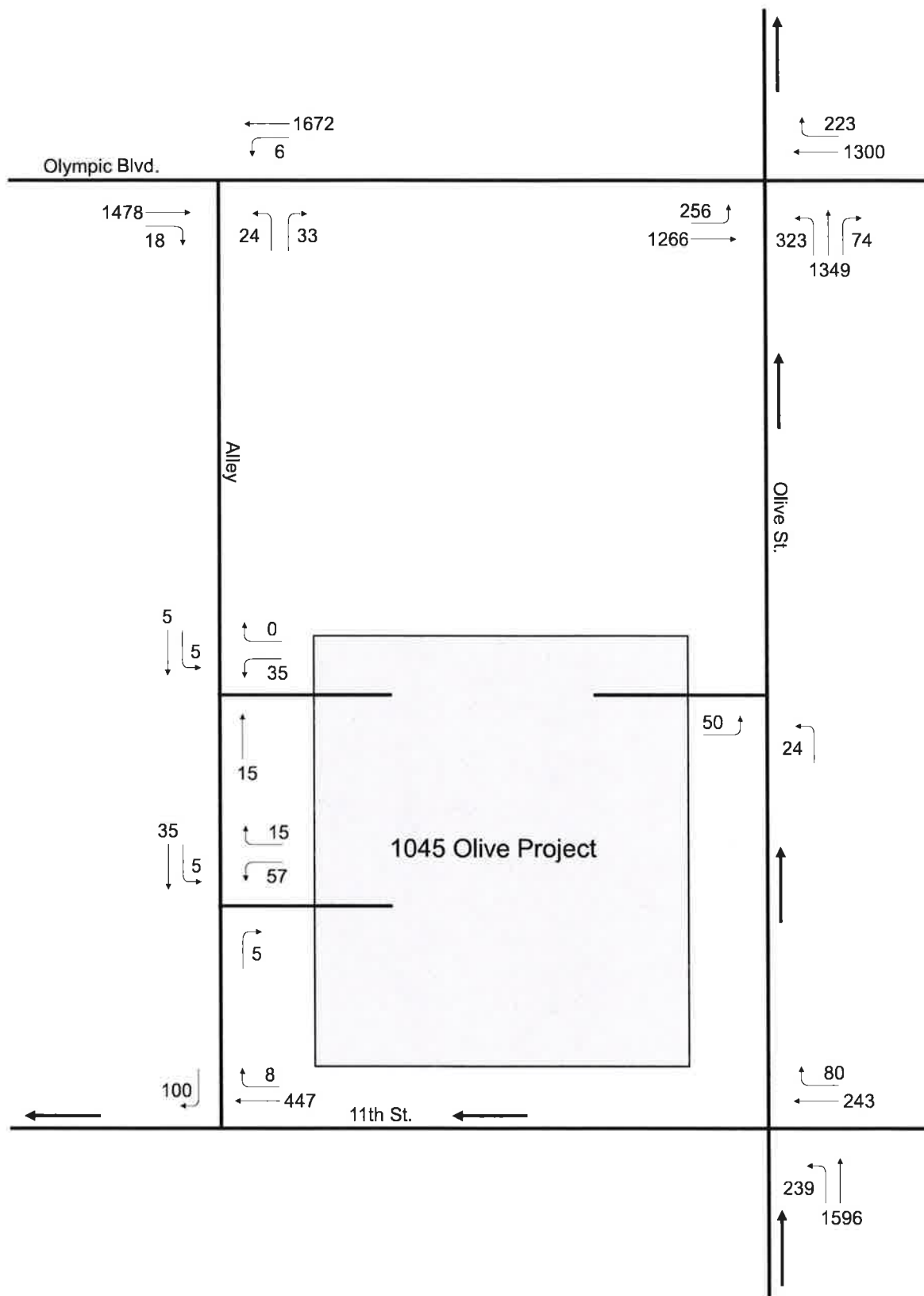


5/4/18

Figure C.6
Project Only Traffic Volumes - PM Peak Hour

1045 Olive Project

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5/4/18

Figure C.7
Future With Project Traffic Volumes - AM Peak Hour

1045 Olive Project

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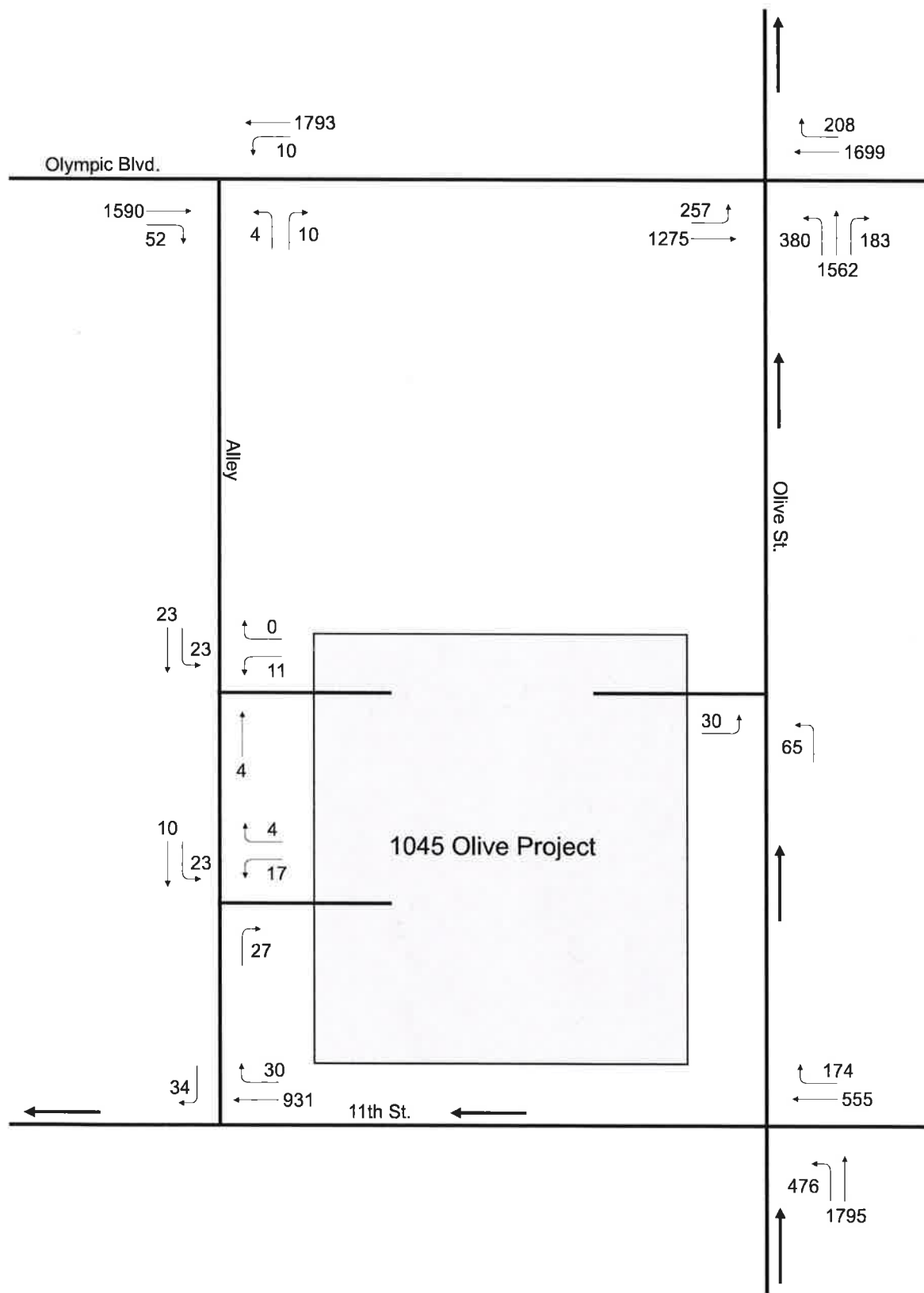


Figure C.8
Future With Project Traffic Volumes - PM Peak Hour

1045 Olive Project

**Table C-1 Queue Lengths for Alley Intersections
(95th percentile queue) ¹**

	Alley and Olympic NB LT / RT		Alley and 11th SB RT	
	Level of Service	Queue Length (vehs)	Level of Service	Queue Length (vehs)
AM Peak Hour				
Existing Conditions	D	1	A	1
Future Without Project Conditions	F	5	B	1
Future With Project Conditions	F	6	B	1
PM Peak Hour				
Existing Conditions	C	1	B	1
Future Without Project Conditions	F	1	C	1
Future With Project Conditions	F	2	C	1

1 . Essentially the maximum queue length - The vehicle queue length that would be exceeded only 5% of the time.

Appendix D

Freeway Analysis

Appendix D

Freeway Analysis

Freeway Analysis

This Appendix presents an analysis of the freeway system in the vicinity of the Proposed Project. As described in Appendix D a freeway threshold check (screening analysis) was first conducted according to the requirements of the MOU between LADOT and Caltrans (Agreement between the City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures, December 2015). That evaluation showed that according to the criteria set forth in the MOU the thresholds for analysis were not met so no further analysis was required. Nevertheless, for purposes of providing a comprehensive study, an analysis of the freeway system was conducted, and this analysis is presented for informational purposes.

The analysis addresses freeway mainline locations (segments), freeway off-ramps and on-ramps in locations that would most likely be affected by Project traffic. The analysis addresses the Existing, Existing With Project, Future Without Project and Future With Project conditions for the year 2023 which is the year used for the Project buildout analysis.

Freeway Mainline Segments

The analysis addresses five freeway mainline segments on the I-110 and I-10 freeways that provide regional access to the Project site.

Methodology

Existing traffic volumes on these freeway segments for the AM peak hour and PM peak hour time periods were obtained from the most recent data available (*Caltrans Annual Average Daily Traffic Volume Report 2016*), and factored up by 1% per year to 2017 volumes.

Future year 2023 freeway traffic volumes for the Future Without Project condition were developed from the traffic projections described in Chapter 5 including ambient growth and the related projects identified for the area.

Traffic volumes generated by the Project were assigned to the freeway system based on the trip generation and trip distribution information described in Chapter 3, to obtain forecasts of total traffic for the Future With Project conditions.

The freeway segments were analyzed using the HCM 2010 methodology based on volume, speed, density, speed and level of service (LOS). Freeway level of service (LOS) was then determined by calculating the density (vehicles per mile per lane). The densities (D) are then rated for levels of service using the definitions shown in Table D-1.

Table D-1. Level of Service Definitions for Freeway Segments

Level of Service	Density [a]	Flow Conditions
A	≤ 11	Free flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.
B	> 11 and ≤ 18	Free flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted.
C	> 18 and ≤ 26	Flow with speeds at or near free flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.
D	> 26 and ≤ 35	Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.
E	> 35 and ≤ 45	Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.
F	> 45	Represents a breakdown in flow and oversaturated conditions.

Source: *2010 Highway Capacity Manual* (Transportation Research Board, 2010) and Caltrans.

[a] Density is defined in vehicles per mile per lane and describes the proximity to other vehicles and is related to the freedom to maneuver within the traffic stream (*2010 Highway Capacity Manual*, Transportation Research Board, 2010).

Freeway Segment Analysis

Caltrans does not have published criteria for determination of significant impacts on freeway mainline segments. Caltrans (in its Traffic Impact Study Guide) states that it endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, and to maintain the existing LOS in cases where a facility is operating at less than the target LOS. This guideline was therefore used in the following analysis. It is also noted for reference, that the Congestion Management Program (*2010 Congestion Management Plan for Los Angeles County*) identifies that a significant impact is deemed to have occurred on a freeway segment if the traffic generated by a project is expected to increase the traffic demand on that facility by two percent ($D/C \geq 0.02$) of capacity and causes the facility to operate at LOS F or worse. If the facility already operates at LOS F, a significant impact is deemed to occur if project-related traffic increases the traffic demand by two percent or more of capacity ($D/C \geq 0.02$). Chapter 6 of this Traffic Study described the freeway CMP analysis conducted in this study – which found that no significant CMP freeway impacts would occur with the Project. The following analysis is therefore presented for informational purposes.

Existing With Project

The freeway segment analysis is summarized in Tables D-2 and D-3, which show the densities and levels of service for Existing Conditions, and Existing With Project conditions for the AM peak hour and the PM peak hour respectively. These tables also show the number of trips that would be added by the Project to each freeway segment.

In the AM peak hour, the Project would add between 2 and 16 trips to the freeway segments analyzed depending on location and direction, with the majority of increases in the 2 to 6 trip range. The increase in trips due to the Project on freeway segments would range from 0.1 percent to 0.2 percent. The level of service would not change at any mainline freeway segment due to the Project.

In the PM peak hour, the Project would add between 3 and 14 trips to the freeway segments analyzed depending on location and direction with the majority of increases in the 3 to 6 trip range. The increase in trips on any freeway segment would not exceed 0.1% at any location. The level of service would not change at any mainline freeway segment due to the Project.

Future With Project

The freeway segment analysis is summarized in Tables D-4 and D-5, which show the densities and levels of service for Existing Conditions, Future Without Project and Future With Project conditions for the AM peak hour and the PM peak hour respectively. These tables also show the number of trips that would be added by the Project to each freeway segment.

In the AM peak hour, the Project would add between 2 and 16 trips to the freeway segments analyzed depending on location and direction, with the majority of increases in the 2 to 6 trip range. The increase in trips due to the Project on freeway segments would range from 0.1 percent to 0.2 percent. The level of service would not change at any mainline freeway segment due to the Project.

In the PM peak hour, the Project would add between 3 and 14 trips to the freeway segments analyzed depending on location and direction with the majority of increases in the 3 to 6 trip range. The increase in trips on any freeway segment would not exceed 0.1% at any location. The level of service would not change at any mainline freeway segment due to the Project.

Freeway Off-Ramps

The analysis reviewed a total of four freeway off-ramps located on the I-110/SR-110 and I-10 freeways that could potentially be used by Project traffic. Other off-ramps in the area of the Project but which are not on direct or convenient access routes to the Project Site were not analyzed as they would not be expected to carry Project traffic.

Methodology

Existing traffic volumes on these freeway off-ramps were obtained from traffic counts conducted as part of the overall traffic count program described in Chapter 2. Forecasts of the off-ramp volumes for Future Without Project conditions were obtained from the analysis described in Chapter 5 including ambient growth and trips from related projects, and forecasts for the Future With Project conditions from the analysis of Project trip generation and distribution described in Chapter 3.

The analysis of ramp traffic conditions is based on an analysis of queue length from the end of the ramp intersection, using the Highway Capacity Manual (HCM) 2010 Operations methodology, and determining the 95th percentile queue length (the vehicle queue length that would be exceeded only 5% of the time), which is a common measure used to evaluate queues.

Freeway Off-Ramp Analysis

Caltrans does not have published criteria for determination of significant impacts on freeway off-ramps. Caltrans' primary concern is if peak hour traffic queues on an off-ramp exceed the storage length on the ramp and result in queues backing onto the mainline freeway. The storage capacity includes all lanes on the off-ramp from the gore point (where the off-ramp diverges from the freeway) to the end of ramp intersection. The following analysis is therefore presented for informational purposes.

Existing With Project

The freeway off-ramp analysis for the Existing Conditions, Existing With Project conditions is summarized in Table D-6 for the AM peak hour and in Table D-7 for the PM peak hour. These tables show the ramp storage lengths, the ramp volumes, and the queue lengths for these time periods for the three scenarios.

As can be seen from Table D-6, queues do not currently exceed the storage lengths on any of the ramps during the Weekday AM peak hour. For the Existing With Project conditions, the queues would not exceed the total ramp storage lengths at any of the ramps. The Project would generally add between two and four trips to the ramps in the AM peak hour, but would not appreciably increase the queue lengths and would not cause storage capacities to be exceeded on any ramp.

As can be seen from Table D-7, queues do not currently exceed the total storage lengths on any of the ramps during the Weekday PM peak hour. For the Existing With Project conditions, the queues would not exceed the total ramp storage lengths at any of the ramps. The Project would generally add six and fourteen trips to the off-ramps in the PM peak hour, but would not appreciably increase the queue lengths and would not cause the storage capacities to be exceeded on any ramp.

Therefore, it is concluded that the Project would not cause any queues that would exceed the total storage lengths on any of the off-ramps in either peak hour.

Future With Project

The freeway off-ramp analyses for the Existing Conditions, Future Without Project and Future With Project conditions are summarized in Table D-8 for the AM peak hour and in Table D-9 for the PM peak hour. These tables show the ramp storage lengths, the ramp volumes, and the queue lengths for these time periods for the three scenarios.

As can be seen from Table D-8, queues would not exceed the storage lengths on any of the ramps during the Weekday AM peak hour. For both the Future Without Project and the Future With Project conditions, the queues would not exceed the total ramp storage lengths at any of the ramps. The Project would generally add between two and four trips to the ramps in the AM peak hour, but would not appreciably increase the queue lengths and would not cause storage capacities to be exceeded on any ramp.

As can be seen from Table D-9, queues would not exceed the total storage lengths on any of the ramps during the Weekday PM peak hour. For both the Future Without Project and the Future With Project conditions, the queues would not exceed the total ramp storage lengths at any of the ramps. The Project would generally add six and fourteen trips to the off-ramps in the PM peak hour, but would not appreciably increase the queue lengths and would not cause the storage capacities to be exceeded on any ramp.

Therefore, it is concluded that the Project would not cause any queues that would exceed the total storage lengths on any of the off-ramps in either peak hour.

Freeway On-Ramps

The analysis reviewed a total of five freeway on-ramps that could potentially be used by Project traffic. Other off-ramps in the area of the Project but which are not on direct or convenient access routes to the Project Site were not analyzed as they would not be expected to carry Project traffic.

Methodology

Existing traffic volumes on these freeway on-ramps were obtained from traffic counts conducted as part of the overall traffic count program described in Chapter 2, and for two locations from the most recent data available (*Caltrans Annual Average Daily Traffic Volume Report 2014/2015*), and factored up by 1% per year to 2017 volumes. Forecasts of the on-ramp volumes for Future Without Project conditions were obtained from the analysis described in Chapter 5 including ambient growth and trips from related projects, and forecasts for the Future With Project conditions from the analysis described in Chapter 3.

The analysis compares forecast traffic volumes on the on-ramps to the ramp capacities. Caltrans has identified the maximum capacity of an on-ramp at 900 vehicles per hour per lane (vphpl) based on on-ramp metering. At ramps without ramp meters, and where the ramp lane merges into a mainline lane, a capacity of 900 vphpl was also used. At ramps without ramp meters, where the ramp lane leads directly into a mainline or auxiliary lane, a capacity of 1,800 vphpl was used. The capacity of a specific on-ramp was therefore calculated by multiplying the number of lanes by the appropriate vphpl capacity.

Freeway On-Ramp Analysis

Caltrans does not have published criteria for determination of significant impacts on freeway on-ramps. The analysis evaluated if the traffic volumes would exceed the capacity of an on-ramp as defined above. The following analysis is therefore presented for informational purposes.

Existing With Project

The freeway on-ramp analysis for the Existing Conditions, and Existing With Project scenarios is summarized in Table D-10 for the AM peak hour and in Table D-11 for the PM peak hour. These tables show the ramp capacities and the ramp volumes for these time periods for the two conditions.

Table D-10 shows that in the AM peak hour the on-ramp capacity is not currently exceeded at the on-ramps studied except for the SR-110 NB on-ramp at 11th Street where the current volume

exceeds the capacity. In the Existing With Project condition, the Project would add between 2 and 14 trips to the on-ramps (increases of 0.2% to 1.0%), and the capacity would be exceeded at the same one on-ramp. The Project would not however be the cause of the capacities being exceeded at any on-ramp.

Table D-11 shows that in the PM peak hour the on-ramp capacity is not currently exceeded at any of the on ramps studied. In the Existing With Project condition, the Project would add between 2 and 5 trips to the on-ramps (increases of 0.2% to 0.4%), and the capacity would not be exceeded at any of the on-ramps. The Project would therefore not cause the capacities to be exceeded at any on-ramp.

Future With Project

The freeway on-ramp analysis for the Existing Conditions, Future Without Project and Future With Project scenarios is summarized in Table D-12 for the AM peak hour and in Table D-13 for the PM peak hour. These tables show the ramp capacities and the ramp volumes for these time periods for the three conditions.

Table D-12 shows that in the AM peak hour the on-ramp capacity is not currently exceeded at the on-ramps studied except for the SR-110 NB on-ramp at 11th Street where the current volume exceeds the capacity. For the Future Without Project scenario, forecast future volumes would exceed the on-ramp capacity at three on-ramps. In the Future With Project condition, the Project would add between 2 and 14 trips to the on-ramps (increases of 0.2% to 1.0%), and the capacity would be exceeded at the same three on-ramps. The Project would not however be the cause of the capacities being exceeded at any on-ramp.

Table D-13 shows that in the PM peak hour the on-ramp capacity is not currently exceeded at any of the on ramps studied. For the Future Without Project scenario, projected volumes would exceed the on-ramp capacity at four of the on-ramps. In the Future With Project condition, the Project would add between 2 and 5 trips to the on-ramps (increases of 0.2% to 0.4%), and the capacity would be exceeded at the same four on-ramps. The Project would not however be the cause of the capacities being exceeded at any on-ramp.

Conclusions

This analysis of the freeway system has addressed freeway mainline locations and off-ramp and on-ramp locations. The volume of traffic that would be added to any freeway mainline or ramp locations would be very small. The Project would cause an increase in mainline freeway trips of 0.1% to 0.2%. The analysis has shown that the Project would not cause any changes in mainline levels of service and would not cause Caltrans freeway mainline level of service targets to be exceeded. The analysis has also shown that the Project would not appreciably increase queue lengths on freeway off-ramps and would not cause queue lengths on any off-ramps to exceed total

storage lengths. Finally, the analysis also indicated that the Project would not cause the capacities of any on-ramp to be exceeded.

Table D-2 Freeway Segment Density/Level of Service Analysis - Weekday AM Peak Hour - Existing With Project 5/4/2018

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Existing Conditions (Year 2017)			Existing With Project Conditions (Year 2017)				Increase in Density	% Increase Volume due to Project
					Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	9,126	45.23	F	16	9,142	45.31	F	0.080	0.1%
		SB	Inbound	3G	9,799	64.76	F	4	9,803	64.78	F	0.019	0.0%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	9,555	37.89	E	0	9,555	37.89	E	0.000	0.0%
		SB	Inbound	5G	10,258	40.67	E	0	10,258	40.67	E	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	7,308	28.98	D	2	7,310	28.99	D	0.009	0.0%
		SB	Outbound	5G	10,117	40.12	E	6	10,123	40.14	E	0.020	0.1%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	6,300	27.76	D	13	6,313	27.81	D	0.049	0.2%
		WB	Inbound	4G + 1A	9,375	41.30	E	3	9,378	41.32	E	0.020	0.0%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	7,174	28.45	D	3	7,177	28.46	D	0.010	0.0%
		WB	Outbound	4G + 2A	11,727	46.50	F	13	11,740	46.55	F	0.049	0.1%

Notes:

- Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors.
- Growth factor of 1% per annum applied for 2017 volumes.
- Methodology from Highway Capacity Manual 2010, Transportation Research Board.
- Density measured in vehicles per mile per lane (v/m/l) for freeways.

Table D-3 Freeway Segment Density/Level of Service Analysis - Weekday PM Peak Hour - Existing With Project 5/4/2018

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Existing Conditions (Year 2017)			Existing With Project Conditions (Year 2017)				Increase in Density	% Increase Volume due to Project
					Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	7,121	35.30	E	6	7,127	35.32	E	0.020	0.1%
		SB	Inbound	3G	9,434	62.35	F	14	9,448	62.44	F	0.089	0.1%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	7,453	29.55	D	0	7,453	29.55	D	0.000	0.0%
		SB	Inbound	5G	9,876	39.16	E	0	9,876	39.16	E	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	7,965	31.58	D	6	7,971	31.61	D	0.030	0.1%
		SB	Outbound	5G	8,999	35.68	E	3	9,002	35.69	E	0.009	0.0%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	10,425	45.93	F	5	10,430	45.95	F	0.020	0.0%
		WB	Inbound	4G + 1A	6,056	26.68	D	11	6,067	26.73	D	0.050	0.1%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	11,978	47.49	F	11	11,989	47.54	F	0.049	0.1%
		WB	Outbound	4G + 2A	10,601	42.03	E	5	10,606	42.05	E	0.019	0.0%

Notes:

- Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors.
- Growth factor of 1% per annum applied for 2017 volumes.
- Methodology from Highway Capacity Manual 2010, Transportation Research Board.
- Density measured in vehicles per mile per lane (v/m/l) for freeways.

Table D-4 Freeway Segment Density/Level of Service Analysis - Weekday AM Peak Hour - Future With Project

4/27/2018

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Existing Conditions (Year 2017)			Future Without Project Conditions (Year 2023)			Future With Project Conditions (Year 2023)				Increase in Density	% Increase Volume due to Project
					Hourly Volume	Density (D)	LOS	Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	9,126	45.23	F	11,292	55.97	F	16	11,308	56.05	F	0.079	0.1%
		SB	Inbound	3G	9,799	64.76	F	11,835	78.21	F	4	11,839	78.24	F	0.030	0.0%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	9,555	37.89	E	11,311	44.85	E	0	11,311	44.85	E	0.000	0.0%
		SB	Inbound	5G	10,258	40.67	E	12,199	48.37	F	0	12,199	48.37	F	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	7,308	28.98	D	8,665	34.36	D	2	8,667	34.37	D	0.009	0.0%
		SB	Outbound	5G	10,117	40.12	E	12,098	47.97	F	6	12,104	47.99	F	0.020	0.1%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	6,300	27.76	D	7,611	33.53	D	13	7,624	33.59	D	0.060	0.2%
		WB	Inbound	4G + 1A	9,375	41.30	E	10,776	47.48	F	3	10,779	47.49	F	0.010	0.0%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	7,174	28.45	D	8,732	34.62	D	3	8,735	34.64	D	0.020	0.0%
		WB	Outbound	4G + 2A	11,727	46.50	F	13,847	54.91	F	13	13,860	54.96	F	0.050	0.1%

Notes:

a. Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors.

Growth factor of 1% per annum applied for 2017 volumes.

b. Methodology from Highway Capacity Manual 2010, Transportation Research Board.

c. Density measured in vehicles per mile per lane (v/m/l) for freeways.

Table D-5 Freeway Segment Density/Level of Service Analysis - Weekday PM Peak Hour - Future With Project

4/27/2018

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Existing Conditions (Year 2017)			Future Without Project Conditions (Year 2023)			Future With Project Conditions (Year 2023)				Increase in Density	% Increase Volume due to Project
					Hourly Volume	Density (D)	LOS	Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	7,121	35.30	E	9,599	47.58	F	6	9,605	47.61	F	0.030	0.1%
		SB	Inbound	3G	9,434	62.35	F	12,137	80.21	F	14	12,151	80.30	F	0.090	0.1%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	7,453	29.55	D	9,782	38.79	E	0	9,782	38.79	E	0.000	0.0%
		SB	Inbound	5G	9,876	39.16	E	11,955	47.40	F	0	11,955	47.40	F	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	7,965	31.58	D	10,251	40.65	E	6	10,257	40.67	E	0.020	0.1%
		SB	Outbound	5G	8,999	35.68	E	10,937	43.37	E	3	10,940	43.38	E	0.010	0.0%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	10,425	45.93	F	12,242	53.94	F	5	12,247	53.96	F	0.020	0.0%
		WB	Inbound	4G + 1A	6,056	26.68	D	7,730	34.06	D	11	7,741	34.10	D	0.039	0.1%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	11,978	47.49	F	14,555	57.71	F	11	14,566	57.76	F	0.049	0.1%
		WB	Outbound	4G + 2A	10,601	42.03	E	12,827	50.86	F	5	12,832	50.88	F	0.020	0.0%

Notes:

- Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors.
- Growth factor of 1% per annum applied for 2017 volumes.
- Methodology from Highway Capacity Manual 2010, Transportation Research Board.
- Density measured in vehicles per mile per lane (v/m/l) for freeways.

Table D-6

Existing With Project - Freeway Off-Ramp Analysis - Weekday AM Peak Hour

5/4/2018

Off-Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Existing With Project Conditions (Year 2017)				
				Ramp Volume ⁵	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,592	A	278	No	4	1,596	A	279	No
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	2,078	A	120	No	2	2,080	A	120	No
3 I-10 EB Off-ramp at Grand Ave ³	EB TH/RT	3	1,891	1,397	C	350	No	3	1,400	C	351	No
	EB RT	1	884	118	B	24	No	0	118	B	24	No
	RAMP TOTAL	4	2,775	1,515	C	374	No	3	1,518	C	375	No
4 I-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,126	B	273	No	3	1,129	B	273	No

Notes:

- [1] Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- [2] Intersection at Bond St (1 lane off-ramp)
- [3] Intersection at Grand Ave (2 lane off-ramp)
- [4] Intersection at Los Angeles St (1 lane off-ramp)
- [5] Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017)

Table D-7

Existing With Project - Freeway Off-Ramp Analysis - Weekday PM Peak Hour

5/4/2018

Off - Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Existing With Project Conditions (Year 2017)				
				Ramp Volume ⁵	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,147	A	146	No	14	1,161	A	150	No
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	1,730	A	89	No	6	1,736	A	89	No
3 I-10 EB Off-ramp at Grand Ave ³	EB TH/RT EB RT RAMP TOTAL	3 1 4	1,891 884 2,775	1,150 157 1,307	C C C	301 47 348	No No No	11 0 11	1,161 157 1,318	C C C	305 47 352	No No No
4 I-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,000	C	295	No	11	1,011	C	300	No

Notes:

- [1] Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- [2] Intersection at Bond St (1 lane off-ramp)
- [3] Intersection at Grand Ave (2 lane off-ramp)
- [4] Intersection at Los Angeles St (1 lane off-ramp)
- [5] Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017)

Table D-8

Future With Project - Freeway Off-Ramp Analysis - Weekday AM Peak Hour

4/24/2018

Off - Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Future Without Project Conditions (Year 2023)				Future With Project Conditions (Year 2023)				
				Ramp Volume ⁵	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,592	A	278	No	2,025	B	500	No	4	2,029	B	502	No
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	2,078	A	120	No	2,580	A	182	No	2	2,582	A	182	No
3 I-10 EB Off-ramp at Grand Ave ³	EB TH/RT	3	1,891	1,397	C	350	No	1,969	D	589	No	3	1,972	D	591	No
	EB RT	1	884	118	B	24	No	226	B	83	No	0	226	B	83	No
	RAMP TOTAL	4	2,775	1,515	C	374	No	2,195	D	672	No	3	2,198	D	674	No
4 I-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,126	B	273	No	1,604	B	494	No	3	1,607	B	496	No

Notes:

- [1] Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- [2] Intersection at Bond St (1 lane off-ramp)
- [3] Intersection at Grand Ave (2 lane off-ramp)
- [4] Intersection at Los Angeles St (1 lane off-ramp)
- [5] Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017).

Table D-9

Future With Project - Freeway Off-Ramp Analysis - Weekday PM Peak Hour

4/23/2018

Off - Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Future Without Project Conditions (Year 2023)				Future With Project Conditions (Year 2023)				
				Ramp Volume ⁵	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,147	A	146	No	2,061	B	527	No	14	2,075	B	535	No
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	1,730	A	89	No	2,439	A	157	No	6	2,445	A	156	No
3 I-10 EB Off-ramp at Grand Ave ³	EB TH/RT	3	1,891	1,150	C	301	No	2,135	F	708	No	11	2,146	F	713	No
	EB RT	1	884	157	C	47	No	318	B	155	No	0	318	B	155	No
	RAMP TOTAL	4	2,775	1,307	C	348	No	2,453	E	863	No	11	2,464	F	868	No
4 I-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,000	C	295	No	1,832	D	757	No	11	1,843	D	765	No

Notes:

- [1] Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- [2] Intersection at Bond St (1 lane off-ramp)
- [3] Intersection at Grand Ave (2 lane off-ramp)
- [4] Intersection at Los Angeles St (1 lane off-ramp)
- [5] Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017).

Table D-10

Existing With Project - Freeway On-Ramp Analysis - AM Peak Hour

5/4/2018

	On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Project Added Volume	% Increase due to Project	Existing With Project Conditions (2017)	
					Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1	SR-110 NB On-Ramp at 8th Street	1	900	No Meter	447	No	2	0.4%	449	No
2	SR-110 NB On-Ramp at 11th Street	1	900	Metered	1,213	Yes	14	1.2%	1,227	Yes
3	SR-110 SB On-Ramp at Blaine Street	2	1,800	Metered	953	No	6	0.6%	959	No
4	I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,017	No	13	1.3%	1,030	No
5	I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	787	No	13	1.7%	800	No

Note: Count data from 2017, except #1 and #5 from Caltrans Annual Average Daily Traffic Volume Report 2014/2015, factored up by 1% to 2017.

Table D-11

Existing With Project - Freeway On-Ramp Analysis - PM Peak Hour

5/4/2018

	On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Project Added Volume	% Increase due to Project	Existing With Project Conditions (2017)	
					Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1	SR-110 NB On-Ramp at 8th Street	1	900	No Meter	391	No	2	0.5%	393	No
2	SR-110 NB On-Ramp at 11th Street	1	900	Metered	734	No	4	0.5%	738	No
3	SR-110 SB On-Ramp at Blaine Street	2	1,800	Metered	1,430	No	2	0.1%	1,432	No
4	I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,737	No	5	0.3%	1,742	No
5	I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	828	No	5	0.6%	833	No

Note: Count data from 2017, except #1 and #5 from Caltrans Annual Average Daily Traffic Volume Report 2014/2015, factored up by 1% to 2017.

Table D-12

Future With Project - Freeway On-Ramp Analysis - AM Peak Hour

4/25/2018

On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Future Without Project Conditions (2023)		Project Added Volume	% Increase due to Project	Future With Project Conditions (2023)	
				Ramp Volume	Exceed Capacity	Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1 SR-110 NB On-Ramp at 8th Street	1	900	No Meter	447	No	962	Yes	2	0.2%	964	Yes
2 SR-110 NB On-Ramp at 11th Street	1	900	Metered	1,213	Yes	1,500	Yes	14	0.9%	1,514	Yes
3 SR-110 SB On-Ramp at Blaine Street	2	1,800	Metered	953	No	1,497	No	6	0.4%	1,503	No
4 I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,017	No	1,830	Yes	13	0.7%	1,843	Yes
5 I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	787	No	1,263	No	13	1.0%	1,276	No

Note: Count data from 2017, except #1 and #5 from Caltrans Annual Average Daily Traffic Volume Report 2014/2015, factored up by 1% to 2017.

Table D-13

Future With Project - Freeway On-Ramp Analysis - PM Peak Hour

4/25/2018

	On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Future Without Project Conditions (2023)		Project Added Volume	% Increase due to Project	Future With Project Conditions (2023)	
					Ramp Volume	Exceed Capacity	Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1	SR-110 NB On-Ramp at 8th Street	1	900	No Meter	391	No	1,006	Yes	2	0.2%	1,008	Yes
2	SR-110 NB On-Ramp at 11th Street	1	900	Metered	734	No	1,005	Yes	4	0.4%	1,009	Yes
3	SR-110 SB On-Ramp at Blaine Street	2	1,800	Metered	1,430	No	2,049	Yes	2	0.1%	2,051	Yes
4	I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,737	No	2,594	Yes	5	0.2%	2,599	Yes
5	I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	828	No	1,384	No	5	0.4%	1,389	No

Note: Count data from 2017, except #1 and #5 from Caltrans Annual Average Daily Traffic Volume Report 2014/2015, factored up by 1% to 2017.

Table 7.3 Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	1.047	F	1.053	F	0.006	No					
26	Hill Street & 11th Street	0.605	B	0.617	B	0.012	No					
27	Broadway & Olympic Boulevard	1.094	F	1.102	F	0.008	No					
28	Broadway & 11th Street	0.719	C	0.728	C	0.009	No					
29	Main Street & Olympic Boulevard	1.122	F	1.129	F	0.007	No					
30	Main Street & 11th Street	0.826	D	0.829	D	0.003	No					
31	Los Angeles Street & Olympic Boulevard	0.803	D	0.805	D	0.002	No					
32	Los Angeles Street & 11th Street	0.575	A	0.578	A	0.003	No					
33	Olive Street & 12th Street	0.528	A	0.542	A	0.014	No					
34	Hill Street & Pico Boulevard	0.811	D	0.811	D	0.000	No					

Appendix E

Traffic Counts



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South L.A. Live Way

East/West Pico Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 44007

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	206	15	71	100
BIKES	6	8	89	76
BUSES	42	1	75	55

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	613 7.45	22 8.00	297 7.45	188 9.15
PM PK 15 MIN	508 4.45	31 5.45	251 5.30	317 5.45
AM PK HOUR	2237 7.15	72 7.30	1100 7.30	629 9.00
PM PK HOUR	1770 4.00	107 5.00	950 4.45	1100 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	924	1037	196	2157
8-9	842	1078	198	2118
9-10	757	757	192	1706
3-4	754	661	188	1603
4-5	812	803	155	1770
5-6	744	802	121	1667
TOTAL	4833	5138	1050	11021

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	49	0	8	57
8-9	60	0	10	70
9-10	45	0	4	49
3-4	64	0	18	82
4-5	55	0	16	71
5-6	87	0	20	107
TOTAL	360	0	76	436

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
2214	6	10	13	7
2188	7	4	10	1
1755	9	4	17	6
1685	17	10	37	4
1841	15	7	26	10
1774	15	0	32	12
11457	69	35	135	40

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	262	611	0	873
8-9	254	766	0	1020
9-10	240	495	0	735
3-4	192	570	0	762
4-5	194	721	0	915
5-6	150	787	0	937
TOTAL	1292	3950	0	5242

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	379	187	566
8-9	0	349	184	533
9-10	0	393	236	629
3-4	0	396	187	583
4-5	0	440	213	653
5-6	0	712	388	1100
TOTAL	0	2669	1395	4064

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1439	0	0	0	2
1553	0	0	1	2
1364	0	0	5	1
1345	0	1	16	3
1568	0	0	8	1
2037	0	0	12	0
9306	0	1	42	9



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Figueroa St

East/West

Olympic Blvd

Day:

Thursday

Date:

April 20, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	195	0	150	178
BIKES	111	55	75	73
BUSES	243	0	60	145

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AMPK 15 MIN	416	7.30	0	0.00	346	8.45	305	8.15
PMPK 15 MIN	366	16.45	0	0.00	333	16.45	434	17.15
AMPK HOUR	1509	7.15	0	0.00	1269	8.00	1189	7.30
PMPK HOUR	1395	16.00	0	0.00	1248	16.45	1617	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	142	1180	97	1419
8-9	153	1205	104	1462
9-10	134	843	135	1112
15-16	192	821	136	1149
16-17	203	1054	138	1395
17-18	205	947	153	1305
TOTAL	1029	6050	763	7842

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

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1419	57	0	107	3
1462	85	1	132	2
1112	116	3	139	3
1149	110	9	161	3
1395	118	8	190	7
1305	159	4	239	11
7842	645	25	968	29

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	169	637	82	888
8-9	227	930	112	1269
9-10	167	654	120	941
15-16	157	738	189	1084
16-17	158	792	234	1184
17-18	164	787	246	1197
TOTAL	1042	4538	983	6563

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	62	739	311	1112
8-9	56	797	328	1181
9-10	66	745	252	1063
15-16	87	943	265	1295
16-17	91	1017	259	1367
17-18	105	1265	247	1617
TOTAL	467	5506	1662	7635

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
2000	120	3	55	0
2450	151	1	68	2
2004	196	1	69	4
2379	207	25	86	3
2551	256	32	112	6
2814	314	34	102	6
14198	1244	96	492	21



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Figueroa St

East/West

Chick Hearn Ct

Day:

Tuesday

Date:

May 2, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	154	47	26	48
BIKES	102	72	27	29
BUSES	234	1	0	96

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	344	7.30	37	8.00	14	8.15	60	8.30
PM PK 15 MIN	285	15.45	94	17.15	31	16.45	122	17.15
AM PK HOUR	1326	7.15	129	8.45	47	7.45	201	8.30
PM PK HOUR	1111	15.45	330	17.00	97	16.30	464	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	14	1238	12	1264
8-9	28	1223	16	1267
9-10	16	951	10	977
15-16	30	980	12	1022
16-17	22	1079	8	1109
17-18	47	1022	3	1072
TOTAL	157	6493	61	6711

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	93	11	104
8-9	1	101	23	125
9-10	1	103	23	127
15-16	2	203	34	239
16-17	4	255	34	293
17-18	7	261	62	330
TOTAL	15	1016	187	1218

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1368	8	1	45	0
1392	5	0	66	1
1104	6	0	59	1
1261	4	0	134	14
1402	15	1	93	3
1402	7	0	108	0
7929	45	2	505	19

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	7	3	14	24
8-9	24	7	16	47
9-10	15	8	20	43
15-16	28	9	40	77
16-17	29	11	46	86
17-18	28	13	40	81
TOTAL	131	51	176	358

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	39	40	88	167
8-9	40	58	102	200
9-10	37	50	91	178
15-16	159	90	138	387
16-17	115	118	105	338
17-18	120	210	134	464
TOTAL	510	566	658	1734

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
191	79	0	5	0
247	83	0	20	0
221	92	1	13	0
464	195	8	19	1
424	197	8	22	1
545	143	11	24	0
2092	789	28	103	2



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Figueroa St

East/West

Pico Blvd

Day:

Thursday

Date:

April 20, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	175	81	153	86
BIKES	126	93	54	76
BUSES	216	86	54	68

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	394	8.30	69	7.45	240	7.45	105	8.15
PM PK 15 MIN	355	16.30	132	17.00	250	17.00	193	17.15
AM PK HOUR	1456	7.00	241	8.45	898	7.30	395	8.00
PM PK HOUR	1377	16.00	502	16.30	968	16.30	694	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	202	1159	95	1456
8-9	196	1145	107	1448
9-10	188	839	117	1144
15-16	167	876	128	1171
16-17	138	1114	125	1377
17-18	174	1010	102	1286
TOTAL	1065	6143	674	7882

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	15	153	45	213
8-9	6	156	55	217
9-10	12	165	63	240
15-16	14	249	90	353
16-17	21	356	101	478
17-18	19	411	48	478
TOTAL	87	1490	402	1979

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1669	63	6	46	6
1665	46	2	48	5
1384	38	3	46	4
1524	55	0	56	4
1855	68	0	75	3
1764	65	0	69	10
TOTAL	335	11	340	32

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	133	501	113	747
8-9	141	623	98	862
9-10	86	372	70	528
15-16	84	536	179	799
16-17	87	554	252	893
17-18	91	573	274	938
TOTAL	622	3159	986	4767

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	41	255	52	348
8-9	24	296	75	395
9-10	37	221	64	322
15-16	84	347	75	506
16-17	89	346	68	503
17-18	98	541	55	694
TOTAL	373	2006	389	2768

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1095	100	1	42	7
1257	47	0	51	0
850	27	3	31	3
1305	64	2	29	6
1396	91	1	46	6
1632	82	0	51	3
TOTAL	411	7	250	25



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Flower St

East/West Olympic Blvd

Day: Thursday Date: April 20, 2017 Weather: SUNNY

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

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	110	138	156
BIKES	38	69	75	66
BUSES	0	231	81	126

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AMPK 15 MIN	0	0.00	179	7.30	272	8.45	267	8.15
PMPK 15 MIN	0	0.00	484	17.30	268	17.15	328	17.15
AMPK HOUR	0	0.00	678	7.15	1033	8.00	1042	7.30
PMPK HOUR	0	0.00	1823	17.00	972	16.45	1267	17.00

NORTHBOUND Approach

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

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	78	404	190	672
8-9	87	318	247	652
9-10	100	352	207	659
15-16	98	1059	326	1483
16-17	126	1285	343	1754
17-18	138	1296	389	1823
TOTAL	627	4714	1702	7043

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
672	54	0	93	0
652	58	0	115	0
659	89	2	99	3
1483	90	0	141	8
1754	91	1	138	8
1823	120	1	172	5
7043	502	4	758	24

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	645	85	731
8-9	0	956	77	1033
9-10	0	695	91	786
15-16	1	784	95	880
16-17	0	832	92	924
17-18	1	830	104	935
TOTAL	3	4742	544	5289

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	64	929	0	993
8-9	76	913	0	989
9-10	76	841	0	917
15-16	63	949	0	1012
16-17	52	998	0	1050
17-18	48	1219	0	1267
TOTAL	379	5849	0	6228

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1724	64	5	62	1
2022	58	1	86	0
1703	67	0	66	0
1892	62	2	91	1
1974	76	4	95	2
2202	97	3	119	3
11517	424	15	519	7



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Flower St

East/West

11th St

Day:

Tuesday

Date:

May 2, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	90	17	46
BIKES	36	70	24	26
BUSES	0	211	0	2

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	138	7.30	8	9.45	48	8.30
PM PK 15 MIN	0	0.00	427	17.15	11	16.30	96	17.15
AM PK HOUR	0	0.00	507	7.00	22	8.00	158	7.45
PM PK HOUR	0	0.00	1540	17.00	32	15.45	342	17.00

NORTHBOUND Approach

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

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	439	68	507
8-9	0	357	68	425
9-10	0	307	71	378
15-16	0	598	274	872
16-17	0	1202	196	1398
17-18	0	1313	227	1540
TOTAL	0	4216	904	5120

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
507	16	3	51	0
425	21	0	69	1
378	25	0	52	0
872	40	2	107	5
1398	37	2	77	3
1540	38	0	107	2
5120	177	7	463	11

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	11	11
8-9	0	0	22	22
9-10	0	0	17	17
15-16	1	0	21	22
16-17	0	0	31	31
17-18	0	0	24	24
TOTAL	1	0	126	127

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	21	91	0	112
8-9	28	121	0	149
9-10	36	107	0	143
15-16	55	121	0	176
16-17	77	142	0	219
17-18	114	228	0	342
TOTAL	331	810	0	1141

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
123	20	3	83	5
171	24	0	106	2
160	24	0	79	2
198	36	3	120	10
250	34	0	100	5
366	38	0	146	2
1268	176	6	634	26



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Hope St

East/West

Olympic Blvd

Day:

Thursday

Date:

April 20, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	55	43	122	156
BIKES	37	24	68	59
BUSES	1	75	83	108

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	113	8.00	61	7.30	281	8.45	283	9.00
PM PK 15 MIN	138	15.30	158	17.15	260	16.45	339	17.00
AM PK HOUR	430	7.15	237	8.00	1041	8.00	1052	7.30
PM PK HOUR	455	15.00	535	17.00	986	16.45	1233	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	61	257	63	381
8-9	59	293	51	403
9-10	62	182	46	290
15-16	55	292	108	455
16-17	61	245	66	372
17-18	78	293	65	436
TOTAL	376	1562	399	2337

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	20	105	80	205
8-9	35	130	72	237
9-10	28	99	86	213
15-16	23	163	87	273
16-17	30	315	85	430
17-18	37	388	110	535
TOTAL	173	1200	520	1893

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
586	79	0	98	4
640	83	0	211	3
503	58	0	88	0
728	101	2	277	0
802	115	2	214	0
971	155	3	221	0
4230	591	7	1109	7

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	72	599	56	727
8-9	95	863	83	1041
9-10	69	650	74	793
15-16	98	708	68	874
16-17	86	817	66	969
17-18	88	756	110	954
TOTAL	508	4393	457	5358

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	27	850	98	975
8-9	20	849	124	993
9-10	42	752	129	923
15-16	26	880	118	1024
16-17	33	894	102	1029
17-18	26	1103	104	1233
TOTAL	174	5328	675	6177

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1702	51	4	68	0
2034	82	1	88	0
1716	64	0	57	0
1898	106	4	62	10
1998	90	6	57	1
2187	108	5	100	0
11535	501	20	432	11



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Hope St

East/West Chick Hearn Ct

Day: Thursday **Date:** April 20, 2017 **Weather:** SUNNY

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

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

	N/B	S/B	E/B	W/B
DUAL-WHEELED	56	29	0	57
BIKES	36	30	26	39
BUSES	1	28	0	2

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	95	7.45	64	8.45	0	0.00	75	8.00
<i>PM PK 15 MIN</i>	112	15.30	148	17.15	0	0.00	122	17.30
<i>AM PK HOUR</i>	356	7.15	234	8.00	0	0.00	262	8.00
<i>PM PK HOUR</i>	373	17.00	518	17.00	0	0.00	405	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	9	326	0	335
8-9	25	307	0	332
9-10	22	205	0	227
15-16	28	338	0	366
16-17	30	293	0	323
17-18	34	339	0	373
TOTAL	148	1808	0	1956

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	162	27	189
8-9	0	209	25	234
9-10	0	189	19	208
15-16	1	255	37	293
16-17	0	361	44	405
17-18	1	418	99	518
TOTAL	2	1594	251	1847

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
524	70	3	39	5
566	83	0	55	0
435	108	0	86	0
659	117	0	94	0
728	109	0	66	0
891	107	0	102	0
3803	594	3	442	5

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	26	85	91	202
8-9	55	108	99	262
9-10	35	119	69	223
15-16	29	134	70	233
16-17	43	180	67	290
17-18	40	265	100	405
TOTAL	228	891	496	1615

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
202	49	2	54	1
262	73	2	74	0
223	75	0	57	0
233	124	0	70	0
290	84	0	59	0
405	115	0	116	0
1615	520	4	430	1



**City Of Los Angeles
Department Of Transportation**

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Grand Avenue

East/West 8th Street

Day: Wednesday **Date:** November 15, 2017 **Weather:** CLEAR

Hours: 7-10AM 3-6PM **Staff:** CUI

School Day: YES **District:** Central **I/S CODE** 8643

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	78	0	103
BIKES	20	90	31	108
BUSES	0	247	0	103

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
<i>AM PK 15 MIN</i>	0 7.00	208 8.00	0 7.00	326 7.30
<i>PM PK 15 MIN</i>	0 3.00	433 4.45	0 3.00	314 5.00
<i>AM PK HOUR</i>	0 7.00	774 8.00	0 7.00	1273 8.00
<i>PM PK HOUR</i>	0 3.00	1649 4.45	0 3.00	1122 4.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	434	137	571
8-9	0	564	210	774
9-10	0	498	208	706
3-4	0	802	218	1020
4-5	0	1219	244	1463
5-6	0	1300	231	1531
TOTAL	0	4817	1248	6065

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
571	113	0	76	0
774	186	0	206	0
706	160	0	203	1
1020	245	0	243	0
1463	229	3	279	0
1531	292	2	337	0
6065	1225	5	1344	1

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	114	1071	0	1185
8-9	210	1063	0	1273
9-10	110	990	0	1100
3-4	156	875	0	1031
4-5	191	827	0	1018
5-6	205	867	0	1072
TOTAL	986	5693	0	6679

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1185	80	0	152	0
1273	109	1	219	0
1100	116	1	239	1
1031	125	1	265	1
1018	189	2	273	4
1072	176	0	376	1
6679	795	5	1524	7



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Grand Ave

East/West

9th St

Day:

Thursday

Date:

April 20, 2017

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	144	153	0
BIKES	12	91	148	50
BUSES	0	315	88	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AMPK 15 MIN	0	0.00	177	8.00	320	7.45	0	0.00
PMPK 15 MIN	0	0.00	461	17.30	318	16.30	0	0.00
AMPK HOUR	0	0.00	656	7.30	1139	7.45	0	0.00
PMPK HOUR	0	0.00	1764	17.00	1225	16.30	0	0.00

NORTHBOUND Approach

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

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	167	437	0	604
8-9	195	440	0	635
9-10	206	404	0	610
15-16	275	767	0	1042
16-17	263	1077	0	1340
17-18	269	1495	0	1764
TOTAL	1375	4620	0	5995

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
604	66	11	56	3
635	98	1	85	1
610	79	3	80	0
1042	132	11	131	2
1340	109	7	129	2
1764	181	4	169	1
5995	665	37	650	9

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	748	99	847
8-9	0	954	116	1070
9-10	0	870	104	974
15-16	0	809	132	941
16-17	0	1045	135	1180
17-18	0	988	190	1178
TOTAL	0	5414	776	6190

WESTBOUND Approach

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

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
847	66	3	54	7
1070	101	1	79	4
974	78	0	57	2
941	151	0	75	5
1180	118	0	59	3
1178	143	0	89	0
6190	657	4	413	21



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET: North/South Grand Ave

East/West Olympic Blvd

Day: Thursday Date: April 20, 2017 Weather: SUNNY

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

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	140	128	135
BIKES	15	87	74	60
BUSES	0	308	114	62

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	155	8.00	250	8.00	262	9.00
PM PK 15 MIN	0	0.00	421	17.30	240	17.15	311	17.00
AM PK HOUR	0	0.00	598	7.45	948	8.00	941	7.30
PM PK HOUR	0	0.00	1646	17.00	902	16.30	1114	17.00

NORTHBOUND Approach

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

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	82	331	118	531
8-9	87	312	163	562
9-10	71	320	148	539
15-16	84	589	205	878
16-17	110	909	215	1234
17-18	115	1299	232	1646
TOTAL	549	3760	1081	5390

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
531	95	0	69	0
562	69	0	78	0
539	52	0	49	1
878	89	0	86	4
1234	87	0	71	1
1646	158	1	131	3
5390	550	1	484	9

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	561	100	661
8-9	0	853	95	948
9-10	0	636	100	736
15-16	1	726	99	826
16-17	0	778	115	893
17-18	1	725	141	867
TOTAL	2	4279	650	4931

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	64	840	0	904
8-9	73	819	0	892
9-10	79	766	0	845
15-16	86	825	0	911
16-17	93	822	0	915
17-18	114	1000	0	1114
TOTAL	509	5072	0	5581

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1565	72	5	38	0
1840	82	0	59	0
1581	75	5	31	1
1737	116	4	51	0
1808	100	3	30	1
1981	134	5	78	0
10512	579	22	287	2



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Grand Ave

East/West 11th St

Day: Thursday **Date:** April 20, 2017 **Weather:** SUNNY

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

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

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	141	0	102
BIKES	9	87	18	41
BUSES	0	264	0	2

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	0	0.00	144	7.45	0	0.00	70	8.45
<i>PM PK 15 MIN</i>	0	0.00	405	17.30	0	0.00	98	17.15
<i>AM PK HOUR</i>	0	0.00	544	7.30	0	0.00	245	8.00
<i>PM PK HOUR</i>	0	0.00	1575	17.00	0	0.00	375	17.00

NORTHBOUND Approach

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

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	448	75	523
8-9	0	431	81	512
9-10	0	441	73	514
15-16	0	716	82	798
16-17	0	1018	110	1128
17-18	0	1419	156	1575
TOTAL	0	4473	577	5050

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
523	82	0	36	2
512	80	0	41	0
514	51	0	28	0
798	76	2	49	4
1128	110	1	42	2
1575	105	4	52	0
5050	504	7	248	8

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	71	113	0	184
8-9	92	153	0	245
9-10	73	132	0	205
15-16	92	160	0	252
16-17	89	175	0	264
17-18	111	264	0	375
TOTAL	528	997	0	1525

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
184	94	5	32	0
245	95	0	27	0
205	72	1	33	0
252	54	0	33	0
264	77	2	33	0
375	79	1	47	0
1525	471	9	205	0



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Grand Avenue

East/West Pico Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8766

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	0	89	73	93
BIKES	27	81	83	48
BUSES	0	298	58	134

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	0 7.00	142 8.15	153 8.15	142 7.45
PM PK 15 MIN	0 3.00	367 4.45	146 5.30	202 5.45
AM PK HOUR	0 7.00	531 8.15	572 7.45	494 9.00
PM PK HOUR	0 3.00	1381 4.15	533 5.00	730 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	17	349	62	428
8-9	18	430	66	514
9-10	23	361	78	462
3-4	55	727	95	877
4-5	54	1109	119	1282
5-6	88	1088	178	1354
TOTAL	255	4064	598	4917

TOTAL

N-S
428
514
462
877
1282
1354
4917

XING S/L

Ped	Sch
28	0
46	0
16	0
30	5
32	3
46	2
198	10

XING N/L

Ped	Sch
65	5
67	1
96	1
88	2
103	0
97	5
516	14

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	357	59	416
8-9	0	472	95	567
9-10	0	361	106	467
3-4	0	391	92	483
4-5	0	402	68	470
5-6	0	456	77	533
TOTAL	0	2439	497	2936

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	54	435	0	489
8-9	61	389	0	450
9-10	88	406	0	494
3-4	64	335	0	399
4-5	43	384	0	427
5-6	75	655	0	730
TOTAL	385	2604	0	2989

TOTAL

E-W
905
1017
961
882
897
1263
5925

XING W/L

Ped	Sch
39	1
33	0
39	0
46	1
59	7
48	3
264	12

XING E/L

Ped	Sch
32	1
44	0
62	0
54	6
61	1
66	3
319	11



**City Of Los Angeles
Department Of Transportation**

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Grand Avenue

East/West Venice Boulevard

Day: Wednesday **Date:** November 15, 2017 **Weather:** CLEAR

Hours: 7-10AM 3-6PM **Staff:** CUI

School Day: YES **District:** Central **I/S CODE** 8799

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	0	90	48	41
BIKES	25	76	62	35
BUSES	0	325	72	66

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
<i>AM PK 15 MIN</i>	0 7.00	161 9.45	122 9.00	96 8.30
<i>PM PK 15 MIN</i>	0 3.00	353 4.30	141 4.45	124 5.45
<i>AM PK HOUR</i>	0 7.00	603 9.00	435 7.45	346 8.00
<i>PM PK HOUR</i>	0 3.00	1291 4.15	532 4.45	425 5.00

NORTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	48	374	43	465
8-9	64	454	67	585
9-10	91	425	87	603
3-4	108	794	101	1003
4-5	136	1021	90	1247
5-6	125	931	97	1153
TOTAL	572	3999	485	5056

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
465	135	2	137	1
585	104	0	136	0
603	55	0	80	1
1003	91	2	120	6
1247	93	3	121	6
1153	86	2	94	0
5056	564	9	688	14

EASTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	0	262	102	364
8-9	0	340	82	422
9-10	0	313	78	391
3-4	0	381	103	484
4-5	0	431	69	500
5-6	0	431	99	530
TOTAL	0	2158	533	2691

WESTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	33	296	0	329
8-9	62	284	0	346
9-10	38	254	0	292
3-4	36	199	0	235
4-5	38	242	0	280
5-6	37	388	0	425
TOTAL	244	1663	0	1907

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
693	133	4	117	1
768	128	4	120	0
683	71	0	69	0
719	106	3	89	2
780	122	6	89	4
955	103	3	56	0
4598	663	20	540	7



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Grand Avenue

East/West 17th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8876

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	88	0	92
BIKES	23	81	2	5
BUSES	0	247	0	69

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	0 7.00	145 8.45	0 7.00	281 7.30
PM PK 15 MIN	0 3.00	353 5.00	0 3.00	335 5.30
AM PK HOUR	0 7.00	551 8.00	0 7.00	1033 7.15
PM PK HOUR	0 3.00	1303 4.30	0 3.00	1269 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	252	189	441
8-9	0	307	244	551
9-10	0	286	227	513
3-4	0	570	418	988
4-5	0	705	530	1235
5-6	0	738	552	1290
TOTAL	0	2858	2160	5018

TOTAL

N-S
441
551
513
988
1235
1290
5018

XING S/L

Ped	Sch
0	0
4	2
7	1
1	0
1	0
1	0
14	3

XING N/L

Ped	Sch
38	17
53	70
27	21
13	14
12	14
14	28
157	164

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	177	803	0	980
8-9	169	728	0	897
9-10	77	761	0	838
3-4	84	880	0	964
4-5	78	1002	0	1080
5-6	71	1198	0	1269
TOTAL	656	5372	0	6028

TOTAL

E-W
980
897
838
964
1080
1269
6028

XING W/L

Ped	Sch
83	19
95	60
53	17
45	18
31	39
66	28
373	181

XING E/L

Ped	Sch
9	9
12	16
15	6
9	9
8	5
7	1
60	46



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Grand Avenue

East/West 18th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8826

	N/B	S/B	E/B	W/B
DUAL-WHEELED	42	83	134	0
BIKES	28	60	26	12
BUSES	82	276	63	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	90 7.45	104 7.30	410 7.45	0 7.00
PM PK 15 MIN	92 5.00	221 5.00	371 4.30	0 3.00
AM PK HOUR	319 7.45	397 7.30	1515 7.30	0 7.00
PM PK HOUR	324 5.00	807 4.15	1307 4.30	0 3.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	297	297
8-9	0	0	316	316
9-10	0	0	206	206
3-4	0	0	242	242
4-5	0	0	287	287
5-6	0	0	324	324
TOTAL	0	0	1672	1672

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	82	280	0	362
8-9	98	285	0	383
9-10	103	239	0	342
3-4	226	456	0	682
4-5	230	553	0	783
5-6	237	549	0	786
TOTAL	976	2362	0	3338

TOTAL

N-S	Ped	Sch	Ped	Sch
659	30	2	1	0
699	29	2	3	0
548	15	1	1	0
924	10	0	2	0
1070	13	0	0	0
1110	11	1	1	0
5010	108	6	8	0

XING S/L

XING N/L

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1238	129	1367
8-9	0	1353	109	1462
9-10	0	1285	108	1393
3-4	0	959	102	1061
4-5	0	1117	152	1269
5-6	0	1015	196	1211
TOTAL	0	6967	796	7763

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

E-W	Ped	Sch	Ped	Sch
1367	65	5	16	1
1462	76	3	25	2
1393	40	3	24	1
1061	48	4	19	4
1269	36	24	14	2
1211	70	6	15	5
7763	335	45	113	15

XING W/L

XING E/L



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West 8th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8356

	N/B	S/B	E/B	W/B
DUAL-WHEELED	131	0	0	136
BIKES	65	28	33	136
BUSES	300	0	0	100

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	399 8.30	0 7.00	0 7.00	354 8.30
PM PK 15 MIN	313 3.45	0 3.00	0 3.00	287 5.00
AM PK HOUR	1348 7.45	0 7.00	0 7.00	1283 7.45
PM PK HOUR	1124 4.45	0 3.00	0 3.00	1009 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	259	832	0	1091
8-9	383	959	0	1342
9-10	332	726	0	1058
3-4	319	774	0	1093
4-5	245	777	0	1022
5-6	237	866	0	1103
TOTAL	1775	4934	0	6709

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

N-S	Ped	Sch	Ped	Sch
1091	107	17	124	20
1342	147	12	157	36
1058	151	18	187	23
1093	211	16	225	28
1022	200	10	236	21
1103	275	8	287	32
6709	1091	81	1216	160

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1109	130	1239
8-9	0	1046	179	1225
9-10	0	914	153	1067
3-4	0	708	102	810
4-5	0	780	78	858
5-6	0	902	107	1009
TOTAL	0	5459	749	6208

TOTAL

E-W	Ped	Sch	Ped	Sch
1239	80	11	104	10
1225	85	24	131	13
1067	116	7	136	14
810	124	21	184	13
858	123	10	194	8
1009	154	11	219	7
6208	682	84	968	65



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South

Olive St

East/West

9th St

Day:

Wednesday

Date:

May 25, 2016

Weather:

SUNNY

Hours:

7-10 & 3-6

Chekr:

NDS

School Day:

YES

District:

I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	75	0	147	0
BIKES	36	11	214	67
BUSES	253	0	113	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	274	7.45	0	0.00	347	7.45	0	0.00
PM PK 15 MIN	247	17.15	0	0.00	348	17.00	0	0.00
AM PK HOUR	1022	7.30	0	0.00	1239	8.15	0	0.00
PM PK HOUR	947	16.30	0	0.00	1272	16.30	0	0.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	882	40	922
8-9	0	893	66	959
9-10	0	516	52	568
15-16	0	562	106	668
16-17	0	717	191	908
17-18	0	659	160	819
TOTAL	0	4229	615	4844

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

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
922	75	2	80	7
959	88	5	106	15
568	81	4	105	11
668	91	6	100	15
908	105	5	124	5
819	152	7	140	10
4844	592	29	655	63

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	162	827	0	989
8-9	208	1008	0	1216
9-10	208	863	0	1071
15-16	190	902	0	1092
16-17	214	962	0	1176
17-18	164	1073	0	1237
TOTAL	1146	5635	0	6781

WESTBOUND Approach

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

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
989	30	3	44	1
1216	47	8	37	1
1071	27	3	47	3
1092	37	7	46	1
1176	52	2	53	4
1237	43	1	78	11
6781	236	24	305	21



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Olive St

East/West Olympic Blvd

Day: Thursday **Date:** April 20, 2017 **Weather:** SUNNY

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

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

	N/B	S/B	E/B	W/B
DUAL-WHEELED	126	0	107	123
BIKES	41	18	69	66
BUSES	231	0	109	57

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
<i>AM PK 15 MIN</i>	287	7.30	0	0.00	250	8.00	225	7.45
<i>PM PK 15 MIN</i>	321	17.15	0	0.00	241	16.15	279	17.00
<i>AM PK HOUR</i>	1115	7.30	0	0.00	960	8.00	862	7.15
<i>PM PK HOUR</i>	1204	17.00	0	0.00	881	15.45	976	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	204	784	42	1030
8-9	211	812	59	1082
9-10	184	610	68	862
15-16	179	664	119	962
16-17	169	701	91	961
17-18	217	832	155	1204
TOTAL	1164	4403	534	6101

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

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1030	92	0	50	7
1082	43	1	64	2
862	45	1	51	0
962	90	5	54	4
961	78	0	66	5
1204	135	15	63	11
6101	483	22	348	29

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	74	587	0	661
8-9	126	834	0	960
9-10	95	600	0	695
15-16	103	685	0	788
16-17	112	767	0	879
17-18	104	726	0	830
TOTAL	614	4199	0	4813

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	710	143	853
8-9	0	678	130	808
9-10	0	645	102	747
15-16	0	708	93	801
16-17	1	741	66	808
17-18	0	903	73	976
TOTAL	1	4385	607	4993

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
1514	19	1	41	6
1768	16	1	48	1
1442	14	3	37	1
1589	31	5	62	2
1687	34	5	73	1
1806	31	10	65	13
9806	145	25	326	24



City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West 11th Street

Day: Tuesday Date: June 6, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8724

	N/B	S/B	E/B	W/B
DUAL-WHEELED	133	0	0	61
BIKES	46	25	16	49
BUSES	251	0	0	7

	N/B TIME		S/B TIME		E/B TIME		W/B TIME	
AM PK 15 MIN	341	8.15	0	7.00	0	7.00	58	7.45
PM PK 15 MIN	315	5.45	0	3.00	0	3.00	127	5.45
AM PK HOUR	1183	7.30	0	7.00	0	7.00	176	7.00
PM PK HOUR	1080	5.00	0	3.00	0	3.00	402	5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	90	939	0	1029
8-9	119	1007	0	1126
9-10	76	698	0	774
3-4	76	667	0	743
4-5	111	954	0	1065
5-6	160	920	0	1080
TOTAL	632	5185	0	5817

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1029	65	0	60	0
1126	61	0	24	0
774	53	0	26	0
743	51	0	37	1
1065	66	4	22	2
1080	61	6	34	0
5817	357	10	203	3

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	120	56	176
8-9	0	96	35	131
9-10	0	53	20	73
3-4	0	101	51	152
4-5	0	142	63	205
5-6	0	300	102	402
TOTAL	0	812	327	1139

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
176	37	0	59	0
131	20	0	45	0
73	25	0	59	1
152	46	3	36	0
205	40	3	41	2
402	46	4	47	5
1139	214	10	287	8



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West Pico Boulevard

Day: Tuesday Date: June 6, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8771

	N/B	S/B	E/B	W/B
DUAL-WHEELED	163	0	75	79
BIKES	27	22	83	59
BUSES	322	0	62	109

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	350 8.15	0 7.00	126 8.30	101 8.30
PM PK 15 MIN	298 4.45	0 3.00	150 4.30	194 5.45
AM PK HOUR	1245 7.45	0 7.00	456 8.15	377 8.00
PM PK HOUR	1064 4.15	0 3.00	524 4.00	651 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	111	990	0	1101
8-9	138	1088	2	1228
9-10	153	732	7	892
3-4	68	685	4	757
4-5	81	949	10	1040
5-6	109	862	12	983
TOTAL	660	5306	35	6001

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
1101	48	1	21	0
1228	55	7	26	0
892	39	4	18	0
757	44	8	40	1
1040	33	12	38	1
983	44	1	54	6
6001	263	33	197	8

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	35	271	0	306
8-9	64	389	0	453
9-10	61	289	0	350
3-4	66	393	0	459
4-5	71	453	0	524
5-6	63	393	0	456
TOTAL	360	2188	0	2548

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	290	53	343
8-9	0	314	63	377
9-10	0	276	67	343
3-4	0	302	52	354
4-5	0	344	63	407
5-6	0	583	68	651
TOTAL	0	2109	366	2475

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
649	9	0	30	1
830	12	0	20	0
693	38	0	15	0
813	12	1	31	4
931	20	3	37	2
1107	13	0	8	3
5023	104	4	141	10



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West Venice Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8356

	N/B	S/B	E/B	W/B
DUAL-WHEELED	90	0	43	49
BIKES	33	13	70	35
BUSES	318	0	139	59

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	409 7.45	0 7.00	132 9.00	104 8.30
PM PK 15 MIN	287 5.30	0 3.00	173 5.00	135 5.45
AM PK HOUR	1578 7.45	0 7.00	436 8.15	361 7.15
PM PK HOUR	1094 5.00	0 3.00	640 4.45	482 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	66	1307	36	1409
8-9	80	1416	50	1546
9-10	55	1072	43	1170
3-4	18	733	52	803
4-5	28	908	62	998
5-6	25	984	85	1094
TOTAL	272	6420	328	7020

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

N-S
1409
1546
1170
803
998
1094
7020

XING S/L

Ped	Sch
112	21
96	9
55	7
53	17
62	16
67	13
445	83

XING N/L

Ped	Sch
71	10
118	17
106	19
70	21
74	12
62	9
501	88

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	54	242	0	296
8-9	92	312	0	404
9-10	96	311	0	407
3-4	69	420	0	489
4-5	79	529	0	608
5-6	73	540	0	613
TOTAL	463	2354	0	2817

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	265	82	347
8-9	0	274	79	353
9-10	0	234	64	298
3-4	0	202	48	250
4-5	0	261	45	306
5-6	0	417	65	482
TOTAL	0	1653	383	2036

TOTAL

E-W
347
353
298
250
306
482
2036

XING W/L

Ped	Sch
55	14
68	5
38	5
30	7
39	2
28	2
258	35

XING E/L

Ped	Sch
64	10
81	7
66	13
42	24
69	18
39	21
361	93



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West 17th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8365

	N/B	S/B	E/B	W/B
DUAL-WHEELED	66	0	0	99
BIKES	35	9	12	7
BUSES	148	0	0	227

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	463 7.45	0 7.00	0 7.00	266 7.30
PM PK 15 MIN	359 5.15	0 3.00	0 3.00	276 5.30
AM PK HOUR	1731 7.30	0 7.00	0 7.00	1022 7.30
PM PK HOUR	1271 5.00	0 3.00	0 3.00	1043 4.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	354	1270	0	1624
8-9	299	1360	0	1659
9-10	233	1051	0	1284
3-4	171	665	0	836
4-5	213	869	0	1082
5-6	273	998	0	1271
TOTAL	1543	6213	0	7756

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

N-S
1624
1659
1284
836
1082
1271
7756

XING S/L

Ped	Sch
12	1
23	0
7	0
8	1
5	0
12	0
67	2

XING N/L

Ped	Sch
43	0
115	1
58	0
22	0
14	0
20	0
272	1

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	765	196	961
8-9	0	682	229	911
9-10	0	638	168	806
3-4	0	728	135	863
4-5	0	793	131	924
5-6	0	943	91	1034
TOTAL	0	4549	950	5499

TOTAL

E-W
961
911
806
863
924
1034
5499

XING W/L

Ped	Sch
18	2
47	0
29	1
10	2
8	1
18	0
130	6

XING E/L

Ped	Sch
68	0
90	0
46	2
26	4
26	6
52	2
308	14



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Olive Street

East/West 18th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 50661

	N/B	S/B	E/B	W/B
DUAL-WHEELED	30	0	139	0
BIKES	39	6	21	4
BUSES	110	0	256	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	236 7.30	0 7.00	468 7.45	0 7.00
PM PK 15 MIN	189 5.30	0 3.00	439 4.30	0 3.00
AM PK HOUR	801 7.30	0 7.00	1756 7.30	0 7.00
PM PK HOUR	631 4.45	0 3.00	1660 4.30	0 3.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	720	28	748
8-9	0	727	33	760
9-10	0	472	51	523
3-4	0	372	45	417
4-5	0	473	54	527
5-6	0	595	35	630
TOTAL	0	3359	246	3605

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

N-S
748
760
523
417
527
630
3605

XING S/L

Ped	Sch
35	1
39	1
20	1
9	4
25	3
18	0
146	10

XING N/L

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

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	874	668	0	1542
8-9	895	817	0	1712
9-10	798	790	0	1588
3-4	457	962	0	1419
4-5	616	1021	0	1637
5-6	636	869	0	1505
TOTAL	4276	5127	0	9403

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

TOTAL

E-W
1542
1712
1588
1419
1637
1505
9403

XING W/L

Ped	Sch
11	0
28	1
16	2
12	3
11	0
13	0
91	6

XING E/L

Ped	Sch
56	7
67	1
44	3
18	8
18	5
40	4
243	28



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hill Street

East/West Olympic Boulevard

Day: Tuesday Date: June 6, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8714

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	68	65	134	115
BIKES	24	56	71	80
BUSES	139	116	117	115

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
<i>AM PK 15 MIN</i>	129 8.30	146 7.45	242 8.45	228 8.30
<i>PM PK 15 MIN</i>	154 4.30	234 4.00	309 5.15	219 3.15
<i>AM PK HOUR</i>	498 8.30	548 7.00	885 8.15	796 7.45
<i>PM PK HOUR</i>	566 4.30	876 4.00	1082 4.45	828 4.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	60	365	25	450
8-9	62	373	34	469
9-10	50	369	29	448
3-4	52	331	64	447
4-5	55	411	83	549
5-6	54	448	60	562
TOTAL	333	2297	295	2925

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	47	375	126	548
8-9	59	319	119	497
9-10	67	277	123	467
3-4	57	516	144	717
4-5	70	608	198	876
5-6	57	559	118	734
TOTAL	357	2654	828	3839

TOTAL

N-S	Ped	Sch	Ped	Sch
998	49	17	20	12
966	40	10	46	9
915	60	8	47	12
1164	73	9	62	4
1425	79	3	56	21
1296	98	5	87	9
6764	399	52	318	67

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	40	503	70	613
8-9	51	762	52	865
9-10	66	580	46	692
3-4	73	634	80	787
4-5	104	698	77	879
5-6	181	799	81	1061
TOTAL	515	3976	406	4897

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	31	602	50	683
8-9	41	687	64	792
9-10	36	633	75	744
3-4	48	653	94	795
4-5	59	680	77	816
5-6	40	579	67	686
TOTAL	255	3834	427	4516

TOTAL

E-W	Ped	Sch	Ped	Sch
1296	38	28	35	0
1657	44	13	42	1
1436	54	20	34	1
1582	66	2	57	1
1695	77	8	95	2
1747	64	3	79	4
9413	343	74	342	9



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hill Street

East/West 11th Street

Day: Tuesday Date: June 6, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8733

	N/B	S/B	E/B	W/B
DUAL-WHEELED	36	36	0	42
BIKES	32	50	20	34
BUSES	141	169	0	8

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	137 8.30	125 7.00	0 7.00	50 9.30
PM PK 15 MIN	126 4.15	217 4.15	0 3.00	107 5.45
AM PK HOUR	538 8.15	438 7.30	0 7.00	171 8.45
PM PK HOUR	474 4.15	823 4.45	0 3.00	361 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	448	0	451
8-9	4	521	0	525
9-10	8	452	0	460
3-4	8	369	0	377
4-5	5	466	0	471
5-6	3	464	0	467
TOTAL	31	2720	0	2751

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	395	34	429
8-9	0	378	41	419
9-10	0	315	38	353
3-4	0	492	61	553
4-5	0	679	79	758
5-6	0	715	107	822
TOTAL	0	2974	360	3334

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
880	10	0	17	2
944	12	1	18	9
813	12	3	20	4
930	15	3	12	5
1229	22	9	30	3
1289	17	2	51	4
6085	88	18	148	27

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	78	24	108
8-9	25	106	34	165
9-10	27	105	34	166
3-4	19	126	28	173
4-5	20	127	28	175
5-6	33	279	49	361
TOTAL	130	821	197	1148

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
108	41	6	7	3
165	50	8	17	1
166	39	8	13	5
173	52	7	15	6
175	65	3	15	7
361	62	2	26	4
1148	309	34	93	26



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Broadway

East/West Olympic Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8730

	N/B	S/B	E/B	W/B
DUAL-WHEELED	77	55	87	99
BIKES	58	59	76	52
BUSES	209	13	95	98

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	167 8.45	108 9.30	217 7.45	198 7.30
PM PK 15 MIN	184 5.15	161 5.15	215 4.15	202 5.00
AM PK HOUR	630 8.15	404 9.00	778 8.15	707 8.00
PM PK HOUR	668 4.30	596 5.00	798 4.15	744 4.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	68	475	42	585
8-9	68	495	47	610
9-10	56	448	41	545
3-4	40	374	51	465
4-5	54	538	71	663
5-6	59	502	61	622
TOTAL	345	2832	313	3490

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	184	72	256
8-9	4	241	93	338
9-10	6	292	106	404
3-4	8	373	111	492
4-5	5	450	101	556
5-6	1	487	108	596
TOTAL	24	2027	591	2642

TOTAL

N-S
841
948
949
957
1219
1218
6132

XING S/L

Ped	Sch
69	0
95	0
81	1
136	2
98	2
133	0
612	5

XING N/L

Ped	Sch
64	0
90	0
53	0
88	0
78	2
119	2
492	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	29	503	53	585
8-9	44	658	49	751
9-10	66	569	69	704
3-4	55	591	65	711
4-5	52	631	80	763
5-6	75	610	93	778
TOTAL	321	3562	409	4292

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	48	607	24	679
8-9	37	627	43	707
9-10	26	405	77	508
3-4	40	520	50	610
4-5	50	589	65	704
5-6	56	611	37	704
TOTAL	257	3359	296	3912

TOTAL

E-W
1264
1458
1212
1321
1467
1482
8204

XING W/L

Ped	Sch
54	0
67	1
87	0
105	3
76	0
90	0
479	4

XING E/L

Ped	Sch
64	0
89	0
102	1
79	0
80	4
123	2
537	7



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Broadway

East/West 11th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8894

	N/B	S/B	E/B	W/B
DUAL-WHEELED	63	56	0	57
BIKES	59	50	6	39
BUSES	210	14	0	104

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	179 8.45	96 9.15	0 7.00	58 9.45
PM PK 15 MIN	185 4.30	178 5.45	0 3.00	134 5.30
AM PK HOUR	630 8.00	355 9.00	0 7.00	191 9.00
PM PK HOUR	684 4.30	635 5.00	0 3.00	469 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	21	575	0	596
8-9	29	601	0	630
9-10	20	499	0	519
3-4	24	460	0	484
4-5	23	640	0	663
5-6	57	585	0	642
TOTAL	174	3360	0	3534

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	261	12	273
8-9	0	279	19	298
9-10	0	325	30	355
3-4	0	449	25	474
4-5	0	527	19	546
5-6	0	596	39	635
TOTAL	0	2437	144	2581

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
869	12	0	18	10
928	19	1	29	3
874	31	3	28	2
958	28	0	47	10
1209	17	7	38	7
1277	31	2	44	1
6115	138	13	204	33

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	54	82	24	160
8-9	49	118	21	188
9-10	58	97	36	191
3-4	72	124	27	223
4-5	75	145	38	258
5-6	103	321	45	469
TOTAL	411	887	191	1489

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
160	25	1	21	5
188	23	2	35	1
191	18	2	27	0
223	26	5	42	1
258	31	3	40	7
469	23	0	56	3
1489	146	13	221	17



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Main Street

East/West Olympic Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8731

	N/B	S/B	E/B	W/B
DUAL-WHEELED	116	47	82	80
BIKES	77	81	69	43
BUSES	209	419	95	6

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	213 9.00	110 9.45	200 7.45	161 8.45
PM PK 15 MIN	194 3.45	108 5.00	195 4.15	224 5.00
AM PK HOUR	797 8.15	382 8.00	741 8.15	596 8.00
PM PK HOUR	731 3.45	419 4.45	718 3.30	753 4.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	74	599	59	732
8-9	103	573	92	768
9-10	49	562	100	711
3-4	87	518	112	717
4-5	73	490	126	689
5-6	92	461	125	678
TOTAL	478	3203	614	4295

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	18	203	119	340
8-9	37	235	110	382
9-10	19	218	120	357
3-4	18	269	99	386
4-5	13	299	79	391
5-6	17	313	89	419
TOTAL	122	1537	616	2275

TOTAL

N-S
1072
1150
1068
1103
1080
1097
6570

XING S/L

Ped	Sch
89	4
93	0
141	1
105	4
89	14
148	8
665	31

XING N/L

Ped	Sch
20	1
49	1
57	0
88	5
62	5
58	0
334	12

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	79	414	44	537
8-9	96	561	55	712
9-10	95	470	54	619
3-4	103	493	53	649
4-5	112	512	91	715
5-6	89	485	84	658
TOTAL	574	2935	381	3890

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	23	499	14	536
8-9	21	542	33	596
9-10	62	360	41	463
3-4	53	428	50	531
4-5	89	551	47	687
5-6	106	566	36	708
TOTAL	354	2946	221	3521

TOTAL

E-W
1073
1308
1082
1180
1402
1366
7411

XING W/L

Ped	Sch
56	2
33	0
66	0
80	6
23	6
41	4
299	18

XING E/L

Ped	Sch
50	3
70	0
88	0
95	4
56	2
83	0
442	9



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Main Street

East/West 11th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8895

	N/B	S/B	E/B	W/B
DUAL-WHEELED	112	38	0	54
BIKES	89	87	38	14
BUSES	203	320	0	18

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	219 8.45	96 9.45	0 7.00	52 8.00
PM PK 15 MIN	180 3.00	138 4.45	0 3.00	114 5.15
AM PK HOUR	833 8.15	338 9.00	0 7.00	180 9.00
PM PK HOUR	679 4.15	507 4.45	0 3.00	427 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	35	718	0	753
8-9	46	760	0	806
9-10	43	719	0	762
3-4	32	631	0	663
4-5	51	615	0	666
5-6	86	576	0	662
TOTAL	293	4019	0	4312

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	210	53	263
8-9	0	254	39	293
9-10	0	284	54	338
3-4	0	349	38	387
4-5	0	431	61	492
5-6	0	407	97	504
TOTAL	0	1935	342	2277

TOTAL

N-S
1016
1099
1100
1050
1158
1166
6589

XING S/L

Ped	Sch
22	0
39	0
34	1
58	0
39	0
55	0
247	1

XING N/L

Ped	Sch
38	0
51	0
37	0
25	0
46	2
75	0
272	2

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	26	81	22	129
8-9	27	109	40	176
9-10	39	103	38	180
3-4	62	151	53	266
4-5	92	154	32	278
5-6	84	278	65	427
TOTAL	330	876	250	1456

TOTAL

E-W
129
176
180
266
278
427
1456

XING W/L

Ped	Sch
24	0
22	0
16	2
37	0
29	1
25	0
153	3

XING E/L

Ped	Sch
25	1
52	0
28	0
26	0
39	0
48	0
218	1



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Los Angeles Street

East/West Olympic Boulevard

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8752

	N/B	S/B	E/B	W/B
DUAL-WHEELED	68	68	79	65
BIKES	23	62	57	35
BUSES	62	83	25	6

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	134 8.45	186 8.00	167 7.45	111 7.15
PM PK 15 MIN	189 4.00	288 5.15	221 5.30	177 5.00
AM PK HOUR	470 8.30	672 7.45	608 7.45	401 7.15
PM PK HOUR	633 4.00	988 4.30	831 5.00	632 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	32	261	20	313
8-9	72	348	25	445
9-10	33	359	52	444
3-4	63	391	63	517
4-5	71	510	52	633
5-6	70	466	56	592
TOTAL	341	2335	268	2944

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	34	422	157	613
8-9	40	421	198	659
9-10	37	393	138	568
3-4	60	457	135	652
4-5	41	551	221	813
5-6	34	727	166	927
TOTAL	246	2971	1015	4232

TOTAL

XING S/L

XING N/L

N-S	Ped	Sch	Ped	Sch
926	39	0	13	2
1104	89	0	50	1
1012	118	0	62	0
1169	171	5	92	2
1446	109	3	71	3
1519	145	0	73	0
7176	671	8	361	8

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	67	316	67	450
8-9	82	419	92	593
9-10	101	352	81	534
3-4	181	371	112	664
4-5	180	412	97	689
5-6	197	471	163	831
TOTAL	808	2341	612	3761

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	26	357	9	392
8-9	16	361	9	386
9-10	43	319	37	399
3-4	61	322	59	442
4-5	47	392	73	512
5-6	103	472	57	632
TOTAL	296	2223	244	2763

TOTAL

XING W/L

XING E/L

E-W	Ped	Sch	Ped	Sch
842	15	0	38	1
979	32	0	52	2
933	26	0	70	1
1106	39	0	87	2
1201	40	2	93	1
1463	48	0	102	0
6524	200	2	442	7



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Los Angeles Street

East/West 11th Street

Day: Wednesday Date: November 15, 2017 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: Central I/S CODE 8779

	N/B	S/B	E/B	W/B
DUAL-WHEELED	68	75	0	72
BIKES	29	49	39	52
BUSES	63	98	0	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	137 9.00	159 7.45	0 7.00	47 9.45
PM PK 15 MIN	177 4.00	293 5.15	0 3.00	119 5.30
AM PK HOUR	478 8.30	563 7.45	0 7.00	177 9.00
PM PK HOUR	579 3.45	1011 5.00	0 3.00	414 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	29	300	0	329
8-9	32	423	0	455
9-10	23	427	0	450
3-4	40	446	0	486
4-5	42	521	0	563
5-6	31	497	0	528
TOTAL	197	2614	0	2811

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	455	62	517
8-9	0	452	71	523
9-10	0	430	72	502
3-4	0	548	94	642
4-5	0	610	107	717
5-6	0	825	186	1011
TOTAL	0	3320	592	3912

TOTAL

N-S
846
978
952
1128
1280
1539
6723

XING S/L

Ped	Sch
35	0
45	0
79	2
110	5
83	3
71	9
423	19

XING N/L

Ped	Sch
32	0
51	0
79	0
67	1
82	10
90	0
401	11

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
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	14	56	18	88
8-9	24	87	20	131
9-10	43	93	41	177
3-4	57	133	71	261
4-5	69	136	67	272
5-6	116	232	66	414
TOTAL	323	737	283	1343

TOTAL

E-W
88
131
177
261
272
414
1343

XING W/L

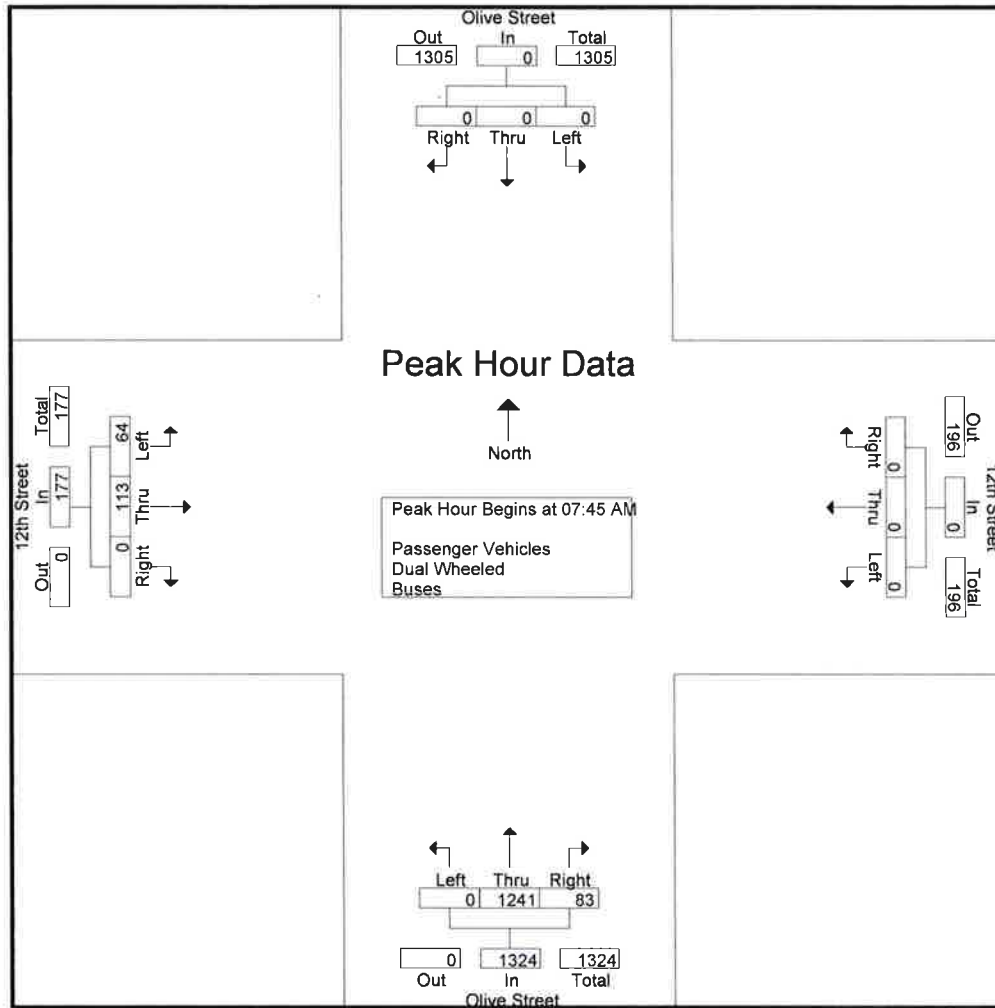
Ped	Sch
24	0
34	1
44	0
77	1
67	2
60	0
306	4

XING E/L

Ped	Sch
36	0
43	0
93	1
82	3
92	4
82	0
428	8

City of Los Angeles
N/S: Olive Street
E/W: 12th Street
Weather: Clear

File Name : 04_LACOL12AM
Site Code : 12818254
Start Date : 4/5/2018
Page No : 2

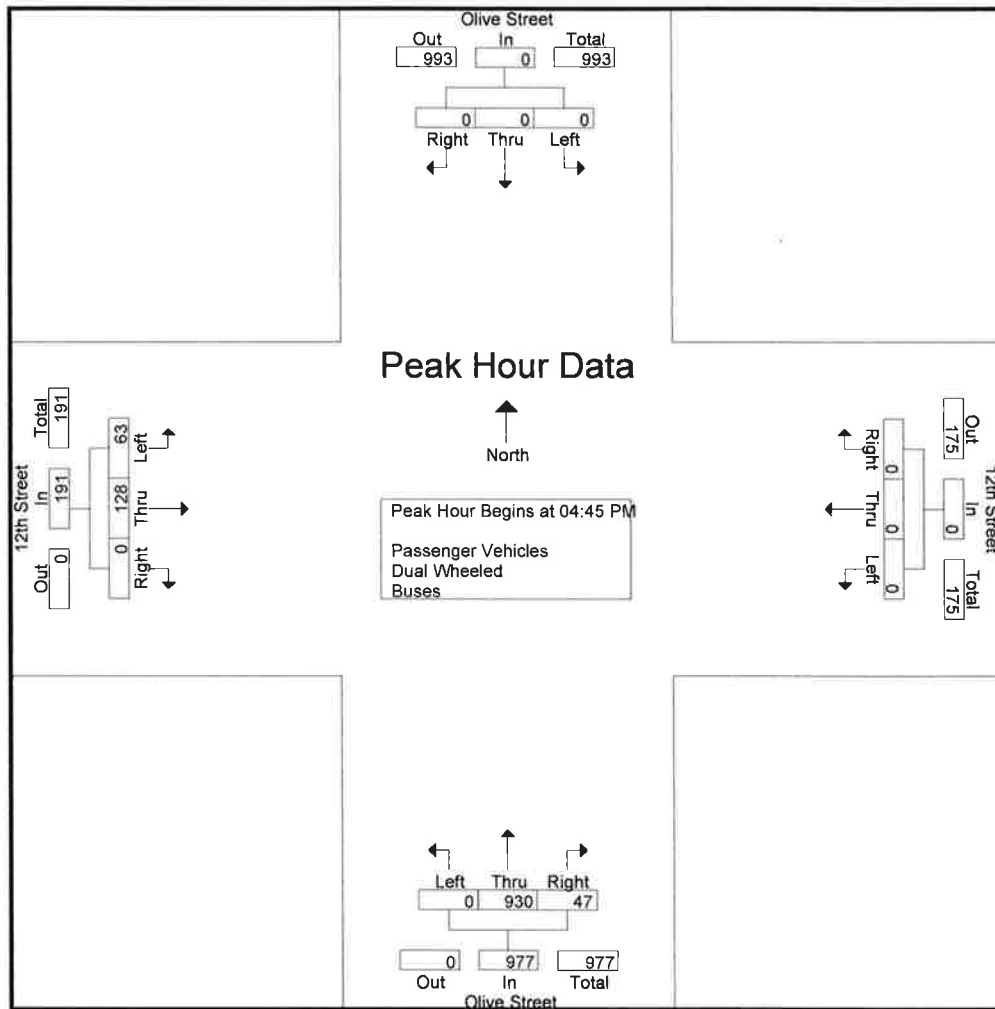


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:45 AM				08:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	303	23	326	19	35	0	54
+15 mins.	0	0	0	0	0	0	0	0	0	290	19	309	22	32	0	54
+30 mins.	0	0	0	0	0	0	0	0	0	335	24	359	15	22	0	37
+45 mins.	0	0	0	0	0	0	0	0	0	313	17	330	14	28	0	42
Total Volume	0	0	0	0	0	0	0	0	0	1241	83	1324	70	117	0	187
% App. Total	0	0	0	0	0	0	0	0	0	93.7	6.3		37.4	62.6	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.926	.865	.922	.795	.836	.000	.866

City of Los Angeles
N/S: Olive Street
E/W: 12th Street
Weather: Clear

File Name : 04_LACOL12PM
Site Code : 12818254
Start Date : 4/5/2018
Page No : 2

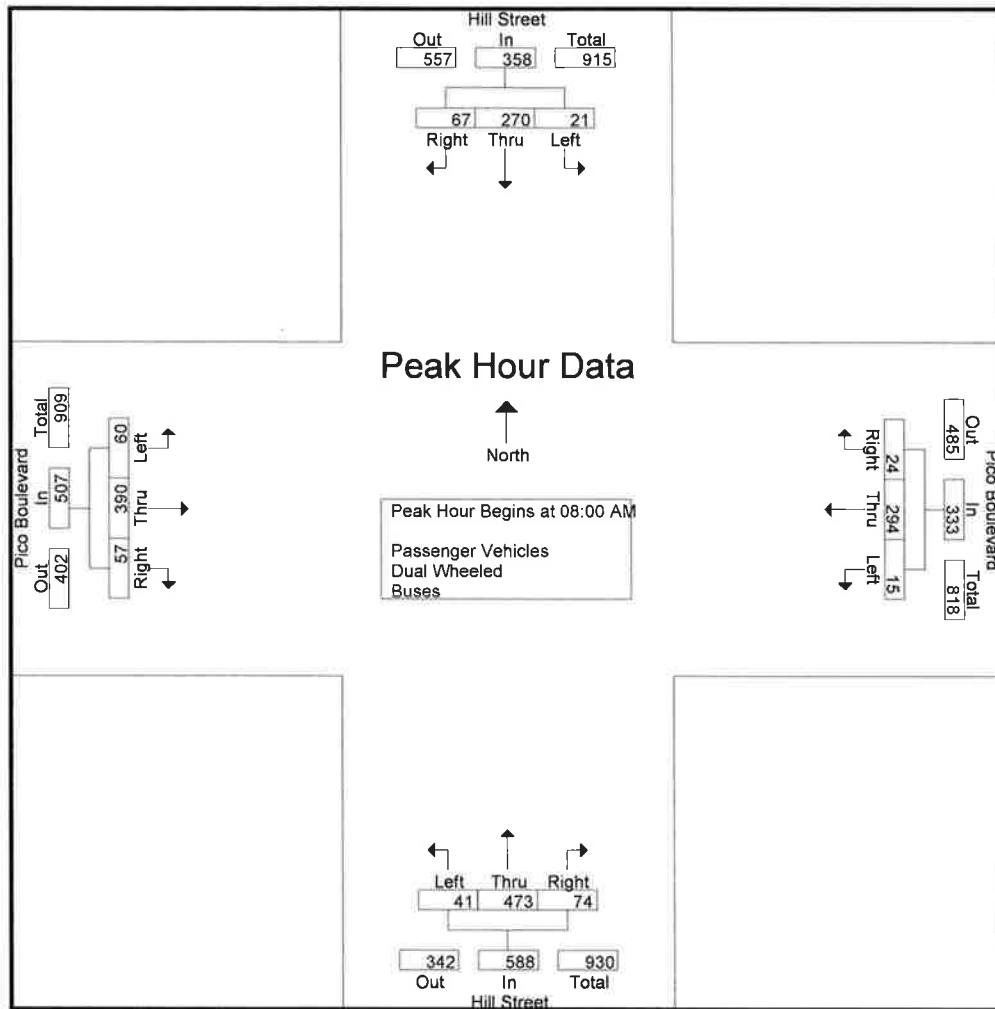


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM				03:00 PM				04:45 PM				03:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	221	14	235	18	41	0	59
+15 mins.	0	0	0	0	0	0	0	0	0	246	9	255	13	31	0	44
+30 mins.	0	0	0	0	0	0	0	0	0	215	11	226	19	40	0	59
+45 mins.	0	0	0	0	0	0	0	0	0	248	13	261	18	35	0	53
Total Volume	0	0	0	0	0	0	0	0	0	930	47	977	68	147	0	215
% App. Total	0	0	0	0	0	0	0	0	0	95.2	4.8		31.6	68.4	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.938	.839	.936	.895	.896	.000	.911

City of Los Angeles
N/S: Hill Street
E/W: Pico Boulevard
Weather: Clear

File Name : 05_LACHIPIAM
Site Code : 12818254
Start Date : 4/5/2018
Page No : 2

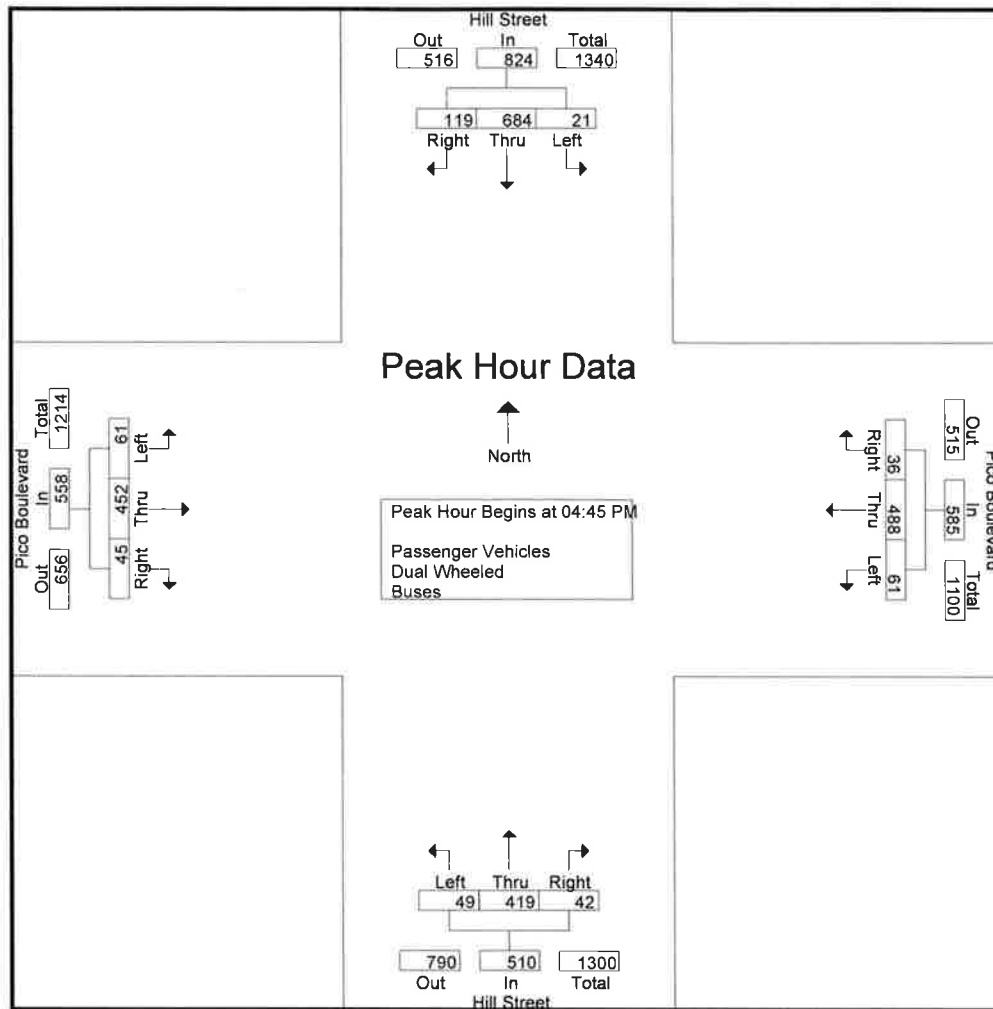


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				08:00 AM				08:15 AM				08:00 AM			
+0 mins.	3	73	15	91	4	67	7	78	7	113	14	134	7	89	19	115
+15 mins.	7	88	17	112	5	87	8	100	11	127	24	162	23	96	12	131
+30 mins.	4	81	13	98	3	79	8	90	8	118	23	149	12	95	15	122
+45 mins.	5	64	26	95	3	61	1	65	7	128	22	157	18	110	11	139
Total Volume	19	306	71	396	15	294	24	333	33	486	83	602	60	390	57	507
% App. Total	4.8	77.3	17.9		4.5	88.3	7.2		5.5	80.7	13.8		11.8	76.9	11.2	
PHF	.679	.869	.683	.884	.750	.845	.750	.833	.750	.949	.865	.929	.652	.886	.750	.912

City of Los Angeles
N/S: Hill Street
E/W: Pico Boulevard
Weather: Clear

File Name : 05_LACHIPIPM
Site Code : 12818254
Start Date : 4/5/2018
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Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				04:45 PM				04:00 PM			
+0 mins.	6	177	34	217	8	110	7	125	9	101	16	126	24	107	13	144
+15 mins.	6	171	27	204	17	148	7	172	13	106	7	126	18	97	11	126
+30 mins.	5	190	36	231	19	128	6	153	14	128	13	155	17	123	10	150
+45 mins.	4	146	22	172	15	143	11	169	13	84	6	103	18	110	15	143
Total Volume	21	684	119	824	59	529	31	619	49	419	42	510	77	437	49	563
% App. Total	2.5	83	14.4		9.5	85.5	5		9.6	82.2	8.2		13.7	77.6	8.7	
PHF	.875	.900	.826	.892	.776	.894	.705	.900	.875	.818	.656	.823	.802	.888	.817	.938

Appendix F
Intersection LOS CMA Sheets

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	La Live Way	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
1	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:							
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>			3	0	3	0	3	0	3	0	3	0						
			NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0						
			EB-- 0	WB-- 3	EB-- 3	WB-- 3	EB-- 3	WB-- 3	EB-- 3	WB-- 3	EB-- 3	WB-- 3						
			2	2	2	2	2	2	2	2	2	2						
			0	0	0	0	0	0	0	0	0	0						
MOVEMENT			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		
NORTHBOUND	Left	889	2	489	0	889	489	19	963	2	530	0	963	2	530	0	963	
	Left-Through		0							0				0				
	Through	1115	2	558	0	1115	558	111	1295	2	648	0	1295	2	648	0	1295	
	Through-Right		0							0				0				
	Right	204	1	204	2	206	206	246	463	1	463	2	465	1	465	0	465	
SOUTHBOUND	Left-Through-Right		0							0				0				
	Left-Right		0							0				0				
	Left	59	2	32	0	59	32	80	143	2	79	0	143	2	79	0	143	
	Left-Through		0							0				0				
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Through-Right		0							0				0				
	Right	5	2	0	0	5	0	0	5	2	0	0	5	2	0	0	5	
	Left-Through-Right		0							0				0				
	Left-Right		0							0				0				
	Left	291	1	291	0	291	291	3	312	1	312	0	312	1	312	0	312	
WESTBOUND	Left-Through		0							0				0				
	Through	804	3	268	2	806	269	278	1131	3	377	2	1133	3	378	0	1133	
	Through-Right		0							0				0				
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0				
CRITICAL VOLUMES	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0				
	Through	359	2	180	6	365	183	404	785	2	393	6	791	2	396	0	791	
	Through-Right		0							0				0				
	Right	197	1	165	0	197	165	209	418	1	339	0	418	1	339	0	418	
VOLUME/CAPACITY (V/C) RATIO:			North-South: 590 East-West: 471 SUM: 1061		North-South: 727 East-West: 705 SUM: 1432		North-South: 727 East-West: 708 SUM: 1435		North-South: 727 East-West: 708 SUM: 1435		North-South: 727 East-West: 708 SUM: 1435		North-South: 727 East-West: 708 SUM: 1435		North-South: 727 East-West: 708 SUM: 1435			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.745 0.645 B		1.005 0.905 E		1.007 0.907 E		1.007 0.907 E		1.007 0.907 E		1.007 0.907 E		1.007 0.907 E			
LEVEL OF SERVICE (LOS):																		

PROJECT IMPACT

Change in v/c due to project: 0.002
 Significant impacted? NO
 Δv/c after mitigation: 0.002
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	La Live Way	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Shiva D	Date:	4/12/2018								
1	East-West Street:	Pico Boulevard	Projection Year:		2023	Peak Hour:		PM	Reviewed by:			Project:	1045 Olive								
<div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		No. of Phases		3	0	0	0	3	0	0	3	0	3								
		NB--	0	SB--	0	0	NB--	0	SB--	0	0	NB--	0	SB--							
		EB--	0	WB--	3	0	EB--	0	WB--	3	0	EB--	0	WB--							
		2	2	2	2	2	2	2	2	2	2	2	2	2							
		0	0	0	0	0	0	0	0	0	0	0	0	0							
MOVEMENT		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	Added Volume	Total Volume	
NORTHBOUND	Left	744	2	409	0	744	409	16	806	2	443	0	806	2	443	0	806	2	443	0	806
	Left-Through		0							0				0				0			
	Through	802	2	401	0	802	401	226	1077	2	539	0	1077	2	539	0	1077	2	539	0	1077
	Through-Right		0							0				0				0			
	Right	121	1	121	6	127	127	363	491	1	491	6	497	1	497	6	497	1	497	6	497
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
SOUTHBOUND	Left	87	2	48	0	87	48	78	170	2	94	0	170	2	94	0	170	2	94	0	170
	Left-Through		0							0				0				0			
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0			
	Right	20	2	0	0	20	0	0	21	2	0	0	21	2	0	0	21	2	0	0	21
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
EASTBOUND	Left	150	1	150	0	150	150	1	160	1	160	0	160	1	160	0	160	1	160	0	160
	Left-Through		0							0				0				0			
	Through	787	3	262	6	793	264	454	1289	3	430	6	1295	3	432	6	1295	3	432	6	1295
	Through-Right		0							0				0				0			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0			
	Through	712	2	356	2	714	357	360	1116	2	558	2	1118	2	559	2	1118	2	559	2	1118
	Through-Right		0							0				0				0			
	Right	388	1	340	0	388	340	241	653	1	559	0	653	1	559	0	653	1	559	0	653
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
CRITICAL VOLUMES		North-South: 449 East-West: 506 SUM: 955		North-South: 449 East-West: 507 SUM: 956		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352		North-South: 633 East-West: 719 SUM: 1352	
VOLUME/CAPACITY (V/C) RATIO:		0.670		0.671		0.949		0.949		0.949		0.949		0.949		0.949		0.949		0.949	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.570		0.571		0.849		0.849		0.849		0.849		0.849		0.849		0.849		0.849	
LEVEL OF SERVICE (LOS):		A		A		D		D		D		D		D		D		D		D	

PROJECT IMPACT

Change in v/c due to project: **0.000** Δv/c after mitigation: **0.000**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:											
2	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:											
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			3		3		3		4/30/2018											
			0		0		0		1045 Olive											
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0													
			EB-- 3 WB-- 0		EB-- 3 WB-- 0		EB-- 3 WB-- 0													
			2		2		2													
			0		0		0		0											
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION					
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left		153	1	153	0	153	153	208	370	1	370	0	370	1	370	370	370	1	370
	Left-Through			0							0				0				0	
	Through-Right		1205	3	402	7	1212	404	493	1772	2	886	7	1779	2	890	1779	1779	2	890
	Right		104	1	76	0	104	76	48	158	1	123	0	158	1	123	158	158	1	123
	Left-Through-Right			0							0				0				0	
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0							0				0				0	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right			0							0				0				0	
EASTBOUND	Left		227	1	227	0	227	227	134	375	1	375	0	375	1	375	375	375	1	375
	Left-Through			0							0				0				0	
	Through-Right		930	3	310	5	935	312	556	1543	3	514	5	1548	3	516	1548	1548	3	516
	Right		112	1	0	0	112	0	96	215	1	0	0	215	1	0	215	215	1	0
	Left-Through-Right			0							0				0				0	
WESTBOUND	Left		56	1	56	0	56	56	11	70	1	70	0	70	1	70	70	70	1	70
	Left-Through			0							0				0				0	
	Through-Right		797	3	266	19	816	272	703	1549	3	516	19	1568	3	523	1568	1568	3	523
	Right		328	1	328	2	330	330	183	531	1	531	2	533	1	533	533	533	1	533
	Left-Through-Right			0							0				0				0	
CRITICAL VOLUMES			North-South: 402 East-West: 555 SUM: 957		North-South: 886 East-West: 906 SUM: 1792		North-South: 890 East-West: 908 SUM: 1798		North-South: 890 East-West: 908 SUM: 1798		North-South: 890 East-West: 908 SUM: 1798									
VOLUME/CAPACITY (V/C) RATIO:			0.672		1.258		1.262		1.262		1.262									
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.572		1.158		1.162		1.162		1.162									
LEVEL OF SERVICE (LOS):			A		F		F		F		F									

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Shiva D	Date:	4/30/2018						
2	East-West Street:	Olympic Boulevard	Projection Year:		2023	Peak Hour:		PM	Reviewed by:			Project:	1045 Olive						
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		3	0	NB-- 0 SB-- 0		3	0	NB-- 0 SB-- 0		3	0						
		EB-- 3 WB-- 0		0	0	EB-- 3 WB-- 0		0	0	EB-- 3 WB-- 0		0	0						
		2		2	2		2	2		2	2		2	2					
		0		0	0		0	0		0	0		0	0					
MOVEMENT			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	210	1	210	0	210	210	278	501	1	501	0	501	1	501	0	501	1	501
	Left-Through		0							0				0				0	
	Through	1013	3	338	2	1015	338	799	1874	2	937	2	1876	2	938	2	1876	2	938
	Through-Right		0							0				0				0	
	Right	154	1	107	0	154	107	119	282	1	221	0	282	1	221	0	282	1	221
SOUTHBOUND	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left	167	1	167	0	167	167	186	363	1	363	0	363	1	363	0	363	1	363
	Left-Through		0							0				0				0	
	Through-Right	825	3	275	16	841	280	886	1762	3	587	16	1778	3	593	16	1778	3	593
WESTBOUND	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	Left	256	1	46	0	256	46	124	396	1	0	0	396	1	0	0	396	1	0
	Left-Through		0							0				0				0	
	Through-Right	94	1	94	0	94	94	22	122	1	122	0	122	1	122	0	122	1	122
CRITICAL VOLUMES	Left-Through		0							0				0				0	
	Through	1191	3	397	8	1199	400	889	2153	3	718	8	2161	3	720	8	2161	3	720
	Through-Right		0							0				0				0	
	Right	238	1	238	2	240	240	274	527	1	527	2	529	1	529	2	529	1	529
	Left-Through-Right		0							0				0				0	
VOLUME/CAPACITY (V/C) RATIO:		North-South: 338		East-West: 567		SUM: 905		North-South: 937		East-West: 1081		SUM: 2018		North-South: 938		East-West: 1083		SUM: 2021	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.633		0.533		A		1.416		1.316		F		1.418		1.318		F	
LEVEL OF SERVICE (LOS):																			

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

1045 Olive Project - AM Peak Hour

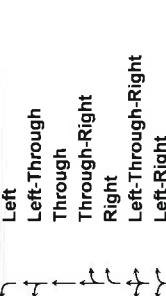


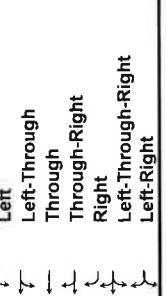
I/S #:	North-South Street:	Figueroa Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:					
3	East-West Street:	Chick Hearn Court	Projection Year:		Peak Hour:		Reviewed by:				Project:					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			4		4		4		4		4					
			0		0		0		0		0					
			0		0		0		0		0					
			3		3		3		3		3					
			2		2		2		2		2					
			0		0		0		0		0					
MOVEMENT			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	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	Lane Volume
NORTHBOUND	Left		16	1	16	0	16	1	41	24	41	1	41	0	41	41
	Left-Through			0				0				0				
	Through		1299	3	433	0	1299	2	1013	646	2025	2	1013	0	2025	1013
	Through-Right			0				0				0				
	Right		11	1	0	0	11	1	0	0	12	1	0	0	12	0
SOUTHBOUND	Left-Through-Right			0				0				0				
	Left-Right			0				0				0				
	Left		0	1	0	0	0	1	0	0	0	1	0	0	0	0
	Left-Through			0				0				0				
	Through		100	1	57	0	100	1	212	106	212	1	212	0	212	212
EASTBOUND	Through-Right			1				0				0				
	Right		14	0	14	0	14	1	11	0	15	1	11	0	15	11
	Left-Through-Right			0				0				0				
	Left-Right			0				0				0				
	Left		16	2	9	0	16	2	9	0	17	2	9	0	17	9
WESTBOUND	Left-Through			0				0				0				
	Through		3	1	3	0	3	1	3	0	3	1	3	0	3	3
	Through-Right			0				0				0				
	Right		11	1	0	0	11	1	10	39	51	1	10	0	51	10
	Left-Through-Right			0				0				0				
WESTBOUND	Left-Through			1				1				1				
	Through		39	0	39	0	39	0	41	0	41	0	41	0	41	41
	Through-Right			1				1				1				
	Right		46	0	46	20	66	0	253	204	273	1	273	20	273	273
	Left-Through-Right			0				0				0				
WESTBOUND	Left-Through			1				1				1				
	Through		100	0	100	7	107	0	210	104	217	1	217	7	217	217
	Through-Right			0				0				0				
	Right			0				0				0				
	Left-Through-Right			0				0				0				
CRITICAL VOLUMES			North-South: 433 East-West: 109 SUM: 542			North-South: 433 East-West: 116 SUM: 549			North-South: 1013 East-West: 262 SUM: 1275			North-South: 1013 East-West: 282 SUM: 1295				
VOLUME/CAPACITY (V/C) RATIO:			0.394			0.399			0.927			0.942				
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.294			0.299			0.827			0.842				
LEVEL OF SERVICE (LOS):			A			A			D			D				

PROJECT IMPACT

Change in v/c due to project: **0.015** Δv/c after mitigation: **0.015**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/16/2018				
3	East-West Street:	Chick Hearn Court	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive				
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		4	4	4		4		4				
		NB--	0	0	NB--	0	0	NB--	0	0				
		EB--	3	3	EB--	3	3	EB--	3	3				
		WB--	2	2	WB--	2	2	WB--	2	2				
			0	0		0	0		0	0				
MOVEMENT			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
 NORTHBOUND	Left	37	1	37	0	37	37	32	71	1	71	1	71	71
	Left-Through		0							0		0		
	Through-Right	1055	3	352	0	1055	352	1078	2198	2	1099	2	2198	1099
	Right	4	1	0	0	4	0	0	4	1	0	1	4	0
	Left-Through-Right		0							0		0		
 SOUTHBOUND	Left	6	1	6	0	6	6	0	6	1	6	1	6	6
	Left-Through		0							0		0		
	Through-Right	269	1	159	0	269	159	146	432	1	432	1	432	432
	Right	48	1	48	0	48	48	0	51	1	42	1	51	42
	Left-Through-Right		0							0		0		
 EASTBOUND	Left	29	2	16	0	29	16	2	33	2	18	2	33	18
	Left-Through		0							0		0		
	Through-Right	14	1	14	0	14	14	5	20	1	20	1	20	20
	Right	51	1	14	0	51	14	53	107	1	36	1	107	36
	Left-Through-Right		0							0		0		
 WESTBOUND	Left	126	1	126	0	126	126	0	134	1	134	1	134	134
	Left-Through		0							0		0		
	Through-Right	192	1	192	6	198	198	185	389	1	389	1	395	395
	Right	135	1	129	2	137	131	117	260	1	254	1	262	256
	Left-Through-Right		0							0		0		
CRITICAL VOLUMES			North-South: 358 East-West: 208 SUM: 566	North-South: 1105 East-West: 407 SUM: 1512	North-South: 1105 East-West: 413 SUM: 1518	North-South: 1105 East-West: 413 SUM: 1518	North-South: 1105 East-West: 413 SUM: 1518	North-South: 1105 East-West: 413 SUM: 1518	North-South: 1105 East-West: 413 SUM: 1518	North-South: 1105 East-West: 413 SUM: 1518				
VOLUME/CAPACITY (V/C) RATIO:			0.412	1.100	1.104	1.104	1.104	1.104	1.104	1.104				
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.312	1.000	1.004	1.004	1.004	1.004	1.004	1.004				
LEVEL OF SERVICE (LOS):			A	E	F	F	F	F	F	F				

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
4	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:							
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		2		2		1045 Olive							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
			2		2		2		2		2							
			0		0		0		0		0							
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
			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	204	0	204	204	166	383	1	383	0	383	1	383	0	383	1	383	
	Left-Through							0				0				0		
	Through-Right	1121	1	1122	561	477	1667	2	834	1	1668	2	834	1	1668	2	834	
	Right	115	0	115	104	56	178	1	125	0	178	1	125	0	178	1	125	
	Left-Through-Right							0				0				0		
SOUTHBOUND	Left-Right							0				0				0		
	Left	11	0	11	11	2	14	1	14	0	14	1	14	0	14	1	14	
	Left-Through							0				0				0		
	Through-Right	165	0	165	83	51	226	2	113	0	226	2	113	0	226	2	113	
	Right	56	0	56	0	11	70	1	0	0	70	1	0	0	70	1	0	
EASTBOUND	Left-Through-Right							0				0				0		
	Left-Right							0				0				0		
	Left	158	0	158	158	87	255	1	255	0	255	1	255	0	255	1	255	
	Left-Through							0				0				0		
	Through-Right	624	3	627	314	337	999	2	500	3	1002	2	501	3	1002	2	501	
WESTBOUND	Through-Right	105	0	105	3	181	292	1	101	0	292	1	101	0	292	1	101	
	Right							0				0				0		
	Left-Through-Right							0				0				0		
	Left-Right							0				0				0		
	Left	22	0	22	22	84	107	1	107	0	107	1	107	0	107	1	107	
CRITICAL VOLUMES	Left-Through							0				0				0		
	Through-Right	300	6	306	153	435	753	2	377	6	759	2	380	6	759	2	380	
	Right	68	0	68	63	224	296	1	289	0	296	1	289	0	296	1	289	
	Left-Through-Right							0				0				0		
	Left-Right							0				0				0		
VOLUME/CAPACITY (V/C) RATIO:			North-South: 572 East-West: 334 SUM: 906		North-South: 848 East-West: 632 SUM: 1480		North-South: 848 East-West: 635 SUM: 1483		North-South: 848 East-West: 635 SUM: 1483		North-South: 848 East-West: 635 SUM: 1483							
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.604 0.504 A		0.987 0.887 D		0.989 0.889 D		0.989 0.889 D		0.989 0.889 D							
LEVEL OF SERVICE (LOS):																		

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:						
4	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:						
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		2	2	2	2	2	2	2						
	NB-- 0 SB-- 0		0	0	0	0	0	0	0						
	EB-- 0 WB-- 0		0	0	0	0	0	0	0						
	2		2	2	2	2	2	2	2						
	0		0	0	0	0	0	0	0						
MOVEMENT			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	
NORTHBOUND	Left	148	1	148	0	148	148	178	335	1	335	0	335	1	335
	Left-Through		0						0				0		
	Through-Right	1095	2	548	4	1099	550	780	1942	2	971	4	1946	2	973
	Right		0						0				0		
	Left-Through-Right	114	1	75	0	114	75	96	217	1	130	0	217	1	130
SOUTHBOUND	Left	20	1	20	0	20	20	12	33	1	33	0	33	1	33
	Left-Through		0						0				0		
	Through-Right	417	2	209	0	417	209	46	489	2	245	0	489	2	245
	Right		0						0				0		
	Left-Through-Right	65	1	12	0	65	12	28	97	1	0	0	97	1	0
EASTBOUND	Left	107	1	107	0	107	107	141	255	1	255	0	255	1	255
	Left-Through		0						0				0		
	Through-Right	578	2	289	11	589	295	549	1163	2	582	11	1174	2	587
	Right		0						0				0		
	Left-Through-Right	283	1	209	0	283	209	205	505	1	338	0	505	1	338
WESTBOUND	Left	78	1	78	0	78	78	91	174	1	174	0	174	1	174
	Left-Through		0						0				0		
	Through-Right	450	2	225	2	452	226	395	873	2	437	2	875	2	438
	Right		0						0				0		
	Left-Through-Right	70	1	60	0	70	60	191	265	1	249	0	265	1	249
CRITICAL VOLUMES			North-South: 568	East-West: 367	Sum: 935	North-South: 570	East-West: 373	Sum: 943	North-South: 1004	East-West: 756	Sum: 1760	North-South: 1006	East-West: 761	Sum: 1767	
VOLUME/CAPACITY (V/C) RATIO:			0.623			0.629			1.173			1.178			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.523			0.529			1.073			1.078			
LEVEL OF SERVICE (LOS):			A			A			F			F			

PROJECT IMPACT

Change in v/c due to project: 0.005
 Significant impacted? NO
 Δv/c after mitigation: 0.005
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D	Date:	4/12/2018						
	East-West Street:	Olympic Boulevard	Projection Year:	2017	Peak Hour:	1	Reviewed by:		Project:								
5	No. of Phases		2	2	0	2	0	2	0	2	0						
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			NB-- 0	0	0	0	NB-- 0	0	NB-- 0	0	0						
Right Turns: FREE-1, NRTOR-2 or OLA-3?			EB-- 0	0	0	0	EB-- 0	0	EB-- 0	0	0						
ATSAC-1 or ATSAC+ATCS-2?			2	2	0	2	2	2	2	2	2						
Override Capacity			0	0					0		0						
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through			0													
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right			0													
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right			0													
	Left-Right			0													
SOUTHBOUND	Left		88	0	88	1	89	89	25	118	0	118	1	119	0	119	
	Left-Through			1													
	Through		334	3	106	1	335	106	645	1000	3	280	1	1001	3	280	
	Through-Right			0													
	Right		233	1	233	0	233	233	223	470	1	470	0	470	1	470	
	Left-Through-Right			0													
	Left-Right			0													
EASTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through			0													
	Through		928	2	464	5	933	467	434	1419	2	710	5	1424	2	712	
	Through-Right			0													
	Right		83	1	83	0	83	83	216	304	1	304	0	304	1	304	
	Left-Through-Right			0													
	Left-Right			0													
WESTBOUND	Left		82	1	82	0	82	82	47	134	1	134	0	134	1	134	
	Left-Through			0													
	Through		946	2	473	21	967	484	673	1677	2	839	21	1698	2	849	
	Through-Right			0													
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right			0													
	Left-Right			0													
CRITICAL VOLUMES			North-South: 233	East-West: 546	SUM: 779	North-South: 233	East-West: 549	SUM: 782	North-South: 470	East-West: 844	SUM: 1314	North-South: 470	East-West: 849	SUM: 1319	North-South: 470	East-West: 849	
VOLUME/CAPACITY (V/C) RATIO:			0.519			0.521			0.876			0.879			0.879		
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.419			0.421			0.776			0.779			0.779		
LEVEL OF SERVICE (LOS):			A			A			C			C			C		

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Shiva D	Date:	4/30/2018					
5	East-West Street:	Olympic Boulevard	Projection Year:		2023	Peak Hour:		PM	Reviewed by:			Project:	1045 Olive					
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2	0		2	0		2	2						
			0		0	0		0	0		0	0						
			0		NB--	0	SB--	0		NB--	0	SB--	0					
			0		EB--	0	WB--	0		EB--	0	WB--	0					
			2					2					2					
0			0		0	0		0	0		0	0						
MOVEMENT			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		
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0														
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right	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	
SOUTHBOUND		Left	138	0	138	4	142	142	29	175	0	175	4	179	0	179	0	
		Left-Through		1														
		Through-Right	1296	3	359	2	1298	360	846	2222	3	599	2	2224	3	601	3	
		Right	389	1	389	0	389	389	364	777	1	777	0	777	1	777	1	
		Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0														
		Through-Right	830	2	415	16	846	423	697	1578	2	789	16	1594	2	797	2	
		Right	104	1	104	0	104	104	264	374	1	374	0	374	1	374	1	
		Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND		Left	48	1	48	1	49	49	76	127	1	127	1	128	0	128	1	
		Left-Through		0														
		Through-Right	1219	2	610	10	1229	615	821	2115	2	1058	10	2125	2	1063	2	
		Right	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	
CRITICAL VOLUMES			North-South: 389		North-South: 777		North-South: 777		North-South: 1063		North-South: 777		North-South: 1063		North-South: 777			
VOLUME/CAPACITY (V/C) RATIO:			0.666		1.223		1.227		1.127		1.227		1.127		1.227			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.566		0.569		1.123		1.127		1.127		1.127		1.127			
LEVEL OF SERVICE (LOS):			A		A		F		F		F		F		F			

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:			
6	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:			
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		2	2		2		4/16/2018			
		NB--	0	0	NB--	0	0	NB--	0			
		SB--	0	0	SB--	0	0	SB--	0			
		EB--	0	0	EB--	0	0	EB--	0			
		2	2	2	2	2	2	2	2			
		0	0	0	0	0	0	0	0			
MOVEMENT		EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT				
		Volume	No. of Lanes	Lane Volume	Project Traffic	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	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0
	Right	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
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	426	3	142	1	427	3	397	1	1192	3	397
	Through-Right	67	1	67	0	67	1	156	0	156	1	156
	Right	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
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	0	0	0	0	0	0	0	0
	Right	13	1	13	0	13	1	14	0	14	1	14
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	26	1	26	4	30	1	183	4	187	1	187
	Left-Through	104	1	104	27	131	1	225	27	252	1	252
	Through-Right	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES		North-South: 142 East-West: 104 SUM: 246	North-South: 142 East-West: 131 SUM: 273	North-South: 397 East-West: 225 SUM: 622	North-South: 397 East-West: 252 SUM: 649	North-South: 397 East-West: 252 SUM: 649	North-South: 397 East-West: 252 SUM: 649	North-South: 397 East-West: 252 SUM: 649	North-South: 397 East-West: 252 SUM: 649			
VOLUME/CAPACITY (V/C) RATIO:		0.164		0.415		0.433		0.433		0.433		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.082		0.315		0.333		0.333		0.333		
LEVEL OF SERVICE (LOS):		A		A		A		A		A		

PROJECT IMPACT

Change in v/c due to project: **0.018** Δv/c after mitigation: **0.018**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:						
6	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:						
<div>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</div>			2	2017	1	PM			4/16/2018						
			2	2023					1045 Olive						
			0												
			0												
			0												
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION			
NORTHBOUND	Left														
	Left-Through														
	Through-Right														
	Right														
	Left-Through-Right														
SOUTHBOUND	Left														
	Left-Through														
	Through-Right														
	Right														
	Left-Through-Right														
EASTBOUND	Left														
	Left-Through														
	Through-Right														
	Right														
	Left-Through-Right														
WESTBOUND	Left														
	Left-Through														
	Through-Right														
	Right														
	Left-Through-Right														
CRITICAL VOLUMES			North-South: 438 East-West: 228 SUM: 666			North-South: 791 East-West: 473 SUM: 1264			North-South: 791 East-West: 474 SUM: 1265			North-South: 791 East-West: 474 SUM: 1265			
VOLUME/CAPACITY (V/C) RATIO:			0.444			0.843			0.843			0.843			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.344			0.349			0.743			0.743			
LEVEL OF SERVICE (LOS):			A			A			C			C			

PROJECT IMPACT

Change in v/c due to project: 0.000
 Significant impacted? NO
 Δv/c after mitigation: 0.000
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
7	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:							
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			2		2		2		2		2							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
MOVEMENT			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		
NORTHBOUND	Left		60	0	60	9	69	69	36	100	0	100	9	109	0	109		
	Left-Through			1							1				1			
	Through-Right		304	0	214	3	307	220	20	343	0	257	3	346	0	263		
	Right		64	0	214	0	64	220	2	70	0	257	0	70	0	263		
	Left-Through-Right Left-Right			0							0				0			
SOUTHBOUND	Left		37	0	37	0	37	37	29	68	0	68	0	68	0	68		
	Left-Through			1							1				1			
	Through-Right		114	0	131	0	114	131	15	136	0	179	0	136	0	179		
	Right		74	0	131	0	74	131	7	86	0	179	0	86	0	179		
	Left-Through-Right Left-Right			0							0				0			
EASTBOUND	Left		86	1	86	0	86	86	11	102	1	102	0	102	1	102		
	Left-Through			0							0				0			
	Through-Right		847	1	463	5	852	466	453	1352	1	724	5	1357	1	726		
	Right		79	0	79	0	79	79	11	95	0	95	0	95	0	95		
	Left-Through-Right Left-Right			0							0				0			
WESTBOUND	Left		21	1	21	0	21	21	0	22	1	22	0	22	1	22		
	Left-Through			0							0				0			
	Through-Right		891	1	510	12	903	516	697	1643	1	895	12	1655	1	901		
	Right		128	0	128	0	128	128	11	147	0	147	0	147	0	147		
	Left-Through-Right Left-Right			0							0				0			
CRITICAL VOLUMES			North-South: 251 East-West: 596 SUM: 847		North-South: 257 East-West: 602 SUM: 859		North-South: 325 East-West: 997 SUM: 1322		North-South: 331 East-West: 1003 SUM: 1334		North-South: 331 East-West: 1003 SUM: 1334							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.565 0.465		0.573 0.473		0.881 0.781		0.889 0.789		0.889 0.789							
LEVEL OF SERVICE (LOS):			A		A		C		C		C							

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
7	East-West Street:	Olympic Boulevard	Projection Year: 2023		Peak Hour: PM		Reviewed by:		Project:									
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			2	0	2	0	2	0	2									
			NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0								
			EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0								
			2	2	2	2	2	2	2	2								
			0	0	0	0	0	0	0	0								
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
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	78	0	78	3	81	81	36	119	0	119	3	122	0	122	3	122	
	Left-Through		1						1					1				
	Through-Right	293	0	257	1	294	261	22	333	0	324	1	334	0	327	1	334	
	Right	65	0	257	0	65	261	7	76	0	324	0	76	0	327	0	327	
	Left-Through-Right Left-Right		0						0					0				
SOUTHBOUND	Left	37	0	37	0	37	37	16	55	0	55	0	55	0	55	0	55	
	Left-Through		1						1					1				
	Through-Right	388	0	286	0	388	286	45	457	0	345	0	457	0	345	0	345	
	Right	110	0	286	0	110	286	5	122	0	345	0	122	0	345	0	345	
	Left-Through-Right Left-Right		0						0					0				
EASTBOUND	Left	88	1	88	0	88	88	23	116	1	116	0	116	1	116	1	116	
	Left-Through		0						0					0				
	Through-Right	756	1	433	20	776	443	705	1508	1	827	20	1528	1	837	1	837	
	Right	110	0	110	0	110	110	28	145	0	145	0	145	0	145	0	145	
	Left-Through-Right Left-Right		0						0					0				
WESTBOUND	Left	26	1	26	0	26	26	3	31	1	31	0	31	1	31	1	31	
	Left-Through		0						0					0				
	Through-Right	1103	1	604	8	1111	608	881	2052	1	1103	8	2060	1	1107	1	1107	
	Right	104	0	104	0	104	104	43	153	0	153	0	153	0	153	0	153	
	Left-Through-Right Left-Right		0						0					0				
CRITICAL VOLUMES			North-South: 364 East-West: 692 SUM: 1056		North-South: 367 East-West: 696 SUM: 1063		North-South: 464 East-West: 1219 SUM: 1683		North-South: 467 East-West: 1223 SUM: 1690		North-South: 467 East-West: 1223 SUM: 1690							
VOLUME/CAPACITY (V/C) RATIO:			0.704		0.709		1.122		1.127		1.127							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.604		0.609		1.022		1.027		1.027							
LEVEL OF SERVICE (LOS):			B		B		F		F		F							

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/19/2018
8	East-West Street:	11th Street	Projection Year:	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
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									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes
NORTHBOUND	25	0	25	0	25	59	32	59	0
	Left-Through	1	166	0	307	213	40	366	1
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
SOUTHBOUND	209	1	117	0	209	138	17	239	1
	Left-Through	1	166	0	307	213	40	366	1
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
EASTBOUND	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
WESTBOUND	55	0	55	0	55	59	1	59	0
	Left-Through	1	163	31	139	423	249	364	1
	Through-Right	0	0	12	111	123	18	123	1
	Right	1	99	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
CRITICAL VOLUMES									
VOLUME/CAPACITY (V/C) RATIO:			North-South: 166	213	213	North-South: 213	213	North-South: 213	213
V/C LESS ATSAC/ATCS ADJUSTMENT:			East-West: 163	423	423	East-West: 454	454	East-West: 454	454
LEVEL OF SERVICE (LOS):			SUM: 329	636	636	SUM: 667	667	SUM: 667	667
			0.219	0.424	0.424	0.445	0.445	0.445	0.445
			0.119	0.324	0.324	0.345	0.345	0.345	0.345
			A	A	A	A	A	A	A

PROJECT IMPACT

Change in v/c due to project: 0.021
 Significant impacted? NO
 Δv/c after mitigation: 0.021
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:										
8	East-West Street:	11th Street	Projection Year:	Peak Hour:	PM	Reviewed by:		Project:										
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	2		2		2	4/30/2018										
			0		0		0	1045 Olive										
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0												
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0												
		2 2	2 2	2 2	2 2	2 2												
		0	0		0		0	0										
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
			Project Traffic	Total Volume	Lane Volume	No. of Lanes	Added Volume	Total Volume	Lane Volume	No. of Lanes	Added Volume	Total Volume	Lane Volume	No. of Lanes	Added Volume	Total Volume	Lane Volume	
NORTHBOUND	Left	34	0	34	34	72	0	72	0	72	0	72	0	72	0	72	0	
	Left-Through		1			1				1				1				
	Through	339	1	204	339	411	0	411	0	411	0	411	0	411	0	411	1	
	Through-Right		0			0				0				0				
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right		0				0				0				0				
Left-Right		0				0				0				0				
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0			0				0				0				
	Through	418	1	259	418	472	28	472	0	472	0	472	0	472	0	472	1	
	Through-Right		1			1				1				1				
	Right	99	0	99	99	145	40	145	0	145	0	145	0	145	0	145	0	
Left-Through-Right		0				0				0				0				
Left-Right		0				0				0				0				
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0			0				0				0				
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right		0			0				0				0				
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right		0				0				0				0				
Left-Right		0				0				0				0				
WESTBOUND	Left	40	0	40	40	47	5	47	0	47	0	47	0	47	0	47	0	
	Left-Through		1			1				1				1				
	Through	265	0	305	274	752	471	761	9	761	0	761	0	761	0	761	0	
	Through-Right		0			0				0				0				
	Right	100	1	100	104	122	16	122	4	126	1	126	1	126	1	126	1	
Left-Through-Right		0				0				0				0				
Left-Right		0				0				0				0				
CRITICAL VOLUMES			North-South: 293 East-West: 305 SUM: 598	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	North-South: 381 East-West: 799 SUM: 1180	
VOLUME/CAPACITY (V/C) RATIO:			0.399	0.405	0.787	0.793	0.793	0.793	0.793	0.793	0.793	0.793	0.793	0.793	0.793	0.793	0.793	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.299	0.305	0.687	0.693	0.693	0.693	0.693	0.693	0.693	0.693	0.693	0.693	0.693	0.693	0.693	
LEVEL OF SERVICE (LOS):			A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	

PROJECT IMPACT

Change in v/c due to project: **0.006** Δv/c after mitigation: **0.006**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)		1	Conducted by:	Shiva D	Date:							
9	East-West Street:	8th Street	Projection Year:	Peak Hour:		AM	Reviewed by:		Project:							
<div>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</div>	<div>No. of Phases</div>	2	2	0	2	0	2	2	4/12/2018							
		0	0	0	0	0	0	0	1045 Olive							
		NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0								
		2	2	2	2	2	2	2								
		0	0	0	0	0	0	0								
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	564	3	188	3	567	189	438	1037	3	346	3	1040	3	347	
	Through-Right	210	1	210	0	210	210	44	267	1	267	0	267	1	267	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
WESTBOUND	Left	210	1	210	0	210	210	252	475	1	475	0	475	1	475	
	Left-Through	1063	3	354	8	1071	357	838	1966	3	655	8	1974	3	658	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES		North-South: 210 East-West: 354 SUM: 564	North-South: 210 East-West: 357 SUM: 567	North-South: 346 East-West: 655 SUM: 1001	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	North-South: 347 East-West: 658 SUM: 1005	
VOLUME/CAPACITY (V/C) RATIO:		0.376	0.378	0.667	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670	0.670	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.276	0.278	0.567	0.570	0.570	0.570	0.570	0.570	0.570	0.570	0.570	0.570	0.570	0.570	
LEVEL OF SERVICE (LOS):		A	A	A	A	A	A	A	A	A	A	A	A	A	A	

PROJECT IMPACT

Change in v/c due to project: 0.003
Significant impacted? NO

Δv/c after mitigation: 0.003
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

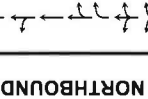
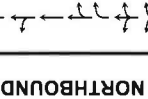

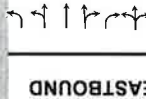
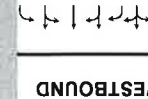
I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)		1	Conducted by:	Shiva D	Date:	4/12/2018					
9	East-West Street:	8th Street	Projection Year:	2023		PM	Reviewed by:		Project:	1045 Olive					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity		No. of Phases		2	2		2		2						
		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0				
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0				
		2	2	2	2	2	2	2	2	2	2				
		0	0	0	0	0	0	0	0	0	0				
MOVEMENT			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	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	1391	3	464	12	1403	468	643	2120	3	707	711	2132	3	711
	Through-Right	258	1	258	0	258	258	89	363	1	363	363	363	1	363
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
WESTBOUND	Left	202	1	202	0	202	202	320	534	1	534	534	534	1	534
	Left-Through	920	3	307	4	924	308	929	1906	3	635	637	1910	3	637
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES			North-South: 464 East-West: 307 SUM: 771	North-South: 468 East-West: 308 SUM: 776	North-South: 707 East-West: 635 SUM: 1342	North-South: 711 East-West: 637 SUM: 1348	North-South: 711 East-West: 637 SUM: 1348				North-South: 711 East-West: 637 SUM: 1348				
VOLUME/CAPACITY (V/C) RATIO:			0.514	0.517	0.895	0.899	0.899				0.899				
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.414	0.417	0.795	0.799	0.799				0.799				
LEVEL OF SERVICE (LOS):			A	A	C	C	C				C				

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:																	
10	East-West Street:	9th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:																	
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		1		Shiva D																	
			2023		AM																					
			2		2																					
			0		0																					
			0		0																					
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0																	
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0																	
			2		2				2																	
			0		0				0																	
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION											
NORTHBOUND		EXISTING CONDITION		Project Traffic		Total Volume		No. of Lanes		Added Volume		Total Volume		No. of Lanes		Lane Volume		Added Volume		Total Volume		No. of Lanes		Lane Volume		
		Volume	No. of Lanes	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0		
	Left	184	1	184	0	184	184	1	319	1	319	0	319	1	319	1	319	0	319	1	319	1	319	1	319	
	Left-Through	467	3	156	3	470	157	3	349	3	1048	3	1051	3	1051	3	350	3	1051	3	350	3	350	3	350	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	1018	3	339	3	1021	340	3	569	3	1706	3	1709	3	1709	3	570	3	1709	3	570	3	570	3	570	
	Through-Right	121	1	121	3	124	124	1	214	1	214	3	217	1	217	1	217	1	217	1	217	1	217	1	217	
	Right	0	0	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	0	0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0		
CRITICAL VOLUMES			North-South: 184 East-West: 339 SUM: 523		North-South: 184 East-West: 340 SUM: 524		North-South: 349 East-West: 569 SUM: 918		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920		North-South: 350 East-West: 570 SUM: 920			
VOLUME/CAPACITY (V/C) RATIO:			0.349		0.349		0.612		0.613		0.613		0.613		0.613		0.613		0.613		0.613		0.613		0.613	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.249		0.249		0.512		0.513		0.513		0.513		0.513		0.513		0.513		0.513		0.513		0.513	
LEVEL OF SERVICE (LOS):			A		A		A		A		A		A		A		A		A		A		A		A	

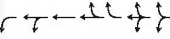
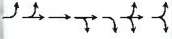
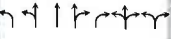
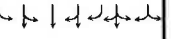
PROJECT IMPACT

Change in v/c due to project: 0.001
Significant impacted? NO

Δv/c after mitigation: 0.001
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)		Conducted by:	Shiva D	Date:	4/12/2018					
10	East-West Street:	9th Street	Projection Year:	Peak Hour:		Reviewed by:		Project:	1045 Olive					
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	2		2		2						
			0	0		0		0						
			NB-- 0 EB-- 0	0 SB-- 0 WB--	NB-- 0 EB-- 0	0 SB-- 0 WB--	NB-- 0 EB-- 0		0 SB-- 0 WB--					
			2	2		2		2						
			0	0		0		0						
MOVEMENT			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
 NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
 SOUTHBOUND	Left	269	1	269	0	269	162	448	1	448	0	448	1	448
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	1495	3	498	12	1507	727	2314	3	771	12	2326	3	775
	Right	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
 EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	988	3	329	6	994	1141	2190	3	730	6	2196	3	732
	Right	190	1	190	14	204	218	420	1	420	14	434	1	434
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
 WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES			North-South: 498 East-West: 329 SUM: 827	North-South: 502 East-West: 331 SUM: 833	North-South: 771 East-West: 730 SUM: 1501	North-South: 775 East-West: 732 SUM: 1507	North-South: 775 East-West: 732 SUM: 1507	North-South: 775 East-West: 732 SUM: 1507	North-South: 775 East-West: 732 SUM: 1507					
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.551 0.451 A	0.555 0.455 A	1.001 0.901 E	1.005 0.905 E	1.005 0.905 E	1.005 0.905 E	1.005 0.905 E					

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%):		Conducted by:		Shiva D		Date:								
11	East-West Street:	Olympic Boulevard	Projection Year:	Peak Hour:		Reviewed by:				Project:								
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	2		2		2		1045 Olive								
			0	0		0		0										
			NB-- 0 SB-- 0	NB-- 0 SB-- 0		NB-- 0 SB-- 0		0 0		NB-- 0 SB-- 0								
			EB-- 0 WB-- 0	EB-- 0 WB-- 0		EB-- 0 WB-- 0		0 0		EB-- 0 WB-- 0								
			2	2		2		2		2 0								
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
			Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	90	1	95	95	95	97	193	1	193	5	198	1	198	198	1	198	
	Left-Through	329	3	330	110	330	526	875	3	292	1	876	3	292	876	3	292	
	Through-Right	179	1	179	179	179	94	284	1	284	0	284	1	284	284	1	284	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	844	1	849	474	474	389	1285	1	743	5	1290	1	746	1290	1	746	
	Through-Right	99	1	99	99	99	96	201	1	201	0	201	0	201	201	1	201	
	Right	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	
WESTBOUND	Left	76	1	79	79	79	5	86	1	86	3	89	1	89	89	1	89	
	Left-Through	855	2	867	434	434	614	1522	2	761	12	1534	2	767	1534	2	767	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES			North-South: 179 East-West: 548 SUM: 727	North-South: 179 East-West: 553 SUM: 732	North-South: 292 East-West: 829 SUM: 1121	North-South: 292 East-West: 835 SUM: 1127	North-South: 292 East-West: 835 SUM: 1127	North-South: 292 East-West: 835 SUM: 1127	North-South: 292 East-West: 835 SUM: 1127	North-South: 292 East-West: 835 SUM: 1127								
VOLUME/CAPACITY (V/C) RATIO:			0.485	0.488	0.747	0.751	0.751	0.751	0.751	0.751								
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.385	0.388	0.647	0.651	0.651	0.651	0.651	0.651								
LEVEL OF SERVICE (LOS):			A	A	B	B	B	B	B	B								

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/19/2018						
11	East-West Street:	Olympic Boulevard	Projection Year: 2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
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		2		2		2							
		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0							
		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0							
		2		2		2		2							
		0		0		0		0							
MOVEMENT			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	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	115	1	115	24	139	139	177	299	1	299	24	323	1	323
	Left-Through	1299	3	433	2	1301	434	623	2002	3	667	2	2004	3	668
	Through-Right	232	1	232	0	232	232	118	364	1	364	0	364	1	364
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	725	1	433	20	745	443	503	1273	1	824	20	1293	1	834
	Through-Right	141	1	141	0	141	141	225	375	0	375	0	375	0	375
	Right	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
WESTBOUND	Left	114	1	114	3	117	117	21	142	1	142	3	145	1	145
	Left-Through	1000	2	500	8	1008	504	809	1871	2	936	8	1879	2	940
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES			North-South: 433 East-West: 547 SUM: 980	North-South: 667 East-West: 966 SUM: 1633	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	North-South: 668 East-West: 979 SUM: 1647	
VOLUME/CAPACITY (V/C) RATIO:			0.653	1.089	1.098	1.098	0.653	1.089	1.098	1.098	0.653	1.089	1.098	1.098	0.998
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.553	0.989	0.998	0.998	0.553	0.989	0.998	0.998	0.553	0.989	0.998	0.998	0.998
LEVEL OF SERVICE (LOS):			A	A	E	E	A	E	E	E	A	E	E	E	E

PROJECT IMPACT

Change in v/c due to project: 0.009
Significant impacted? NO

Δv/c after mitigation: 0.009
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/30/2018
12	East-West Street:	11th Street	Projection Year:	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
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									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes
NORTHBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	449	3	150	4	453	621	1098	366
	Through-Right	87	1	87	0	87	55	147	147
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
WESTBOUND	Left	87	1	87	49	136	81	173	173
	Left-Through	142	1	142	43	185	212	363	363
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
CRITICAL VOLUMES									
			North-South: 150	East-West: 185	336	0.224	0.195	0.097	A
VOLUME/CAPACITY (V/C) RATIO:			0.195	0.224	0.486	0.386	0.415	0.415	A
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.097	0.124	0.486	0.386	0.415	0.415	A
LEVEL OF SERVICE (LOS):			A	A	A	A	A	A	A
PROJECT IMPACT									
			North-South: 367	East-West: 406	773	0.515	0.415	0.415	A
Change in v/c due to project:			0.029	0.029	0.029	0.029	0.029	0.029	0.029
Significant impacted?			NO	NO	NO	NO	NO	NO	NO
Fully mitigated?			NO	NO	NO	NO	NO	NO	NO
Δv/c after mitigation:			0.029	0.029	0.029	0.029	0.029	0.029	0.029
Fully mitigated?			NO	NO	NO	NO	NO	NO	NO

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/19/2018							
12	East-West Street:	11th Street	Projection Year:	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive							
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 Left-Through Through-Right Right Left-Through-Right Left-Right	NB-- 0 SB-- 0 EB-- 0 WB-- 0 2 0 0 0 2 0	2017 2023 2 0 0 0 2 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0 2 0 0 0 2 0	2 0 0 0 0 0 2 0 0 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0 2 0 0 0 2 0	2 0 0 0 0 0 2 0 0 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0 2 0 0 0 2 0	2 0 0 0 0 0 2 0 0 0							
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	Added Volume	Total Volume	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	1419	3	473	6	1425	475	758	2264	3	755	6	2270	2270	2270	757
	Through-Right	156	1	156	0	156	156	84	250	1	250	0	250	250	250	250
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
WESTBOUND	Left	111	1	111	15	126	126	70	188	1	188	15	203	203	203	203
	Left-Through	264	1	264	13	277	277	407	687	1	687	13	700	700	700	700
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES		North-South: 473 East-West: 264 SUM: 737	North-South: 277 East-West: 752 SUM: 1029	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442	North-South: 755 East-West: 687 SUM: 1442
VOLUME/CAPACITY (V/C) RATIO:		0.491	0.501	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.391	0.401	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861
LEVEL OF SERVICE (LOS):		A	A	D	D	D	D	D	D	D	D	D	D	D	D	D

PROJECT IMPACT

Change in v/c due to project: 0.010
 Significant impacted? NO
 Δv/c after mitigation: 0.010
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:		4/12/2018					
13	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:		1045 Olive					
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			2		0		2		0		2		0					
			NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0		NB-- 0 SB-- 0		0					
			EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0		EB-- 0 WB-- 0		0					
			2		0		2		0		2		0					
			0		0		0		0		0		0					
MOVEMENT			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		
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	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		
SOUTHBOUND	Left	19	0	19	0	19	22	42	0	42	0	42	0	42	42	42		
	Left-Through	431	1	225	45	476	747	1205	1	624	45	1250	1	646	1250	646		
	Through-Right	81	1	81	6	87	117	203	1	203	6	209	1	209	209	209		
	Right	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		
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	467	1	285	3	470	297	793	1	482	3	796	1	483	796	483		
	Through-Right	103	1	103	0	103	61	170	1	170	0	170	1	170	170	170		
	Right	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		
WESTBOUND	Left	67	0	67	0	67	65	136	0	136	0	136	0	136	136	136		
	Left-Through	406	1	270	1	407	367	798	1	671	1	799	1	672	799	672		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	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		
CRITICAL VOLUMES			North-South: 225 East-West: 352 SUM: 577		North-South: 248 East-West: 354 SUM: 602		North-South: 624 East-West: 671 SUM: 1295		North-South: 646 East-West: 672 SUM: 1318		North-South: 646 East-West: 672 SUM: 1318		North-South: 646 East-West: 672 SUM: 1318		North-South: 646 East-West: 672 SUM: 1318			
VOLUME/CAPACITY (V/C) RATIO:			0.385		0.401		0.863		0.879		0.879		0.879		0.879			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.285		0.301		0.763		0.779		0.779		0.779		0.779			
LEVEL OF SERVICE (LOS):			A		A		C		C		C		C		C			

PROJECT IMPACT

Change in v/c due to project: **0.016** Δv/c after mitigation: **0.016**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
13	East-West Street:	Pico Boulevard	Projection Year: 2023		Peak Hour: PM		Reviewed by:		Project: 1045 Olive									
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	0	2	0	2	0	2	0								
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0										
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0										
			2	2	2	2	2	2										
			0	0	0	0	0	0										
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
EXISTING CONDITION		Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	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		
SOUTHBOUND	Left	88	0	88	88	17	110	0	110	0	110	0	110	0	110	0		
	Left-Through	1088	1	588	16	1104	732	1887	1	999	16	1903	1	1007	1	1007		
	Through-Right	178	1	178	2	180	121	310	1	310	2	312	1	312	1	312		
	Right	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		
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	456	1	267	11	467	435	919	1	541	11	930	1	547	1	547		
	Through-Right	77	0	77	0	77	81	163	0	163	0	163	0	163	0	163		
	Right	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		
WESTBOUND	Left	75	0	75	0	75	112	192	0	192	0	192	0	192	0	192		
	Left-Through	655	1	403	1	656	397	1092	1	1092	1	1093	1	1093	1	1093		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	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		
CRITICAL VOLUMES			North-South: 588 East-West: 403 SUM: 991	North-South: 596 East-West: 403 SUM: 999	North-South: 999 East-West: 1092 SUM: 2091	North-South: 1007 East-West: 1093 SUM: 2100	North-South: 1007 East-West: 1093 SUM: 2100	North-South: 1007 East-West: 1093 SUM: 2100	North-South: 1007 East-West: 1093 SUM: 2100									
VOLUME/CAPACITY (V/C) RATIO:			0.661	0.666	1.394	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.561	0.566	1.294	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300		
LEVEL OF SERVICE (LOS):			A	A	F	F	F	F	F	F	F	F	F	F	F	F		

PROJECT IMPACT

Change in v/c due to project: **0.006** Δv/c after mitigation: **0.006**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/12/2018
14	East-West Street:	Venice Boulevard	Projection Year:	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
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	2	2017	2023	2	2	2	2	2
	NB--	0	0	0	0	0	0	NB--	0
	SB--	0	0	0	0	0	0	SB--	0
	EB--	0	0	0	0	0	0	EB--	0
MOVEMENT	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
NORTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
	Left	64	0	64	64	2	70	0	70
	Left-Through	454	2	173	188	867	1349	45	1394
SOUTHBOUND	Through-Right	67	1	67	67	25	96	0	96
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	340	1	211	211	57	418	0	418
	Through-Right	82	0	82	82	53	140	0	140
	Right	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through-Right	62	0	62	62	1	67	0	67
	Left-Right	284	1	204	204	45	346	0	346
	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 173 East-West: 273 SUM: 446	North-South: 188 East-West: 273 SUM: 461	North-South: 473 East-West: 346 SUM: 819	North-South: 488 East-West: 346 SUM: 834	North-South: 488 East-West: 346 SUM: 834	North-South: 488 East-West: 346 SUM: 834	North-South: 488 East-West: 346 SUM: 834	North-South: 488 East-West: 346 SUM: 834
VOLUME/CAPACITY (V/C) RATIO:		0.297	0.307	0.546	0.556	0.556	0.556	0.556	0.556
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.197	0.207	0.446	0.456	0.456	0.456	0.456	0.456
LEVEL OF SERVICE (LOS):		A	A	A	A	A	A	A	A

PROJECT IMPACT

Change in v/c due to project: 0.010
 Significant impacted? NO
 Δv/c after mitigation: 0.010
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:	4/12/2018	
14	East-West Street:	Venice Boulevard	Projection Year: 2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive	
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2	2	2	2		2	2	2	
		0	0	0	0	0		0	0	0
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	NB-- 0 SB-- 0	0	0	0
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	EB-- 0 WB-- 0	0	0	0
		2	2	2	2	2		2	2	2
<div>MOVEMENT</div>		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
<div>NORTHBOUND</div>	Left	153	0	153	0	164	0	164	0	164
	Left-Through	1019	2	1035	16	1858	2	1874	2	1874
	Through-Right	89	1	89	0	113	1	113	1	113
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
<div>SOUTHBOUND</div>	Left	0	0	0	0	0	0	0	0	0
	Left-Through	432	1	432	0	527	1	527	1	527
	Through-Right	80	1	80	0	146	0	146	0	146
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
<div>EASTBOUND</div>	Left	30	0	30	0	36	0	36	0	36
	Left-Through	315	1	315	0	405	1	405	1	405
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
<div>WESTBOUND</div>	Left	391	0	396	674	679	679	679	679	679
	Left-Through	286	0	286	373	373	373	373	373	373
	Through-Right	677	0	682	1047	1052	1052	1052	1052	1052
	Right	0.451	0.455	0.455	0.698	0.701	0.701	0.701	0.701	0.701
	Left-Through-Right	0.351	0.355	0.355	0.598	0.601	0.601	0.601	0.601	0.601
CRITICAL VOLUMES		North-South: 391 East-West: 286 SUM: 677	North-South: 674 East-West: 373 SUM: 1047	North-South: 679 East-West: 373 SUM: 1052	North-South: 679 East-West: 373 SUM: 1052	North-South: 679 East-West: 373 SUM: 1052	North-South: 679 East-West: 373 SUM: 1052	North-South: 679 East-West: 373 SUM: 1052	North-South: 679 East-West: 373 SUM: 1052	
VOLUME/CAPACITY (V/C) RATIO:		0.451	0.698	0.701	0.698	0.701	0.698	0.701	0.698	
W/C LESS ATSAC/ATCS ADJUSTMENT:		0.351	0.598	0.601	0.598	0.601	0.601	0.601	0.601	
LEVEL OF SERVICE (LOS):		A	A	B	A	B	B	B	B	

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:			
15	East-West Street:	17th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:			
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		2		2		1045 Olive			
			0		0		0		0		0			
			0		0		0		0		0			
			0		0		0		0		0			
			0		0		0		0		0			
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
			Project Traffic	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	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	301	3	333	111	543	863	3	288	32	895	3	298	
	Right	227	1	240	240	377	618	1	618	13	631	1	631	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
WESTBOUND	Left	225	0	225	225	31	270	0	270	0	270	0	270	
	Left-Through	1	1	800	513	394	1243	1	757	0	1243	1	757	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES			North-South: 227 East-West: 513 SUM: 740	North-South: 240 East-West: 513 SUM: 753	North-South: 618 East-West: 757 SUM: 1375	North-South: 631 East-West: 757 SUM: 1388	North-South: 631 East-West: 757 SUM: 1388	North-South: 631 East-West: 757 SUM: 1388	North-South: 631 East-West: 757 SUM: 1388	North-South: 631 East-West: 757 SUM: 1388	North-South: 631 East-West: 757 SUM: 1388			
VOLUME/CAPACITY (V/C) RATIO:			0.493	0.502	0.917	0.925	0.925	0.925	0.925	0.925	0.925	0.925		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.393	0.402	0.817	0.825	0.825	0.825	0.825	0.825	0.825	0.825		
LEVEL OF SERVICE (LOS):			A	A	D	D	D	D	D	D	D	D		

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:	4/12/2018					
15	East-West Street:	17th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive					
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	<div>No. of Phases</div>	2	2	2	2	2		2	2	2					
		0	0	0	0	0	0		0	0					
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0		0	0					
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0		0	0					
		2	2	2	2	2	2		2	2					
0	0	0	0	0	0	0		0	0						
MOVEMENT		EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION				
<div>NORTHBOUND</div>	<div>Left Left-Through Through Through-Right Right Left-Through-Right Left-Right</div>	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
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>SOUTHBOUND</div>	<div>Left Left-Through Through Through-Right Right Left-Through-Right Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		738	3	246	11	749	250	475	1258	3	419	11	1269	3	423
		552	1	552	5	557	557	366	952	1	952	5	957	1	957
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>EASTBOUND</div>	<div>Left Left-Through Through Through-Right Right Left-Through-Right Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>WESTBOUND</div>	<div>Left Left-Through Through Through-Right Right Left-Through-Right Left-Right</div>	41	0	41	0	41	41	76	120	0	120	0	120	0	120
		1198	1	620	0	1198	620	421	1693	1	907	0	1693	1	907
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 552 East-West: 620 SUM: 1172	North-South: 557 East-West: 620 SUM: 1177	North-South: 952 East-West: 907 SUM: 1859	North-South: 957 East-West: 907 SUM: 1864	North-South: 957 East-West: 907 SUM: 1864	North-South: 957 East-West: 907 SUM: 1864								
VOLUME/CAPACITY (V/C) RATIO:		0.781		1.239		1.243		1.243							
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.681		1.139		1.143		1.143							
LEVEL OF SERVICE (LOS):		B		F		F		F							

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

1045 Olive Project - AM Peak Hour

PROJECT IMPACT

5/17/2018-1:00 PM

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/12/2018
16	East-West Street:	18th Street	Projection Year:	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive
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									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	Lane Volume
 NORTHBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	312	2	172	0	172	15	346	190
	Left-Through-Right	0	0	0	0	0	0	0	0
 SOUTHBOUND	Left	236	1	236	3	239	144	395	398
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	570	2	285	8	578	407	1012	510
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
 EASTBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	1150	2	383	11	1161	914	2135	712
	Through-Right	157	1	157	0	157	151	318	318
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
 WESTBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
CRITICAL VOLUMES									
			North-South: 408	East-West: 387	411	585	North-South: 588	East-West: 715	588
			SUM: 791	SUM: 798	798	1297	SUM: 1303	SUM: 1303	1303
VOLUME/CAPACITY (V/C) RATIO:			0.555	0.560	0.560	0.910	0.914	0.814	0.814
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.455	0.460	0.460	0.810	0.814	0.814	0.814
LEVEL OF SERVICE (LOS):			A	A	A	D	D	D	D

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	Ambient Growth: (%)	Conducted by:	Date:									
17	East-West Street:	8th Street	Projection Year: 2023	Peak Hour: AM	Reviewed by:	Project: 1045 Olive									
		No. of Phases													
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	2	2		2									
		Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0 SB-- 0 WB-- 0	NB-- 0 EB-- 0 SB-- 0 WB-- 0	NB-- 0 EB-- 0 SB-- 0 WB-- 0	0 0 0 0									
		ATSAC-1 or ATSAC+ATCS-2?	2	2		2									
		Override Capacity	0	0		0									
MOVEMENT		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
NORTHBOUND	Left	380	1	380	8	388	388	382	785	1	785	8	793	1	793
	Left-Through		0							0				0	
	Through-Right	968	3	323	20	988	329	639	1667	3	556	20	1687	3	562
	Right		0	0		0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0	
SOUTHBOUND	Left		0	0		0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0	
	Through-Right		0	0		0	0	0	0	0	0	0	0	0	0
	Right		0	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	0
	Left-Through		0							0				0	
	Through-Right		0	0		0	0	0	0	0	0	0	0	0	0
	Right		0	0		0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0	
WESTBOUND	Left		0	0		0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0	
	Through-Right	1109	3	370	0	1109	370	669	1846	3	615	0	1846	3	615
	Right		0	174		0	174	38	223	1	223	0	223	1	223
	Left-Through-Right		0							0				0	
CRITICAL VOLUMES		North-South: 380 East-West: 370 SUM: 750	North-South: 388 East-West: 370 SUM: 758	North-South: 785 East-West: 615 SUM: 1400	North-South: 793 East-West: 615 SUM: 1408	North-South: 793 East-West: 615 SUM: 1408									
VOLUME/CAPACITY (V/C) RATIO:		0.500	0.505	0.933	0.939	0.939									
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.400	0.405	0.833	0.839	0.839									
LEVEL OF SERVICE (LOS):		A	A	D	D	D									

PROJECT IMPACT

Change in v/c due to project: 0.006
Significant impacted? NO

Δv/c after mitigation: 0.006
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D	Date:										
17	East-West Street:	8th Street	Projection Year:		Peak Hour:		Reviewed by:			Project:										
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	2	2	2	2	2	2	4/12/2018										
			0	0	0	0	0	0	0	1045 Olive										
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0											
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0											
			2	2	2	2	2	2	2	2										
0			0	0	0	0	0	0	0	0										
MOVEMENT			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	No. of Lanes	Total Volume	Lane Volume	Added Volume	Total Volume	Lane Volume	No. of Lanes	Total Volume	Lane Volume
NORTHBOUND	Left		247	1	247	4	251	251	303	565	565	1	565	569	569	1	569	569	1	569
	Left-Through			0								0				0		0		
	Through		877	3	292	8	885	295	697	1628	543	3	543	1636	1636	3	545	1636	3	545
	Through-Right			0								0				0		0		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left-Through-Right			0								0				0		0		
	Left-Right			0								0				0		0		
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0								0				0		0		
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Through-Right			0								0				0		0		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right			0								0				0		0		
	Left-Right			0								0				0		0		
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through			0								0				0		0		
	Through		897	3	299	0	897	299	941	1893	631	3	631	1893	1893	3	631	1893	3	631
	Through-Right			0								0				0		0		
	Right		96	1	96	0	96	96	72	174	174	1	174	174	174	1	174	174	1	174
	Left-Through-Right			0								0				0		0		
CRITICAL VOLUMES			North-South: 292 East-West: 299 SUM: 591	North-South: 295 East-West: 299 SUM: 594	North-South: 565 East-West: 631 SUM: 1196	North-South: 569 East-West: 631 SUM: 1200	North-South: 569 East-West: 631 SUM: 1200	North-South: 569 East-West: 631 SUM: 1200	North-South: 569 East-West: 631 SUM: 1200	North-South: 569 East-West: 631 SUM: 1200										
VOLUME/CAPACITY (V/C) RATIO:			0.394	0.396	0.797	0.800	0.797	0.800	0.800	0.800										
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.294	0.296	0.697	0.700	0.697	0.700	0.700	0.700										
LEVEL OF SERVICE (LOS):			A	A	B	C	B	C	C	C										

PROJECT IMPACT

Change in v/c due to project: 0.003
 Significant impacted? NO
 Δv/c after mitigation: 0.003
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Shiva D	Date:						
18	East-West Street:	9th Street	Projection Year:		Peak Hour:		Reviewed by:			Project:						
	No. of Phases									4/12/2018						
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	2	2	0	2	0	2	0	2	1045 Olive						
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0							
	ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2	2	2	2	2						
	Override Capacity	0	0	0	0	0	0	0	0	0						
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	977	3	326	28	1005	335	554	1591	3	530	28	1619	3	540	
	Through-Right															
	Right	56	1	56	11	67	67	116	175	1	175	11	186	1	186	
	Left-Through-Right															
Left-Right																
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through															
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right																
Left-Right																
EASTBOUND	Left	191	0	191	0	191	191	160	363	0	363	0	363	0	363	
	Left-Through	1														
	Through	1027	2	406	3	1030	407	589	1679	2	681	3	1682	2	682	
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right																
Left-Right																
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through															
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right																
Left-Right																
CRITICAL VOLUMES		North-South: 326 East-West: 406 SUM: 732	North-South: 335 East-West: 407 SUM: 742	North-South: 530 East-West: 681 SUM: 1211	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	North-South: 540 East-West: 682 SUM: 1222	
VOLUME/CAPACITY (V/C) RATIO:		0.488	0.495	0.807	0.815	0.815	0.815	0.815	0.815	0.815	0.815	0.815	0.815	0.815	0.815	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.388	0.395	0.707	0.715	0.715	0.715	0.715	0.715	0.715	0.715	0.715	0.715	0.715	0.715	
LEVEL OF SERVICE (LOS):		A	A	C	C	C	C	C	C	C	C	C	C	C	C	

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/30/2018						
18	East-West Street:	9th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
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		2	2	2	2	2	2	2						
		NB--	0	0	NB--	0	0	NB--	0	NB--	0					
		SB--	0	0	SB--	0	0	SB--	0	SB--	0					
		WB--	0	0	WB--	0	0	WB--	0	WB--	0					
		EB--	0	0	EB--	0	0	EB--	0	EB--	0					
ATSAC-1 or ATSAC+ATCS-2?		2	2	2	2	2	2	2	2	2						
Override Capacity		0	0	0	0	0	0	0	0	0						
MOVEMENT																
		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	744	3	248	12	756	252	826	1616	3	539	12	1628	3	543	
	Through-Right		0							0				0		
	Right	212	1	212	5	217	217	92	317	1	317	5	322	1	322	
	Left-Through-Right		0							0				0		
Left-Right		0								0				0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
Left-Right		0								0				0		
EASTBOUND	Left	193	0	193	0	193	193	376	581	0	581	0	581	0	581	
	Left-Through	1092	2	428	6	1098	430	927	2086	2	889	6	2092	2	891	
	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
Left-Right		0								0				0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
Left-Right		0								0				0		
CRITICAL VOLUMES		North-South: 248 East-West: 428 SUM: 676	252 430 682	539 889 1428	539 889 1428	581 2086 2767	581 889 1434	581 927 1508	581 2092 2673	581 889 1434	581 891 1434	581 2092 2673	581 2092 2673	581 889 1434	581 891 1434	
VOLUME/CAPACITY (V/C) RATIO:		0.451	0.455	0.952	0.952	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.351	0.355	0.852	0.852	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	0.856	
LEVEL OF SERVICE (LOS):		A	A	D	D	D	D	D	D	D	D	D	D	D	D	

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Shiva D	Date:	8/3/2018		
19	East-West Street:	Olympic Boulevard	Projection Year:		2023	Peak Hour:		AM	Reviewed by:			Project:		1045 Olive	
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2	0		2	0		2	0		2	
			0		0	0		0	0		0	0		0	
			0		0	0		0	0		0	0		0	
			0		0	0		0	0		0	0		0	
			2		2	0		2	0		2	0		0	
MOVEMENT			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	
NORTHBOUND	Left	216	0	216	15	231	79	308	0	308	15	323	0	323	
	Left-Through		1						1				1		
	Through	837	2	351	27	864	434	1322	2	543	27	1349	2	557	
	Through-Right		0						0				0		
	Right	53	1	53	8	61	10	66	1	66	8	74	1	74	
SOUTHBOUND	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0						0				0		
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Through-Right		0						0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
	Left	127	1	127	12	139	109	244	1	244	12	256	1	256	
WESTBOUND	Left-Through		0						0				0		
	Through	808	2	404	5	813	403	1261	2	631	5	1266	2	633	
	Through-Right		0						0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0						0				0		
CRITICAL VOLUMES	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0						0				0		
	Through	706	1	426	2	708	549	1298	1	761	2	1300	1	762	
	Through-Right		1						1				1		
	Right	145	0	145	0	145	69	223	0	223	0	223	0	223	
VOLUME/CAPACITY (V/C) RATIO:			North-South: 351 East-West: 553 SUM: 904	North-South: 365 East-West: 566 SUM: 931	North-South: 543 East-West: 1005 SUM: 1548	North-South: 543 East-West: 1005 SUM: 1548	North-South: 557 East-West: 1018 SUM: 1575	North-South: 557 East-West: 1018 SUM: 1575	North-South: 555 East-West: 1016 SUM: 1571	North-South: 555 East-West: 1016 SUM: 1571					
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.603	0.621	1.032	1.032	1.050	1.047	1.047	1.047					
LEVEL OF SERVICE (LOS):			0.503	0.521	0.932	0.932	0.950	0.937	0.937	0.937					

PROJECT IMPACT

Change in v/c due to project: **0.018** Δv/c after mitigation: **0.005**
Significant impacted? **YES** Fully mitigated? **YES**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:					
19	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:					
	No. of Phases										4/19/2018					
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	2	2		0		0		2		1045 Olive					
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0		0		NB-- 0 SB-- 0 EB-- 0 WB-- 0		0		NB-- 0 SB-- 0 EB-- 0 WB-- 0					
	ATSAC-1 or ATSAC+ATCS-2?	2	2		0		2		2		2					
	Override Capacity	0	0		0		0		0		0					
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	217	0	217	11	228	228	139	369	0	369	11	380	0	378	
	Left-Through		1							1				1		
	Through-Right	832	2	350	13	845	358	666	1549	2	639	13	1562	2	646	
	Right	155	1	155	6	161	161	12	177	1	177	6	183	1	182	
	Left-Through-Right		0							0				0		
SOUTHBOUND	Left-Right		0							0				0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	104	1	104	4	108	108	143	253	1	253	4	257	1	256	
	Left-Through		0							0				0		
	Through-Right	726	2	363	6	732	366	498	1269	2	635	6	1275	2	637	
WESTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through-Right	903	1	488	7	910	492	733	1692	1	950	7	1699	1	953	
	Right	73	0	73	0	73	73	131	208	0	208	0	208	0	208	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left		0							0				0		
CRITICAL VOLUMES		North-South: 350 East-West: 592 SUM: 942	North-South: 639 East-West: 1203 SUM: 1842		North-South: 647 East-West: 1211 SUM: 1858							North-South: 646 East-West: 1209 SUM: 1855				
VOLUME/CAPACITY (V/C) RATIO:		0.628	1.228		1.239							1.237				
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.528	1.128		1.139							1.137				
LEVEL OF SERVICE (LOS):		A	F		F							F				

PROJECT IMPACT

Change in v/c due to project: 0.011
Significant impacted? YES
Fully mitigated? YES

Δv/c after mitigation: 0.009

Fully mitigated? YES

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/19/2018
20	East-West Street:	11th Street	Projection Year:	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
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	2	2	2	2	2	2	2	2
	NB--	0	0	0	0	NB--	0	NB--	0
	EB--	0	0	0	0	EB--	0	EB--	0
	SB--	0	0	0	0	SB--	0	SB--	0
MOVEMENT	Left	122	0	126	126	105	235	4	239
	Left-Through	1061	1	1075	400	456	1582	14	1596
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
NORTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
SOUTHBOUND	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
	Left	0	0	0	0	0	0	0	0
	Left-Through	114	1	115	115	121	242	1	243
CRITICAL VOLUMES	Through-Right	46	1	56	56	21	70	10	80
	Right	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	North-South:	394	400	606	612	North-South:	612	North-South:	612
	East-West:	114	115	242	243	East-West:	243	East-West:	243
	SUM:	508	515	848	855	SUM:	855	SUM:	855
		0.339	0.343	0.565	0.570		0.570		0.570
PROJECT IMPACT									
Change in v/c due to project: 0.005									
Significant impacted? NO									
Δv/c after mitigation: 0.005									
Fully mitigated? N/A									
0.470									
A									

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
20	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:							
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>			2	0	2	0	2	0	2	0	2	0						
			NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0				
			EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0				
			2	2	2	2	2	2	2	2	2	2	2	2				
			0	0	0	0	0	0	0	0	0	0						
MOVEMENT			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		
NORTHBOUND	Left	160	0	160	20	180	180	286	456	0	456	20	476	0	476	0	476	
	Left-Through		1						1				1			1		
	Through-Right	920	2	360	40	960	380	778	1755	2	737	40	1795	2	757	0	757	
	Right	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	
SOUTHBOUND	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND	Right	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	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	300	1	300	7	307	307	230	548	1	548	7	555	1	555	0	555	
			102	1	102	25	127	41	149	1	149	25	174	1	174	0	174	
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES			North-South: 360 East-West: 300 SUM: 660	North-South: 380 East-West: 307 SUM: 687	North-South: 737 East-West: 548 SUM: 1285	North-South: 757 East-West: 555 SUM: 1312	North-South: 757 East-West: 555 SUM: 1312											
VOLUME/CAPACITY (V/C) RATIO:			0.440	0.458	0.857	0.875	0.875											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.340	0.358	0.757	0.775	0.775											
LEVEL OF SERVICE (LOS):			A	A	C	C	C											

PROJECT IMPACT

Change in v/c due to project: **0.018** Δv/c after mitigation: **0.018**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Date:											
21	East-West Street:	Pico Boulevard	Projection Year: 2023		Peak Hour: AM		Reviewed by:		Project: 1045 Olive											
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			2		2		2		2											
			0		0		0		0											
			0		0		0		0											
			0		0		0		0											
			2		2		2		2											
			0		0		0		0											
MOVEMENT			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		133	1	133	0	133	133	105	246	1	246	0	246	1	246	0	246	1	246
	Left-Through			0							0				0				0	
	Through		1110	2	555	12	1122	561	466	1644	2	822	12	1656	2	828	12	1656	2	828
	Through-Right			0							0				0				0	
	Right		2	1	2	0	2	2	40	42	1	42	0	42	1	42	0	42	1	42
	Left-Through-Right			0							0				0				0	
	Left-Right			0							0				0				0	
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0							0				0				0	
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right			0							0				0				0	
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right			0							0				0				0	
	Left-Right			0							0				0				0	
EASTBOUND	Left		54	0	54	3	57	57	61	118	0	118	3	121	0	121	0	121	0	121
	Left-Through			1							1				1				1	
	Through		388	1	248	0	388	251	251	663	1	568	0	663	1	574	0	663	1	574
	Through-Right			0							0				0				0	
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right			0							0				0				0	
	Left-Right			0							0				0				0	
WESTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0							0				0				0	
	Through		303	1	188	1	304	189	314	636	1	360	1	637	1	361	1	637	1	361
	Through-Right			1							1				1				1	
	Right		73	0	73	0	73	73	7	84	0	84	0	84	0	84	0	84	0	84
	Left-Through-Right			0							0				0				0	
	Left-Right			0							0				0				0	
CRITICAL VOLUMES			North-South: 555		North-South: 561		North-South: 822		North-South: 828		North-South: 822		North-South: 828		North-South: 828		North-South: 828		North-South: 828	
			East-West: 248		East-West: 251		East-West: 568		East-West: 574		East-West: 568		East-West: 574		East-West: 574		East-West: 574		East-West: 574	
			SUM: 803		SUM: 812		SUM: 1390		SUM: 1402		SUM: 1390		SUM: 1402		SUM: 1402		SUM: 1402		SUM: 1402	
VOLUME/CAPACITY (V/C) RATIO:			0.535		0.541		0.927		0.935		0.935		0.935		0.935		0.935		0.935	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.435		0.441		0.827		0.835		0.835		0.835		0.835		0.835		0.835	
LEVEL OF SERVICE (LOS):			A		A		D		D		D		D		D		D		D	

PROJECT IMPACT

Change in v/c due to project: 0.008
 Significant impacted? NO
 Δv/c after mitigation: 0.008
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:	8/3/2018										
21	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive										
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		2	0	2		2		2										
		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0									
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0									
		2	2	2	2	2	2	2	2	2	2									
		0	0	0	0	0	0	0	0	0	0									
MOVEMENT			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	109	1	109	0	109	109	148	264	1	264	0	264	1	264	0	264	1	264	
	Left-Through		0	0		0	0	993	1908	2	954	41	1949	2	975	-6	1943	2	972	
	Through-Right	862	2	431	41	903	452													
	Right	12	1	12	0	12	12	49	62	1	62	0	62	1	62	0	62	1	62	
	Left-Through-Right		0	0		0	0													
Left-Right		0																		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0	0		0	0													
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0	0		0	0													
Left-Right		0																		
EASTBOUND	Left	63	0	63	11	74	74	123	190	0	190	11	201	0	201	-2	199	0	199	
	Left-Through		1							1				1				1		
	Through-Right	393	1	323	0	393	345	311	728	1	728	0	728	1	728	0	728	1	728	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0				0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0				0		
	Through-Right	583	1	326	1	584	326	377	996	1	544	1	997	1	544	0	997	1	544	
	Right	68	1	68	0	68	68	19	91	0	91	0	91	0	91	0	91	0	91	
	Left-Through-Right		0							0				0				0		
Left-Right		0							0				0				0			
CRITICAL VOLUMES			North-South: 431 East-West: 389 SUM: 820	North-South: 452 East-West: 400 SUM: 852	North-South: 954 East-West: 734 SUM: 1688	North-South: 975 East-West: 745 SUM: 1720	North-South: 975 East-West: 745 SUM: 1720	North-South: 975 East-West: 745 SUM: 1720	North-South: 975 East-West: 745 SUM: 1720	North-South: 975 East-West: 745 SUM: 1720										
VOLUME/CAPACITY (V/C) RATIO:			0.547	0.568	1.125	1.147	1.125	1.147	1.125	1.147										
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.447	0.468	1.025	1.047	1.025	1.047	1.025	1.047										
LEVEL OF SERVICE (LOS):			A	A	F	F	F	F	F	F										
1.033			1.143			1.033			1.033			1.033			1.033			1.033		
F			F			F			F			F			F			F		

PROJECT IMPACT

Change in v/c due to project: **0.022** Δv/c after mitigation: **0.008**
 Significant impacted? **YES** Fully mitigated? **YES**

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:			
22	East-West Street:	16th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:			
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			2		2		2		2		1045 Olive			
			0		0		0		0		0			
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0			
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0			
			2		2		2		2		2			
0			0		0		0		0		0			
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT			
			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	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left-Through	75	0	75	75	0	4	84	0	84	84	0	84	
	Left-Through Through	1443	2	506	510	12	498	2030	2	705	2042	2	709	
	Through-Right		0			0			0			0		
	Right	60	1	60	60	0	0	64	1	64	64	1	64	
	Left-Through-Right Left-Right		0						0			0		
SOUTHBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through 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	0	0	0	
	Left-Through-Right Left-Right		0						0			0		
EASTBOUND	Left-Through	76	0	76	76	0	16	97	0	97	97	0	97	
	Left-Through Through	310	1	231	231	0	43	372	1	283	372	1	283	
	Through-Right		0			0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right Left-Right		0						0			0		
WESTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through Through	275	1	179	179	0	42	334	1	214	334	1	214	
	Through-Right		1			0	6	93	1	93	93	1	93	
	Right	82	0	82	82	0	0	0	0	0	0	0	0	
	Left-Through-Right Left-Right		0						0			0		
CRITICAL VOLUMES			North-South: 506 East-West: 255 SUM: 761		North-South: 705 East-West: 311 SUM: 1016		North-South: 709 East-West: 311 SUM: 1020		North-South: 709 East-West: 311 SUM: 1020					
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.507 0.407 A		0.677 0.577 A		0.680 0.580 A		0.680 0.580 A					

Change in v/c due to project:	0.003	$\Delta v/c$ after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:	4/12/2018							
22	East-West Street:	16th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive							
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		2	2	2		2		2							
		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0						
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0						
			2		2		2		2		2						
			0		0		0		0		0						
MOVEMENT		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	Total Volume	Lane Volume		
NORTHBOUND	Left	25	0	25	0	25	25	11	38	0	38	0	38	0	38	38	
	Left-Through		1							1			1				
	Through-Right	984	2	336	41	1025	350	1105	2150	2	729	41	2191	2	2191	743	
	Right	85	1	85	0	85	85	0	90	1	90	0	90	1	90	90	
	Left-Through-Right		0							0				0			
SOUTHBOUND	Left-Right		0							0				0			
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0			
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
	Left	73	0	73	0	73	73	32	109	0	109	0	109	0	109	109	
	Left-Through		1							1				1			
	Through-Right	540	1	343	0	540	343	38	611	1	415	0	611	1	611	415	
WESTBOUND	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right		0							0				0			
	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES	Left-Through		0							0				0			
	Through	417	1	241	0	417	241	63	506	1	294	0	506	1	506	294	
	Through-Right		1							1				1			
	Right	65	0	65	0	65	65	13	82	0	82	0	82	0	82	82	
	Left-Through-Right		0							0				0			
SUM:		North-South: 336 East-West: 343	North-South: 350 East-West: 343	729	729	1144	1144	0.772	0.772	0.672	0.672	0.772	0.772	0.672	0.672	0.672	
VOLUME/CAPACITY (V/C) RATIO:		0.453		0.362		0.663		0.663		0.663		0.663		0.672		0.672	
W/C LESS ATSAC/ATCS ADJUSTMENT:		0.353		0.362		0.663		0.663		0.663		0.663		0.672		0.672	
LEVEL OF SERVICE (LOS):		A		A		B		B		B		B		B		B	

PROJECT IMPACT

Change in v/c due to project: 0.009
 Significant impacted? NO
 Δv/c after mitigation: 0.009
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:			
23	East-West Street:	17th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:		Project:			
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2017		1		AM		2		4/12/2018			
			2023		AM		2		1045 Olive					
			2		2		2		2		2			
			0		0		0		0		0			
			0		0		0		0		0			
MOVEMENT			EXISTING PLUS PROJECT		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION					
			Project Traffic		Total Volume		No. of Lanes		Added Volume		Total Volume		No. of Lanes	
			Volume		Lane Volume		Lane Volume		Lane Volume		Lane Volume		Lane Volume	
			351		351		416		416		416		416	
			1380		577		757		760		1865		760	
NORTHBOUND			Left		0		0		0		0			
			Left-Through		0		0		0		0			
			Through-Right		0		0		0		0			
			Right		0		0		0		0			
			Left-Through-Right		0		0		0		0			
SOUTHBOUND			Left		0		0		0		0			
			Left-Through		0		0		0		0			
			Through-Right		0		0		0		0			
			Right		0		0		0		0			
			Left-Through-Right		0		0		0		0			
EASTBOUND			Left		0		0		0		0			
			Left-Through		0		0		0		0			
			Through-Right		0		0		0		0			
			Right		0		0		0		0			
			Left-Through-Right		0		0		0		0			
WESTBOUND			Left		0		0		0		0			
			Left-Through		0		0		0		0			
			Through-Right		0		0		0		0			
			Right		0		0		0		0			
			Left-Through-Right		0		0		0		0			
CRITICAL VOLUMES			North-South: 577 East-West: 511 SUM: 1088		North-South: 757 East-West: 789 SUM: 1546		North-South: 760 East-West: 790 SUM: 1550		North-South: 760 East-West: 790 SUM: 1550		760 790 1550			
			VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		1.031 0.931 E		1.033 0.933 E		1.033 0.933 E		1.033 0.933 E			

PROJECT IMPACT

Change in v/c due to project: 0.002
 Significant impacted? NO
 Δv/c after mitigation: 0.002
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Shiva D		Date:					
23	East-West Street:	17th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:					
		No. of Phases										4/12/2018				
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	2										1045 Olive				
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	0														
	ATSAC-1 or ATSAC+ATCS-2?	0														
	Override Capacity	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	
NORTHBOUND	Left	273	0	273	0	273	273	44	334	0	334	0	334	0	334	
	Left-Through		1						1							
	Through-Right	998	2	424	30	1028	434	843	1902	2	745	30	1928	2	754	
	Right	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	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	943	1	517	0	943	523	454	1455	1	913	0	1455	1	917	
	Through-Right	91	1	91	11	102	102	273	370	0	370	11	381	0	379	
	Right	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	
CRITICAL VOLUMES		North-South: 424 East-West: 517 SUM: 941	North-South: 434 East-West: 523 SUM: 957	North-South: 745 East-West: 913 SUM: 1658	North-South: 755 East-West: 918 SUM: 1673											
VOLUME/CAPACITY (V/C) RATIO:		0.627	0.638	1.105	1.115											
W/C LESS ATSAC/ATCS ADJUSTMENT:		0.527	0.538	1.005	1.015											
LEVEL OF SERVICE (LOS):		A	A	F	F											

PROJECT IMPACT

Change in v/c due to project: 0.010
Significant impacted? YES

Δv/c after mitigation: 0.009
Fully mitigated? YES

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

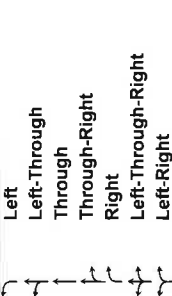
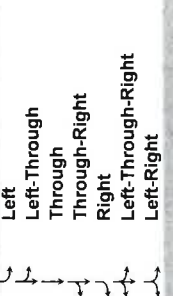
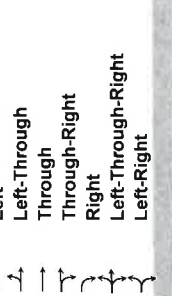
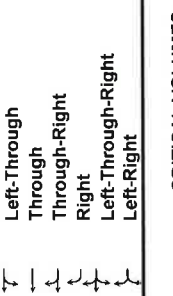
I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
24	East-West Street:	18th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		2		2		1045 Olive							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
MOVEMENT			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		
NORTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through		763	3	254	6	769	256	209	1019	3	340	6	1025	3	342		
	Through-Right																	
	Right		38	1	38	0	38	38	0	40	1	40	0	40	1	40		
	Left-Through-Right																	
Left-Right				0				0			0				0			
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through																	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right																	
Left-Right				0				0			0				0			
EASTBOUND	Left		928	1	585	3	931	590	224	1209	1	836	3	1212	1	840		
	Left-Through																	
	Through-Right		828	1	585	11	839	590	419	1298	1	836	11	1309	1	840		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right																	
Left-Right				0				0			0				0			
WESTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through																	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right																	
Left-Right				0				0			0				0			
CRITICAL VOLUMES			North-South: 254		North-South: 256		North-South: 340		North-South: 342		North-South: 342		North-South: 342		North-South: 342			
			East-West: 585		East-West: 590		East-West: 836		East-West: 840		East-West: 840		East-West: 840		East-West: 840			
			SUM: 839		SUM: 846		SUM: 1176		SUM: 1182		SUM: 1182		SUM: 1182		SUM: 1182			
VOLUME/CAPACITY (V/C) RATIO:			0.559		0.564		0.784		0.788		0.788		0.788		0.788			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.459		0.464		0.684		0.688		0.688		0.688		0.688			
LEVEL OF SERVICE (LOS):			A		A		B		B		B		B		B			

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D	Date:								
24	East-West Street:	18th Street	Projection Year:		Peak Hour:		Reviewed by:			Project:								
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			2	2	2		2		2	4/12/2018								
			0	0	0		0		0	1045 Olive								
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0		NB-- 0 SB-- 0		0									
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0		EB-- 0 WB-- 0		0									
			2	2	2		2		2									
0	0	0		0		0		0										
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
 NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	532	3	177	19	551	184	426	991	3	330	19	1010	3	337	1010	3	337
	Through-Right																	
	Right	46	1	46	0	46	46	0	49	1	49	0	49	1	49	49	1	49
	Left-Through-Right																	
Left-Right		0							0					0			0	
 SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through																	
	Through-Right	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right																	
Left-Right		0							0					0			0	
 EASTBOUND	Left	643	1	553	11	654	558	461	1144	1	946	11	1155	1	950	1155	1	950
	Left-Through																	
	Through-Right	1017	1	553	3	1020	558	613	1693	1	946	3	1696	1	950	1696	1	950
	Through-Right																	
	Right	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right																		
Left-Right		0							0					0			0	
 WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through																	
	Through-Right	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right																	
	Right	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right																		
Left-Right		0							0					0			0	
CRITICAL VOLUMES			North-South: 177 East-West: 553 SUM: 730	North-South: 184 East-West: 558 SUM: 742	North-South: 330 East-West: 946 SUM: 1276		North-South: 337 East-West: 950 SUM: 1287		North-South: 337 East-West: 950 SUM: 1287		North-South: 337 East-West: 950 SUM: 1287		North-South: 337 East-West: 950 SUM: 1287		North-South: 337 East-West: 950 SUM: 1287		337 950 1287	
VOLUME/CAPACITY (V/C) RATIO:			0.487	0.495	0.851		0.858		0.858		0.858		0.858		0.858		0.858	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.387	0.395	0.751		0.758		0.758		0.758		0.758		0.758		0.758	
LEVEL OF SERVICE (LOS):			A	A	C		C		C		C		C		C		C	

PROJECT IMPACT

Change in v/c due to project: 0.007
Significant impacted? NO

Δv/c after mitigation: 0.007
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/30/2018
25	East-West Street:	Olympic Boulevard	Projection Year:	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
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	2	2017	2023	2	2	2	2	2
	NB--	0	0	0	0	0	0	NB--	0
	SB--	0	0	0	0	0	0	SB--	0
	EB--	0	0	0	0	0	0	EB--	0
MOVEMENT	Left	62	0	62	62	85	151	151	151
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	380	0	380	210	249	652	652	652
	Right	40	0	40	40	40	82	82	82
NORTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
	Left	60	1	60	60	28	92	92	92
	Left-Through	0	0	0	0	0	0	0	0
SOUTHBOUND	Through-Right	317	1	321	225	219	556	560	560
	Right	129	0	129	129	121	258	258	258
	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
EASTBOUND	Left	59	1	59	59	25	88	88	88
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	773	1	783	420	367	1188	1198	1198
	Right	53	0	56	56	20	76	79	79
WESTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0
	Left	43	1	43	43	-7	39	39	39
	Left-Through	0	0	0	0	0	0	0	0
	Through-Right	683	1	685	378	413	1138	1140	1140
CRITICAL VOLUMES	Right	70	0	70	70	12	86	86	86
	Left-Through-Right	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0
	Left	285	1	287	287	0	558	560	560
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	North-South:	456	463	700	701	701	701	701	701
	East-West:	741	750	1258	1261	1261	1261	1261	1261
	SUM:	0.494	0.500	0.839	0.841	0.841	0.841	0.841	0.841
		0.394	0.400	0.739	0.741	0.741	0.741	0.741	0.741

PROJECT IMPACT

Change in v/c due to project: 0.002
 Significant impacted? NO
 Δv/c after mitigation: 0.002
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Shiva D		Date:							
25	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:							
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			2	0	2	0	2	0	2	0	2	0						
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0									
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0									
			2	0	2	0	2	0	2	0								
			0	0	0	0	0	0	0	0								
MOVEMENT			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	
NORTHBOUND	Left	54	1	54	0	54	54	50	107	1	107	0	107	1	107	107	107	
	Left-Through		0					375	839	1	465	0	839	1	465	839	839	
	Through-Right	437	1	256	0	437	256									91	91	
	Right	75	0	75	0	75	75	11	91	0	91	0	91	0	91	91	91	
	Left-Through-Right		0													0	0	
Left-Right		0													0	0		
SOUTHBOUND	Left	71	1	71	0	71	71	26	101	1	101	0	101	1	101	101	101	
	Left-Through		0					309	915	1	618	10	925	1	623	925	925	
	Through-Right	571	1	354	10	581	359									320	320	
	Right	137	0	137	0	137	137	175	320	0	320	0	320	0	320	320	320	
	Left-Through-Right		0													0	0	
Left-Right		0													0	0		
EASTBOUND	Left	166	1	166	0	166	166	74	250	1	250	0	250	1	250	250	250	
	Left-Through		0					392	1249	1	693	6	1255	1	699	1255	1255	
	Through-Right	807	1	447	6	813	453									142	142	
	Right	87	0	87	6	93	93	44	136	0	136	6	142	0	142	142	142	
	Left-Through-Right		0													0	0	
Left-Right		0													0	0		
WESTBOUND	Left	48	1	48	0	48	48	57	108	1	108	0	108	1	108	108	108	
	Left-Through		0					640	1367	1	745	7	1374	1	749	1374	1374	
	Through-Right	685	1	378	7	692	381									123	123	
	Right	70	0	70	0	70	70	49	123	0	123	0	123	0	123	123	123	
	Left-Through-Right		0													0	0	
Left-Right		0													0	0		
CRITICAL VOLUMES			North-South: 408 East-West: 544 SUM: 952		North-South: 413 East-West: 547 SUM: 960		North-South: 725 East-West: 995 SUM: 1720		North-South: 730 East-West: 999 SUM: 1729		North-South: 730 East-West: 999 SUM: 1729							
VOLUME/CAPACITY (V/C) RATIO:			0.635		0.640		1.147		1.153		1.153							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.535		0.540		1.047		1.053		1.053							
LEVEL OF SERVICE (LOS):			A		A		F		F		F							

Change in v/c due to project: 0.006
Significant impacted? NO
Fully mitigated? N/A

Δv/c after mitigation: 0.006
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Shiva D	Date:	4/19/2018		
26	East-West Street:	11th Street	Projection Year:		2023	Peak Hour:		AM	Reviewed by:			Project:	1045 Olive		
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		2	0	NB-- 0 SB-- 0 EB-- 0 WB-- 0		2	0	NB-- 0 SB-- 0 EB-- 0 WB-- 0		2	0		
				0	0			0	0			0	0		
				0	0			0	0			0	0		
				2	2			2	2			2	2		
				0	0			0	0			0	0		
MOVEMENT			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
NORTHBOUND	Left	4	1	4	0	4	4	6	10	1	10	0	10	1	10
	Left-Through		0							0				0	
	Through-Right	521	2	261	0	521	261	206	759	2	380	0	759	2	380
	Right	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
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0	
	Through-Right	378	2	189	1	379	190	268	669	2	335	1	670	2	335
	Right	41	1	41	6	47	47	11	55	1	55	6	61	1	61
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
WESTBOUND	Left	25	1	25	0	25	25	6	33	1	33	0	33	1	33
	Left-Through		0							0				0	
	Through-Right	106	1	106	5	111	111	124	237	1	237	5	242	1	242
	Right	34	1	34	0	34	34	2	38	1	38	0	38	1	38
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 261 East-West: 106 SUM: 367		North-South: 380 East-West: 237 SUM: 617		North-South: 380 East-West: 242 SUM: 622		North-South: 380 East-West: 242 SUM: 622		North-South: 380 East-West: 242 SUM: 622					
VOLUME/CAPACITY (V/C) RATIO:		0.245		0.411		0.415		0.311		0.315		0.415		0.315	
W/C LESS ATSAC/ATCS ADJUSTMENT:		0.145		0.148		0.311		0.315		0.315		0.315		0.315	
LEVEL OF SERVICE (LOS):		A		A		A		A		A		A		A	

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

1045 Olive Project - PM Peak Hour

PROJECT IMPACT

1045 Olive CMA PM Peak 4-30-18

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
27	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:									
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	0	2	0	2	0	2	0								
			NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0								
			2	0	2	0	2	0	2	0								
			0	0	0	0	0	0	0	0								
			0	0	0	0	0	0	0	0								
MOVEMENT			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	72	0	72	0	72	15	91	0	91	0	91	0	91	0	91	0	91
	Left-Through		1						1				1				1	
	Through-Right	505	1	325	0	505	291	827	1	596	0	827	1	596	0	827	1	596
	Right	53	1	40	0	53	8	64	1	47	0	64	1	47	0	64	1	47
	Left-Through-Right		0						0				0				0	
	Left-Right		0						0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0						0				0				0	
	Through-Right	241	1	241	2	243	287	543	1	543	2	545	1	545	2	545	1	545
	Right	95	1	72	0	95	84	185	1	130	0	185	1	127	0	185	1	127
	Left-Through-Right		0						0				0				0	
	Left-Right		0						0				0				0	
EASTBOUND	Left	47	1	47	6	53	60	110	1	110	6	116	1	116	6	116	1	116
	Left-Through		0						0				0				0	
	Through-Right	682	1	366	4	686	320	1044	1	576	4	1048	1	578	4	1048	1	578
	Right	49	1	49	0	49	56	108	1	108	0	108	1	108	0	108	1	108
	Left-Through-Right		0						0				0				0	
	Left-Right		0						0				0				0	
WESTBOUND	Left	27	1	27	0	27	5	34	1	34	0	34	1	34	0	34	1	34
	Left-Through		0						0				0				0	
	Through-Right	565	1	317	2	567	318	918	1	497	2	920	1	498	2	920	1	498
	Right	68	1	68	0	68	3	75	1	75	0	75	1	75	0	75	1	75
	Left-Through-Right		0						0				0				0	
	Left-Right		0						0				0				0	
CRITICAL VOLUMES			North-South: 325 East-West: 393 SUM: 718		North-South: 634 East-West: 610 SUM: 1244		North-South: 636 East-West: 614 SUM: 1250		North-South: 636 East-West: 614 SUM: 1250									
VOLUME/CAPACITY (V/C) RATIO:			0.479		0.829		0.833		0.833									
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.379		0.729		0.733		0.733									
LEVEL OF SERVICE (LOS):			A		C		C		C									

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/30/2018
27	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive
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	2	0	0	0	0	0	0	0	2
	NB--	0	0	0	0	0	NB--	0	NB--	0
	EB--	0	0	0	0	0	EB--	0	EB--	0
	WB--	0	0	0	0	0	WB--	0	WB--	0
MOVEMENT	Left	56	0	56	70	129	0	129	129	0
	Left-Through	544	1	328	350	927	0	927	927	1
	Through-Right	68	1	43	16	88	0	88	88	1
	Left-Through-Right	0	0	0	0	0	0	0	0	0
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	472	1	472	356	857	6	863	863	1
	Through-Right	108	1	80	90	205	0	205	205	1
	Left-Through-Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	56	1	56	77	136	2	138	138	1
	Left-Through	609	1	349	302	948	4	952	952	1
	Through-Right	88	0	88	51	144	0	144	144	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	50	1	50	9	62	0	62	62	1
	Left-Through	633	1	347	586	1258	7	1265	1265	1
	Through-Right	61	0	61	15	80	0	80	80	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	528	1	528	534	986	0	992	992	1
	Left-Through	403	1	403	351	805	7	811	811	1
	Through-Right	931	1	931	1791	1791	0	1803	1803	1
	Left-Through-Right	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 528 East-West: 403 SUM: 931	North-South: 534 East-West: 351 SUM: 885	North-South: 986 East-West: 805 SUM: 1791	North-South: 534 East-West: 351 SUM: 885	North-South: 986 East-West: 805 SUM: 1791	North-South: 534 East-West: 351 SUM: 885	North-South: 986 East-West: 805 SUM: 1791	North-South: 534 East-West: 351 SUM: 885	North-South: 986 East-West: 805 SUM: 1791
VOLUME/CAPACITY (V/C) RATIO:		0.621	0.629	1.194	0.629	1.194	0.629	1.194	0.629	1.194
W/C LESS ATSAC/ATCS ADJUSTMENT:		0.521	0.529	1.094	0.529	1.094	0.529	1.094	0.529	1.094
LEVEL OF SERVICE (LOS):		A	A	F	A	F	A	F	A	F

PROJECT IMPACT

Change in v/c due to project: 0.008
 Significant impacted? NO
 Δv/c after mitigation: 0.008
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:		
28	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:		
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>	2		2		2		2		2		
	0		0		0		0		0		
	0		0		0		0		0		
	0		0		0		0		0		
	0		0		0		0		0		
EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT		
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Total Volume	Added Volume	Lane Volume	No. of Lanes	Total Volume
	29	1	29	0	29	1	47	0	47	1	47
	601	2	301	0	601	2	471	0	471	2	941
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NORTHBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0
	Through-Right	279	1	149	0	279	1	337	332	1	633
	Right-Left-Through-Right	19	0	19	2	21	0	11	31	0	33
	Left-Right	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0
	Through-Right	279	1	149	0	279	1	337	332	1	633
	Right-Left-Through-Right	19	0	19	2	21	0	11	31	0	33
	Left-Right	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0
	Right-Left-Through-Right	0	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through	49	1	49	0	49	1	81	81	1	81
	Through-Right	118	1	118	3	121	1	105	230	1	233
	Right-Left-Through-Right	21	1	21	0	21	1	11	33	1	33
	Left-Right	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 301 East-West: 118 SUM: 419			North-South: 471 East-West: 230 SUM: 701			North-South: 471 East-West: 233 SUM: 704		
VOLUME/CAPACITY (V/C) RATIO:			0.279			0.467			0.469		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.179			0.367			0.369		
LEVEL OF SERVICE (LOS):			A			A			A		

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:									
28	East-West Street:	11th Street	Projection Year: 2023		Peak Hour: PM		Reviewed by:				Project:									
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			2		2		2		2		2									
			0		0		0		0		0									
			0		0		0		0		0									
			0		0		0		0		0									
			0		0		0		0		0									
MOVEMENT			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	57	33	94	1	94	0	94	1	94	0	94	1	94
	Left-Through			0							0				0				0	
	Through		585	2	293	0	585	293	419	1040	2	520	0	1040	2	520	0	1040	2	520
	Through-Right			0							0				0				0	
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right				0							0				0				0	
Left-Right				0							0				0				0	
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0							0				0				0	
	Through		596	1	318	0	596	321	404	1037	1	546	0	1037	1	549	0	1037	1	549
	Through-Right			1							1				1				1	
	Right		39	0	39	6	45	45	13	54	0	54	6	60	0	60	0	60	0	60
Left-Through-Right				0							0				0				0	
Left-Right				0							0				0				0	
EASTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through			0							0				0				0	
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right			0							0				0				0	
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Left-Through-Right				0							0				0				0	
Left-Right				0							0				0				0	
WESTBOUND	Left		103	1	103	0	103	103	55	164	1	164	0	164	1	164	0	164	1	164
	Left-Through			0							0				0				0	
	Through		321	1	321	11	332	332	247	588	1	588	11	599	1	599	11	599	1	599
	Through-Right			0							0				0				0	
	Right		45	1	45	0	45	45	18	66	1	66	0	66	1	66	0	66	1	66
Left-Through-Right			0								0				0				0	
Left-Right				0							0				0				0	
CRITICAL VOLUMES			North-South: 375 East-West: 321 SUM: 696		North-South: 378 East-West: 332 SUM: 710		North-South: 640 East-West: 588 SUM: 1228		North-South: 643 East-West: 599 SUM: 1242		North-South: 643 East-West: 599 SUM: 1242		North-South: 643 East-West: 599 SUM: 1242		North-South: 643 East-West: 599 SUM: 1242		North-South: 643 East-West: 599 SUM: 1242		North-South: 643 East-West: 599 SUM: 1242	
VOLUME/CAPACITY (V/C) RATIO:			0.464		0.473		0.819		0.828		0.828		0.828		0.828		0.828		0.828	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.364		0.373		0.719		0.728		0.728		0.728		0.728		0.728		0.728	
LEVEL OF SERVICE (LOS):			A		A		C		C		C		C		C		C		C	

PROJECT IMPACT

Change in v/c due to project: 0.009
 Significant impacted? NO
 Δv/c after mitigation: 0.009
 Fully mitigated? N/A

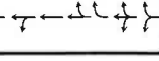
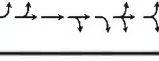
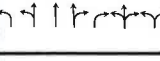
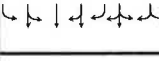
Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:						
29	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:						
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			3	0	3	0	3	0	3						
			NB--	0	NB--	0	NB--	0	NB--	0					
			SB--	0	SB--	0	SB--	0	SB--	0					
			EB--	0	EB--	0	EB--	0	EB--	0					
			WB--	2	WB--	2	WB--	2	WB--	2					
ATSAC-1 or ATSAC+ATCS-2?			0	0	0	0	0	0	0						
MOVEMENT			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
NORTHBOUND	Left	103	1	103	0	103	103	39	148	1	148	0	148	1	148
	Left-Through		0							0				0	
	Through	573	2	287	0	573	287	412	1020	2	510	0	1020	2	510
	Through-Right		0							0				0	
	Right	92	1	82	0	92	82	17	115	1	96	0	115	1	96
SOUTHBOUND	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	Left	37	1	37	0	37	37	10	49	1	49	0	49	1	49
	Left-Through		0							0				0	
	Through	235	1	235	1	236	236	364	613	1	613	1	614	1	614
EASTBOUND	Through-Right		0							0				0	
	Right	110	1	62	0	110	62	94	211	1	94	0	211	1	94
	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	Left	96	1	96	0	96	96	133	235	1	235	0	235	1	235
WESTBOUND	Left-Through		0							0				0	
	Through	561	1	308	3	564	310	144	740	1	425	3	743	1	427
	Through-Right		1							1				1	
	Right	55	0	55	1	56	56	52	110	0	110	1	111	0	111
	Left-Through-Right		0							0				0	
CRITICAL VOLUMES	Left-Right		0							0				0	
	Left	21	1	21	0	21	21	17	39	1	39	0	39	1	39
	Left-Through		0							0				0	
	Through	542	1	288	1	543	288	194	769	1	406	1	770	1	407
	Through-Right		1							1				1	
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	Right	33	0	33	0	33	33	8	43	0	43	0	43	0	43
	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	CRITICAL VOLUMES			North-South: East-West: SUM:			North-South: East-West: SUM:			North-South: East-West: SUM:			North-South: East-West: SUM:		
				338 384 722			339 384 723			761 641 1402			762 642 1404		

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:											
29	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:											
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>			3	0	3	0	3	0	3	0										
			NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0										
			EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0										
			2	2	2	2	2	2	2	2										
			0	0	0	0	0	0	0	0										
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION					
	Left	Left-Through	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
			82	1	82	0	82	82	67	154	1	154	0	154	1	154	0	154	1	154
			475	2	238	0	475	238	509	1013	2	507	0	1013	2	507	0	1013	2	507
			118	1	69	0	118	69	16	141	1	78	0	141	1	78	0	141	1	78
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	Left-Through	15	1	15	0	15	15	25	41	1	41	0	41	1	41	0	41	1	41
			294	1	294	6	300	300	492	804	1	804	6	810	1	810	6	810	1	810
			85	1	32	0	85	32	148	238	1	116	0	238	1	116	0	238	1	116
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	Left-Through	106	1	106	0	106	106	131	244	1	244	0	244	1	244	0	244	1	244
			517	1	305	3	520	307	139	688	1	420	3	691	1	422	3	691	1	422
			93	1	93	1	94	94	53	152	0	152	1	153	0	153	1	153	0	153
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	Left-Through	98	1	98	0	98	98	22	126	1	126	0	126	1	126	0	126	1	126
			590	1	317	7	597	321	396	1022	1	539	7	1029	1	543	7	1029	1	543
			44	1	44	0	44	44	9	56	0	56	0	56	0	56	0	56	0	56
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 376 East-West: 423 SUM: 799		North-South: 382 East-West: 427 SUM: 809		North-South: 958 East-West: 783 SUM: 1741		North-South: 964 East-West: 787 SUM: 1751		North-South: 964 East-West: 787 SUM: 1751									
VOLUME/CAPACITY (V/C) RATIO:			0.561		0.568		1.222		1.229		1.229									
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.461		0.468		1.122		1.129		1.129									
LEVEL OF SERVICE (LOS):			A		A		F		F		F									

Change in v/c due to project: 0.007
Significant impacted? NO
Fully mitigated? N/A

Δv/c after mitigation: 0.007
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
30	East-West Street:	11th Street	Projection Year: 2023		Peak Hour: AM		Reviewed by:		Project: 1045 Olive									
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		2		2									
			0		0		0		0									
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0									
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0									
			2		2		2		2									
			0		0		0		0									
MOVEMENT			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		
NORTHBOUND	Left		48	1	48	0	48	1	64	0	64	1	64	0	64	1	64	
	Left-Through			0				0			0				0			
	Through		770	2	385	0	770	2	620	0	1240	2	620	0	1240	2	620	
	Through-Right			0				0			0				0			
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left-Through-Right			0				0			0				0			
	Left-Right			0				0			0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through			0				0			0				0			
	Through		282	1	282	1	283	1	704	1	705	1	705	1	705	1	705	
EASTBOUND	Through-Right			0				0			0				0			
	Right		42	1	42	2	44	1	73	2	75	1	75	2	75	1	75	
	Left-Through-Right			0				0			0				0			
	Left-Right			0				0			0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND	Left-Through			0				0			0				0			
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right			0				0			0				0			
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right			0				0			0				0			
CRITICAL VOLUMES	Left		35	0	35	0	35	0	95	0	95	0	95	0	95	0	95	
	Left-Through			1				1			1				1			
	Through		93	1	64	1	94	1	149	1	204	1	150	1	204	1	150	
	Through-Right			0				0			0				0			
	Right		42	1	42	0	42	1	90	0	90	1	90	0	90	1	90	
VOLUME/CAPACITY (V/C) RATIO: W/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	Left-Through-Right			0				0			0				0			
	Left-Right			0				0			0				0			
	North-South:	385	North-South:	768	North-South:	769	North-South:	769	North-South:	769	North-South:	769	North-South:	769	North-South:	769	North-South:	
	East-West:	64	East-West:	149	East-West:	150	East-West:	150	East-West:	150	East-West:	150	East-West:	150	East-West:	150	East-West:	
	SUM:	449	SUM:	917	SUM:	919	SUM:	919	SUM:	919	SUM:	919	SUM:	919	SUM:	919	SUM:	
VOLUME/CAPACITY (V/C) RATIO:			0.299				0.611				0.613				0.613			
W/C LESS ATSAC/ATCS ADJUSTMENT:			0.199				0.511				0.513				0.513			
LEVEL OF SERVICE (LOS):			A				A				A				A			

PROJECT IMPACT

Change in v/c due to project: 0.002
 Significant impacted? NO
 Δv/c after mitigation: 0.002
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:							
30	East-West Street:	11th Street	Projection Year:	2017	Peak Hour:	1	Reviewed by:	Shiva D	Project:	4/30/2018						
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	2	2	2	2	2	2	2						
			0	0	0	0	0	0	0	0	0					
			NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0				
			2	2	2	2	2	2	2	2	2	2				
			0	0	0	0	0	0	0	0	0	0				
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION				
NORTHBOUND		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
		86	1	86	0	86	86	118	27	118	1	118	0	118	1	118
		576	2	288	0	576	288	598	584	1195	2	598	0	1195	2	598
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		407	1	407	1	408	408	939	507	939	1	940	1	940	1	940
		97	1	97	6	103	103	163	60	163	1	169	6	169	1	169
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND		84	0	84	0	84	84	136	47	136	0	136	0	136	0	136
		278	1	181	5	283	184	332	233	528	1	335	5	533	1	335
		65	1	65	0	65	65	76	7	76	1	76	0	76	1	76
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 493 East-West: 181 SUM: 674	North-South: 494 East-West: 184 SUM: 678	North-South: 1057 East-West: 332 SUM: 1389	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393	North-South: 1058 East-West: 335 SUM: 1393		
VOLUME/CAPACITY (V/C) RATIO:			0.449	0.452	0.926	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.349	0.352	0.826	0.829	0.829	0.829	0.829	0.829	0.829	0.829	0.829	0.829	0.829	
LEVEL OF SERVICE (LOS):			A	A	D	D	D	D	D	D	D	D	D	D	D	

PROJECT IMPACT

Change in v/c due to project: 0.003
 Significant impacted? NO
 Δv/c after mitigation: 0.003
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:	Ambient Growth: (%)		Conducted by:	Date:											
31	East-West Street:	Olympic Boulevard	Projection Year: 2023	Peak Hour: AM		Reviewed by:	Project:											
	No. of Phases		2	2		1045 Olive												
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity		NB-- 0 EB-- 0 2 0	0 0 2 0	SB-- 0 WB-- 0 0	NB-- 0 EB-- 0 2 0	SB-- 0 WB-- 0 0											
MOVEMENT			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	
NORTHBOUND	Left	63	1	63	0	63	63	11	78	1	78	0	78	1	78	0	78	
	Left-Through		0							0				0				
	Through-Right	367	1	200	0	367	200	123	513	1	274	0	513	1	274	0	513	
	Right	33	0	33	0	33	33	0	35	0	35	0	35	0	35	0	35	
	Left-Through-Right		0							0				0				
SOUTHBOUND	Left	39	1	39	0	39	39	0	41	1	41	0	41	1	41	0	41	
	Left-Through		0							0				0				
	Through-Right	409	1	298	0	409	298	113	547	1	373	0	547	1	373	0	547	
	Right	187	0	187	0	187	187	0	199	0	199	0	199	0	199	0	199	
	Left-Through-Right		0							0				0				
EASTBOUND	Left	82	1	82	0	82	82	2	89	1	89	0	89	1	89	0	89	
	Left-Through		0							0				0				
	Through-Right	416	1	256	2	418	258	138	580	1	356	2	582	1	358	0	582	
	Right	96	0	96	1	97	97	30	132	0	132	1	133	0	133	0	133	
	Left-Through-Right		0							0				0				
WESTBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	
	Left-Through		0							0				0				
	Through-Right	360	1	187	2	362	188	208	590	1	303	2	592	1	304	0	592	
	Right	13	0	13	0	13	13	1	15	0	15	0	15	0	15	0	15	
	Left-Through-Right		0							0				0				
CRITICAL VOLUMES			North-South: 361 East-West: 277 SUM: 638	North-South: 451 East-West: 392 SUM: 843	North-South: 451 East-West: 393 SUM: 844	North-South: 451 East-West: 393 SUM: 844	North-South: 451 East-West: 393 SUM: 844											
VOLUME/CAPACITY (V/C) RATIO:			0.425	0.562	0.563													
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.325	0.462	0.463													
LEVEL OF SERVICE (LOS):			A	A	A													

PROJECT IMPACT

Change in v/c due to project: 0.001
Significant impacted? NO
Fully mitigated? N/A

Δv/c after mitigation: 0.001
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:													
31	East-West Street:	Olympic Boulevard	Projection Year: 2023	Peak Hour:	PM	Reviewed by:		Project:													
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2	2	2	2	2	2	4/12/2018													
		0	0	0	0	0	0	0	1045 Olive												
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	0	0	NB-- 0 SB-- 0												
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	0	0	EB-- 0 WB-- 0												
		2	2	2	2	2	2	2	2												
		0	0	0	0	0	0	0													
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	70	1	70	0	70	70	51	125	1	125	0	125	0	125	1	125	0	125	1	125
	Left-Through		0							0						0				0	
	Through	466	1	261	0	466	261	156	651	1	355	0	651	0	651	1	355	0	651	1	355
	Through-Right		1							1						1				1	
	Right	56	0	56	0	56	56	0	59	0	59	0	59	0	59	0	59	0	59	0	59
	Left-Through-Right		0							0						0				0	
	Left-Right		0							0						0				0	
SOUTHBOUND	Left	34	1	34	0	34	34	0	36	1	36	0	36	0	36	1	36	0	36	1	36
	Left-Through		0							0						0				0	
	Through	727	1	447	0	727	447	143	915	1	546	0	915	0	915	1	546	0	915	1	546
	Through-Right		1							1						1				1	
	Right	166	0	166	0	166	166	0	176	0	176	0	176	0	176	0	176	0	176	0	176
	Left-Through-Right		0							0						0				0	
	Left-Right		0							0						0				0	
EASTBOUND	Left	197	1	197	0	197	197	4	213	1	213	0	213	0	213	1	213	0	213	1	213
	Left-Through		0							0						0				0	
	Through	471	1	317	1	472	319	143	643	1	424	1	644	1	644	1	426	0	644	1	426
	Through-Right		1							1						1				1	
	Right	163	0	163	2	165	165	32	205	0	205	2	207	2	207	0	207	0	207	0	207
	Left-Through-Right		0							0						0				0	
	Left-Right		0							0						0				0	
WESTBOUND	Left	103	1	103	0	103	103	0	109	1	109	0	109	0	109	1	109	0	109	1	109
	Left-Through		0							0						0				0	
	Through	472	1	265	7	479	268	377	878	1	470	7	885	7	885	1	474	0	885	1	474
	Through-Right		1							1						1				1	
	Right	57	0	57	0	57	57	1	62	0	62	0	62	0	62	0	62	0	62	0	62
	Left-Through-Right		0							0						0				0	
	Left-Right		0							0						0				0	
CRITICAL VOLUMES		North-South: 517 East-West: 462 SUM: 979	North-South: 517 East-West: 465 SUM: 982	North-South: 671 East-West: 683 SUM: 1354	North-South: 671 East-West: 687 SUM: 1358	PROJECT IMPACT		Change in v/c due to project: 0.002		Δv/c after mitigation: 0.002		Fully mitigated? N/A									
VOLUME/CAPACITY (V/C) RATIO:		0.653	0.655	0.903	0.905	LEVEL OF SERVICE (LOS):		Significant impacted? NO		Fully mitigated? N/A		Fully mitigated? N/A									
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.553	0.555	0.803	0.805																
		A	A	D	D																

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Shiva D	Date:	4/30/2018						
32	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0	2	0		2		2						
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	NB-- 0 SB-- 0	0	NB-- 0 SB-- 0	0						
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	EB-- 0 WB-- 0	0	EB-- 0 WB-- 0	0						
Override Capacity		2	2	2	2	2		2		2						
		0	0	0	0	0		0		0						
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	31	0	31	0	31	31	36	69	0	69	0	69	0	69	
	Left-Through		1							1				1		
	Through	497	1	342	0	497	342	172	700	1	557	0	700	1	557	
	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left-Through-Right		0								0				0		
Left-Right		0	0							0				0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through	825	1	506	2	827	507	134	1010	1	624	2	1012	1	625	
	Through-Right		1							1				1		
	Right	186	0	186	0	186	186	41	238	0	238	0	238	0	238	
Left-Through-Right		0								0				0		
Left-Right		0	0							0				0		
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through	0	0	0	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	0	0	0	
Left-Through-Right		0								0				0		
Left-Right		0	0							0				0		
WESTBOUND	Left	116	0	116	0	116	116	0	123	0	123	0	123	0	123	
	Left-Through		1							1				1		
	Through	232	1	174	5	237	177	271	517	1	320	5	522	1	323	
	Through-Right		0							0				0		
	Right	66	1	66	0	66	66	34	104	1	104	0	104	1	104	
Left-Through-Right		0								0				0		
Left-Right		0	0							0				0		
CRITICAL VOLUMES		North-South: 537 East-West: 174 SUM: 711	North-South: 538 East-West: 177 SUM: 715	North-South: 693 East-West: 320 SUM: 1013	North-South: 694 East-West: 323 SUM: 1017	North-South: 694 East-West: 323 SUM: 1017	North-South: 694 East-West: 323 SUM: 1017	North-South: 694 East-West: 323 SUM: 1017	North-South: 694 East-West: 323 SUM: 1017	North-South: 694 East-West: 323 SUM: 1017						
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		0.474 0.374 A	0.477 0.377 A	0.675 0.575 A	0.678 0.578 A	0.678 0.578 A	0.678 0.578 A	0.678 0.578 A	0.678 0.578 A	0.678 0.578 A						

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:			
33	East-West Street:	12th Street	Projection Year:		Peak Hour:		Reviewed by:				Project:			
		No. of Phases	2017		AM						4/12/2018			
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	2	2023		2						1045 Olive			
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0		0						0			
		NB--	0		0		NB--		0		0			
		EB--	0		0		EB--		0		0			
	ATSAC-1 or ATSAC+ATCS-2?	2	2		2						2			
	Override Capacity	0	0		0						0			
MOVEMENT			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	No. of Lanes	Total Volume	Added Volume	Lane Volume	No. of Lanes	Total Volume	Added Volume	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	1241	2	441	15	1256	2	648	527	648	2	1859	1859	653
	Through-Right		1		0	83	1	99	11	99	1	99	99	99
	Right	83	0	83	0	83	0	0	11	99	0	0	0	0
	Left-Through-Right		0				0	0			0			
SOUTHBOUND	Left-Right		0											
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through-Right		0											
	Left-Right		0											
	Left	64	0	64	3	67	0	129	61	129	0	132	132	132
	Left-Through	113	1	89	1	114	1	192	135	255	1	256	256	194
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0											
	Left-Right		0											
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 441	446	North-South: 648	648	648	648	648	648	648	648	648	648
			East-West: 89	91	East-West: 192	192	192	192	192	192	192	192	192	192
			SUM: 530	537	SUM: 840	840	840	840	840	840	840	840	840	840
VOLUME/CAPACITY (V/C) RATIO:			0.353	0.358	0.560	0.560	0.560	0.560	0.560	0.560	0.560	0.560	0.560	0.560
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.253	0.258	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460
LEVEL OF SERVICE (LOS):			A	A	A	A	A	A	A	A	A	A	A	A

PROJECT IMPACT

Change in v/c due to project: **0.005** Δv/c after mitigation: **0.005**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Shiva D	Date:							
33	East-West Street:	12th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:							
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		2	2		2		4/12/2018							
		NB--		0	0		0		NB-- EB-- 0 0 SB-- WB-- 0 0 0 0 0 0 2 2 0 0							
		0		0		0										
		0		0		0										
		0		0		0										
		SB--		0	0		0									
		0		0		0		0								
		WB--		0	0		0		1045 Olive							
		0		0		0		0								
		2		2		2		2								
		0		0		0		0								
MOVEMENT		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	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0													
	Through	930	2	326	52	982	343	1097	2084	2	718	52	2136	2	735	
	Through-Right		1													
	Right	47	0	47	0	47	47	20	70	0	70	0	70	0	70	
SOUTHBOUND	Left-Through-Right		0													
	Left-Right		0													
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0													
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Through-Right		0													
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0													
	Left-Right		0													
	Left	63	0	63	8	71	71	55	122	0	122	8	130	0	130	
WESTBOUND	Left-Through		1													
	Through	128	1	96	0	128	100	190	326	1	224	0	326	1	228	
	Through-Right		0													
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0													
WESTBOUND	Left-Through		0													
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right		0													
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0													
CRITICAL VOLUMES		North-South:	326	343	North-South:	718	735	North-South:	735	East-West:	228	North-South:	735	East-West:	228	
		East-West:	96	100	East-West:	224	228	East-West:	228	SUM:	963	SUM:	963	SUM:	963	
VOLUME/CAPACITY (V/C) RATIO:		0.281			0.628			0.642			0.642			0.642		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.181			0.195			0.528			0.542			0.542		
LEVEL OF SERVICE (LOS):		A			A			A			A			A		

PROJECT IMPACT

Change in v/c due to project: **0.014** Δv/c after mitigation: **0.014**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:	Ambient Growth: (%):		Conducted by:		Shiva D	Date:	4/12/2018								
34	East-West Street:	Pico Boulevard	Projection Year:	Peak Hour:		Reviewed by:			Project:	1045 Olive								
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	2	2		2		2	2									
			0	0		0		0	0									
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0		0		0	0									
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0		0		0	0									
		2	2	2		2		2	2									
0	0																	
MOVEMENT			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		
NORTHBOUND	Left		41	1	41	0	41	41	6	50	1	50	0	50	1	50		
	Left-Through			0							0				0			
	Through		473	1	274	0	473	274	154	656	1	373	0	656	1	373		
	Through-Right			1							1				1			
	Right		74	0	74	0	74	74	11	90	0	90	0	90	0	90		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
SOUTHBOUND	Left		21	1	21	0	21	21	26	48	1	48	0	48	1	48		
	Left-Through			0							0				0			
	Through		270	1	169	0	270	169	269	556	1	362	0	556	1	362		
	Through-Right			1							1				1			
	Right		67	0	67	1	68	68	96	167	0	167	1	168	0	168		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
EASTBOUND	Left		60	0	60	0	60	60	32	96	0	96	0	96	0	96		
	Left-Through			1							1				1			
	Through		390	0	284	0	390	284	214	628	0	458	0	628	0	458		
	Through-Right			1							1				1			
	Right		57	0	284	0	57	284	34	95	0	458	0	95	0	458		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
WESTBOUND	Left		15	0	15	0	15	15	0	16	0	16	0	16	0	16		
	Left-Through			1							1				1			
	Through		294	0	174	0	294	174	243	555	0	323	0	555	0	323		
	Through-Right			1							1				1			
	Right		24	0	174	0	24	174	1	26	0	323	0	26	0	323		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
CRITICAL VOLUMES			North-South: 295 East-West: 299 SUM: 594	North-South: 295 East-West: 299 SUM: 594	North-South: 421 East-West: 474 SUM: 895	North-South: 421 East-West: 474 SUM: 895	North-South: 421 East-West: 474 SUM: 895	North-South: 421 East-West: 474 SUM: 895	North-South: 421 East-West: 474 SUM: 895	North-South: 421 East-West: 474 SUM: 895								
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.396 0.296 A	0.396 0.296 A	0.597 0.497 A	0.597 0.497 A	0.597 0.497 A	0.597 0.497 A	0.597 0.497 A	0.597 0.497 A								

PROJECT IMPACT

Change in v/c due to project: **0.000** Δv/c after mitigation: **0.000**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Shiva D		Date:							
34	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:				Project:							
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			2	2	2		2		2		1045 Olive							
			0	0	0		0		0									
			NB-- 0	SB-- 0	NB-- 0		SB-- 0		NB-- 0		SB-- 0							
			EB-- 0	WB-- 0	EB-- 0		WB-- 0		EB-- 0		WB-- 0							
			2	2	2		2		2		2							
0			0	0	0		0		0		0							
MOVEMENT			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		
NORTHBOUND	Left		49	1	49	0	49	49	14	66	1	66	0	66	1	66		
	Left-Through			0							0				0			
	Through		419	1	231	0	419	231	330	775	1	416	0	775	1	416		
	Through-Right			1							1				1			
	Right		42	0	42	0	42	42	12	57	0	57	0	57	0	57		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
SOUTHBOUND	Left		21	1	21	0	21	21	14	36	1	36	0	36	1	36		
	Left-Through			0							0				0			
	Through		684	1	402	0	684	402	225	951	1	608	0	951	1	608		
	Through-Right			1							1				1			
	Right		119	0	119	1	120	120	138	264	0	264	1	265	0	265		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
EASTBOUND	Left		61	0	61	0	61	61	43	108	0	108	0	108	0	108		
	Left-Through			1							1				1			
	Through		452	0	310	0	452	310	250	730	0	616	0	730	0	616		
	Through-Right			1							1				1			
	Right		45	0	310	0	45	310	22	70	0	616	0	70	0	616		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
WESTBOUND	Left		61	0	61	0	61	61	0	65	0	65	0	65	0	65		
	Left-Through			1							1				1			
	Through		488	0	323	0	488	323	345	863	0	584	0	863	0	584		
	Through-Right			1							1				1			
	Right		36	0	323	0	36	323	6	44	0	584	0	44	0	584		
Left-Through-Right				0							0				0			
Left-Right				0							0				0			
CRITICAL VOLUMES			North-South: 451	East-West: 384	SUM: 835	North-South: 451	East-West: 384	SUM: 835	North-South: 674	East-West: 692	SUM: 1366	North-South: 674	East-West: 692	SUM: 1366	North-South: 674	East-West: 692	SUM: 1366	
VOLUME/CAPACITY (V/C) RATIO:			0.557				0.557				0.911				0.911			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.457				0.457				0.811				0.811			
LEVEL OF SERVICE (LOS):			A				A				D				D			

PROJECT IMPACT

Change in v/c due to project: **0.000** Δv/c after mitigation: **0.000**
Significant impacted? **NO** Fully mitigated? **N/A**

N-3 Transportation Study – 2019 Update

Memorandum

To: Wes Pringle, LADOT

From: Michael Bates

Subject: 1045 Olive Project update With Addition of Two Related Projects

Date: June 24, 2019

A traffic study for the 1045 Olive Project was prepared by The Mobility Group and submitted to LADOT on August 3rd, 2018. Subsequently the study was approved by the LADOT on August 16th, 2018.

Since then, the Department of City Planning has required that 2 additional related projects in close proximity of the proposed project be included in the analysis. In addition, one related project near the proposed project has been withdrawn and was replaced with a new project at that location. As a result, relevant sections of the traffic study were updated. It should be noted that only the sections that were affected by the addition of the related projects are presented in this memo. These sections include the following:

- 5. Future Conditions Without The Project
 - 5.2 Related Projects
 - 5.3 Future Intersection Conditions Without the Project
- 6. Future With Project Conditions
 - 6.1 Project Impacts – Intersections
 - 6.3 Driveway and Site Circulation
 - 6.4 Freeway Analysis
 - 6.5 Construction Traffic Impacts

- 7. Mitigation Measures
 - 7.1 Significant Impacts
 - 7.7 Results of Mitigation Measures Analysis – AM and PM Peak Hours
- Appendix B – Related Projects Map and List
- Appendix C – Driveway & Site Circulation
- Appendix D – Freeway Analysis
- Appendix F – Intersection LOS CMA Sheets

The intersection LOS results showed no substantive change during the AM peak hour. During the PM peak hour one additional significant impact was created at the intersection of Grand Avenue and 11th Street. This significant impact was fully mitigated utilizing the mitigation measures already proposed in the traffic study. The driveway and site circulation results, and freeway analysis results, showed no difference in the conclusions.

This memorandum, with attachments, therefore demonstrates that there are no new additional traffic impacts and that the overall conclusions in the Approved Traffic Study remain the same.

5. REV Future Conditions Without The Project

At the request of City of Los Angeles Department of City Planning two additional related projects in the immediate vicinity of the Proposed Project were added to the related project's list. In addition, one project near the Proposed Project has been withdrawn and was replaced with a new project at that location. The added projects are DTLA South Park Project Sites 2 & 3 at 1120 S Olive and 1105 S Olive. The replaced project is 11th and Hill Project at 1111 S. Hill St. As a result, the related project's list and Future Without Project analysis were updated. The sections in Chapter 5 that have been updated are shown below.

5.2 Related Projects

Project List

A list of proposed development projects that could affect traffic conditions in the Project Area by adding traffic volumes to study area intersections was prepared based on information obtained from LADOT, Department of City Planning, other studies and reports, and field verification and field observations. A total of 195 potential development projects were identified, the locations of which are shown in Figure 5.1 REV and are listed in Appendix B REV. This list was verified and approved by the Department of City Planning and LADOT.

It should also be noted that, again for purposes of preparing a conservative analysis, no potential street improvements or transportation mitigation measures that might be associated with any of the related projects were included in the future conditions traffic analysis (with the exception of the MyFig Project discussed later).

Project Trip Generation and Distribution

Trip generation estimates for the related projects were prepared, as shown in Appendix B REV.

Future Traffic Forecasts for 2023 Without Project Condition

The trip estimates shown in Appendix B REV were then added to the roadway network and combined with existing volumes and ambient traffic growth (described earlier) to provide forecasts of future baseline traffic conditions in the study area in 2023, for both the AM and PM peak periods, representing the Future Without Project conditions.

The Future Without Project peak hour traffic volumes are illustrated in Figures 5.2 REV and 5.3 REV for the AM and PM peak hours respectively.

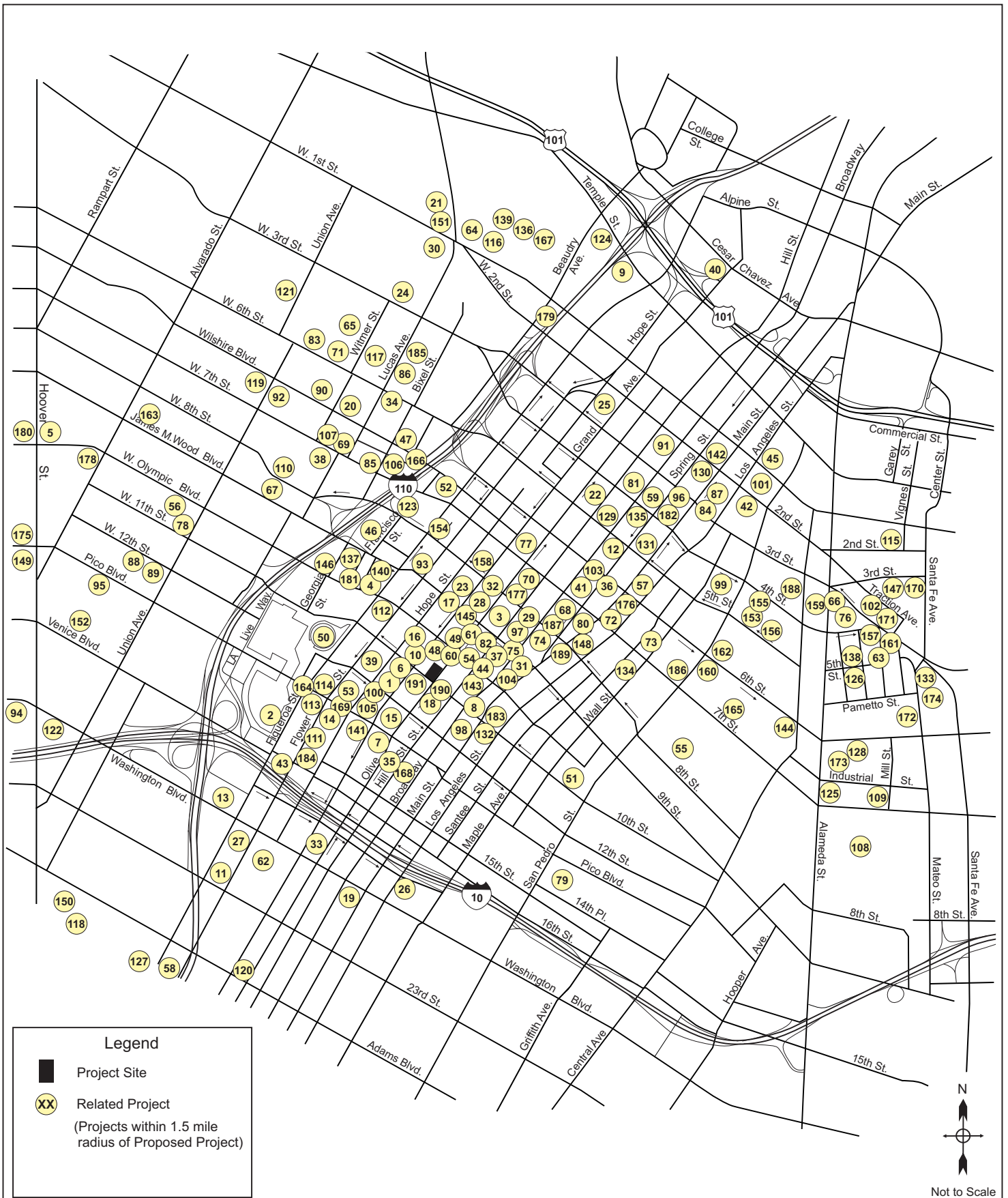


Figure 5.1 REV
Location of Related Projects

1045 Olive Project

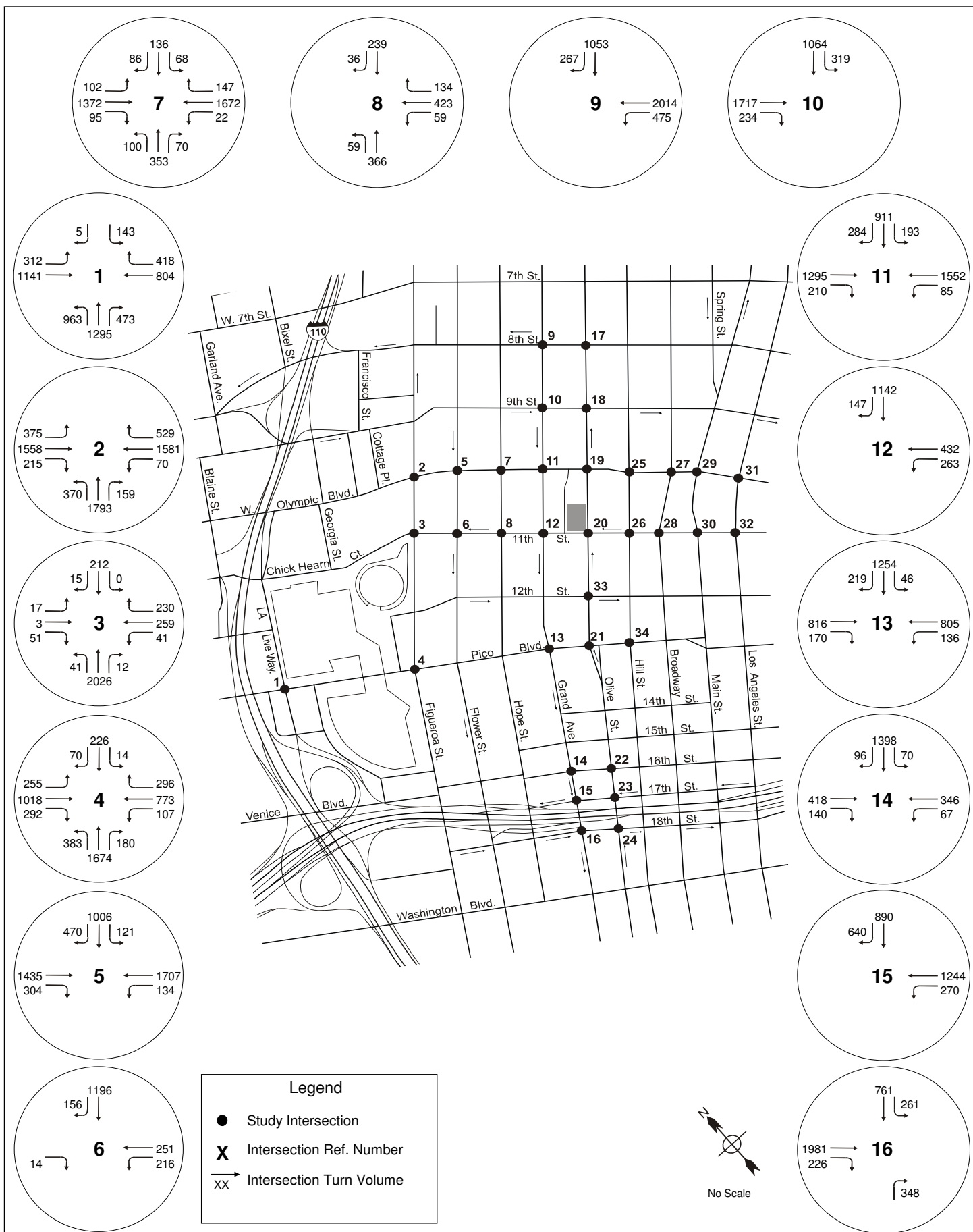
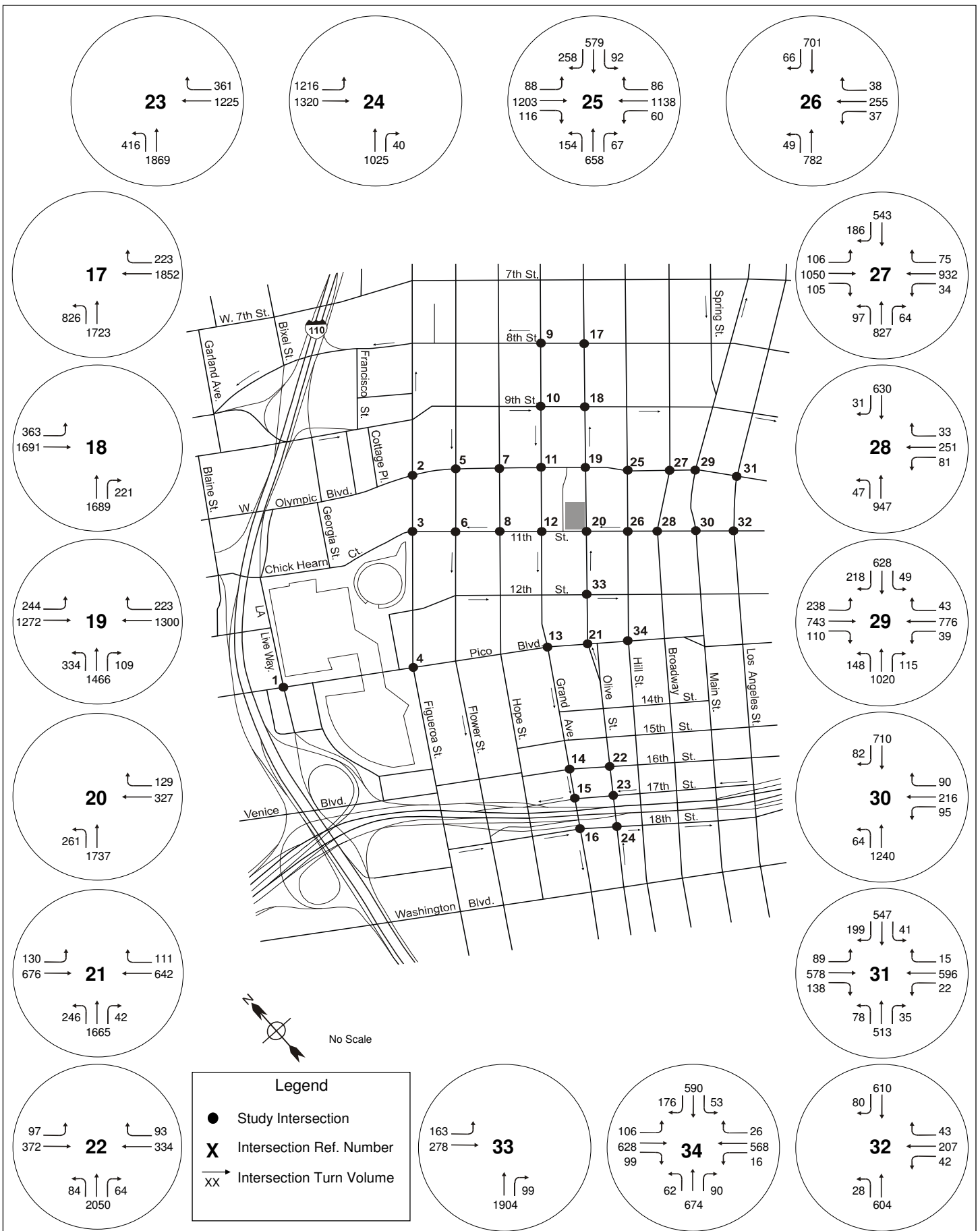


Figure 5.2 REV
Future Without Project Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project



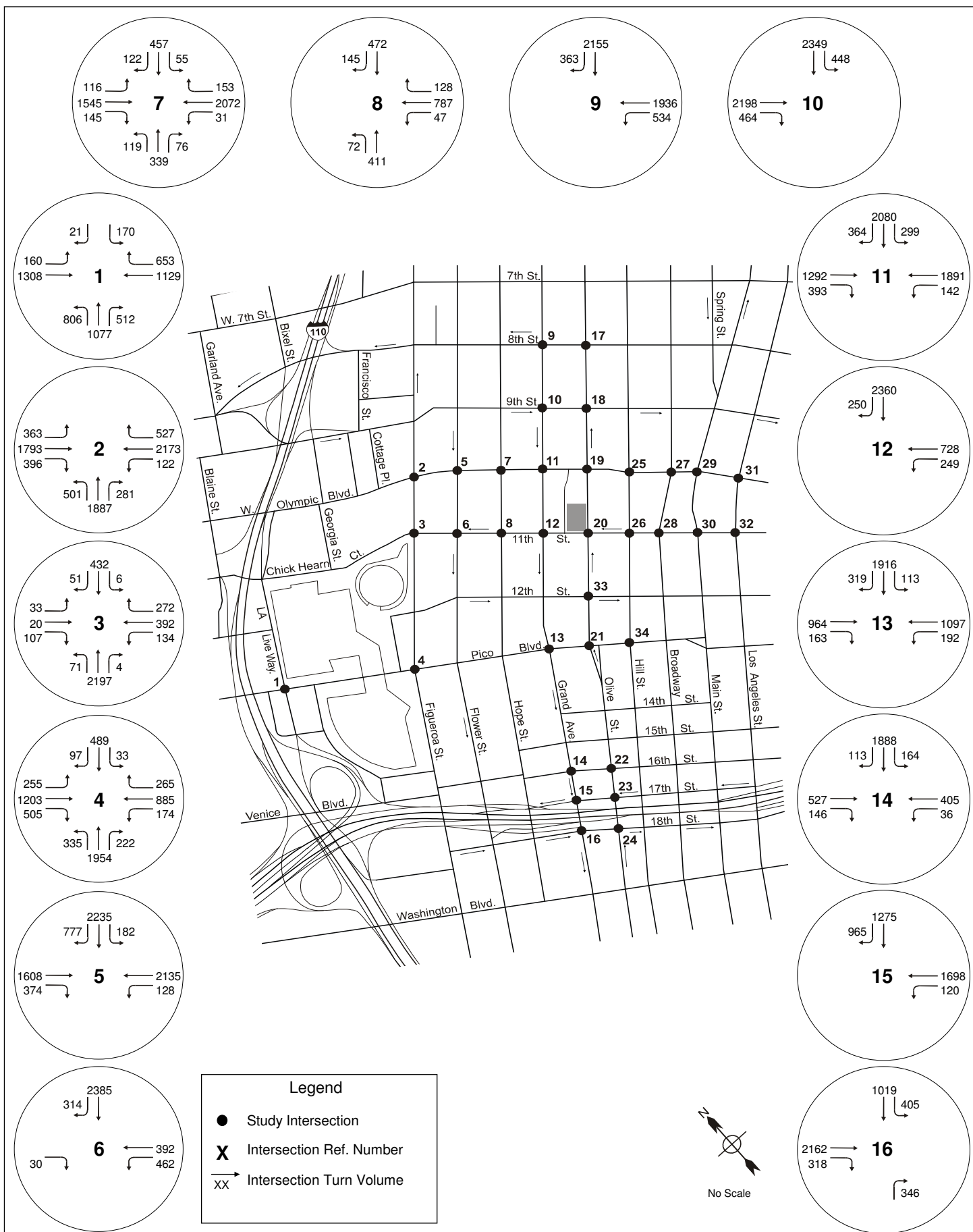


Figure 5.3 REV
Future Without Project Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

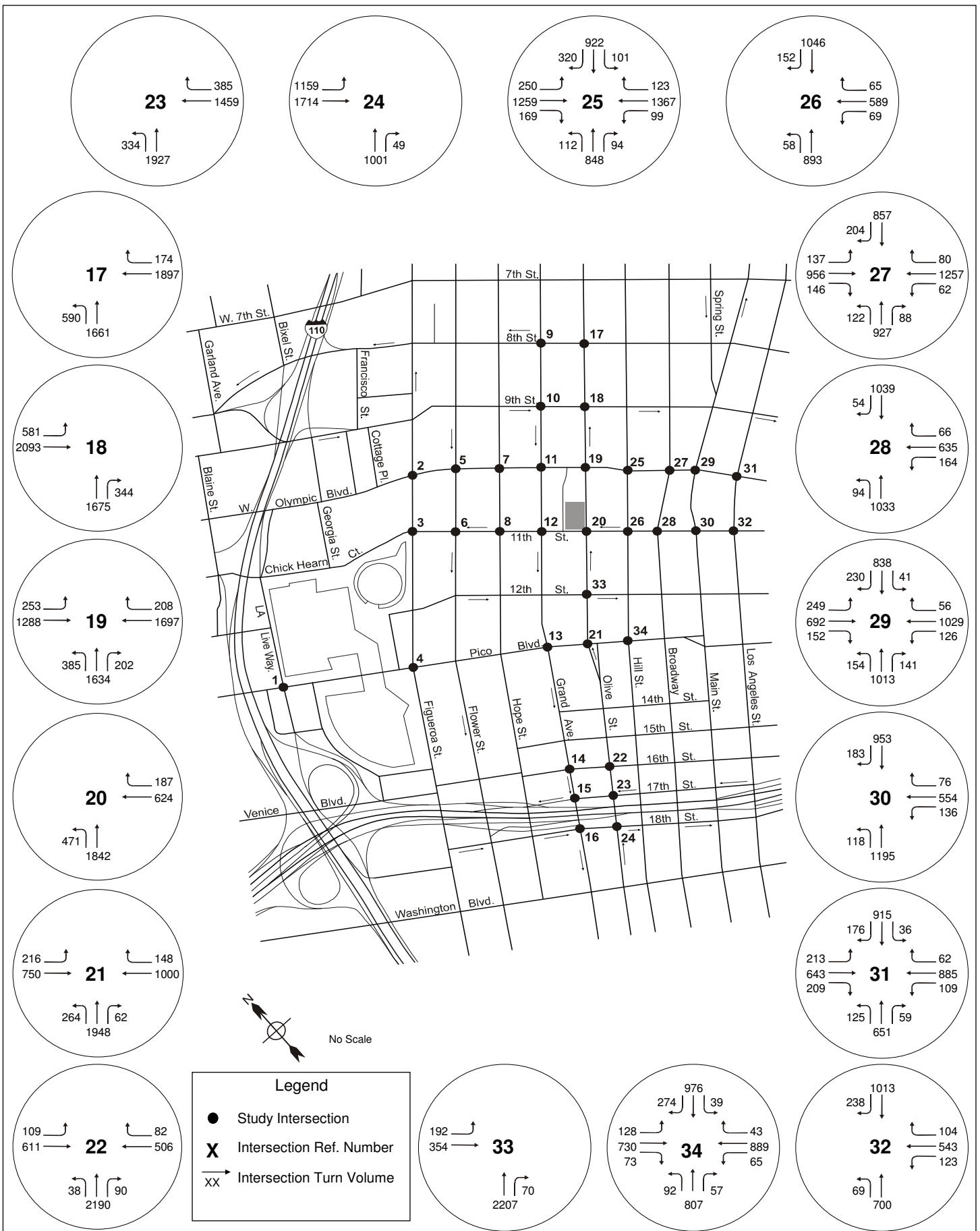


Figure 5.3 REV
 Future Without Project Traffic Volumes - PM Peak Hour (17-34)

5.3 REV Future Intersection Conditions Without the Project

As a result of updated volumes, the intersection analysis under Future Without Project condition was revised. The results of the updated analysis are presented below.

Future Without Project Intersection Level of Service

The Future Without Project traffic forecasts were evaluated to determine the V/C ratio and LOS for the analyzed intersections for both the AM peak hour and the PM peak hour. The results are shown in Table 5.1 REV and Table 5.2 REV, which summarize the intersection levels of service calculated for the Future Without Project conditions, and compares them to existing conditions levels of service.

AM Peak Hour

All studied intersections would operate at LOS D or better during the AM peak hour, except the following four intersections that would operate at LOS E or LOS F:

1.	LA Live Way & Pico Boulevard	LOS E
19.	Olive Street & Olympic Boulevard	LOS E
23.	Olive Street & 17th Street	LOS E
2.	Figuerola Street & Olympic Boulevard	LOS F

PM Peak Hour

Eighteen of the studied intersections would operate at LOS D or better during the PM peak hour. The remaining sixteen intersections that would operate at LOS E or LOS F:

10.	Grand Avenue & 9th Street	LOS E
12.	Grand Avenue & 11th Street	LOS E
2.	Figuerola Street & Olympic Boulevard	LOS F
3.	Figuerola Street & Chick Hearn Court	LOS F
4.	Figuerola Street & Pico Boulevard	LOS F
5.	Flower Street & Olympic Boulevard	LOS F
7.	Hope Street & Olympic Boulevard	LOS F
11.	Grand Avenue & Olympic Boulevard	LOS F
13.	Grand Avenue & Pico Boulevard	LOS F
15.	Grand Avenue & 17th Street	LOS F
19.	Olive Street & Olympic Boulevard	LOS F
21.	Olive Street & Pico Boulevard	LOS F
23.	Olive Street & 17th Street	LOS F
25.	Hill Street & Olympic Boulevard	LOS F
27.	Broadway & Olympic Boulevard	LOS F
29.	Main Street & Olympic Boulevard	LOS F

**Table 5.1 REV Future Without Project - Intersection Level of Service
AM Peak Hour**

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.645	B	0.911	E
2	Figueroa Street & Olympic Boulevard	0.572	A	1.164	F
3	Figueroa Street & Chick Hearn Court	0.294	A	0.832	D
4	Figueroa Street & Pico Boulevard	0.504	A	0.895	D
5	Flower Street & Olympic Boulevard	0.419	A	0.783	C
6	Flower Street & 11th Street	0.082	A	0.333	A
7	Hope Street & Olympic Boulevard	0.465	A	0.795	C
8	Hope Street & 11th Street	0.119	A	0.363	A
9	Grand Avenue & 8th Street	0.276	A	0.581	A
10	Grand Avenue & 9th Street	0.249	A	0.518	A
11	Grand Avenue & Olympic Boulevard	0.385	A	0.661	B
12	Grand Avenue & 11th Street	0.097	A	0.442	A
13	Grand Avenue & Pico Boulevard	0.285	A	0.783	C
14	Grand Avenue & Venice Boulevard	0.197	A	0.457	A
15	Grand Avenue & 17th Street	0.393	A	0.831	D
16	Grand Avenue & 18th Street	0.418	A	0.680	B
17	Olive Street & 8th Street	0.400	A	0.862	D
18	Olive Street & 9th Street	0.388	A	0.732	C
19	Olive Street & Olympic Boulevard	0.503	A	0.971	E
20	Olive Street & 11th Street	0.239	A	0.562	A
21	Olive Street & Pico Boulevard	0.435	A	0.854	D
22	Olive Street & 16th Street	0.407	A	0.581	A
23	Olive Street & 17th Street	0.625	B	0.937	E
24	Olive Street & 18th Street	0.459	A	0.691	B

**Table 5.1 REV Future Without Project - Intersection Level of Service
AM Peak Hour**

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
25	Hill Street & Olympic Boulevard	0.394	A	0.762	C
26	Hill Street & 11th Street	0.145	A	0.337	A
27	Broadway & Olympic Boulevard	0.379	A	0.735	C
28	Broadway & 11th Street	0.179	A	0.383	A
29	Main Street & Olympic Boulevard	0.407	A	0.899	D
30	Main Street & 11th Street	0.199	A	0.520	A
31	Los Angeles Street & Olympic Boulevard	0.325	A	0.464	A
32	Los Angeles Street & 11th Street	0.128	A	0.232	A
33	Olive Street & 12th Street	0.253	A	0.493	A
34	Hill Street & Pico Boulevard	0.296	A	0.521	A

**Table 5.2 REV Future Without Project - Intersection Level of Service
PM Peak Hour**

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
1	La Live Way & Pico Boulevard	0.570	A	0.853	D
2	Figueroa Street & Olympic Boulevard	0.533	A	1.325	F
3	Figueroa Street & Chick Hearn Court	0.312	A	1.002	F
4	Figueroa Street & Pico Boulevard	0.523	A	1.091	F
5	Flower Street & Olympic Boulevard	0.566	A	1.130	F
6	Flower Street & 11th Street	0.344	A	0.758	C
7	Hope Street & Olympic Boulevard	0.604	B	1.029	F
8	Hope Street & 11th Street	0.299	A	0.710	C
9	Grand Avenue & 8th Street	0.414	A	0.809	D
10	Grand Avenue & 9th Street	0.451	A	0.911	E
11	Grand Avenue & Olympic Boulevard	0.553	A	1.019	F
12	Grand Avenue & 11th Street	0.391	A	0.910	E
13	Grand Avenue & Pico Boulevard	0.561	A	1.308	F
14	Grand Avenue & Venice Boulevard	0.351	A	0.605	B
15	Grand Avenue & 17th Street	0.681	B	1.149	F
16	Grand Avenue & 18th Street	0.455	A	0.824	D
17	Olive Street & 8th Street	0.294	A	0.715	C
18	Olive Street & 9th Street	0.351	A	0.866	D
19	Olive Street & Olympic Boulevard	0.528	A	1.153	F
20	Olive Street & 11th Street	0.340	A	0.830	D
21	Olive Street & Pico Boulevard	0.447	A	1.076	F
22	Olive Street & 16th Street	0.353	A	0.672	B
23	Olive Street & 17th Street	0.527	A	1.017	F
24	Olive Street & 18th Street	0.387	A	0.761	C

**Table 5.2 REV Future Without Project - Intersection Level of Service
PM Peak Hour**

No.	Intersection	Existing Conditions		Future Without Project Conditions	
		V/C	LOS	V/C	LOS
25	Hill Street & Olympic Boulevard	0.535	A	1.052	F
26	Hill Street & 11th Street	0.327	A	0.680	B
27	Broadway & Olympic Boulevard	0.521	A	1.090	F
28	Broadway & 11th Street	0.364	A	0.751	C
29	Main Street & Olympic Boulevard	0.461	A	1.152	F
30	Main Street & 11th Street	0.349	A	0.844	D
31	Los Angeles Street & Olympic Boulevard	0.553	A	0.805	D
32	Los Angeles Street & 11th Street	0.374	A	0.585	A
33	Olive Street & 12th Street	0.181	A	0.588	A
34	Hill Street & Pico Boulevard	0.457	A	0.861	D

6. REV Future With Project Conditions

As a result of updated Future Without Project traffic volumes, the Future With Project Traffic volumes were updated. The updated traffic volumes were in turn used to update Future With Project intersection analysis. All the updated results are presented below.

This section of the report documents the analysis of potential Project traffic impacts in the study area for the Future With Project conditions. Traffic generated by the Project was added to the Future Without Project traffic volumes and the potential for impacts evaluated. The total Future With Project conditions peak hour traffic volumes are illustrated in Figures 6.1 REV and 6.2 REV for the AM and PM peak hours, respectively. These traffic forecasts were then used to evaluate potential Project traffic impacts, as described in the following sections.

6.1 Project Impacts – Intersections

Project Impact Analysis - Future With Project Intersection Level of Service

The intersection level of service analysis for the Future With Project conditions is summarized in Table 6.1 REV for the AM peak hour and in Table 6.2 REV for the PM peak hour. These tables also compare the level of service for Without Project and With Project conditions, show the increase in V/C ratios at each intersection due to the Project, and identify if the increase constitutes a significant impact.

AM Peak Hour

As shown in Table 6.1 REV and in the following table, the number of intersections operating at LOS D or better, LOS E, and LOS F would not change between the Future Without Project and Future With Project conditions. Under the Future Without Project conditions, 30 intersections would operate at LOS D or better, three intersections would operate at LOS E, and one intersection operates at LOS F. With the Project, 30 intersections would continue to operate at LOS D or better, three intersections would continue to operate at LOS E, and one intersection would continue to operate at LOS F.

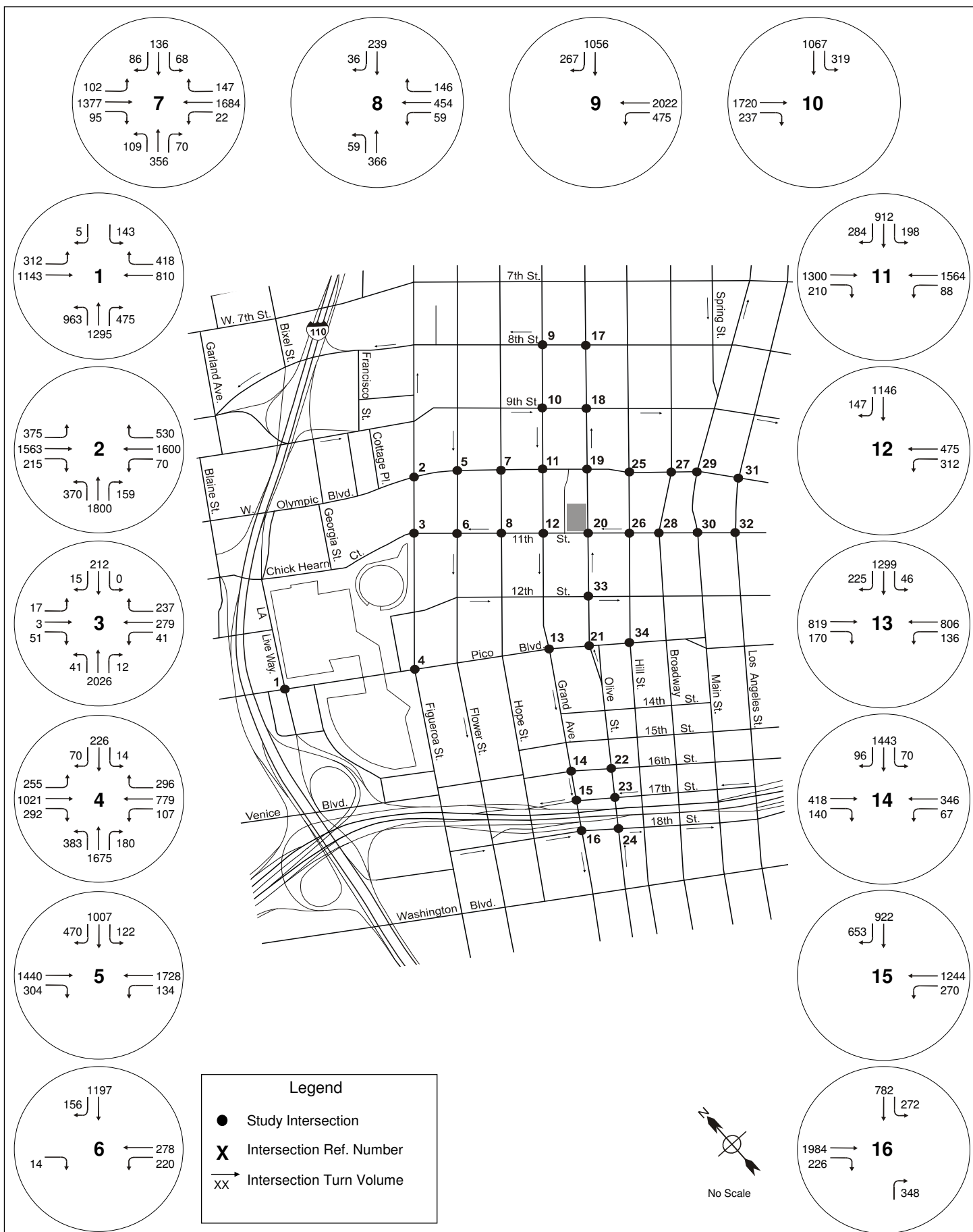


Figure 6.1 REV
Future With Project Traffic Volumes - AM Peak Hour (1-16)

1045 Olive Project

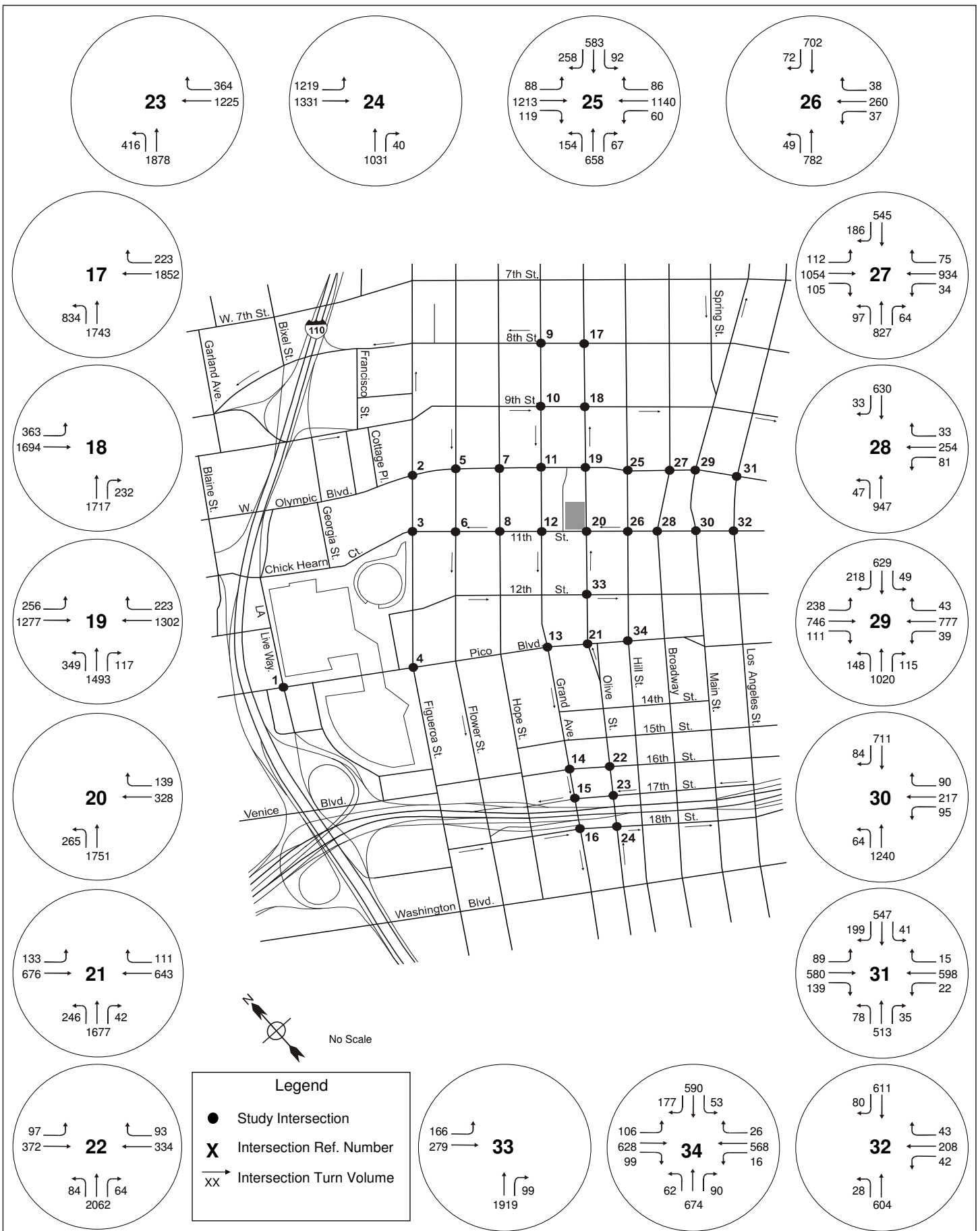


Figure 6.1 REV
 Future With Project Traffic Volumes - AM Peak Hour (17-34)

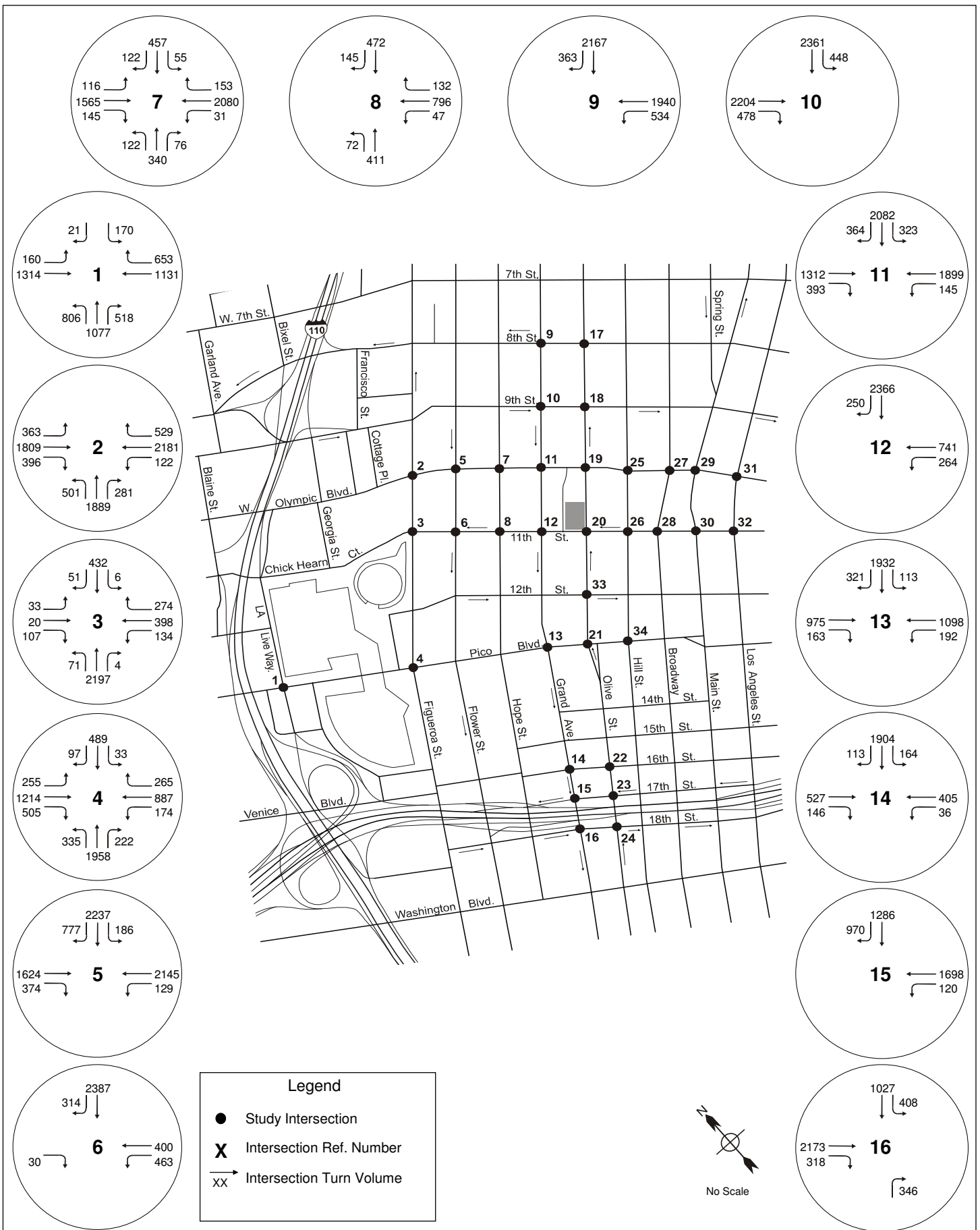


Figure 6.2 REV
Future With Project Traffic Volumes - PM Peak Hour (1-16)

1045 Olive Project

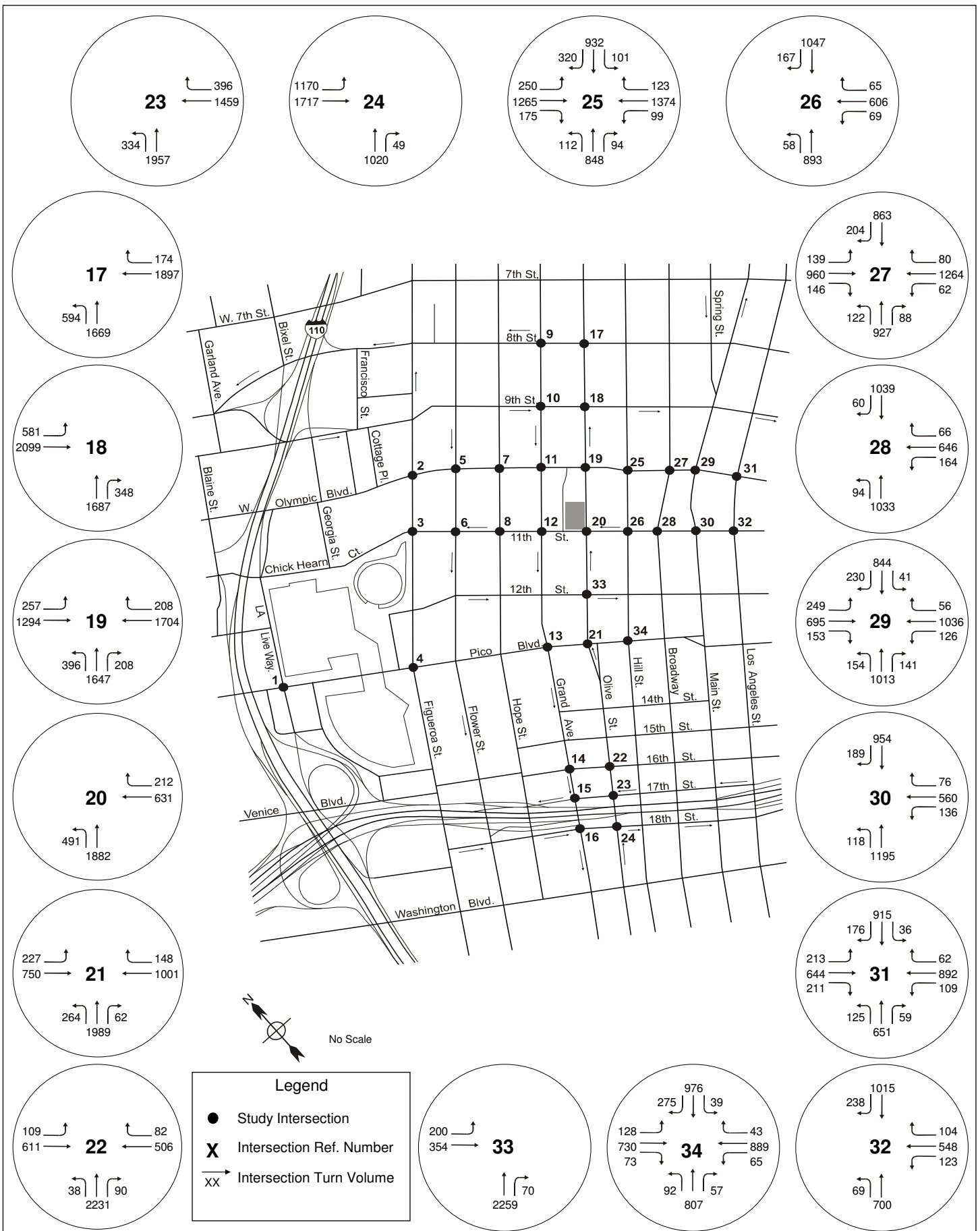


Figure 6.2 REV
 Future With Project Traffic Volumes - PM Peak Hour (17-34)

**Table 6.1 REV Future With Project - Intersection Level of Service
AM Peak Hour**

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.911	E	0.913	E	0.002	No
2	Figueroa Street & Olympic Boulevard	1.164	F	1.169	F	0.005	No
3	Figueroa Street & Chick Hearn Court	0.832	D	0.846	D	0.014	No
4	Figueroa Street & Pico Boulevard	0.895	D	0.898	D	0.003	No
5	Flower Street & Olympic Boulevard	0.783	C	0.789	C	0.006	No
6	Flower Street & 11th Street	0.333	A	0.351	A	0.018	No
7	Hope Street & Olympic Boulevard	0.795	C	0.803	D	0.008	No
8	Hope Street & 11th Street	0.363	A	0.384	A	0.021	No
9	Grand Avenue & 8th Street	0.581	A	0.584	A	0.003	No
10	Grand Avenue & 9th Street	0.518	A	0.519	A	0.001	No
11	Grand Avenue & Olympic Boulevard	0.661	B	0.665	B	0.004	No
12	Grand Avenue & 11th Street	0.442	A	0.471	A	0.029	No
13	Grand Avenue & Pico Boulevard	0.783	C	0.799	C	0.016	No
14	Grand Avenue & Venice Boulevard	0.457	A	0.467	A	0.010	No
15	Grand Avenue & 17th Street	0.831	D	0.840	D	0.009	No
16	Grand Avenue & 18th Street	0.680	B	0.689	B	0.009	No
17	Olive Street & 8th Street	0.862	D	0.867	D	0.005	No
18	Olive Street & 9th Street	0.732	C	0.739	C	0.007	No
19	Olive Street & Olympic Boulevard	0.971	E	0.989	E	0.018	Yes
20	Olive Street & 11th Street	0.562	A	0.567	A	0.005	No
21	Olive Street & Pico Boulevard	0.854	D	0.862	D	0.008	No
22	Olive Street & 16th Street	0.581	A	0.584	A	0.003	No
23	Olive Street & 17th Street	0.937	E	0.940	E	0.003	No
24	Olive Street & 18th Street	0.691	B	0.696	B	0.005	No

**Table 6.1 REV Future With Project - Intersection Level of Service
AM Peak Hour**

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	0.762	C	0.767	C	0.005	No
26	Hill Street & 11th Street	0.337	A	0.340	A	0.003	No
27	Broadway & Olympic Boulevard	0.735	C	0.739	C	0.004	No
28	Broadway & 11th Street	0.383	A	0.385	A	0.002	No
29	Main Street & Olympic Boulevard	0.899	D	0.900	D	0.001	No
30	Main Street & 11th Street	0.520	A	0.521	A	0.001	No
31	Los Angeles Street & Olympic Boulevard	0.464	A	0.465	A	0.001	No
32	Los Angeles Street & 11th Street	0.232	A	0.233	A	0.001	No
33	Olive Street & 12th Street	0.493	A	0.497	A	0.004	No
34	Hill Street & Pico Boulevard	0.521	A	0.521	A	0.000	No

**Table 6.2 REV Future With Project - Intersection Level of Service
PM Peak Hour**

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
1	La Live Way & Pico Boulevard	0.853	D	0.854	D	0.001	No
2	Figueroa Street & Olympic Boulevard	1.325	F	1.328	F	0.003	No
3	Figueroa Street & Chick Hearn Court	1.002	F	1.006	F	0.004	No
4	Figueroa Street & Pico Boulevard	1.091	F	1.095	F	0.004	No
5	Flower Street & Olympic Boulevard	1.130	F	1.133	F	0.003	No
6	Flower Street & 11th Street	0.758	C	0.759	C	0.001	No
7	Hope Street & Olympic Boulevard	1.029	F	1.033	F	0.004	No
8	Hope Street & 11th Street	0.710	C	0.716	C	0.006	No
9	Grand Avenue & 8th Street	0.809	D	0.813	D	0.004	No
10	Grand Avenue & 9th Street	0.911	E	0.915	E	0.004	No
11	Grand Avenue & Olympic Boulevard	1.019	F	1.028	F	0.009	No
12	Grand Avenue & 11th Street	0.910	E	0.920	E	0.010	Yes
13	Grand Avenue & Pico Boulevard	1.308	F	1.314	F	0.006	No
14	Grand Avenue & Venice Boulevard	0.605	B	0.608	B	0.003	No
15	Grand Avenue & 17th Street	1.149	F	1.153	F	0.004	No
16	Grand Avenue & 18th Street	0.824	D	0.828	D	0.004	No
17	Olive Street & 8th Street	0.715	C	0.717	C	0.002	No
18	Olive Street & 9th Street	0.866	D	0.870	D	0.004	No
19	Olive Street & Olympic Boulevard	1.153	F	1.163	F	0.010	Yes
20	Olive Street & 11th Street	0.830	D	0.848	D	0.018	No
21	Olive Street & Pico Boulevard	1.076	F	1.098	F	0.022	Yes
22	Olive Street & 16th Street	0.672	B	0.681	B	0.009	No
23	Olive Street & 17th Street	1.017	F	1.028	F	0.011	Yes
24	Olive Street & 18th Street	0.761	C	0.768	C	0.007	No

**Table 6.2 REV Future With Project - Intersection Level of Service
PM Peak Hour**

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact
		V/C	LOS	V/C	LOS		
25	Hill Street & Olympic Boulevard	1.052	F	1.058	F	0.006	No
26	Hill Street & 11th Street	0.680	B	0.692	B	0.012	No
27	Broadway & Olympic Boulevard	1.090	F	1.097	F	0.007	No
28	Broadway & 11th Street	0.751	C	0.760	C	0.009	No
29	Main Street & Olympic Boulevard	1.152	F	1.158	F	0.006	No
30	Main Street & 11th Street	0.844	D	0.847	D	0.003	No
31	Los Angeles Street & Olympic Boulevard	0.805	D	0.807	D	0.002	No
32	Los Angeles Street & 11th Street	0.585	A	0.588	A	0.003	No
33	Olive Street & 12th Street	0.588	A	0.602	B	0.014	No
34	Hill Street & Pico Boulevard	0.861	D	0.861	D	0.000	No

Intersection Level of Service Summary – AM Peak Hour

<i>LOS</i>	<i>AM Peak Hour</i>		
	<i>Future Without Project</i>	<i>Future With Project</i>	<i>No. of Impacts</i>
≤D	30	30	0
E	3	3	1
F	1	1	0
Total	34	34	1

The analysis summarized in Table 6.1 REV indicates that for the AM peak hour, all increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur, except at one location where the increase would be sufficient to cause a significant impact, as listed below:

19. Olive Street & Olympic Boulevard LOS E

It is therefore concluded that the Project would cause 1 significant impact in the AM peak hour.

PM Peak Hour

As shown in Table 6.2 REV and the following table, the number of intersections operating at LOS D or better, LOS E, and LOS F would not change between the Future Without Project and Future With Project conditions. Under both Future Without Project and Future With Project conditions 18 intersections would operate at LOS D or better, 2 intersections at LOS E, and 14 intersections at LOS F.

The analysis summarized in Table 6.2 REV indicates that for the PM peak hour, all increases in volume/capacity (V/C) ratios would be less than the threshold for a significant impact to occur, except at 4 locations where the increase would be sufficient to cause a significant impact, as listed below:

12. Grand Avenue & 11th Street LOS E
 19. Olive Street & Olympic Boulevard LOS F
 21. Olive Street & Pico Boulevard LOS F
 23. Olive Street & 17th Street LOS F

Intersection Level of Service Summary – PM Peak Hour

LOS	PM Peak Hour		
	<i>Future Without Project</i>	<i>Future With Project</i>	<i>No. of Impacts</i>
≤D	18	18	0
E	2	2	1
F	14	14	3
Total	34	34	4

All of the significantly impacted intersections operating at LOS F would also operate at LOS F without the Project.

It is therefore concluded that the Project would cause 4 significant impacts in the PM peak hour.

6.3 Driveway and Site Circulation

As a results of updated Future Without Project and Future With Project traffic volumes, the analyses of the two alley intersections at 11th Street and Olympic Boulevard were updated.

Vehicle Access

Because alley intersections are unsignalized and traffic signals are not implemented at alleys, LADOT has no guidelines for analysis of, nor thresholds for significant impacts, for alleys or for alley intersections. To this end, the Project would provide a widened alley, loading within the Project building, a driveway access off Olive Street, and through access between the alley and Olive Street, which taken together would minimize impacts to the alley. For informational purposes an analysis of the alley traffic conditions was conducted. This addressed traffic volumes on the alley and the vehicle queues that currently occur (Existing Conditions) and that are forecast for the alley in the Future Without Project and Future with Project conditions. The queue analysis represents the 95th percentile queues (essentially the maximum queue length - the vehicle queue length that would be exceeded only 5% of the time). The analysis is shown in Appendix C REV, and is summarized below.

The analysis included traffic from all of the projects on the same block as the Proposed Project. It should be noted that the Ten50 Project (across the alley from the Proposed Project) has a driveway only on the alley, the 1001 Olive Project (to the north of the Proposed Project on Olive Street) has a driveway on both Olive Street and the alley, and the 1000 Grand Project (to

the north of the Project and on the west side of the alley) has a driveway on Grand Avenue and the alley). For each of these projects loading occurs from the alley.

Where the alley intersects with 11th Street, there is also an alley opposite on the south side of 11th Street. The 1120 Olive Project south of 11th Street will have a driveway to that alley and to Olive Street. The traffic from the 1120 Olive Project that would use that alley was added to the analysis of both alleys at 11th Street.

As shown in Table C-1 REV, queue lengths in the PM peak at Olympic Boulevard and at 11th Street in both the AM and PM peak hours would be minimal (one to two cars).

The updated analysis of the alley intersections (Appendix C REV) shows that the results with the 2 additional related projects in terms of level of Service, and queue lengths at the alley intersections would not change from the results in the Traffic Study.

6.4 Freeway Analysis

As a result of updated Future without Project and Future With Project volumes, Freeway Mainline, Off-ramp, and On-ramp analyses under those scenarios were updated. The revised analysis is shown in Appendix D REV. The results and conclusions are no different than to those in the traffic study.

6.5 Construction Traffic Impacts

Additional discussion has been added to account for construction activities and impacts of nearby projects that could occur concurrently with that of the proposed project. For clarity, the entire Construction Traffic Impact section from the Traffic Study is repeated below – with notification of where changes have occurred.

The L.A. CEQA Thresholds Guide identifies four types of street construction impacts, as follows:

- Temporary Traffic Impacts – potential impacts on vehicular travel.
- Temporary Loss of Access – potential impacts to vehicles and pedestrians.
- Temporary Loss of Bus Stops or Rerouting of Bus Lines – potential impacts on bus patrons.
- Temporary Loss of On-Street Parking – potential impacts on parking users.

The potential for construction traffic impacts was evaluated by considering the following aspects of Project construction.

- Construction Truck Traffic
- Construction Worker Traffic
- Sidewalk and/or Traffic Lane Closures
- Bus Stops/Routes Relocation
- Construction Worker Parking

Construction Phases and Durations

Construction of the proposed Project is expected to last approximately 42 months and is scheduled to begin in 2019 and continue through 2022. For the purposes of evaluating potential traffic impacts during construction, there would be four principal phases: (1) site demolition and preparation; (2) excavation and grading (including drainage, utilities and trenching); (3) foundations work; and (4) building construction (which would include paving and architectural coating).

Some of the construction phases are expected to overlap. The following analysis is based on total construction activity at the site. The demolition and site preparation phase would occur for approximately four weeks with up to 28 truckloads per day, and up to 25 employees on site. The excavation and grading phase would occur for approximately four months with up to 250 truckloads per day, and up to 66 employees on site. The building foundations work would comprise the mat pour which would occur over two days with a total of 608 trucks, and 175 workers per day, and would occur on a single weekend. The building construction phase would occur for approximately thirty nine months, and is expected to generate up to 87 truckloads per day to the Project Site, with up to 400 workers on site.

The construction haul route from the Project Site would travel north on Olive Street, east on Olympic Boulevard, south on Hill Street, east on 18th Street and via the Los Angeles Street on-ramp to the eastbound I-10 freeway. The route to the Project Site would exit the westbound I-10 freeway at Los Angeles Street, travel west on 17th Street and north on Olive Street to the site. This haul route may be modified in compliance with City policies, provided LADOT and/or the Department of Street Services approves any such modification.

Project Design Features

A number of Project Design Features are proposed by the Project during the construction period to minimize potential construction impacts with respect to construction trucks, worker trips, and any possible sidewalks and lane closures.

- Maintain access for land uses in the vicinity of the Project site during construction.
- Schedule construction material deliveries to off-peak periods to the extent possible.
- Minimize obstruction of traffic lanes on Olive Street and 11th Street adjacent to the Project Site.
- Organize site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways,
- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the site and impact roadway traffic. If needed, utilize an organized off-site staging area.
- Control truck and vehicle access to the Project Site with flagmen.
- Sidewalk access on Olive Street and 11th Street will be maintained during construction through the use of covered protective walkways. A Worksite Traffic Control Plan will be prepared for approval by the City, to facilitate pedestrian and traffic movement, in order to minimize any potential impacts.
- ~~Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project Site and neighboring businesses.~~
- Coordinate with the City, emergency service providers, neighboring property management, and surrounding construction related project representatives (i.e., construction contractors) whose projects would potentially be under construction at around the same time as the Project to ensure adequate access is maintained to the Project Site and neighboring businesses. Meetings shall be conducted bimonthly, or as otherwise determined appropriate by City Staff.
- Parking for construction workers will be provided off-site in off-street locations. Parking will not be allowed on streets in the vicinity of the Project.
- A Construction Traffic Management Plan will be prepared for approval by the City prior to the issuance of any construction permits, to incorporate the measures identified above, as well as a Worksite Traffic Control Plan specifying the details of any sidewalk

or lane closures. The Worksite Traffic Control Plan will be developed by the Applicant, and will identify all traffic control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity. The Worksite Traffic Control Plan would minimize the potential conflicts between construction activities, street traffic, bicyclists and pedestrians. The plan will be reviewed and approved by LADOT prior to commencement of construction.

Construction Truck Traffic

The highest volume of truck trips would occur during the four months of the Project's excavation and grading phase (with the exception of the mat pour discussed separately below). During this phase there would be a maximum of 250 daily truckloads expected for approximately 23 days of hauling (for the remaining days the total truckloads would be lower).

Assuming these trips would be spread equally over an eight-hour workday between 7:00am and 3:00pm, there would be up to 31 truckloads per hour. This represents a total of 62 daily truck trips (31 trips in to the site and 31 trips out from the site). The Transportation Research Board (HCM2010 Highway Capacity Manual) identifies a passenger car equivalent (PCE) factor of 2.0 for trucks (as trucks are larger and less maneuverable than passenger cars), so 62 hourly truck trips is the equivalent of 124 passenger car trips (62 trip inbound and 62 trips outbound).

Daily truck activity would typically be completed prior to the PM peak hour. However, truck trips could occur during the AM peak hour. The peak estimate of 124 PCE trips per hour would be less than 196 AM peak hour trips that would be generated on a regular basis by the operational Project upon completion. (It is noted that in the Existing With Project analysis for the operational Project in Chapter 4 it was concluded that the Project would not cause any significant impacts in the AM or PM peak hours). Based on the above information, construction truck trips would not cause any significant traffic impacts during the AM peak hour or the PM peak hour.

During other phases of construction, there would typically be fewer truck loads/trips. They would range from up to 28 truckloads per day during the site preparation/demolition phase (4 weeks) to up to 87 truckloads per day for the thirty-nine month building construction phase. These figures would represent 14 truck trips per hour and 44 truck trips per hour respectively – much lower than the peak activity described above. These truck trips during the remainder of the Project's construction phase would therefore not cause significant traffic impacts.

Off-site staging will be used when necessary to ensure trucks do not wait or line up on streets adjacent to or near the Project Site.

The mat pour for the foundation would occur over a two-day period at the weekend when street traffic volumes are much lower than weekday conditions. Truck activity at the Project site would be carefully managed, including the use of flagmen, and off-site staging could occur where feasible. The mat pour activity would be closely coordinated with LADOT and neighboring land uses, to minimize impacts to the extent feasible. With these measures and the implementation of the Construction Traffic Control Plan it is expected that truck impacts would be temporary and not significant.

Construction Worker Traffic & Parking

Construction is expected to occur between the hours of 7:00 AM and 3:00 PM. on Monday through Saturday. No construction would occur on Sundays or federal holidays (with the exception of the mat pour which could occur on a Sunday).

The number of construction workers working on-site at one time would vary throughout the construction process in order to maintain an effective schedule of completion. It is estimated that during the construction period the number of workers that would be on-site would typically range from approximately 19 during the site preparation phase to a maximum of 400 workers, with the peak of approximately 400 workers occurring during the 39-month building construction phase.

Not all workers would drive as some workers would be expected to take transit and to rideshare. Construction workers would generally be on-site before 7:00 AM and the vast majority would leave the Project Site around 3:00 PM, meaning that the workers would therefore travel before the morning and evening peak commute hours. Up to potentially 10% of workers could leave after 3:00 PM. Based on the 400 maximum number of workers expected on-site, and assuming 20% of workers would take transit or rideshare, approximately 32 worker trips could occur in the PM peak hour (if all the remaining workers at the site left in the same hour). This conservative estimate would be only slightly greater than the number of trips generated by the existing land uses on the Project Site (16 PM peak hour trips), and would be only 16% of the PM peak hour trips that would be generated by the Project when it would be in operation. Traffic impacts from construction worker trips on the surrounding roadways and intersections during the AM and PM peak hours would therefore be less than significant.

Parking for construction workers would be provided off-site. Off-site locations have not yet been determined but they would be within walking distance of the Project Site in existing commercial parking lots or garages (typically through arrangements with lot/garage operators). The Project is therefore not expected to cause any significant impacts from construction parking.

The combined effect of the truck and worker trips would be insignificant. In the AM peak hour, as described earlier the number of truck trips would not constitute a significant impact, and worker trips would occur before the AM peak hour. In the PM peak hour, as described earlier there would be no truck trips, and worker trips would not constitute a significant impact.

Roadway Lane and Sidewalk Closures

It is expected that construction activities will necessitate the closure of the parking lane on the west side of Olive Street adjacent to the Project Site. The sidewalk would remain open (discussed further below). The existing traffic lanes on Olive Street would remain open. Truck loading and unloading would occur from Olive Street within the work zone created. While no traffic lanes on Olive Street would be closed on a permanent basis during construction, day-to-day construction activities could sometimes result in partial lane closures on Olive Street adjacent to the Project Site on a temporary and/or intermittent basis for utility relocations/hook-ups, delivery of materials, and other construction activities, as may be required. Such activities would occur only during off-peak hours and only on certain days, and would not be a regular event. In these instances, flagmen would be used to control traffic movement during the ingress and egress of trucks and heavy equipment. Any such closures would need to be coordinated with and approved by LADOT prior to being implemented. Because partial lane closures would be temporary in nature, and would not require long-term complete closures of adjacent roadway lanes, these construction activities would not have long-term adverse impacts, and as such, impacts would be less than significant.

It is expected that the sidewalk would not be closed on 11th Street during construction, and that the bicycle lane being constructed as part of the MyFig Project and the traffic lane on 11th Street would remain open during construction.

The alley would remain fully open during Project construction. All construction material delivery would occur on Olive Street so none would occur on the alley. For a short period of time some construction work may be necessary in the alley as it is widened and repaved, and utility work is conducted. During those times the Project would ensure that the alley would remain open with access to the Ten50 Project maintained at all times.

As the existing traffic lanes on the adjacent through streets will remain open during construction, particularly during peak hours, the Project construction would not cause significant traffic impacts.

The pedestrian sidewalks adjacent to the Project Site would remain open during construction. Pedestrian access to the sidewalks would be maintained by providing a covered protected walkway for pedestrians on both Olive Street and 11th Street adjacent to the Project. There would therefore be no impacts through loss of pedestrian access to other adjacent land uses. The Construction Traffic Management Plan and Worksite Traffic Control Plan that will be prepared for the Project will identify the proposed covered sidewalks and signage for the safe routing for pedestrians. With this measure, there would be no loss of access to other land uses in the vicinity of the site, and no significant impacts to pedestrian circulation.

Parking, Access and Transit

There are currently eight on-street parking spaces on Olive Street adjacent to the Project Site. During construction these would be temporarily removed. As there is on-street parking on many streets as well as off-street parking facilities in the surrounding area, parking would remain available in the vicinity of the Project.

Project construction would not close, or block access to any properties in the vicinity of the Project Site. There would therefore be no significant impacts on access to adjacent projects.

There are no bus stops adjacent to the Project Site. There would therefore be no impacts on transit stops during construction.

The following paragraph has been added, to address issues of potential simultaneous construction of adjacent projects.

Adjacent Project Construction

Impacts on traffic associated with construction (e.g., an intermittent reduction in street and intersection operating capacity, potential conflicts with pedestrians/bicyclists, overlap with construction of the adjacent and nearby mixed-use projects (Related Project No. 190 caddy corner to the Project Site, Related Project No. 191 across the street from the Project Site, Related Project No. 18 ½ block to the east along 11th Street) and/or the Streetcar project are typically considered as potential short-term impacts. As noted above, the Project would result in a less than-significant traffic impact during construction activities. The implementation of the Construction Traffic Management Plan which would incorporate scheduling, notification, and safety procedures and would further reduce the less-than-significant construction impact. Each related project would be required to comply with City requirements regarding haul routes and would implement mitigation measures and/or include project characteristics, such as traffic controls and scheduling, notification, and safety procedures, to reduce potential traffic impacts during construction. This coordination would ensure construction activities of the concurrent related projects and associated hauling activities are managed in collaboration with one another and the Project. Furthermore, like for the Project, construction worker traffic typically avoids the peak hours, and it is anticipated that many of the related projects, like the Project, would restrict construction truck traffic and deliveries to off-peak hours to the extent feasible. The Construction Traffic Management Plan would outline measures to manage construction-related traffic (e.g., pedestrian and vehicular traffic controls) throughout the day to maintain traffic flows on public roadways and reduce the effects on the surrounding community. Accordingly, Project-related contributions to cumulative construction traffic impacts would be less than cumulatively considerable.

7. REV Mitigation Measures

This section presents the updated list of intersections where significant impacts occur, and the updated results of mitigation measures analysis. The mitigation measures applied are the same as the ones described in the Traffic Study. The mitigation measures fully mitigate all the significant impacts.

This report Chapter addresses an evaluation of feasible mitigation measures to address the potential significant impacts identified for the Project.

7.1 Review of Significant Impacts

Future With Project Conditions

In the AM peak hour, the Proposed Project would cause one significant impact at the following intersection.

19. Olive Street & Olympic Boulevard	LOS E
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In the PM peak hour, the Proposed Project would result in significant impacts at the following four intersections.

12. Grand Avenue & 11th Street	LOS E
19. Olive Street & Olympic Boulevard	LOS F
21. Olive Street & Pico Boulevard	LOS F
23. Olive Street & 17th Street	LOS F

All three intersections that operate at LOS F would also operate at LOS without the Project.

7.7 Results of Mitigation Measures Analysis – AM and PM Peak Hours

Future With Project Conditions

AM Peak Hour

The results of the mitigation program are summarized in Table 7.2 REV for the AM peak hour. The mitigation program would fully mitigate the one significant impact and there would be no remaining significant impacts.

PM Peak Hour

The results of the mitigation program are summarized in Table 7.3 REV for the PM peak hour. The mitigation program would fully mitigate the four significant impacts, and there would be no remaining significant impacts.

Remaining Significant and Unavoidable Traffic Impacts – Future With Project Conditions

With the proposed mitigation program, there would be no remaining significant impacts.

Table 7.2 REV Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.911	E	0.913	E	0.002	No					
2	Figueroa Street & Olympic Boulevard	1.164	F	1.169	F	0.005	No					
3	Figueroa Street & Chick Hearn Court	0.832	D	0.846	D	0.014	No					
4	Figueroa Street & Pico Boulevard	0.895	D	0.898	D	0.003	No					
5	Flower Street & Olympic Boulevard	0.783	C	0.789	C	0.006	No					
6	Flower Street & 11th Street	0.333	A	0.351	A	0.018	No					
7	Hope Street & Olympic Boulevard	0.795	C	0.803	D	0.008	No					
8	Hope Street & 11th Street	0.363	A	0.384	A	0.021	No					
9	Grand Avenue & 8th Street	0.581	A	0.584	A	0.003	No					
10	Grand Avenue & 9th Street	0.518	A	0.519	A	0.001	No					
11	Grand Avenue & Olympic Boulevard	0.661	B	0.665	B	0.004	No					
12	Grand Avenue & 11th Street	0.442	A	0.471	A	0.029	No					
13	Grand Avenue & Pico Boulevard	0.783	C	0.799	C	0.016	No					
14	Grand Avenue & Venice Boulevard	0.457	A	0.467	A	0.010	No					
15	Grand Avenue & 17th Street	0.831	D	0.840	D	0.009	No					
16	Grand Avenue & 18th Street	0.680	B	0.689	B	0.009	No					
17	Olive Street & 8th Street	0.862	D	0.867	D	0.005	No					
18	Olive Street & 9th Street	0.732	C	0.739	C	0.007	No					
19	Olive Street & Olympic Boulevard	0.971	E	0.989	E	0.018	Yes	0.975	E	0.004	No	Fully Mitigates
20	Olive Street & 11th Street	0.562	A	0.567	A	0.005	No					
21	Olive Street & Pico Boulevard	0.854	D	0.862	D	0.008	No					
22	Olive Street & 16th Street	0.581	A	0.584	A	0.003	No					
23	Olive Street & 17th Street	0.937	E	0.940	E	0.003	No					
24	Olive Street & 18th Street	0.691	B	0.696	B	0.005	No					

Table 7.2 REV Future With Project With Mitigation Conditions - Intersection Level of Service - AM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	0.762	C	0.767	C	0.005	No					
26	Hill Street & 11th Street	0.337	A	0.340	A	0.003	No					
27	Broadway & Olympic Boulevard	0.735	C	0.739	C	0.004	No					
28	Broadway & 11th Street	0.383	A	0.385	A	0.002	No					
29	Main Street & Olympic Boulevard	0.899	D	0.900	D	0.001	No					
30	Main Street & 11th Street	0.520	A	0.521	A	0.001	No					
31	Los Angeles Street & Olympic Boulevard	0.464	A	0.465	A	0.001	No					
32	Los Angeles Street & 11th Street	0.232	A	0.233	A	0.001	No					
33	Olive Street & 12th Street	0.493	A	0.497	A	0.004	No					
34	Hill Street & Pico Boulevard	0.521	A	0.521	A	0.000	No					

Table 7.3 REV Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
1	La Live Way & Pico Boulevard	0.853	D	0.854	D	0.001	No					
2	Figueroa Street & Olympic Boulevard	1.325	F	1.328	F	0.003	No					
3	Figueroa Street & Chick Hearn Court	1.002	F	1.006	F	0.004	No					
4	Figueroa Street & Pico Boulevard	1.091	F	1.095	F	0.004	No					
5	Flower Street & Olympic Boulevard	1.130	F	1.133	F	0.003	No					
6	Flower Street & 11th Street	0.758	C	0.759	C	0.001	No					
7	Hope Street & Olympic Boulevard	1.029	F	1.033	F	0.004	No					
8	Hope Street & 11th Street	0.710	C	0.716	C	0.006	No					
9	Grand Avenue & 8th Street	0.809	D	0.813	D	0.004	No					
10	Grand Avenue & 9th Street	0.911	E	0.915	E	0.004	No					
11	Grand Avenue & Olympic Boulevard	1.019	F	1.028	F	0.009	No					
12	Grand Avenue & 11th Street	0.910	E	0.920	E	0.010	Yes	0.918	E	0.008	No	Fully Mitigates
13	Grand Avenue & Pico Boulevard	1.308	F	1.314	F	0.006	No					
14	Grand Avenue & Venice Boulevard	0.605	B	0.608	B	0.003	No					
15	Grand Avenue & 17th Street	1.149	F	1.153	F	0.004	No					
16	Grand Avenue & 18th Street	0.824	D	0.828	D	0.004	No					
17	Olive Street & 8th Street	0.715	C	0.717	C	0.002	No					
18	Olive Street & 9th Street	0.866	D	0.870	D	0.004	No					
19	Olive Street & Olympic Boulevard	1.153	F	1.163	F	0.010	Yes	1.151	F	-0.002	No	Fully Mitigates
20	Olive Street & 11th Street	0.830	D	0.848	D	0.018	No					
21	Olive Street & Pico Boulevard	1.076	F	1.098	F	0.022	Yes	1.085	F	0.009	No	Fully Mitigates
22	Olive Street & 16th Street	0.672	B	0.681	B	0.009	No					
23	Olive Street & 17th Street	1.017	F	1.028	F	0.011	Yes	1.026	F	0.009	No	Fully Mitigates
24	Olive Street & 18th Street	0.761	C	0.768	C	0.007	No					

Table 7.3 REV Future With Project With Mitigation Conditions - Intersection Level of Service - PM Peak Hour

No.	Intersection	Future Without Project Conditions		Future With Project Conditions		Change in V/C	Significant Impact	Future With Project With Mitigation		Change in V/C	Significant Impact	Mitigates ?
		V/C	LOS	V/C	LOS			V/C	LOS			
25	Hill Street & Olympic Boulevard	1.052	F	1.058	F	0.006	No					
26	Hill Street & 11th Street	0.680	B	0.692	B	0.012	No					
27	Broadway & Olympic Boulevard	1.090	F	1.097	F	0.007	No					
28	Broadway & 11th Street	0.751	C	0.760	C	0.009	No					
29	Main Street & Olympic Boulevard	1.152	F	1.158	F	0.006	No					
30	Main Street & 11th Street	0.844	D	0.847	D	0.003	No					
31	Los Angeles Street & Olympic Boulevard	0.805	D	0.807	D	0.002	No					
32	Los Angeles Street & 11th Street	0.585	A	0.588	A	0.003	No					
33	Olive Street & 12th Street	0.588	A	0.602	B	0.014	No					
34	Hill Street & Pico Boulevard	0.861	D	0.861	D	0.000	No					

Appendix B REV
Related Projects Map and List

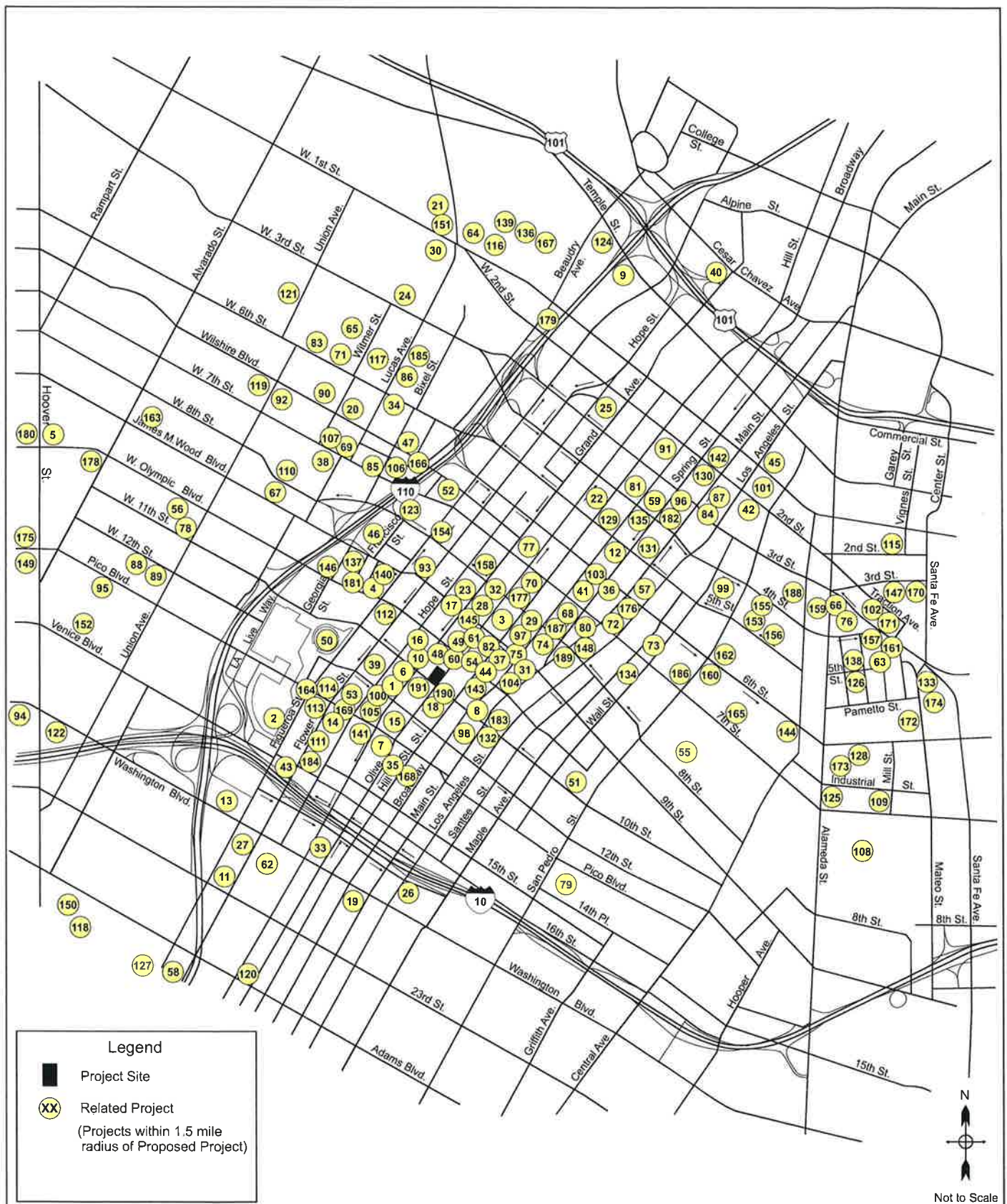


Figure B.1 REV
Location of Related Projects

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Apartments	1247 S Grand Ave	115 DU 4,610 sf Apartments Commercial	763	10	41	51	42	25	67
2	1400 S Figueroa Residential Project	1400 S Figueroa	106 DU Apartments	647	10	38	48	39	32	71
3	Mixed-Use	820 S Olive St	522 DU 4,500 sf Apartments Retail	3,309	63	202	265	195	106	301
4	Variety Arts Project	940 S Figueroa St	3,295 sf 10,056 sf 5,119 sf Office Restaurant Bar	2,237	5	4	9	99	37	136
5	Apartments	1011 S Park View St	108 Units Apartments	594	9	38	47	38	19	57
6	DTLA South Park - Site 1	1120 S Grand Ave	665 DU 20,690 sf High-rise Apt Commercial/Retail	2,730	42	127	169	136	93	229
7	DTLA South Park - Site 4	1230 S Olive St	360 DU 6,400 sf Apartments Commercial	2,114	31	126	157	127	69	196
8	Mixed-Use (Herald Examiner)	146 W 11th (11th St / Broadway) 1111 S Broadway	391 D U 39,725 sf 49,000 sf Apartments Office Retail	5,198	144	176	320	258	274	532
9	Mixed-Use	327 N Fremont Ave (Fremont / Temple)	600 D U 30,000 sf Apartments Retail	5,457	113	248	361	286	217	503
10	Restaurant Project	1036 S Grand Ave	7,149 sf Restaurant	492	2	3	5	27	14	41
11	2222 S Figueroa	2222 S Figueroa St	1,063 du 18,000 sf Condominium Retail	4,568	60	284	344	273	125	398
12	LA Plaza Cultura Village	527 N Spring St 555 N Broadway	345 DU 23,000 sf 21,000 sf 11,000 sf Apartments Retail Specialty Retail Restaurant	3,585	69	175	244	244	180	424

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
13	Mixed-Use	720 W Washington Blvd.	105 Units 2,650 sf Apartments Retail	350	7	12	19	13	12	25
14	Oryx Apartment	Pico Blvd. b/w Flower and Grand 1306 S Hope St	419 DU 42,000 sf Apartments Retail	4,280	88	105	193	136	102	238
15	G12 Project	North of Pico b/w Grand and Olive 1200 S Grand Av	640 DU 45,000 sf Apartments Retail	4,885	92	148	240	181	134	315
16	Mixed-Use	1050 S Grand Ave (Grand Ave. / 11th St.)	151 DU 3,472 sf 2,200 sf Condominiums Retail Restaurant	1,084	15	54	69	64	35	99
17	Embassy Hotel	831 S Grand Ave.	183 Rooms 3,084 sf 12,780 sf 4,773 sf 2,163 sf 11,840 sf Hotel Restaurant Theater Banquet Lounge Bar	2,493	57	43	100	130	59	189
18	11th & Hill Project	1111 S Hill St.	528 D U 4,568 1,523 sf Condominiums High-Turnover Restaurant Fast-Food Restaurant	2,757	60	133	193	137	86	223
19	Mixed Use	SOLA Village 1900 S Broadway	900 D U 550 D U 210 Rooms 143,100 sf 180,000 sf 17,600 sf 8,000 sf Condominiums Apartments (Rental) Hotel Retail/Commercial Office Gallery/Museum Gym	12,737	390	552	942	637	566	1,203
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Wilmer St.	56,450 sf Imaging center, pharmacy, surgical suites, and physician offices	3,996	190	70	260	106	246	352
21	Charter High School	1552 W Rockwood St	600 Students Charter High School	715	122	58	180	26	29	55
22	Park/Fifth Project	427 W 5th 437 S Hill St	660 D U 13,742 sf Condominiums Restaurant	4,707	71	273	344	279	158	437
23	9th & Flower Project	830 S Hope St	525 D U 6,200 sf Apartments Retail	3,067	47	163	230	185	101	286

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
24	Mixed Use	1435 W 3rd Street	122 DU 3,500 sf Apartment Retail	711	11	42	53	41	25	66
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street Parcel LJM-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street 237 S Grand Av	1,548 DU 412 DU 225,250 sf 53,000 sf 67,000 sf 50,000 sf 250 seats 275 Rooms 681,000 sf Condominiums Apartments Retail Supermarket Restaurant Health Club Event Facility Hotel Office	21,631	919	632	1,551	1,120	1,344	2,464
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Bl/Los Angeles St 220 E Washington Bl	230 DU 19,000 sf 32 DU Residential Units Specialty Retail/Restaurant Renovate Residential Units	2,113	38	118	156	125	53	178
27	Mixed Use	2100 S Figueroa	291 DU 7,134 sf Condominium Retail	870	-82	66	-16	67	-28	39
28	9th / Olive Project	840/888 S. Olive St.	303 DU 9,680 sf 1,500 sf Apartments Retail Restaurant	3,071	81	166	247	174	96	270
29	Broadway Trade Center	801 S Broadway	400,000 sf 150 Rooms Office Hotel	5,638	596	108	704	147	539	686
30	Beverly + Lucas Project	1430 W Beverly Bl	157 DU Apartments	780	13	47	60	47	26	73
31	Broadway Mixed	955 S Broadway	201 DU 6,000 sf Apartments Retail	1,275	21	72	93	74	43	117
32	801 S Olive Street Project	801 S Olive St.	363 DU 2,500 sf 10,000 sf Apartments Retail Restaurant	2,557	33	129	162	140	83	223

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
33	Mixed-Use Building	233 W Washington Bl	160 DU 24,250 sf Apartments Retail	438	25	56	81	89	71	160
34	Bixel & Lucas Project	1102 W 6th St	648 DU 39,996 sf Apartments Retail	4,200	61	195	256	232	155	387
35	Mixed-Use	215 W 14th St.	154 DU 10,700 sf Condominiums Retail	1,700	51	82	133	89	57	146
36	SB OMEGA	601 S Main St.	452 DU 25,000 sf High-rise Condo Retail	2,686	36	144	180	152	87	239
37	Hill Mixed	920 S Hill	239 DU 5,400 sf Apartments Retail	1,656	26	94	120	98	56	154
38	Witmer Project	1329 W. 7th St. (7th / Witmer)	94 DU 2,000 sf Condominiums Retail	662	16	37	53	39	22	61
39	1133 Hope Street Project	1133 Hope Street	208 DU 5,029 sf Condominiums Restaurant	1,543	20	74	94	91	50	141
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	300 DU 8,000 sf Apartment Retail	1,511	7	89	96	99	54	153
41	Spring St. Hotel	633 S Spring	176 Room 1,200 sf Conf - Spc Restaurant Bar	2,045	83	33	116	97	99	196
42	Wakaba LA	southwest corner of San Pedro and 2nd	240 DU 16,000 sf Apartments Retail	1,527	22	70	92	84	56	140
43	1600 S Figueroa	1600 S Figueroa St.	202 DU 134 DU 250 rooms Condominium Apartments Hotel	3,492	90	157	247	170	117	287
44	Mixed-Use	928 S Broadway	662 DU 47,000 sf 11,000 sf 34,824 sf Apartments Retail Live/Work Office	4,715	21	229	250	272	109	381

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
45	Los Angeles Street Civic Center Project	150 N Los Angeles Street	Government Office Retail Child Care Facility	13,534	930	118	1,048	435	942	1,377
46	Metropolis Mixed-Use	851 S. Francisco St. (8th St. / Francisco St.) 899 S. Francisco St.	Hotel Condominiums Office Retail	8,010	307	318	625	387	512	899
47	Mixed-Use Development	1027 W. Wishire Project (Wishire / St. Paul St.)	Condominiums Retail	1,498	21	92	113	83	53	136
48	Residential Project	1027 S Olive Street	Apartments	632	9	39	48	38	21	59
49	Embassy Tower	848 S Grand Av	Hi-rise Condominiums Market	3,882	66	144	210	212	165	377
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Figueroa St. / 11th St.	Residential Educational Retail Restaurants Health Club Sport Bar Hotel Office Production Studio Convention Center Expansion	22,171	403	287	690	661	1,025	1,686
51	City Market Project	San Pedro Street b/w 9th St and 12th St. 1057 S San Pedro St.	University Shopping Center Cinema Apartments Hotel Retail Office	16,433	837	434	1,271	632	957	1,589

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
52	Wilshire Grand Redevelopment Project	930 W Wilshire Bl 900 W Wilshire Bl	560 Rooms 100 DU Residential Units Office 1,500,000 sf Retail/Restaurant 275,000 sf	3,624	725	75	800	94	764	858
53	Flower (1212) Mixed -Use	1212 W Flower	730 DU Apartments Retail/Restaurant Office 10,500 sf 70,465 sf	3,956	78	233	311	229	121	350
54	Olympic / Hill Project	Northwest corner of Olympic / Hill	300 DU Apartments Retail 14,500 sf 8,500 sf	2,496	30	104	134	143	82	225
55	785 S Towne	301 W Olympic Bl 785 S Towne Ave.	60 DU Joint Living and Work Quarters	399	6	25	31	24	13	37
56	1700 W Olympic Hotel	1700 W Olympic	160 Rooms Hotel	1,157	44	32	76	45	42	87
57	Mixed-Use	534 S Main St	160 DU Apartments Retail 18,000 sf 3,500 sf Restaurant Fast-food Restaurant 3,500 sf	2,213	52	75	127	87	58	145
58	USC Student Housing	505 W 31st St	73 DU Apartments	380	7	23	30	23	13	36
59	400 S Broadway Mixed-Use Project	400-416 Broadway	450 DU Apartments Retail 6,904 sf 5,000 sf Lounge	3,292	50	187	237	193	112	305
60	1001 S Olive	1001 S Olive St	225 DU Apartments Restaurant 5,000 sf	1,581	22	79	101	94	51	145
61	Olive & Olympic	Northeast corner of Olive & Olympic 960 S Olive St	263 DU Apartments Restaurant 14,500 sf	2,266	25	91	116	48	23	71
62	L.A Trade Tech College - 5-Year Master Plan	400 Washington Blvd (Washington Blvd / Flower St.)	21,300 Enrollment 5-year Master Plan Project	8,420	336	127	463	574	268	842

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
63	Palmetto	Northeast corner of Palmetto & Seaton	310 DU 11,375 sf Commercial Production Space	3,293	59	154	213	191	104	295
64	Mixed Use	1335 W 1st St	102 DU 3,514 sf Retail	714	10	40	50	42	24	66
65	Residential	459 S Hartford Ave	94 DU	658	9	37	46	43	23	66
66	330 S Alameda	330 S Alameda	186 DU 22,340 sf Commercial	1,562	36	76	112	91	65	156
67	Mixed-Use Project	1150 W Wishire	80 DU 4,588 sf Apartment Restaurant	511	-22	28	4	39	-5	34
68	Mixed Use	737 S Spring	320 DU 25,000 sf Apartment	3,942	72	141	213	167	116	283
69	Apartment	1218 W Ingraham St	90 DU	532	8	33	41	33	17	50
70	Foreman and Clark Building	400 402 W 7th St 701, 715 S Hill St	165 DU 11,902 sf Bar Restaurant	2,792	18	57	75	132	127	259
71	Apartment	740 S Hartford St	80 Units	479	7	30	37	30	15	45
72	Cecil Hotel Reno	640 S Main St	299 Rooms 301 DU Hotel Apartment	4,445	124	188	312	212	154	366
73	Clinic	649 S Wall St	66 employee 55 bed Medical Office Assisted Living	104	24	5	29	3	24	27
74	Garland Building	740 S Broadway	47 DU	313	5	19	24	19	10	29
75	Northeast Tower	215 W 9th St	210 DU 9,000 sf Condominiums Retail	1,140	14	56	70	64	38	102
76	400 S Alameda Hotel	400 S Alameda St	66 Rooms 2,130 sf Hotel Restaurant Retail	508	19	17	36	23	14	37

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
77	Hotel + Retail	649 S Olive St	241 Rooms Hotel	1,674	65	44	109	63	60	123
78	Charter School (K-5)	1633 W 11th St	460 Students School	970	194	158	352	29	37	66
79	Retail	810 E Pico Blvd	181,620 sf Retail	1,889	54	34	88	59	63	122
80	Mixed Use	732 S Spring St	400 DU 15,000 sf Apartments Pharmacy/Drug Store	3,409	59	152	211	164	104	268
81	Mixed Use	340 S Hill	428 DU 6,700 sf Apartments Retail	2,361	34	129	163	141	79	220
82	Hill Mixed	940 S Hill	232 D U 14,000 sf Apartments Retail	1,881	20	80	100	115	53	168
83	Condominiums	742 S Hartford Ave	58 DU Condominiums	333	5	21	26	20	11	31
84	Budokan of Los Angeles	237-249 S Los Angeles St	43,453 sf Sports Complex	1,869	79	50	129	161	98	259
85	Mixed Use	1145 W 7th St	126 DU 100 DU 7,200 sf Condominiums Apartments Retail	1,084	4	66	70	67	35	102
86	Sapphire Mixed Use	1111 W 6th St	369 DU 18,600 sf 2,200 sf 1,200 sf Apartments Retail Quality Restaurant Coffee Shop	587	-71	117	46	104	-51	53
87	Vibiana Lofts	225 S Los Angeles St	300 DU 3,400 sf Condominiums Retail	1,910	88	136	224	75	52	127
88	Laborers Local 300 Headquarters	2005 W Pico Blvd	30,300 sf Office	224	28	4	32	5	25	30
89	Pacific Charter Elementary School	1700 W Pico Blvd	450 Pupils School	492	106	89	195	31	29	60
90	Valencia Project	1501 Wilshire Blvd	218 DU 6,100 sf 1,500 sf Apartments Retail Other	1,163	-11	18	7	38	23	61

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
91	Retail / Restaurant	201 S Broadway	Retail and Restaurant	1,638	-40	-41	-81	53	17	70
92	Legal Aid Foundation of LA	1650 W 8th St.	Office	230	29	4	33	6	26	32
93	Apex Phase II	700 W 9th St.	Condominiums Retail	2,624	37	146	183	143	95	238
94	Pharmacy / Drug Store	1302 W Washington Blvd.	Other	414	-33	-18	-51	21	12	33
95	Charter High School	1929 W Pico Blvd.	School	821	140	66	206	20	42	62
96	Medallion Phase II	300 S Main St.	Apartments Restaurant Retail	4,691	143	243	386	257	153	410
97	Alexan South Broadway	850 S Hill St.	Apartments Restaurant Retail	1,998	29	108	137	117	67	184
98	Proper Hotel	1106 S Broadway	Hotel Restaurant	2,622	53	38	91	124	83	207
99	Catalina Building	443 S San Pedro St.	Live/Work	519	8	32	40	31	17	48
100	1201 S Grand	1201 S Grand Ave.	Condominiums	732	9	46	55	44	22	66
101	Mixed Use	118 S Astronaut es Onizuka St.	Apartment	97	-1	20	19	19	6	25
102	Mixed Use	360 S Alameda	Apartment Restaurant Creative Office	648	25	33	58	35	26	61
103	Brooks Building	644 S Broadway	Apartments Bar	480	3	12	15	31	16	47
104	950 S Broadway	950 S Broadway	Apartments Retail	299	4	12	16	15	12	27
105	Grand Residence	1229 S Grand Ave.	Condominiums Restaurant	1,398	27	78	105	77	41	118

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Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
106	Hotel & Apartments	675 S Bixel St	425 Units 126 Rooms 4,874 sf Apartments Hotel Retail	3,461	74	173	247	184	116	300
107	Mixed-Use	1235 W 7th St	303 Units 5,959 sf Condominiums Retail	1,725	23	95	118	100	54	154
108	Mixed-Use Project	1800 E 7th St	122 DU 13,600 sf Apartments Office	816	26	45	71	45	37	82
109	1745 E 7th St	1745 E 7th St	57 DU 6,000 sf Apartments Commercial	635	10	25	35	34	23	57
110	1322 Linwood Apts.	1322 W Linwood Ave.	45 Units Apartments	449	5	30	35	28	14	42
111	Mixed-Use	1334 S Flower St	188 Units 10,096 sf Apartments Retail / Restaurant	1,038	-3	63	60	67	22	89
112	LUXE Hotel Mixed-Use	1020 S Figueroa St.	650 Units 300 Room 40,000 sf 40,000 sf Condo Hotel Restaurant Retail	6,583	204	274	478	312	227	539
113	Mixed-Use	1400 S Flower St	147 Units 6,921 sf Apartments Retail	801	-1	49	48	51	17	68
114	Fig + Pico Hotel	Northeast corner of Figueroa St. & Pico Blvd.	1,162 Room 13,145 sf Hotel Retail	5,720	192	125	317	203	212	415
115	Mixed-Use Project (Mostly private club)	929 E 2nd St	41,019 sf 63,893 sf Retail Other	2,014	61	9	70	101	88	189
116	Apartments	1300 W Court St	43 DU Apartments	286	4	18	22	17	10	27
117	Urban View Lofts Project	495 S Hartford	220 DU Apartments	1,033	16	63	79	62	34	96
118	Child Care	3014 S Royal St	7,997 sf Child Care Facility	499	48	43	91	43	49	92

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Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
119	1930 Wilshire MU	1930 Wilshire Blvd	478 DU 850 Seats 50 Student 220 Rooms Apartments Theater Classroom Hotel	1,355	-44	128	84	103	-41	62
120	Mixed-Use	2528 S Grand Ave	296 DU 5,000 sf Apartments Retail	2,118	36	120	156	123	73	196
121		425 S Union Ave	32 DU Apartments	213	3	13	16	13	7	20
122	Medical Office	1122 W Washington Blvd	60,000 sf Office	2,060	107	29	136	57	146	203
123	Mixed-Use	945 W 8th St	781 DU 6,700 sf Condominium Retail	2,869	63	146	209	144	91	235
124	Ferante	1000 W Temple St	1,500 DU 30,000 sf Apartments Retail	1,804	-851	439	-412	393	-582	-189
125	Mixed-Used	668 Alameda Street	475 DU 43,000 sf 9,000 sf 17,000 sf 15,000 sf Apartments Office Specialty Retail Restaurant Supermarket	4,004	120	184	304	215	153	368
126	1100 E 5th St (Mixed-Use)	1100 E 5th Street	213 DU 14,495 sf 14,495 sf Apartment Retail Arts & Production Space	1,471	7	77	84	83	36	119
127	Figuerola Hotel	3101 S Figueroa St	275 rooms 1,178 sf Hotel Bar	1,167	48	33	81	48	51	99
128	6th & Alameda Mixed-Use	1206 6th St	1,736 253,514 sf 127,610 sf 22,429 sf 514 Rooms 300 Student Apartments Office Community-Serving Commercial Art Space Hotel School	15,167	474	624	1,098	758	682	1,450

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Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
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129	5th & Hill Center MU	333 W 5th St	80 DU 200 Rooms 5,000 sf 22,500 sf Condominiums Hotel Restaurant Bar	3,271	63	66	129	196	128	322
130	Tribune Media's DTLA Tower	232 West 2nd St	107 DU 534,044 sf 7,200 sf Condominiums Office Retail	4,006	467	93	560	118	423	541
131	433 S Main St	433 S Main	196 DU 5,300 sf 900 sf Condominiums Retail Restaurant	1,450	32	72	104	61	37	99
132	Mixed-Use	1100 S Main St	379 DU 25,810 sf Apartments Other	385	9	103	112	78	14	92
133	Mixed-Use	520 S Mateo St	600 DU 15,000 sf 15,000 sf 30,000 sf Apartments Restaurant Retail Office	4,995	157	220	377	274	223	497
134	Southern California Flower Market Project	755 S Wall St	323 DU 53,200 sf 4,400 sf 4,420 sf 125 Persons Apartment Office Retail Other Other	2,499	108	82	190	164	141	305
135	Heilman / Banco Building	354 S Spring St	212 D U Apartments	1,410	22	86	108	85	46	131
136		1301 W Colton St	29 DU Apartments	193	3	12	15	12	6	18
137	Downtown LA Hotel	926 W James M Wood Blvd	247 Rooms Hotel	1,714	65	46	111	65	61	126
138	Arts District Center (Mixed-Use)	1101 E 5th St	228 DU 23,000 sf 27,860 sf 149 Rooms 56,100 sf Apartments Retail Office Hotel Other	4,286	102	121	223	179	102	281

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Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
139	1316 Court & 1323 Colton Apts	1316 W Court St	122 DU Apartments	745	11	46	57	45	24	69
140	Figueroa Centre	911 S Figueroa St.	200 DU 220 rooms 44,080 sf 50,000 sf Condominiums Hotel Retail Restaurant	7,367	454	115	569	703	191	894
141	Mixed-Use	1323 Grand Ave	284 DU 6,300 sf Apartments Retail	2,168	33	118	151	125	74	199
142	Times Mirror Square	100 S Broadway	1,127 DU 285,088 sf 50,000 sf 22,200 sf 53,389 sf Apartments Office Supermarket Quality Restaurant Hight Turnover Restaurant	8,535	94	341	435	294	38	332
143	Mixed-Use	1000 S Hill St	498 DU 8,707 sf Apartments Retail	3,392	49	193	242	181	104	285
144	Mixed-Use	601 S Central Ave	236 DU 12,000 sf Apartments Retail	1,074	17	79	96	70	32	102
145	845 S Olive & 842 Grand MU	845 S Olive	208 DU 810 sf 1,620 sf Apartments Retail Other	1,305	25	76	101	77	42	119
146	Olympia Mixed-Use	1001 W Olympic	1,367 DU 20,000 sf 20,000 sf Apartments Retail Other	8,063	116	510	626	503	209	712
147	Mixed-Use	806 E 3rd St	3,047 sf 7,720 sf 6,171 sf Bar/Lounge Restaurant Retail	1,647	41	34	75	92	54	146
148	Mixed-Use	755 S Los Angeles	32,400 65,000 4,000 Retail Office Restaurant	2,482	110	57	167	105	100	205

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Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd	125 Rooms	409	26	19	45	10	9	19
150	USC Children's Creative Learning Center	2716 S Severance St	9,955 sf	737	64	57	121	58	65	123
151	Apartment	101 N Glendale Blvd	55 DU	366	6	22	28	22	12	34
152		1420 Bonnie Brae St	29 DU	193	3	12	15	12	6	18
153	Mixed-Use	609 E 5th St	151 DU	1,004	15	62	77	61	33	94
154	8th & Fig	744 S Figueroa St	438 DU 3,750 Retail 3,750 Restaurant	2,644	37	146	183	158	86	244
155	Affordable Housing Development	508 E 4th St	41 DU	167	8	12	20	8	6	14
156	Residential	713 E 5th St	51 DU	208	15	10	25	9	8	17
157	Mixed-Use	401 Hewitt St	255,514 sf 4,970 sf 9,940 sf	3,488	366	75	441	100	322	422
158	8th, Grand & Hope Tower	754 S Hope St	409 DU 7,329 sf	2,315	35	137	172	137	78	215
159	Mixed-Use	333 Alameda St	994 DU 99,300 sf	8,445	134	260	394	390	329	719
160	19-story Affordable Housing Skid Row	600 S San Pedro St	303 DU 19,907 sf	636	38	25	63	30	37	67
161	Hewitt & 4th MU	940 E 4th St	93 DU 6,000 sf 14,248 sf	788	14	37	51	44	31	75
162	Affordable Housing Skid Row	552 S San Pedro St	378 DU 4 DU 1,758 sf 4,410 sf 5,932 sf	2,186	107	138	245	96	88	184

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
163	2005 James M Wood Hotel	2005 W James M Wood Blvd	100 Rooms	545	24	18	42	20	18	38
164	1300 Figueroa Hotel	1300 S Figueroa St	1,024 Rooms	8,366	320	223	543	313	301	614
165		656 S Standford Ave	82 DU	1,463	8	34	42	33	18	51
166	Mixed-Use	1018 W Ingraham St	37 DU 1,890 sf	327	5	16	21	18	12	30
167	Apartments	1246 W Court St	54 DU	359	6	22	28	21	12	33
168	14th SW Hill St (DTLA) MU	1340 S Hill St	235 DU 5,250 sf 4,000 sf	1,755	11	103	114	108	30	138
169		1219 S Hope St	75 Rooms	613	24	16	40	23	22	45
170	Santa Fe Freight Yard Redevelopment	950 E 3rd St	635 DU 30,062 sf	4,618	72	207	279	266	158	424
171	Mixed-Use (Coca Cola)	963 E 4th St	78,600 sf 25,000 sf 20,000 sf	2,512	106	22	128	113	138	251
172	Retail	555 S Mateo St	153,000 sf	4,300	5	30	35	220	205	425
173	Camden Arts Project	1525 Industrial St	344 DU 21,413 sf 6,084 sf	2,331	54	77	131	87	65	152
174	Restaurant	500 S Mateo St	12,882 sf	1,052	48	41	89	50	31	81
175	Apartments	1255 E Elden Ave	103 DU	376	0	32	32	28	10	38
176	Mixed-Use	550 S Main St	159 DU 23,000 sf	2,039	30	73	103	105	79	184
177	Freehand Hotel	416 W 8th St	226 rooms 8,000 sf	2,017	73	51	124	151	76	227
178	Assisted Living	1030 S Lake St	338 Beds 34 DU	939	39	23	62	49	48	97

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
179	Beaudry Ave & 2nd St MU	130 S Beaudry Ave	230 DU 9,000 sf Apartments Other	1,159	8	76	84	76	29	105
180	Olympic & Hoover Mixed-Use	2501 W Olympic Bl	173 DU 36,180 sf Apartments Retail	1,911	27	72	99	100	73	173
181	Olympic Tower Project MU	815 W Olympic Bl	373 Rooms 374 DU 65,074 sf 10,801 sf 33,498 sf Hotel Condominiums Retail Conference Center Office	4,423	166	170	336	189	185	374
182	Hotel	361 S Spring	315 Rooms Hotel	2,273	91	59	150	84	85	169
183	Harris Building Office Conversion	11th St & Main St	52,000 sf Office	364	40	1	41	-1	38	37
184	Mixed-Use	1410 S Flower St	152 DU 1,184 sf Apartments Retail	1,062	17	62	79	63	35	98
185	Mixed-Use	1322 W Maryland St	47 DU 760 sf Apartments Retail	344	6	19	25	20	12	32
186	Apartments	655 San Pedro St	81 DU Apartments	539	8	33	41	33	17	50
187	Fashion District Tower	222 E 7th St	452 DU 13,655 sf Apartments Commercial	3,749	82	199	281	211	124	335
188		605 E 4th St	3,798 sf Restaurant	342	2	1	3	19	9	28
189	716 S Spring	716 S Spring	6,208 sf Restaurant	558	3	2	5	31	15	46
190	DTLA South Park Project Mack Urban Site 2	1120 S Olive	713 DU 7,125 sf 7,125 sf Apartments Shopping Center Restaurant	3,009	73	162	235	149	93	241
191	DTLA South Park Project Mack Urban Site 3	1105 S Olive	537 DU 3,794 sf 3,794 sf Apartments Shopping Center Restaurant	2,232	49	116	165	109	67	177

Table B.1 REV Related Projects List and Trip Generation Estimation - 1045 Olive Project

Project #	Project Name - EAF # / DOT Case #	Location / Address	Project Description	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Infrastructure Projects										
192	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station	Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations.	0	0	0	0	0	0	0
193	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Hill St.	Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers	0	0	0	0	0	0	0
194	Los Angeles Streetcar	Broadway between 1st St. & 11th St. between Figueroa St. & Broadway, Figueroa St. between 7th St. & 11th St., Hill St. between 1st St. & 7th St. & 9th St. between Figueroa St. & Hill St.	Enhance mobility and transit circulation and support the growth and revitalization of downtown.	0	0	0	0	0	0	0
195	7th Street Improvement Project	7th St. between SR 110 and Olive St.	Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding.	0	0	0	0	0	0	0
Total				491,109	14,068	19,219	33,287	24,695	19,725	44,420

Appendix C REV
Driveway & Site Circulation

Appendix C REV

Driveway and Site Circulation

As a result of updated Future Without Project and Future With Project traffic volumes, relevant volume schematics and unsignalized intersection analysis at the two alley intersections were updated. The updated analysis are shown in Figures C.3 REV, C.4 REV, C.7 REV, C.8 REV, and Table C-1 REV. The updated analysis shows that the results with the two additional related projects in terms of Level of Service, and queue lengths at the alley intersections would not change from the results in the Traffic Study.

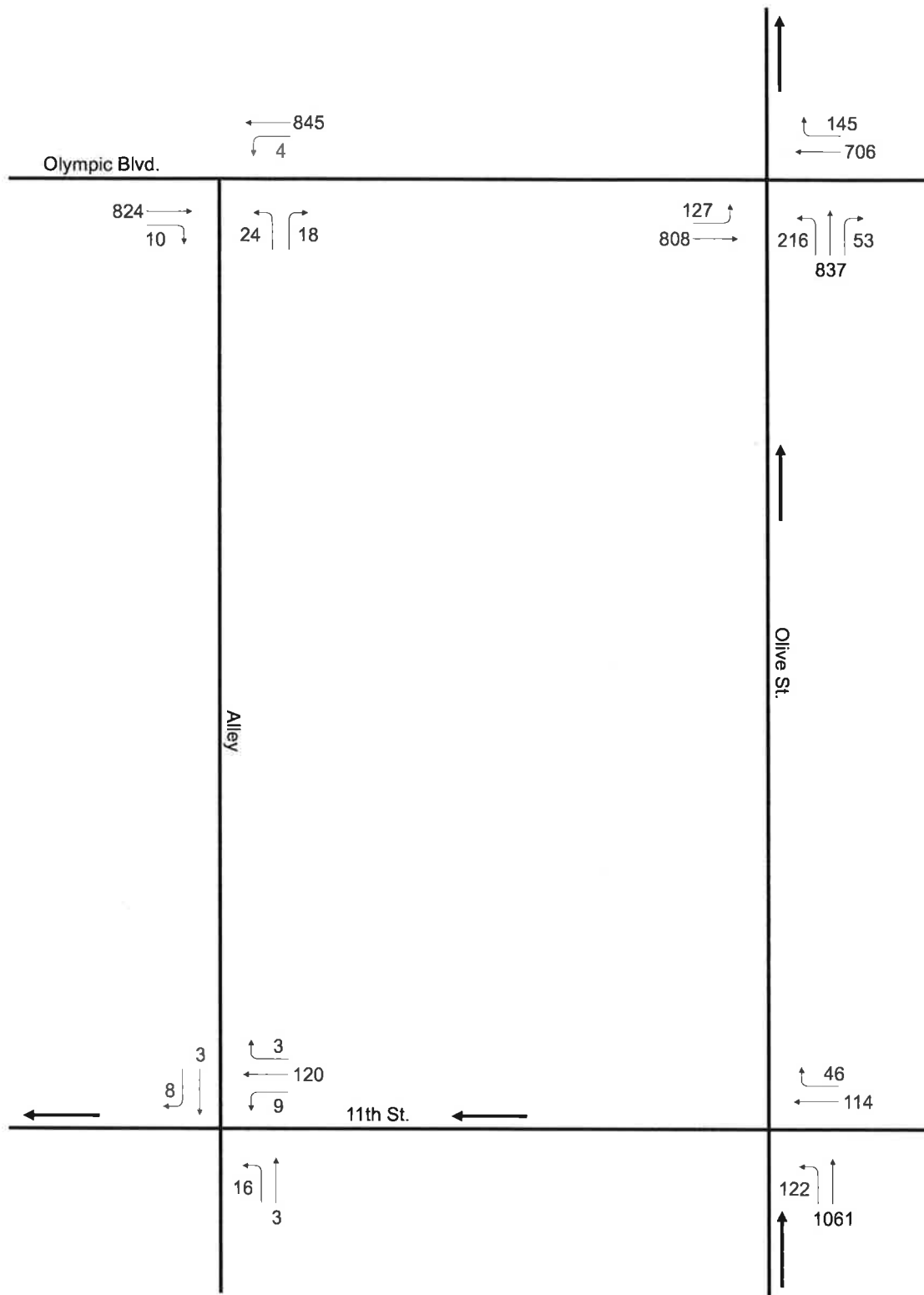


Figure C.1 REV
Existing Traffic Volumes - AM Peak Hour

1045 Olive Project

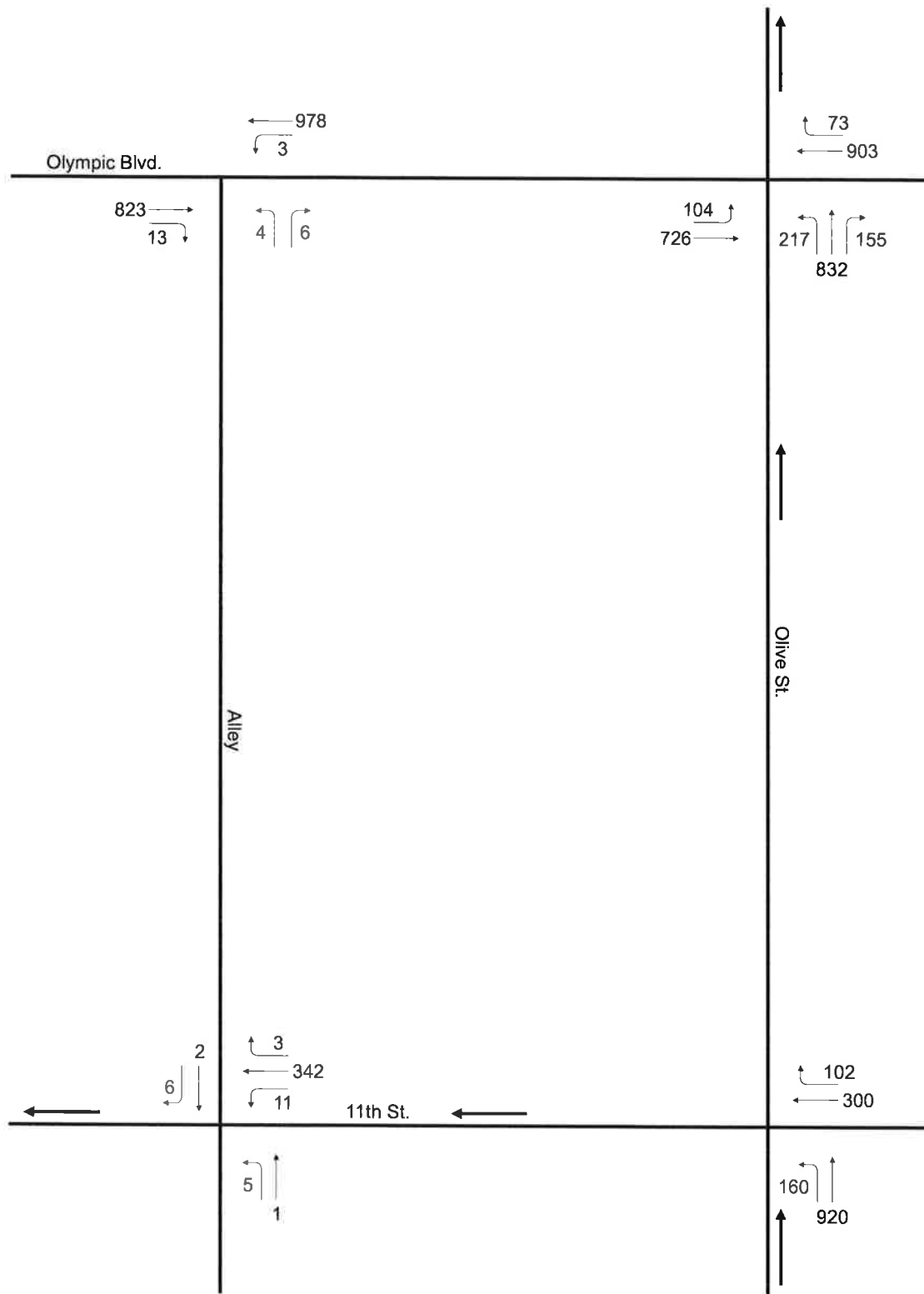


Figure C.2 REV
Existing Traffic Volumes - PM Peak Hour

1045 Olive Project

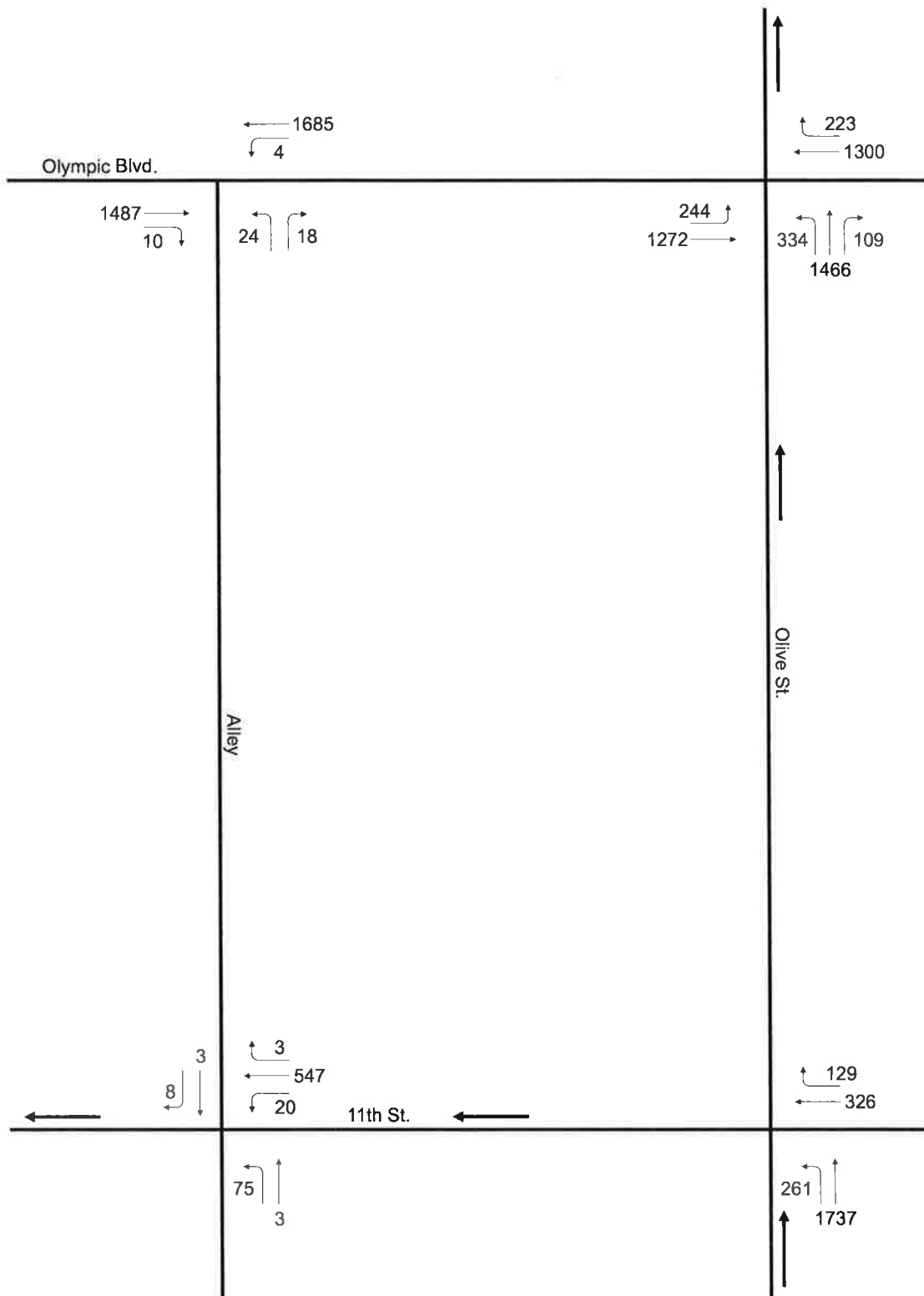


Figure C.3 REV
Future Without Project Traffic Volumes - AM Peak Hour

1045 Olive Project

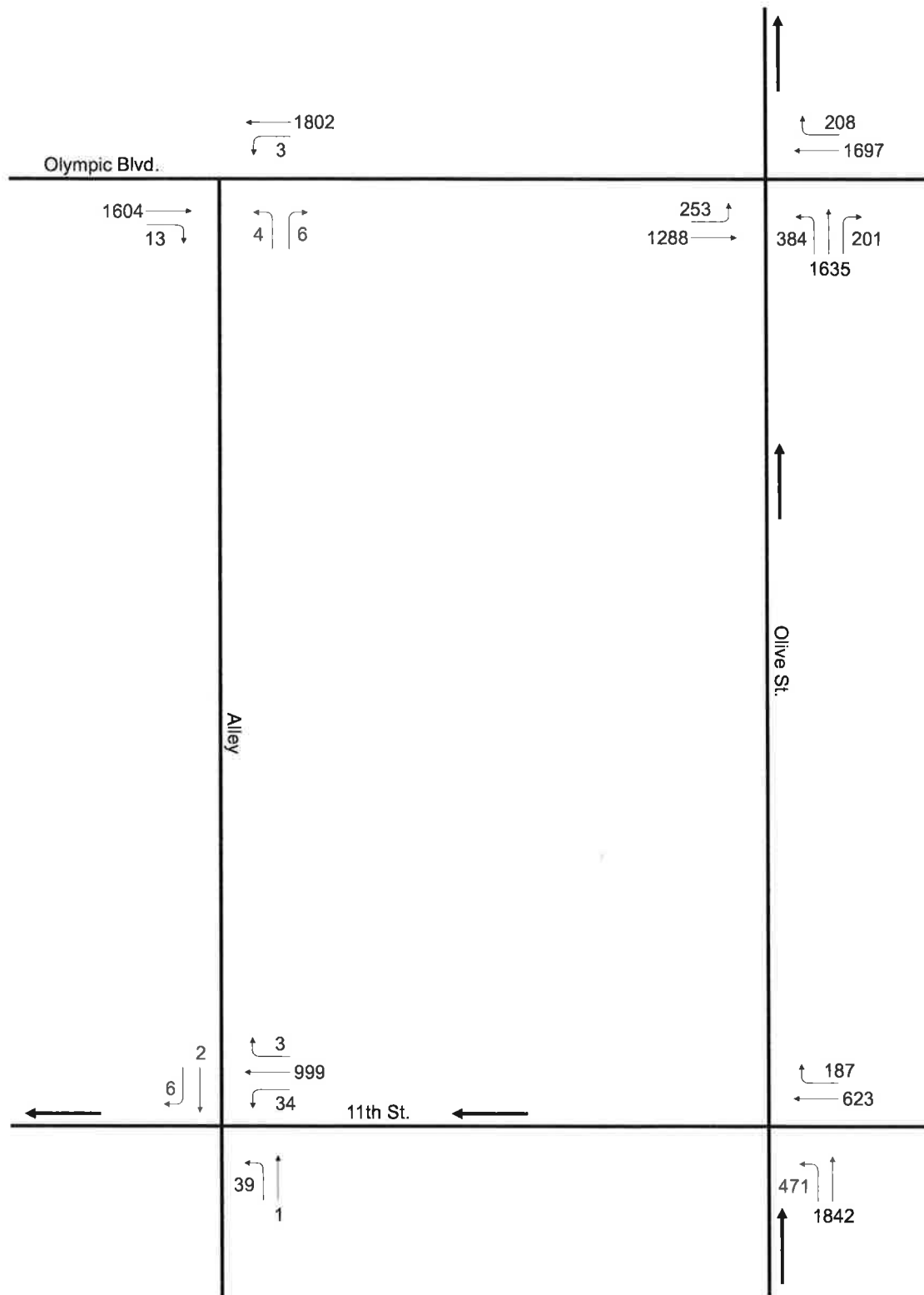


Figure C.4 REV
Future Without Project Traffic Volumes - PM Peak Hour

1045 Olive Project

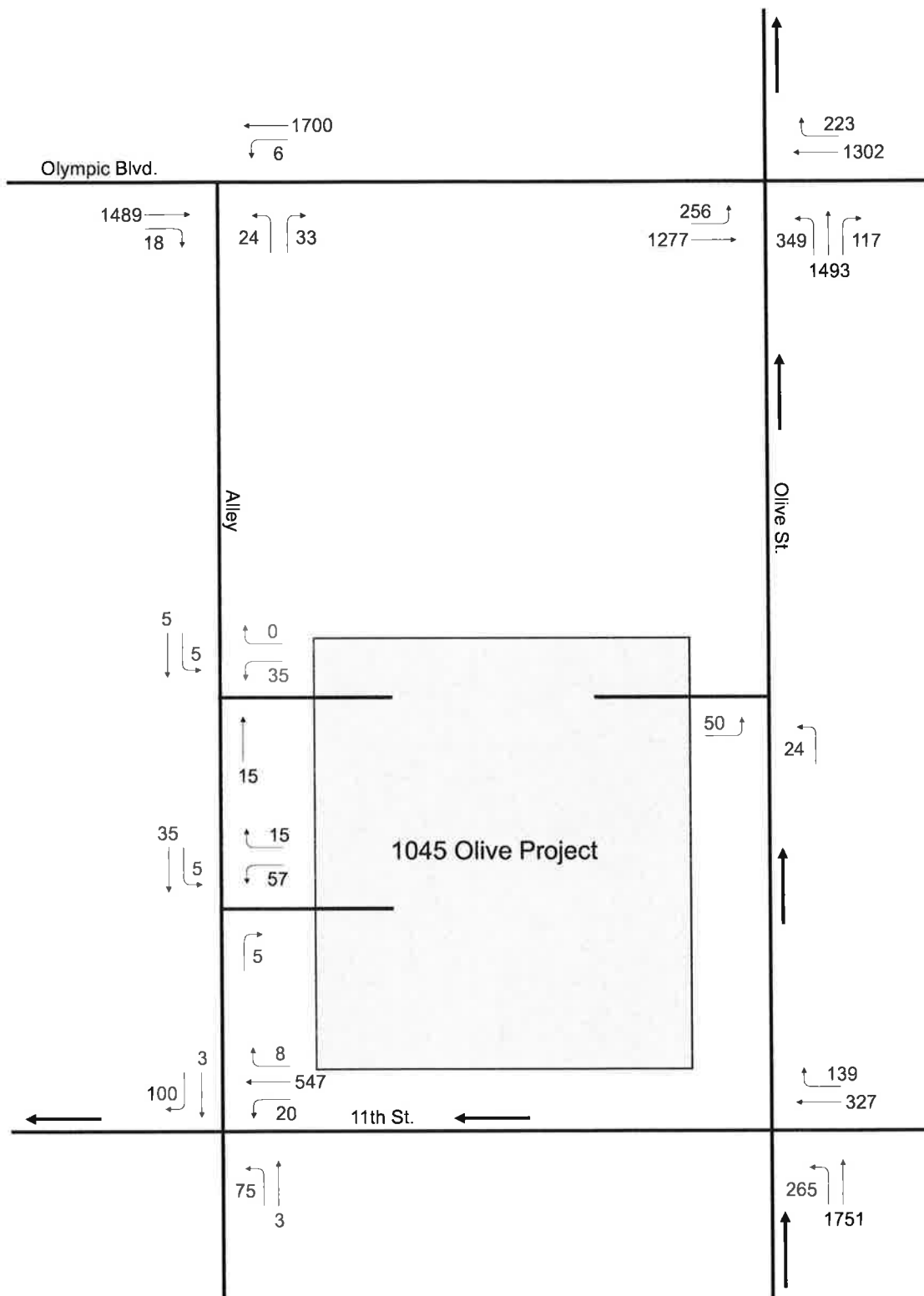


Figure C.7 REV
Future With Project Traffic Volumes - AM Peak Hour

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

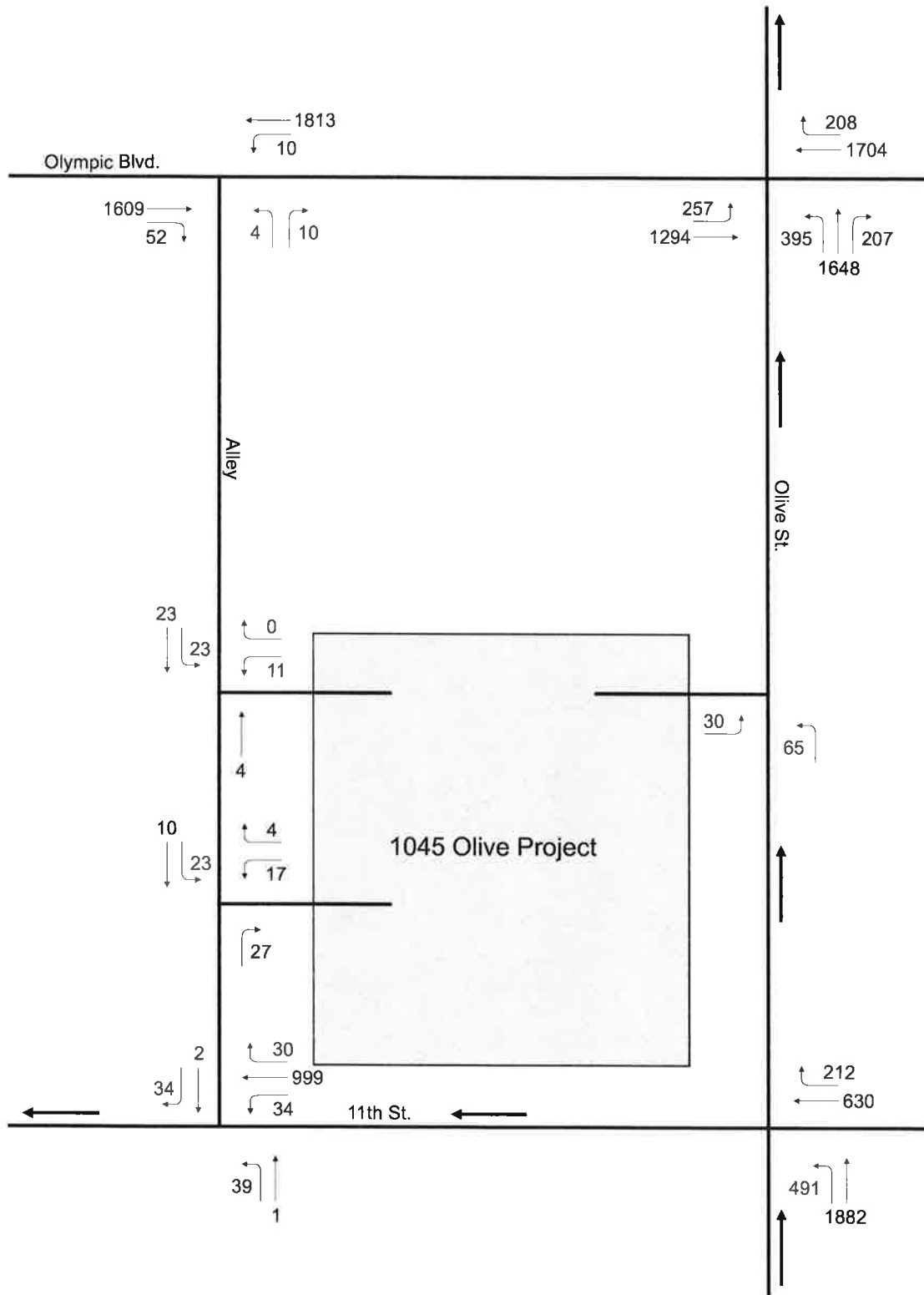


Figure C.8 REV
Future With Project Traffic Volumes - PM Peak Hour

1045 Olive Project

The Mobility Group
Transportation Strategies & Solutions

**Table C-1 REV Queue Lengths for Alley Intersections
(95th percentile queue) ¹**

	Alley and Olympic NB LT / RT		Alley and 11th SB LT	
	Level of Service	Queue Length (vehs)	Level of Service	Queue Length (vehs)
AM Peak Hour				
Existing Conditions	D	1	A	1
Future Without Project Conditions	F	5	B	1
Future With Project Conditions	F	6	B	1
PM Peak Hour				
Existing Conditions	C	1	B	1
Future Without Project Conditions	F	1	C	1
Future With Project Conditions	F	2	C	1

1 . Essentially the maximum queue length - The vehicle queue length that would be exceeded only 5% of the time.

Appendix D REV
Freeway Analysis

Freeway Analysis

As a result of updated Future without Project and Future With Project volumes, Freeway Mainline, Off-ramp, and On-ramp analysis under these scenarios were updated. The updated analysis are shown in Tables D-4 REV, D-5 REV, D-8 REV, D-9 REV, D-12 REV, and D-13 REV. The updated results and conclusions are no different than those in the Traffic Study.

Table D-4 REV Freeway Segment Density/Level of Service Analysis - Weekday AM Peak Hour

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Capacity	Existing Conditions (Year 2017)			Future Without Project Conditions (Year 2023)			Future With Project Conditions (Year 2023)				Increase in Density	% Increase Volume due to Project
						Hourly Volume	Density (D)	LOS	Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	8,000	9,126	45.23	F	11,330	56.16	F	16	11,346	56.24	F	0.080	0.2%
		SB	Inbound	3G	6,000	9,799	64.76	F	11,852	78.33	F	4	11,856	78.35	F	0.019	0.0%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	12,000	9,555	37.89	E	11,315	44.87	E	0	11,315	44.87	E	0.000	0.0%
		SB	Inbound	5G	10,000	10,258	40.67	E	12,199	48.37	F	0	12,199	48.37	F	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	10,000	7,308	28.98	D	8,679	34.41	D	2	8,681	34.42	D	0.010	0.0%
		SB	Outbound	5G	10,000	10,117	40.12	E	12,099	47.97	F	6	12,105	48.00	F	0.030	0.1%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	9,000	6,300	27.76	D	7,638	33.65	D	13	7,651	33.71	D	0.060	0.2%
		WB	Inbound	4G + 1A	9,000	9,375	41.30	E	10,788	47.53	F	3	10,791	47.54	F	0.009	0.0%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	10,000	7,174	28.45	D	8,744	34.67	D	3	8,747	34.68	D	0.009	0.0%
		WB	Outbound	4G + 2A	10,000	11,727	46.50	F	13,875	55.02	F	13	13,888	55.07	F	0.049	0.1%

Notes:

- Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors. Growth factor of 1% per annum applied for 2017 volumes. We assumed that Caltrans AADT data includes the C-D roads.
- Methodology from Highway Capacity Manual 2010, Transportation Research Board.
- Density measured in vehicles per mile per lane (v/m/l) for freeways with a free flow speed of 55 mph.

Table D-5 REV Freeway Segment Density/Level of Service Analysis - Weekday PM Peak Hour

No.	Location	Dir	Inbound/ Outbound	No of Lanes	Capacity	Existing Conditions (Year 2017)			Future Without Project Conditions (Year 2023)			Future With Project Conditions (Year 2023)				Increase in Density	% Increase Volume due to Project
						Hourly Volume	Density (D)	LOS	Hourly Volume	Density (D)	LOS	Project Trips	Hourly Volume	Density (D)	LOS		
1	I-110 South of US-101	NB	Outbound	4G	8,000	7,121	35.30	E	9,622	47.69	F	6	9,628	47.72	F	0.030	0.1%
		SB	Inbound	3G	6,000	9,434	62.35	F	12,173	80.45	F	14	12,187	80.54	F	0.090	0.1%
2	I-110 South of 9th Street	NB	Outbound	4G + 2C - D	12,000	7,453	29.55	D	9,777	38.77	E	0	9,777	38.77	E	0.000	0.0%
		SB	Inbound	5G	10,000	9,876	39.16	E	11,955	47.40	F	0	11,955	47.40	F	0.000	0.0%
3	I-110 North of Exposition Boulevard	NB	Inbound	5G	10,000	7,965	31.58	D	10,267	40.71	E	6	10,273	40.73	E	0.019	0.1%
		SB	Outbound	5G	10,000	8,999	35.68	E	10,942	43.39	E	3	10,945	43.40	E	0.009	0.0%
4	I-10 East of Los Angeles Street	EB	Outbound	4G + 1A	9,000	10,425	45.93	F	12,258	54.01	F	5	12,263	54.03	F	0.020	0.0%
		WB	Inbound	4G + 1A	9,000	6,056	26.68	D	7,756	34.17	D	11	7,767	34.22	D	0.049	0.2%
5	I-10 West of Vermont Avenue	EB	Inbound	4G + 2A	10,000	11,978	47.49	F	14,582	57.82	F	11	14,593	57.86	F	0.039	0.1%
		WB	Outbound	4G + 2A	10,000	10,601	42.03	E	12,843	50.92	F	5	12,848	50.94	F	0.019	0.0%

Notes:

a. Traffic volumes for Existing Conditions calculated using 2016 Caltrans AADT data combined with peak hour and directional factors.

Growth factor of 1% per annum applied for 2017 volumes. We assumed that Caltrans AADT data includes the C-D roads.

b. Methodology from Highway Capacity Manual 2010, Transportation Research Board.

c. Density measured in vehicles per mile per lane (v/m/l) for freeways with a free flow speed of 55 mph.

Table D-8 REV Future With Project - Freeway Off-Ramp Analysis - Weekday AM Peak Hour

Off - Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Future Without Project Conditions (Year 2023)				Future With Project Conditions (Year 2023)				
				Ramp Volume ⁵	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,592	A	278	No	2,117	B	563	No	4	2,121	B	570	No
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	2,078	A	120	No	2,592	A	183	No	2	2,594	A	183	No
3 I-10 EB Off-ramp at Grand Ave ³	EB TH/RT	3	1,891	1,397	C	350	No	1,981	D	596	No	3	1,984	D	611	No
	EB RT	1	884	118	B	24	No	226	B	83	No	0	226	B	86	No
	RAMP TOTAL	4	2,775	1,515	C	374	No	2,207	D	679	No	3	2,210	D	697	No
4 I-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,126	B	273	No	1,617	C	519	No	3	1,620	C	521	No

Notes:

- (1) Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- (2) Intersection at Bond St (1 lane off-ramp)
- (3) Intersection at Grand Ave (2 lane off-ramp)
- (4) Intersection at Los Angeles St (1 lane off-ramp)
- (5) Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017).

Table D-9 REV Future With Project - Freeway Off-Ramp Analysis - Weekday PM Peak Hour

Off - Ramp # and Location	Movement	# of Lanes	Storage Length (feet)	Existing Conditions ¹ (Year 2017)				Future Without Project Conditions (Year 2023)				Future With Project Conditions (Year 2023)			
				Ramp Volume ²	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Ramp Volume	Ramp LOS	95% Queue Length (feet)	Exceed Storage Length	Project Added Volume	Ramp Volume	Ramp LOS	95% Queue Length (feet)
1 SR-110 SB Off-ramp at James M Wood Blvd ¹	EB TH/LT	2	1,235	1,147	A	146	No	2,100	B	553	No	14	2,114	B	564
2 SR-110 NB Off-ramp at L.A. Live Way ²	NB TH/LT	3	989	1,730	A	89	No	2,462	A	158	No	6	2,468	A	159
3 J-10 EB Off-ramp at Grand Ave ³	EB TH/RT	3	1,891	1,150	C	301	No	2,162	F	736	No	11	2,173	F	741
	EB RT	1	884	157	C	47	No	318	C	159	No	0	318	C	159
	RAMP TOTAL	4	2,775	1,307	C	348	No	2,480	F	895	No	11	2,491	F	900
4 J-10 WB Off-ramp at Los Angeles St ⁴	WB LT/TH/RT	2	1,376	1,000	C	295	No	1,860	D	776	No	11	1,871	D	784

Notes:

- [1] Intersection of James M Wood Blvd & Georgia St (1 lane off-ramp)
- [2] Intersection at Bond St (1 lane off-ramp)
- [3] Intersection at Grand Ave (2 lane off-ramp)
- [4] Intersection at Los Angeles St (1 lane off-ramp)
- [5] Traffic Counts from Nov 2017, except #1 from April 2016 (factored up by 1% to 2017).

Table D-12 REV

Future With Project - Freeway On-Ramp Analysis - AM Peak Hour

On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Future Without Project Conditions (2023)		Project Added Volume	% Increase due to Project	Future With Project Conditions (2023)	
				Ramp Volume	Exceed Capacity	Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1 SR-110 NB On-Ramp at 8th Street	1	900	No Meter	447	No	1,002	Yes	2	0.2%	1,004	Yes
2 SR-110 NB On-Ramp at 11th Street	1	900	Metered	1,213	Yes	1,502	Yes	14	0.9%	1,516	Yes
3 SR-110 SB On-Ramp at Blaine Street	2	1,800	Metered	953	No	1,504	No	6	0.4%	1,510	No
4 I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,017	No	1,856	Yes	13	0.7%	1,869	Yes
5 I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	787	No	1,308	No	13	1.0%	1,321	No

Note: Count data from 2017, except #1 and #5 from Caltrans Annual Average Daily Traffic Volume Report 2014/2015, factored up by 1% to 2017.

Table D-13 REV

Future With Project - Freeway On-Ramp Analysis - PM Peak Hour

On - Ramp	# of Lanes	Ramp Capacity	Meter	Existing Conditions (2017)		Future Without Project Conditions (2023)		Project Added Volume	% Increase due to Project	Future With Project Conditions (2023)	
				Ramp Volume	Exceed Capacity	Ramp Volume	Exceed Capacity			Ramp Volume	Exceed Capacity
1 SR-1110 NB On-Ramp at 8th Street	1	900	No Meter	391	No	1,029	Yes	2	0.2%	1,031	Yes
2 SR-1110 NB On-Ramp at 11th Street	1	900	Metered	734	No	1,006	Yes	4	0.4%	1,010	Yes
3 SR-1110 SB On-Ramp at Blaine Street	2	1,800	Metered	1,430	No	2,055	Yes	2	0.1%	2,057	Yes
4 I-10 WB On-Ramp at Grand Avenue	2	1,800	Metered	1,737	No	2,615	Yes	5	0.2%	2,620	Yes
5 I-10 EB On-Ramp at Los Angeles Street	2	1,800	Metered	828	No	1,402	No	5	0.4%	1,407	No

Note: Count data from 2017, except #1 and #5 from *Caltrans Annual Average Daily Traffic Volume Report 2014/2015*, factored up by 1% to 2017.

Appendix F REV
Intersection LOS CMA Sheets

1045 Olive Project - AM Peak Hour

PROJECT IMPACT

Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019					
2	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive					
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	3	0		3		3		3					
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	0					
ATSAC-1 or ATSAC+ATCS-2?		EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	EB-- 3 WB-- 2	0					
Override Capacity		0	0	0	0	0	0	0	0	0					
MOVEMENT		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
NORTHBOUND	Left	153	1	153	0	153	153	208	370	1	370	0	370	1	370
	Left-Through		0							0				0	
	Through	1205	3	402	7	1212	404	514	1793	2	897	7	1800	2	900
	Through-Right		0							0				0	
	Right	104	1	76	0	104	76	49	159	1	124	0	159	1	124
SOUTHBOUND	Left-Through-Right		0							0				0	
	Left-Right														
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Through-Right		0							0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0	
	Left-Right														
	Left	227	1	227	0	227	227	134	375	1	375	0	375	1	375
WESTBOUND	Left-Through		0							0				0	
	Through	930	3	310	5	935	312	571	1558	3	521	5	1563	3	521
	Through-Right		0							0				0	
	Right	112	1	0	0	112	0	96	215	1	0	0	215	1	0
	Left-Through-Right		0							0				0	
WESTBOUND	Left-Right		0							0				0	
	Left	56	1	56	0	56	56	11	70	1	70	0	70	1	70
	Left-Through		0							0				0	
	Through	797	3	266	19	816	272	735	1581	3	533	19	1600	3	533
	Through-Right		0							0				0	
WESTBOUND	Right	328	1	328	1	329	329	181	529	1	529	1	530	1	530
	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	Left														
	Left-Through														
CRITICAL VOLUMES		North-South: 402 East-West: 555 SUM: 957	North-South: 404 East-West: 566 SUM: 960	North-South: 897 East-West: 904 SUM: 1801	North-South: 897 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808	North-South: 900 East-West: 908 SUM: 1808
VOLUME/CAPACITY (V/C) RATIO:		0.672	0.674	1.264	1.269	1.269	1.269	1.269	1.269	1.269	1.269	1.269	1.269	1.269	1.269
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.572	0.574	1.164	1.169	1.169	1.169	1.169	1.169	1.169	1.169	1.169	1.169	1.169	1.169
LEVEL OF SERVICE (LOS):		A	A	F	F	F	F	F	F	F	F	F	F	F	F

PROJECT IMPACT

Change in v/c due to project: **0.005** Δv/c after mitigation: **0.005**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019						
3	East-West Street:	Chick Hearn Court	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive						
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases														
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	4	NB-- 0 SB-- 0	0	NB-- 0 SB-- 0	4						
ATSAC-1 or ATSAC+ATCS-2?		EB-- 3 WB-- 3	EB-- 3 WB-- 3	3	3	0	EB-- 3 WB-- 3	3	EB-- 3 WB-- 3	0						
Override Capacity		2	2	2	2	0										
		0	0	0	0	0										
NORTHBOUND		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	
		16	1	16	0	16	16	24	41	1	41	0	41	1	41	
		1299	3	433	0	1299	433	647	2026	2	1013	0	2026	2	1013	
		11	1	0	0	11	0	0	12	1	0	0	12	1	0	
SOUTHBOUND		0	1	0	0	0	0	0	1	0	0	0	1	0		
		100	1	57	0	100	57	106	212	1	212	0	212	1	212	
		14	0	14	0	14	14	0	15	1	11	0	15	1	11	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND		16	2	9	0	16	9	0	17	2	9	0	17	2	9	
		3	1	3	0	3	3	0	3	1	3	0	3	1	3	
		11	0	0	0	11	0	39	51	1	10	0	51	1	10	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND		39	1	39	0	39	39	0	41	1	41	0	41	1	41	
		46	1	46	20	66	66	210	259	1	259	20	279	1	279	
		100	1	100	7	107	107	124	230	1	230	7	237	1	237	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES		North-South: 433 East-West: 109 SUM: 542	North-South: 433 East-West: 116 SUM: 549	North-South: 1013 East-West: 268 SUM: 1281	North-South: 1013 East-West: 288 SUM: 1301	North-South: 1013 East-West: 288 SUM: 1301										
VOLUME/CAPACITY (V/C) RATIO:		0.394	0.399	0.932	0.946	0.946										
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.294	0.299	0.832	0.846	0.846										
LEVEL OF SERVICE (LOS):		A	A	D	D	D										

PROJECT IMPACT

Change in v/c due to project: **0.014** Δv/c after mitigation: **0.014**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Date:						
4	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:						
	No. of Phases	2	2	2	2	2	2	2	2	2					
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0	0	0	0	0					
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	0	0	0	0					
	ATSAC-1 or ATSAC+ATCS-2?	EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	0	0	0	0					
	Override Capacity	2	2	2	2	2	2	2	2	2					
MOVEMENT		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
NORTHBOUND	Left	204	1	204	0	204	204	166	383	1	383	0	383	1	383
	Left-Through		0							0				0	
	Through-Right	1121	2	561	1	1122	561	484	1674	2	837	1	1675	2	838
	Right	115	1	104	0	115	104	58	180	1	127	0	180	1	127
	Left-Through-Right		0							0				0	
SOUTHBOUND	Left-Right		0							0				0	
	Left	11	1	11	0	11	11	2	14	1	14	0	14	1	14
	Left-Through		0							0				0	
	Through-Right	165	2	83	0	165	83	51	226	2	113	0	226	2	113
	Right	56	1	0	0	56	0	11	70	1	0	0	70	1	0
EASTBOUND	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	Left	158	1	158	0	158	158	87	255	1	255	0	255	1	255
	Left-Through		0							0				0	
	Through-Right	624	2	312	3	627	314	356	1018	2	509	3	1021	2	511
WESTBOUND	Through-Right		0							0				0	
	Right	105	1	3	0	105	3	181	292	1	101	0	292	1	101
	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
	Left	22	1	22	0	22	22	84	107	1	107	0	107	1	107
CRITICAL VOLUMES	Left-Through		0							0				0	
	Through-Right	300	2	150	6	306	153	455	773	2	387	6	779	2	390
	Right	68	1	63	0	68	63	224	296	1	289	0	296	1	289
	Left-Through-Right		0							0				0	
	Left-Right		0							0				0	
VOLUME/CAPACITY (V/C) RATIO:		North-South: 572 East-West: 334 SUM: 906		North-South: 572 East-West: 642 SUM: 1493		North-South: 851 East-West: 645 SUM: 1497		North-South: 852 East-West: 645 SUM: 1497		North-South: 852 East-West: 645 SUM: 1497					
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.604 0.504 0.605		0.995 0.895 0.898		0.998 0.898 0.898		0.998 0.898 0.898		0.998 0.898 0.898					
LEVEL OF SERVICE (LOS):		A A A		D D D		D D D		D D D		D D D					

PROJECT IMPACT

Change in v/c due to project: **0.003** **NO**
 Δv/c after mitigation: **0.003** **N/A**
 Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:		Ambient Growth: (%)		Conducted by:	Amir A	Date:	5/31/2019							
	East-West Street:	Olympic Boulevard	Projection Year:	2017	Peak Hour:	1											
5				2023	AM												
No. of Phases			2	2	2	2	2	2	2	2							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0	0	0	0	0	0	0	0							
Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	SB-- 0 WB-- 0							
ATSAC-1 or ATSAC+ATCS-2?			2	2	2	2	2	2	2	2							
Override Capacity			0	0	0	0	0	0	0	0							
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right		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	
SOUTHBOUND	Left		88	0	88	1	89	89	28	121	0	121	1	122	0	122	
	Left-Through		334	3	106	1	335	106	651	1006	3	282	1	1007	3	282	
	Through-Right		233	1	233	0	233	233	223	470	1	470	0	470	1	470	
	Right		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	
EASTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		928	2	464	5	933	467	450	1435	2	718	5	1440	2	720	
	Through-Right		83	1	83	0	83	83	216	304	1	304	0	304	1	304	
	Right		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	
WESTBOUND	Left		82	1	82	0	82	82	47	134	1	134	0	134	1	134	
	Left-Through		946	2	473	21	967	484	703	1707	2	854	21	1728	2	864	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right		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	
CRITICAL VOLUMES			North-South: 233 East-West: 546 SUM: 779	North-South: 233 East-West: 549 SUM: 782	North-South: 470 East-West: 854 SUM: 1324	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	North-South: 470 East-West: 864 SUM: 1334	
VOLUME/CAPACITY (V/C) RATIO:			0.519	0.521	0.883	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.419	0.421	0.783	0.789	0.789	0.789	0.789	0.789	0.789	0.789	0.789	0.789	0.789	0.789	
LEVEL OF SERVICE (LOS):			A	A	C	C	C	C	C	C	C	C	C	C	C	C	

PROJECT IMPACT

Change in v/c due to project: **0.006** Δv/c after mitigation: **0.006**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:			Project:	1045 Olive
Opposed Ø'ing: N/S-1, EW-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity	No. of Phases	2	0	0	0	0	0	0	0	0
	NB--	0	0	0	0	0	0	0	NB--	0
	SB--	0	0	0	0	0	0	0	SB--	0
	EB--	0	0	0	0	0	0	0	EB--	0
	WB--	0	0	0	0	0	0	0	WB--	0
MOVEMENT	ATSAC-1 or ATSAC+ATCS-2?	2	0	0	0	0	0	0	2	0
	Override Capacity	0	0	0	0	0	0	0	0	0
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-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
	Left-Through-Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	426	3	142	744	1196	1	1197	3	399
	Through-Right	67	1	67	85	156	0	156	1	156
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	13	1	13	0	14	0	14	1	14
	Left-Through-Right	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	26	1	26	188	216	4	220	1	220
	Left-Through	104	1	104	141	251	27	278	1	278
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 142 East-West: 104 SUM: 246	North-South: 142 East-West: 131 SUM: 273	North-South: 399 East-West: 251 SUM: 650	North-South: 399 East-West: 278 SUM: 677	North-South: 399 East-West: 278 SUM: 677	PROJECT IMPACT			
VOLUME/CAPACITY (V/C) RATIO:		0.164	0.182	0.433	0.451	0.451	Change in v/c due to project: 0.018			
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.092	0.091	0.333	0.351	0.351	Significant impacted? NO			
LEVEL OF SERVICE (LOS):		A	A	A	A	A	Fully mitigated? N/A			

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
7	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	2	0	0	0	2	0	2	0
		NB--	0	0	0	0	NB--	0	NB--	0
		SB--	0	0	0	0	SB--	0	SB--	0
		WB--	0	0	0	0	WB--	0	WB--	0
	MOVEMENT	Volume	60	69	36	100	9	109	109	109
		No. of Lanes	0	69	36	100	0	109	109	109
		Lane Volume	60	69	36	100	0	109	109	109
		Total Volume	60	69	36	100	0	109	109	109
NORTHBOUND	Left	304	3	307	30	353	3	356	356	356
	Through	64	0	64	2	70	0	70	70	70
	Right	64	0	64	2	70	0	70	70	70
	Left-Through-Right	64	0	64	2	70	0	70	70	70
SOUTHBOUND	Left	37	0	37	29	68	0	68	68	68
	Through	114	0	114	15	136	0	136	136	136
	Right	74	0	74	7	86	0	86	86	86
	Left-Through-Right	74	0	74	7	86	0	86	86	86
EASTBOUND	Left	86	0	86	11	102	0	102	102	102
	Through	847	5	852	473	1372	5	1377	1377	1377
	Right	79	0	79	11	95	0	95	95	95
	Left-Through-Right	79	0	79	11	95	0	95	95	95
WESTBOUND	Left	21	0	21	0	22	0	22	22	22
	Through	891	12	903	726	1672	12	1684	1684	1684
	Right	128	0	128	11	147	0	147	147	147
	Left-Through-Right	128	0	128	11	147	0	147	147	147
CRITICAL VOLUMES		North-South: 251 East-West: 596 SUM: 847	North-South: 330 East-West: 1012 SUM: 1342	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354	North-South: 336 East-West: 1018 SUM: 1354
VOLUME/CAPACITY (V/C) RATIO:		0.565	0.895	0.895	0.895	0.895	0.895	0.895	0.895	0.895
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.465	0.795	0.795	0.795	0.795	0.795	0.795	0.795	0.795
LEVEL OF SERVICE (LOS):		A	A	C	C	D	D	D	D	D

PROJECT IMPACT

Change in v/c due to project: 0.008
Significant impacted? NO
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	5/31/2019										
8	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:	1045 Olive										
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	0	2	0	2	0	2	0										
			0	0	0	0	0	0	0	0										
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	0	0	0										
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	0	0	0										
			2	0	2	0	2	0	2	0										
MOVEMENT			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	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	
NORTHBOUND	Left	25	0	25	25	0	25	25	32	59	59	0	1	59	0	59	0	59	0	59
	Left-Through	1	1	166	166	0	307	166	40	366	213	1	213	0	366	1	213	0	366	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through	209	1	117	117	0	209	117	17	239	138	1	138	0	239	1	138	0	239	
	Through-Right	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	25	0	25	25	0	25	25	9	36	36	0	0	0	36	0	36	0	36	
EASTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left	55	0	55	55	0	55	55	1	59	59	0	1	59	0	59	0	59	0	59
	Left-Through	1	1	163	194	31	139	194	308	423	482	1	513	31	454	1	513	0	454	
CRITICAL VOLUMES	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	99	1	99	111	12	111	111	29	134	134	1	146	12	146	1	146	0	146	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
VOLUME/CAPACITY (V/C) RATIO:			0.219		0.240		0.463		0.484		0.484		0.484		0.484		0.484		0.484	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.119		0.140		0.363		0.384		0.384		0.384		0.384		0.384		0.384	
LEVEL OF SERVICE (LOS):			A		A		A		A		A		A		A		A		A	

PROJECT IMPACT

Change in v/c due to project: **0.021** Δv/c after mitigation: **0.021**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		2017	Ambient Growth: (%):		1	Conducted by:		Amir A	Date:	5/31/2019				
9	East-West Street:	8th Street	Projection Year:		2023	Peak Hour:		AM	Reviewed by:			Project:	1045 Olive				
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			2		2	0		2	2		2	2					
			0		0	0		0	0		0	0					
			0		0	0		0	0		0	0					
			0		0	0		0	0		0	0					
			0		0	0		0	0		0	0					
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	
NORTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right		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	
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		564	3	188	3	567	189	454	1053	3	351	3	1056	3	352	
	Through-Right		210	1	210	0	210	210	44	267	1	267	0	267	1	267	
	Right																
	Left-Through-Right																
EASTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right																
WESTBOUND	Left		210	1	210	0	210	210	252	475	1	475	0	475	1	475	
	Left-Through		1063	3	354	8	1071	357	886	2014	3	671	8	2022	3	674	
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right																
	Left-Through-Right																
CRITICAL VOLUMES			North-South: 210 East-West: 354 SUM: 564		North-South: 210 East-West: 357 SUM: 567		North-South: 351 East-West: 671 SUM: 1022		North-South: 475 East-West: 674 SUM: 1026		North-South: 352 East-West: 674 SUM: 1026		North-South: 352 East-West: 674 SUM: 1026		North-South: 352 East-West: 674 SUM: 1026		
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.376 0.276 A		0.378 0.278 A		0.681 0.581 A		0.684 0.584 A		0.684 0.584 A		0.684 0.584 A		0.684 0.584 A		

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019						
10	East-West Street:	9th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive						
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0		2		2		2						
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	NB-- 0 SB-- 0	0	NB-- 0 SB-- 0	0						
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	EB-- 0 WB-- 0	0	EB-- 0 WB-- 0	0						
Override Capacity		2	2	2		2		2		2						
		0	0	0		0		0		0						
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left	184	1	184	0	184	184	124	319	1	319	0	319	1	319	
	Left-Through	467	3	156	3	470	157	568	1064	3	355	3	1067	3	356	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	1018	3	339	3	1021	340	636	1717	3	572	3	1720	3	573	
	Through-Right	121	1	121	3	124	124	106	234	1	234	3	237	1	237	
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES		North-South: 184 East-West: 339 SUM: 523	North-South: 184 East-West: 340 SUM: 524	North-South: 355 East-West: 572 SUM: 927	North-South: 355 East-West: 572 SUM: 927	North-South: 356 East-West: 573 SUM: 929	North-South: 356 East-West: 573 SUM: 929	North-South: 356 East-West: 573 SUM: 929	North-South: 356 East-West: 573 SUM: 929	North-South: 356 East-West: 573 SUM: 929						
VOLUME/CAPACITY (V/C) RATIO:		0.349	0.349	0.618	0.618	0.619	0.619	0.619	0.619	0.619						
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.249	0.249	0.518	0.518	0.519	0.519	0.519	0.519	0.519						
LEVEL OF SERVICE (LOS):		A	A	A	A	A	A	A	A	A						

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	5/31/2019								
11	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:	1045 Olive								
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			2		2		2		2		2							
			0		0		0		0		0							
			NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0				
			EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0				
			2		2		2		2		2		2					
			0		0		0		0		0		0					
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
			Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	90	5	95	95	97	193	1	193	5	198	1	198	198	1	198	198	
	Left-Through	329	1	330	110	562	911	3	304	1	912	3	304	912	3	304	304	
	Through-Right	179	0	179	179	94	284	1	284	0	284	1	284	284	1	284	284	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	844	5	849	474	399	1295	1	753	5	1300	1	755	1300	1	755	755	
	Through-Right	99	0	99	99	105	210	0	210	0	210	0	210	210	0	210	210	
	Right	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	
WESTBOUND	Left	76	3	79	79	4	85	1	85	3	88	1	88	88	1	88	88	
	Left-Through	855	12	867	434	644	1552	2	776	12	1564	2	782	1564	2	782	782	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES			North-South: 179 East-West: 548 SUM: 727		North-South: 179 East-West: 553 SUM: 732		North-South: 304 East-West: 838 SUM: 1142		North-South: 304 East-West: 843 SUM: 1147		North-South: 304 East-West: 843 SUM: 1147		North-South: 304 East-West: 843 SUM: 1147		North-South: 304 East-West: 843 SUM: 1147			
VOLUME/CAPACITY (V/C) RATIO:			0.485		0.488		0.761		0.765		0.765		0.765		0.765		0.765	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.385		0.388		0.661		0.665		0.665		0.665		0.665		0.665	
LEVEL OF SERVICE (LOS):			A		A		B		B		B		B		B		B	

PROJECT IMPACT

Change in v/c due to project: **0.004** **NO**
 Δv/c after mitigation: **0.004** **NO**
 Significant impacted? **NO**
 Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019											
12	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive											
<div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		No. of Phases	2	2	2	2	2	2	2	2											
		NB--	0	NB--	0	NB--	0	NB--	0	NB--	0										
		SB--	0	SB--	0	SB--	0	SB--	0	SB--	0										
		WB--	0	WB--	0	WB--	0	WB--	0	WB--	0										
		EB--	0	EB--	0	EB--	0	EB--	0	EB--	0										
		2	2	2	2	2	2	2	2	2											
		0	0	0	0	0	0	0	0	0											
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	449	3	150	4	453	151	665	1142	3	381	4	1146	3	382	1146	382	3	382		
	Through-Right	87	1	87	0	87	87	55	147	1	147	0	147	1	147	147	147	1	147		
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EASTBOUND	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left	87	1	87	49	136	136	171	263	1	263	49	312	1	312	312	312	1	312		
WESTBOUND	Left-Through	142	1	142	43	185	185	281	432	1	432	43	475	1	475	475	475	1	475		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left	87	1	87	49	136	136	171	263	1	263	49	312	1	312	312	312	1	312		
CRITICAL VOLUMES		North-South: 150 East-West: 142 SUM: 292	North-South: 151 East-West: 185 SUM: 336	North-South: 171 East-West: 281 SUM: 452	North-South: 263 East-West: 432 SUM: 695	North-South: 263 East-West: 432 SUM: 695	North-South: 381 East-West: 432 SUM: 813	North-South: 381 East-West: 432 SUM: 813	North-South: 382 East-West: 475 SUM: 857	North-South: 382 East-West: 475 SUM: 857											
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		0.195 0.097 A	0.224 0.124 A	0.542 0.442 A	0.571 0.471 A	0.571 0.471 A	0.571 0.471 A	0.571 0.471 A	0.571 0.471 A	0.571 0.471 A											

PROJECT IMPACT

Change in v/c due to project: **0.029** Δv/c after mitigation: **0.029**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%):		Conducted by:		Date:					
13	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:					
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2	0	0	2	0	2	0	2				
			NB--	0	SB--	0	0	NB--	0	SB--	0			
			EB--	0	WB--	0	0	EB--	0	WB--	0			
			2	0	2	0	2	0	2	0				
			FUTURE W/ PROJECT W/ MITIGATION											
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT					
	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
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
SOUTHBOUND	Left	19	0	19	0	19	46	0	46	0	46	0	46	46
	Left-Through	431	1	225	45	476	248	796	1254	1	650	45	1299	1
	Through-Right	81	1	81	6	87	87	133	219	1	219	6	225	1
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	467	1	285	3	470	287	320	816	1	493	3	819	1
	Through-Right	103	1	103	0	103	103	61	170	0	170	0	170	0
	Right	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
WESTBOUND	Left	67	0	67	0	67	67	65	136	0	136	0	136	0
	Left-Through	406	1	270	1	407	271	374	805	1	675	1	806	1
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES			North-South: 225 East-West: 352 SUM: 577	North-South: 248 East-West: 354 SUM: 602	North-South: 650 East-West: 675 SUM: 1325	North-South: 673 East-West: 675 SUM: 1348	North-South: 673 East-West: 675 SUM: 1348	North-South: 673 East-West: 675 SUM: 1348	North-South: 673 East-West: 675 SUM: 1348					
VOLUME/CAPACITY (V/C) RATIO:			0.385	0.401	0.883	0.883	0.899	0.899	0.799	0.799	0.899	0.899	0.799	0.799
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.285	0.301	0.783	0.783	0.799	0.799	0.799	0.799	0.799	0.799	0.799	0.799
LEVEL OF SERVICE (LOS):			A	A	C	C	C	C	C	C	C	C	C	C

PROJECT IMPACT

Change in v/c due to project: **0.016** Δv/c after mitigation: **0.016**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	
14	East-West Street:	Venice Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:	
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2017		1		Amir A		5/31/2019	
			2023		AM				1045 Olive	
			2		2		2		2	
			0		0		0		0	
			0		0		0		0	
			NB--		0		NB--		0	
			SB--		0		SB--		0	
			WB--		0		WB--		0	
			EB--		0		EB--		0	
			2		2		2		2	
			0		0		0		0	

PROJECT IMPACT

Change in v/c due to project: **0.010** Δv/c after mitigation: **0.010**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	Ambient Growth: (%)		1	Conducted by:	Amir A	Date:	5/31/2019			
15	East-West Street:	17th Street	Projection Year:	Peak Hour:		AM	Reviewed by:		Project:	1045 Olive			
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			2	NB-- 0 SB-- 0 EB-- 0 WB-- 0		2	NB-- 0 SB-- 0 EB-- 0 WB-- 0	2	NB-- 0 SB-- 0 EB-- 0 WB-- 0	2			
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE W/ PROJECT W/ MITIGATION				
NORTHBOUND		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND		Volume	301	100	32	333	111	0	0	32	922	307	
		227	1	227	13	240	240	1	640	13	653	1	653
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND		Volume	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND		Volume	225	225	0	225	225	0	270	0	270	0	270
		800	1	513	0	800	513	1	757	0	1244	1	757
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 227 East-West: 513 SUM: 740	North-South: 240 East-West: 513 SUM: 753	North-South: 640 East-West: 757 SUM: 1397	North-South: 653 East-West: 757 SUM: 1410	North-South: 653 East-West: 757 SUM: 1410	North-South: 653 East-West: 757 SUM: 1410	North-South: 653 East-West: 757 SUM: 1410				
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.493 0.393 A	0.502 0.402 A	0.931 0.831 D	0.940 0.840 D	0.940 0.840 D	0.940 0.840 D	0.940 0.840 D				

PROJECT IMPACT

Change in v/c due to project: 0.009
 Significant impacted? NO
 Δv/c after mitigation: 0.009
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019								
16	East-West Street:	18th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive								
<div>Opposed Ø'ing: N/S-1, EW-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity</div>	No. of Phases		3	3		3		3		3								
	NB-- 0 SB-- 0		0	0		0		0		0								
	EB-- 0 WB-- 0		0	0		0		0		0								
	2		2	2		2		2		2								
	0		0	0		0		0		0								
NORTHBOUND	MOVEMENT		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		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	304	2	167	0	304	167	25	348	2	191	0	348	2	191	348	191		
SOUTHBOUND	Left	105	1	105	11	116	116	150	261	1	261	11	272	1	272	272		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through	292	2	146	21	313	157	451	761	2	381	21	782	2	391	782		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EASTBOUND	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		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	1397	2	466	3	1400	467	498	1981	2	660	3	1984	2	661	1984		
	Through	118	1	118	0	118	118	101	226	1	226	0	226	1	226	226		
WESTBOUND	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		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CRITICAL VOLUMES	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right	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		
	Left-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
VOLUME/CAPACITY (V/C) RATIO:			0.518			0.526			0.780			0.789			0.789			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.418			0.426			0.680			0.689			0.689			
LEVEL OF SERVICE (LOS):			A			A			B			B			B			

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:													
17	East-West Street:	8th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:													
	No. of Phases																					
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?																					
	Right Turns: FREE-1, NRTOR-2 or OLA-3?																					
	ATSAC-1 or ATSAC+ATCS-2?																					
	Override Capacity																					
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		380	1	380	8	388	388	423	826	1	826	8	834	1	834	8	834	1	834		
	Left-Through			0							0				0				0			
	Through		968	3	323	20	988	329	695	1723	3	574	20	1743	3	581	20	1743	3	581		
	Through-Right			0							0				0				0			
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left-Through-Right			0							0				0				0			
	Left-Right			0							0				0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through			0							0				0				0			
	Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EASTBOUND	Through-Right			0							0				0				0			
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right			0							0				0				0			
	Left-Right			0							0				0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WESTBOUND	Left-Through			0							0				0				0			
	Through		1109	3	370	0	1109	370	675	1852	3	617	0	1852	3	617	0	1852	3	617		
	Through-Right			0							0				0				0			
	Right		174	1	174	0	174	174	38	223	1	223	0	223	1	223	0	223	1	223		
	Left-Through-Right			0							0				0				0			
CRITICAL VOLUMES			North-South: 380 East-West: 370 SUM: 750		North-South: 388 East-West: 370 SUM: 758		North-South: 826 East-West: 1443 SUM: 1969		North-South: 834 East-West: 1451 SUM: 1985		North-South: 834 East-West: 1451 SUM: 1985		North-South: 834 East-West: 1451 SUM: 1985		North-South: 834 East-West: 1451 SUM: 1985		North-South: 834 East-West: 1451 SUM: 1985		North-South: 834 East-West: 1451 SUM: 1985			
VOLUME/CAPACITY (V/C) RATIO:			0.500		0.505		0.962		0.967		0.967		0.967		0.967		0.967		0.967			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.400		0.405		0.862		0.867		0.867		0.867		0.867		0.867		0.867			
LEVEL OF SERVICE (LOS):			A		A		D		D		D		D		D		D		D			

PROJECT IMPACT

Change in v/c due to project: **0.005** Δv/c after mitigation: **0.005**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:								
18	East-West Street:	9th Street	Projection Year: 2023		Peak Hour: AM		Reviewed by:		Project:								
<div>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?</div>	<div>No. of Phases Override Capacity</div>	2		2		2		2									
		0		0		0		0									
		0		0		0		0									
		0		0		0		0									
		0		0		0		0									
EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION					
MOVEMENT			Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	977	3	326	28	1005	335	563	652	1689	3	572	28	1717	3	572	1717
	Through-Right																
	Right	56	1	56	11	67	67	221	162	221	1	232	11	232	1	232	232
	Left-Through-Right																
SOUTHBOUND	Left-Right																
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through-Right																
	Left-Right																
	Left	191	0	191	0	191	191	363	160	363	0	363	0	363	0	363	363
	Left-Through	1027	2	406	3	1030	407	685	601	1691	2	686	3	1694	2	686	1694
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through-Right																
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 326 East-West: 406 SUM: 732	North-South: 335 East-West: 407 SUM: 742	North-South: 563 East-West: 685 SUM: 1248	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258	North-South: 572 East-West: 686 SUM: 1258
VOLUME/CAPACITY (V/C) RATIO:			0.488	0.495	0.832	0.839	0.832	0.839	0.832	0.839	0.832	0.839	0.832	0.839	0.832	0.839	0.839
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.388	0.395	0.732	0.739	0.732	0.739	0.732	0.739	0.732	0.739	0.732	0.739	0.732	0.739	0.739
LEVEL OF SERVICE (LOS):			A	A	C	C	C	C	C	C	C	C	C	C	C	C	C

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
19	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:									
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			2		2		2		2									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
MOVEMENT			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	No. of Lanes	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	216	0	216	15	231	105	334	0	334	15	349	0	349	-3	346	0	346
	Left-Through		1						1					1			1	
	Through	837	2	351	27	864	578	1466	2	600	27	1493	2	614	-5	1488	2	611
	Through-Right		0						0					0			0	
	Right	53	1	53	8	61	53	109	1	109	8	117	1	117	-2	115	1	115
SOUTHBOUND	Left-Through-Right		0						0					0			0	
	Left-Right		0						0					0			0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0						0					0			0	
	Through-Right		0						0					0			0	
EASTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0						0					0			0	
	Left-Right		0						0					0			0	
	Left	127	1	127	12	139	109	244	1	244	12	256	1	256	-2	254	1	254
	Left-Through		0						0					0			0	
WESTBOUND	Through	808	2	404	5	813	414	1272	2	636	5	1277	2	639	-1	1276	2	638
	Through-Right		0						0					0			0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0						0					0			0	
	Left-Right		0						0					0			0	
CRITICAL VOLUMES	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0						0					0			0	
	Through	706	1	425	2	708	551	1300	1	762	2	1302	1	763	0	1302	1	763
	Through-Right		1						1					1			1	
	Right	145	0	145	0	145	69	223	0	223	0	223	0	223	0	223	0	223
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	Left-Through-Right		0						0					0			0	
	Left-Right		0						0					0			0	
CRITICAL VOLUMES			North-South: 351 East-West: 553 SUM: 904		North-South: 365 East-West: 566 SUM: 931		North-South: 600 East-West: 1006 SUM: 1606		North-South: 614 East-West: 1019 SUM: 1633		North-South: 611 East-West: 1017 SUM: 1628		North-South: 611 East-West: 1017 SUM: 1628					
VOLUME/CAPACITY (V/C) RATIO:			0.603		0.621		1.071		1.089		1.085		1.085					
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.503		0.521		0.971		0.989		0.985		0.985					
LEVEL OF SERVICE (LOS):			A		A		E		E		E		E					

PROJECT IMPACT

Change in v/c due to project: **0.018** Δv/c after mitigation: **0.014**
Significant impacted? **YES** Fully mitigated? **NO**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019											
20	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive											
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0	2			2		2											
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	NB-- 0	SB-- 0	NB-- 0	0											
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	EB-- 0	WB-- 0	EB-- 0	0											
Override Capacity		2	2	2	2	2	2	2	2	2											
		0	0	0	0	0		0		0											
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume				
NORTHBOUND	Left	122	0	122	4	126	126	131	261	0	261	4	265	0	265	4	265				
	Left-Through		1							1				1							
	Through	1061	2	394	14	1075	400	611	1737	2	666	14	1751	2	672	14	1751				
	Through-Right		0							0				0							
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
SOUTHBOUND	Left-Through-Right		0							0				0							
	Left-Right		0							0				0							
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through		0							0				0							
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
EASTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through-Right		0							0				0							
	Left-Right		0							0				0							
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through		0							0				0							
WESTBOUND	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Through-Right	114	1	114	1	115	115	206	327	1	327	1	328	1	328	1	328				
	Right	46	1	46	10	56	56	80	129	1	129	10	139	1	139	1	139				
	Left-Through-Right		0							0				0							
	Left-Right		0							0				0							
CRITICAL VOLUMES		North-South: 394 East-West: 114 SUM: 508	North-South: 400 East-West: 115 SUM: 515	North-South: 666 East-West: 327 SUM: 993	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000	North-South: 672 East-West: 328 SUM: 1000				
VOLUME/CAPACITY (V/C) RATIO:		0.339	0.343	0.662	0.667	0.667	0.667	0.662	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667	0.667				
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.239	0.243	0.562	0.567	0.567	0.567	0.562	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567	0.567				
LEVEL OF SERVICE (LOS):		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				

PROJECT IMPACT

Change in v/c due to project: **0.005** Δv/c after mitigation: **0.005**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	
21	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:	
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			2017		1		Amir A		5/31/2019	
			2023		AM				1045 Olive	
			2		2		2		2	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0		0		0	
			0		0					

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
22	East-West Street:	16th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases								
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0								
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0								
Override Capacity		2								
EXISTING CONDITION			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	75	0	75	0	84	4	84	0	84
	Left-Through	1	0	0	0	1	518	2050	1	711
	Through	1443	2	1455	12	715	0	2062	2	715
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	60	1	60	0	64	0	64	1	64
SOUTHBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0
	Left	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0
	Left	76	0	76	0	97	16	97	0	97
	Left-Through	1	0	0	0	1	43	372	1	283
	Through-Right	310	1	310	0	283	0	372	1	283
WESTBOUND	Left-Through-Right	0	0	0	0	0	0	0	0	0
	Left-Right	0	0	0	0	0	0	0	0	0
	Left	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0
	Through-Right	275	1	275	0	214	42	334	1	214
CRITICAL VOLUMES			North-South: 506 East-West: 255 SUM: 761	North-South: 510 East-West: 255 SUM: 765	North-South: 711 East-West: 311 SUM: 1022	North-South: 715 East-West: 311 SUM: 1026	North-South: 715 East-West: 311 SUM: 1026	North-South: 715 East-West: 311 SUM: 1026	North-South: 715 East-West: 311 SUM: 1026	North-South: 715 East-West: 311 SUM: 1026
VOLUME/CAPACITY (V/C) RATIO:			0.507	0.510	0.681	0.684	0.684	0.684	0.684	0.684
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.407	0.410	0.581	0.584	0.584	0.584	0.584	0.584
LEVEL OF SERVICE (LOS):			A	A	A	A	A	A	A	A

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019											
23	East-West Street:	17th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive											
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		2	0	2	0	2	0	2											
		NB--		0	0	0	0	NB--	0	NB--	0										
		SB--		0	0	0	0	SB--	0	SB--	0										
		WB--		0	0	0	0	WB--	0	WB--	0										
		EB--		0	0	0	0	EB--	0	EB--	0										
		ATSAC-1 or ATSAC+ATCS-2?		2	0	2	0	2	0	2											
		Override Capacity		0	0	0	0	0	0	0											
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume				
NORTHBOUND	Left	351	0	351	0	351	351	43	416	0	416	0	416	0	416	0	416				
	Left-Through	1380	1	577	9	1389	580	404	1869	1	762	9	1878	2	765	1878	765				
	Through-Right		0		0	0	0	0	0	0	0	0	0	0	0	0	0				
	Right	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				
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Right	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				
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Right	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				
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Left-Through	793	1	511	0	793	513	383	1225	1	793	0	1225	1	795	1225	795				
	Through-Right	229	1	229	3	232	232	118	361	0	361	3	364	0	364	364	364				
	Right	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				
CRITICAL VOLUMES		North-South: 577	511	1088	North-South: 580	513	1093	1555	North-South: 762	793	1560	765	North-South: 765	795	1560	795	1560				
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.725	0.625	0.629	0.729	0.629	0.629	0.937	0.937	0.940	0.940	0.940	0.940	0.940	0.940	0.940	0.940				
LEVEL OF SERVICE (LOS):		B	B	B	B	B	B	E	E	E	E	E	E	E	E	E	E				

PROJECT IMPACT

Change in v/c due to project: **0.003** **NO** **Significant impacted?**
 Δv/c after mitigation: **0.003** **NO** **Fully mitigated?**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	Ambient Growth: (%):	Conducted by:	Date:	5/31/2019									
24	East-West Street:	18th Street	Projection Year:	Peak Hour:	Reviewed by:	Project:	1045 Olive									
<div>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</div>	No. of Phases	2	2	2	2	2	2									
		0	0	0	0	0	0									
	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0									
		2	2	2	2	2	2									
		0	0	0	0	0	0									
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	763	3	254	6	769	256	215	1025	3	342	6	1031	3	344	1031
	Through-Right															
	Right	38	1	38	0	38	38	0	40	1	40	0	40	1	40	40
	Left-Through-Right															
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through															
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right															
EASTBOUND	Left	928	1	585	3	931	590	231	1216	1	845	3	1219	1	850	1219
	Left-Through	828	1	585	11	839	590	441	1320	1	845	11	1331	1	850	1331
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right															
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through															
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right															
CRITICAL VOLUMES		North-South: 254 East-West: 585 SUM: 839	North-South: 256 East-West: 590 SUM: 846	North-South: 342 East-West: 845 SUM: 1187	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194	North-South: 344 East-West: 850 SUM: 1194
VOLUME/CAPACITY (V/C) RATIO:		0.559	0.564	0.791	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.796
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.459	0.464	0.691	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.696
LEVEL OF SERVICE (LOS):		A	A	B	B	B	B	B	B	B	B	B	B	B	B	B

PROJECT IMPACT

Change in v/c due to project: **0.005** **NO**
 Significant impacted? **NO**
 Fully mitigated? **N/A**
 Δ v/c after mitigation: **0.005** **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
25	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:									
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			2		2		2		2									
			0		0		0		0									
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0									
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0									
			2		2		2		2									
			0		0		0		0									
MOVEMENT			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		
NORTHBOUND	Left		62	1	62	0	62	62	88	154	1	154	0	154	1	154		
	Left-Through			0							0				0			
	Through		380	1	210	0	380	210	255	658	1	363	0	658	1	363		
	Through-Right			1							1				1			
	Right		40	0	40	0	40	40	25	67	0	67	0	67	0	67		
	Left-Through-Right			0							0				0			
Left-Right				0						0				0				
SOUTHBOUND	Left		60	1	60	0	60	60	28	92	1	92	0	92	1	92		
	Left-Through			0							0				0			
	Through		317	1	223	4	321	225	242	579	1	419	4	583	1	421		
	Through-Right			1							1				1			
	Right		129	0	129	0	129	129	121	258	0	258	0	258	0	258		
	Left-Through-Right			0							0				0			
Left-Right				0						0				0				
EASTBOUND	Left		59	1	59	0	59	59	25	88	1	88	0	88	1	88		
	Left-Through			0							0				0			
	Through		773	1	413	10	783	420	382	1203	1	660	10	1213	1	666		
	Through-Right			1							1				1			
	Right		53	0	53	3	56	56	60	116	0	116	3	119	0	119		
	Left-Through-Right			0							0				0			
Left-Right				0						0				0				
WESTBOUND	Left		43	1	43	0	43	43	14	60	1	60	0	60	1	60		
	Left-Through			0							0				0			
	Through		683	1	377	2	685	378	413	1138	1	612	2	1140	1	613		
	Through-Right			1							1				1			
	Right		70	0	70	0	70	70	12	86	0	86	0	86	0	86		
	Left-Through-Right			0							0				0			
Left-Right				0						0				0				
CRITICAL VOLUMES			North-South: 285 East-West: 456 SUM: 741		North-South: 287 East-West: 463 SUM: 750		North-South: 573 East-West: 720 SUM: 1293		North-South: 575 East-West: 726 SUM: 1301		North-South: 575 East-West: 726 SUM: 1301							
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.494 0.394 A		0.500 0.400 A		0.862 0.762 C		0.867 0.767 C		0.867 0.767 C							

PROJECT IMPACT

Change in v/c due to project: **0.005** Δv/c after mitigation: **0.005**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
26	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:									
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, EW-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>			2	0	2	0	2	0	2	0								
			NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0										
			EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0										
			2	0	2	0	2	0										
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
NORTHBOUND		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	
		4	1	4	0	4	4	45	49	1	49	0	49	1	49	0	49	
		521	2	261	0	521	261	229	782	2	391	0	782	2	391	0	782	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		378	2	189	1	379	190	300	701	2	351	1	702	2	351	1	702	
		41	1	41	6	47	47	22	66	1	66	6	72	1	72	1	72	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND		25	1	25	0	25	25	10	37	1	37	0	37	1	37	0	37	
		106	1	106	5	111	111	142	255	1	255	5	260	1	260	1	260	
		34	1	34	0	34	34	2	38	1	38	0	38	1	38	1	38	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES			North-South: 261 East-West: 106 SUM: 367		North-South: 261 East-West: 111 SUM: 372		North-South: 400 East-West: 255 SUM: 655		North-South: 400 East-West: 260 SUM: 660		North-South: 400 East-West: 260 SUM: 660		North-South: 400 East-West: 260 SUM: 660					
VOLUME/CAPACITY (V/C) RATIO:			0.245		0.248		0.437		0.440		0.440		0.440		0.440			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.145		0.148		0.337		0.340		0.340		0.340		0.340			
LEVEL OF SERVICE (LOS):			A		A		A		A		A		A		A			

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Amir A	Date:	5/31/2019								
27	East-West Street:	Olympic Boulevard	Projection Year:		2023	Peak Hour:		AM	Reviewed by:			Project:	1045 Olive								
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		2	0	0	2	0	0	2	0	2	0								
		NB-- 0 SB-- 0		0	0	0	0	0	0	NB-- 0 SB-- 0	0	0	0	0							
		EB-- 0 WB-- 0		0	0	0	0	0	0	EB-- 0 WB-- 0	0	0	0	0							
		2		2	2	2	2	2	2	2	2	2	2	2							
		0		0	0	0	0	0	0	0	0	0	0	0							
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	72	0	72	0	72	72	21	97	0	97	0	97	0	97	0	97	0	97		
	Left-Through		1							1				1				1			
	Through	505	1	325	0	505	325	291	827	1	608	0	827	1	608	0	827	1	608		
	Through-Right		0							0				0				0			
	Right	53	1	40	0	53	40	8	64	1	47	0	64	1	47	0	64	1	47		
SOUTHBOUND	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
	Left	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0		
	Left-Through		0							0				0				0			
	Through	241	1	241	2	243	243	287	543	1	543	2	545	1	545	2	545	1	545		
EASTBOUND	Through-Right		0							0				0				0			
	Right	95	1	72	0	95	69	85	186	1	133	0	186	1	130	0	186	1	130		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
	Left	47	1	47	6	53	53	56	106	1	106	6	112	1	112	6	112	1	112		
WESTBOUND	Left-Through		0							0				0				0			
	Through	682	1	366	4	686	368	326	1050	1	578	4	1054	1	580	4	1054	1	580		
	Through-Right		1							1				1				1			
	Right	49	0	49	0	49	49	53	105	0	105	0	105	0	105	0	105	0	105		
	Left-Through-Right		0							0				0				0			
CRITICAL VOLUMES	Left-Through	27	1	27	0	27	27	5	34	1	34	0	34	1	34	0	34	1	34		
	Left-Through		0							0				0				0			
	Through	565	1	317	2	567	318	332	932	1	504	2	934	1	505	2	934	1	505		
	Through-Right		1							1				1				1			
	Right	68	0	68	0	68	68	3	75	0	75	0	75	0	75	0	75	0	75		
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):	Left-Through-Right		0							0				0				0			
		North-South: 325	East-West: 393	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395	North-South: 325	East-West: 395		
		SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718	SUM: 718		
		0.479	0.379	0.479	0.380	0.480	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835	0.835		
		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		
					</																

PROJECT IMPACT

Change in v/c due to project: **0.004** **NO**
 Significant impacted? **NO**
 Change in v/c after mitigation: **0.004** **N/A**
 Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
28	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2		2		2		2	
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	0	NB--	0	NB--	0	NB--	0
		SB--	0	0	SB--	0	SB--	0	SB--	0
		EB--	0	0	EB--	0	EB--	0	EB--	0
ATSAC-1 or ATSAC+ATCS-2?		WB--	2	2	WB--	2	WB--	2	WB--	2
Override Capacity			0	0		0		0		0
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume
NORTHBOUND	Left	29	1	29	0	29	1	29	16	47
	Left-Through		0				0			
	Through	601	2	301	0	601	2	474	309	947
	Through-Right		0				0			
	Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left-Through-Right		0				0			
	Left-Right		0				0			
	Left		0		0	0	0	0	0	0
	Left-Through		0				0			
	Through	279	1	149	0	279	1	331	334	630
EASTBOUND	Through-Right		1				1			
	Right	19	0	19	2	21	0	31	11	33
	Left-Through-Right		0				0			
	Left-Right		0				0			
	Left		0		0	0	0	0	0	0
WESTBOUND	Left-Through		0				0			
	Through	49	1	49	0	49	1	81	29	81
	Through-Right		0				0			
	Right	118	1	118	3	121	0	251	126	254
	Left-Through-Right		0				0			
CRITICAL VOLUMES		North-South: 301	East-West: 118	Sum: 419	North-South: 301	East-West: 121	Sum: 422	North-South: 474	East-West: 254	Sum: 728
VOLUME/CAPACITY (V/C) RATIO:		0.279	0.179	A	0.281	0.181	A	0.485	0.385	A
LEVEL OF SERVICE (LOS):										

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Date:	
29	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:	
		No. of Phases								
		Opposed Ø'ing: N/S-1, E/W-2 or Both-3?								
		Right Turns: FREE-1, NRTOR-2 or OLA-3?								
		ATSAC-1 or ATSAC+ATCS-2?								
		Override Capacity								

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	
30	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:	
				2017		1		Amir A		5/31/2019
				2023		AM				1045 Olive

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019											
31	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive											
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2		0	2	0	2	0	2	0											
		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0											
		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0											
		2		0		2		0		2		0									
MOVEMENT			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	Added Volume	Total Volume
NORTHBOUND	Left	63	1	63	0	63	63	11	78	1	78	0	78	1	78	0	78	1	78	0	78
	Left-Through		0							0				0				0			
	Through-Right	367	1	200	0	367	200	123	513	1	274	0	513	1	274	0	513	1	274	0	513
	Right	33	0	33	0	33	33	0	35	0	35	0	35	0	35	0	35	0	35	0	35
	Left-Through-Right		0								0				0				0		
SOUTHBOUND	Left	39	1	39	0	39	39	0	41	1	41	0	41	1	41	0	41	1	41	0	41
	Left-Through		0							0				0				0			
	Through-Right	409	1	298	0	409	298	113	547	1	373	0	547	1	373	0	547	1	373	0	547
	Right	187	0	187	0	187	187	0	199	0	199	0	199	0	199	0	199	0	199	0	199
	Left-Through-Right		0								0				0				0		
EASTBOUND	Left	82	1	82	0	82	82	2	89	1	89	0	89	1	89	0	89	1	89	0	89
	Left-Through		0							0				0				0			
	Through-Right	416	1	256	2	418	258	136	578	1	358	2	580	1	360	2	580	1	360	2	580
	Right	96	0	96	1	97	97	36	138	0	138	1	139	0	139	1	139	0	139	1	139
	Left-Through-Right		0								0				0				0		
WESTBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22	0	22
	Left-Through		0							0				0				0			
	Through-Right	360	1	187	2	362	188	214	596	1	306	2	598	1	307	2	598	1	307	2	598
	Right	13	0	13	0	13	13	1	15	0	15	0	15	0	15	0	15	0	15	0	15
	Left-Through-Right		0								0				0				0		
CRITICAL VOLUMES			North-South: 361 East-West: 277 SUM: 638	North-South: 361 East-West: 279 SUM: 640	North-South: 451 East-West: 395 SUM: 846	North-South: 451 East-West: 396 SUM: 847	North-South: 451 East-West: 396 SUM: 847	North-South: 451 East-West: 396 SUM: 847	North-South: 451 East-West: 396 SUM: 847	North-South: 451 East-West: 396 SUM: 847											
VOLUME/CAPACITY (V/C) RATIO:			0.425	0.427	0.564	0.565	0.564	0.565	0.564	0.565											
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.325	0.327	0.464	0.465	0.464	0.465	0.464	0.465											
LEVEL OF SERVICE (LOS):			A	A	A	A	A	A	A	A											

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

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:	Ambient Growth: (%)	Conducted by:	Date:	5/31/2019					
32	East-West Street:	11th Street	Projection Year: 2023	Peak Hour: AM	Reviewed by:	Project:	1045 Olive					
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	2	0	2	0	2					
		NB--	0	0	NB--	0	0	0				
		SB--	0	0	SB--	0	0	0				
		WB--	0	0	WB--	0	0	0				
		2	2	2	2	2	2	2				
MOVEMENT		EXISTING PLUS PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION				
NORTHBOUND	Volume		23	0	23	4	28	0	28	28	0	28
	No. of Lanes		1	0	1	0	1	0	1	1	0	1
	Lane Volume		248	0	248	127	604	0	604	604	1	358
	Left-Through-Right		0	0	0	0	0	0	0	0	0	0
	Left-Through-Right Left-Right		0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Volume		0	0	0	0	0	0	0	0	0	0
	No. of Lanes		0	0	0	0	0	0	0	0	0	0
	Lane Volume		255	1	442	142	610	1	611	611	1	346
	Left-Through-Right		69	0	69	7	80	0	80	80	0	80
	Left-Through-Right Left-Right		0	0	0	0	0	0	0	0	0	0
EASTBOUND	Volume		0	0	0	0	0	0	0	0	0	0
	No. of Lanes		0	0	0	0	0	0	0	0	0	0
	Lane Volume		0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0	0	0	0	0	0	0	0	0	0
	Left-Through-Right Left-Right		0	0	0	0	0	0	0	0	0	0
WESTBOUND	Volume		40	0	40	0	42	0	42	42	0	42
	No. of Lanes		1	0	1	0	1	0	1	1	0	1
	Lane Volume		64	1	89	114	207	1	208	208	1	125
	Left-Through-Right		34	0	34	7	43	0	43	43	1	43
	Left-Through-Right Left-Right		0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES		North-South: 278 East-West: 64 SUM: 342	North-South: 279 East-West: 65 SUM: 344	North-South: 373 East-West: 125 SUM: 498	North-South: 374 East-West: 125 SUM: 499	North-South: 374 East-West: 125 SUM: 499		374 125 499				
VOLUME/CAPACITY (V/C) RATIO:		0.228	0.229	0.332	0.333	0.233		0.233				
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.128	0.129	0.232	0.233	0.233		0.233				
LEVEL OF SERVICE (LOS):		A	A	A	A	A		A				

PROJECT IMPACT

Change in v/c due to project: 0.001
Significant impacted? NO

Δv/c after mitigation: 0.001
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019				
33	East-West Street:	12th Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	1045 Olive				
<div>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</div>	No. of Phases		2	2	2		2		2					
	NB-- 0 SB-- 0		0	0	0		0		0					
	EB-- 0 WB-- 0		0	0	0		0		0					
	2		2	2	2	2		2		2				
	0		0	0	0	0		0		0				
MOVEMENT			EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT			
	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
<div>Left Left-Through Through-Right Right Left-Through-Right Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1241	2	441	15	1256	446	587	1904	2	668	15	1919	2	673
	83	0	83	0	83	83	11	99	1	99	0	99	1	99
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>Left Left-Through Through-Right Right Left-Through-Right Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>Left Left-Through Through-Right Right Left-Through-Right Left-Right</div>	64	0	64	3	67	67	95	163	0	163	3	166	0	166
	113	1	89	1	114	91	158	278	1	221	1	279	1	223
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<div>Left Left-Through Through-Right Right Left-Through-Right Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	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: 441 East-West: 89 SUM: 530	North-South: 446 East-West: 91 SUM: 537	North-South: 668 East-West: 221 SUM: 889	North-South: 673 East-West: 223 SUM: 896	North-South: 673 East-West: 223 SUM: 896							
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.353 0.253 A	0.358 0.258 A	0.593 0.493 A	0.597 0.497 A	0.597 0.497 A							

PROJECT IMPACT

Change in v/c due to project: **0.004** **NO** Significant impacted?
 Δv/c after mitigation: **0.004** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - AM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:	2017	Ambient Growth: (%)		1	Conducted by:	Amir A	Date:	5/31/2019								
34	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:		AM	Reviewed by:		Project:	1045 Olive								
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0			2	0	2		0								
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0 SB-- 0		0	NB-- 0 SB-- 0	0	NB-- 0 SB-- 0	0								
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0 WB-- 0		0	EB-- 0 WB-- 0	0	EB-- 0 WB-- 0	0								
Override Capacity		2	2	0			2	0	2		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	
	41	1	41	0	41	41	18	62	1	62	0	62	1	62	0	62	1	62	
	Left-Through	0		0		274	172	674	1	382	0	674	1	382	0	674	1	382	
	Through-Right	1		74	0	74	11	90	1	90	0	90	1	90	0	90	1	90	
Left-Through-Right	0			0					0		0		0				0		
Left-Right	0								0				0				0		
SOUTHBOUND	Left	21	1	21	0	21	31	53	1	53	0	53	1	53	0	53	1	53	
	Left-Through	0			0				0		0		0				0		
	Through	270	1	169	0	270	303	590	1	383	0	590	1	384	0	590	1	384	
	Through-Right	1			1		105	176	1	176	1	177	1	177	0	177	1	177	
	Right	67	0	67	1	68	68			0				0				0	
Left-Through-Right	0								0				0				0		
Left-Right	0								0				0				0		
EASTBOUND	Left	60	0	60	0	60	42	106	0	106	0	106	0	106	0	106	0	106	
	Left-Through	1			0				1				1				1		
	Through	390	0	284	0	390	214	628	0	470	0	628	0	470	0	628	0	470	
	Through-Right	1			0				1				1				1		
	Right	57	0	284	0	57	284	38	99	0	470	0	99	0	470	0	99	0	
Left-Through-Right	0								0				0				0		
Left-Right	0								0				0				0		
WESTBOUND	Left	15	0	15	0	15	0	16	0	16	0	16	0	16	0	16	0	16	
	Left-Through	1			0				1				1				1		
	Through	294	0	174	0	294	256	568	0	329	0	568	0	329	0	568	0	329	
	Through-Right	1			0		1		1				1				1		
	Right	24	0	174	0	24	1	26	0	329	0	26	0	329	0	26	0	329	
Left-Through-Right	0								0				0				0		
Left-Right	0								0				0				0		
CRITICAL VOLUMES		North-South: 295 East-West: 299 SUM: 594	North-South: 295 East-West: 299 SUM: 594	North-South: 295 East-West: 299 SUM: 594	North-South: 445 East-West: 486 SUM: 931	North-South: 446 East-West: 486 SUM: 932	North-South: 446 East-West: 486 SUM: 932	North-South: 446 East-West: 486 SUM: 932	North-South: 446 East-West: 486 SUM: 932	North-South: 446 East-West: 486 SUM: 932	North-South: 446 East-West: 486 SUM: 932								
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):		0.396 0.296 A	0.396 0.296 A	0.396 0.296 A	0.621 0.521 A	0.621 0.521 A	0.621 0.521 A	0.621 0.521 A	0.621 0.521 A	0.621 0.521 A	0.621 0.521 A								

PROJECT IMPACT

Change in v/c due to project: **0.000** Δv/c after mitigation: **0.000**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	La Live Way	Year of Count:	2017	Ambient Growth: (%):		1	Conducted by:	Amir A	Date:	5/31/2019					
1	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:		PM	Reviewed by:		Project:	1045 Olive					
Opposed Ø'ing: N/S-1, EW-2 or Both-3?		No. of Phases	3		3		3	3		3						
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0		0		0	NB--		0						
ATSAC-1 or ATSAC+ATCS-2?		SB--	0		0		0	SB--		0						
Override Capacity		EB--	3		3		3	EB--		0						
		WB--	2		2		2	WB--		3						
			0		0		0			2						
										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	
NORTHBOUND	Left	744	2	409	0	744	409	16	806	2	443	0	806	2	443	
	Left-Through		0							0				0		
	Through	802	2	401	0	802	401	226	1077	2	539	0	1077	2	539	
	Through-Right		0							0				0		
	Right	121	1	121	6	127	127	384	512	1	518	6	518	1	518	
SOUTHBOUND	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	87	2	48	0	87	48	78	170	2	94	0	170	2	94	
	Left-Through		0							0				0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND	Right	20	2	0	0	20	0	0	21	2	0	0	21	2	0	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	150	1	150	0	150	150	1	160	1	160	0	160	1	160	
	Left-Through		0							0				0		
WESTBOUND	Through	787	3	262	6	793	264	473	1308	3	438	6	1314	3	438	
	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
CRITICAL VOLUMES	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through	712	2	356	2	714	357	373	1129	2	565	2	1131	2	566	
	Through-Right		0							0				0		
	Right	388	1	340	0	388	340	241	653	1	559	0	653	1	559	
VOLUME/CAPACITY (V/C) RATIO: LEVEL OF SERVICE (LOS):	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	North-South:	449	449	449	North-South:	449	449	633	North-South:	633	633	633	633	633	633	
	East-West:	506	507	507	East-West:	507	507	726	East-West:	726	726	726	726	726	726	
	SUM:	955	956	956	SUM:	956	956	1358	SUM:	1359	1359	1359	1359	1359	1359	
VOLUME/CAPACITY (V/C) RATIO: LEVEL OF SERVICE (LOS):		0.670	0.671	0.671		0.671	0.671	0.953		0.954	0.954	0.954	0.954	0.954	0.954	
		0.570	0.571	0.571		0.571	0.571	0.853		0.854	0.854	0.854	0.854	0.854	0.854	
		A	A	A		A	A	D		D	D	D	D	D	D	

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figuerroa Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:								
2	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:								
		No. of Phases															
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	3		3		3				3							
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	0 3	SB-- 0 WB-- 0	NB-- 0 EB-- 0		NB-- 0 EB-- 0	0 3							
	ATSAC-1 or ATSAC+ATCS-2?	2		2		2				2							
	Override Capacity	0		0		0				0							
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Total Volume	
NORTHBOUND	Left	210	1	210	0	210	210	278	501	1	501	0	501	1	501	501	
	Left-Through		0							0				0			
	Through		0							0				0			
	Through-Right	1013	3	338	2	1015	338	812	1887	2	944	2	1889	2	945	1889	
	Right	154	1	107	0	154	107	118	281	1	220	0	281	1	220	281	
	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0			
	Through		0							0				0			
	Through-Right		0							0				0			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
EASTBOUND	Left	167	1	167	0	167	167	186	363	1	363	0	363	1	363	363	
	Left-Through		0							0				0			
	Through		0							0				0			
	Through-Right	825	3	275	16	841	280	917	1793	3	598	16	1809	3	603	1809	
	Right	256	1	46	0	256	46	124	396	1	0	0	396	1	0	396	
	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
WESTBOUND	Left	94	1	94	0	94	94	22	122	1	122	0	122	1	122	122	
	Left-Through		0							0				0			
	Through		0							0				0			
	Through-Right	1191	3	397	8	1199	400	909	2173	3	724	8	2181	3	727	2181	
	Right	238	1	238	2	240	240	274	527	1	527	2	529	1	529	529	
	Left-Through-Right		0							0				0			
	Left-Right		0							0				0			
CRITICAL VOLUMES			North-South: 338 East-West: 564 SUM: 902	North-South: 338 East-West: 567 SUM: 905	North-South: 944 East-West: 1087 SUM: 2031	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	North-South: 945 East-West: 1090 SUM: 2035	
VOLUME/CAPACITY (V/C) RATIO:			0.633	0.635	1.425	1.428	0.633	0.635	1.425	1.428	0.633	0.635	1.425	1.428	0.633	0.635	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.533	0.535	1.325	1.328	0.533	0.535	1.325	1.328	0.533	0.535	1.325	1.328	0.533	0.535	
LEVEL OF SERVICE (LOS):			A	A	F	F	A	A	F	F	F	A	A	F	F	F	

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figuerroa Street		Year of Count:		Ambient Growth: (%)		Conducted by:		Date:		5/31/2019	
	East-West Street:	Chick Hearn Court		Projection Year: 2023		Peak Hour: PM		Reviewed by:		Project:		1045 Olive	
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	<div>No. of Phases</div>	4		0		4		0		4		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0		0	
		0		0		0		0		0			

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Figueroa Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:						
4	East-West Street:	Pico Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:						
No. of Phases			2		2		2		2						
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0		0		0		0						
Right Turns: FREE-1, NRTOR-2 or OLA-3?			0		0		0		0						
ATSAC-1 or ATSAC+ATCS-2?			2		2		2		2						
Override Capacity			0		0		0		0						
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
	Left	1	148	0	148	148	178	335	1	335	0	335	1	335	
	Left-Through	0							0				0		
	Through	2	548	4	1099	550	792	1954	2	977	4	1958	2	979	
	Through-Right	0							0				0		
	Right	1	75	0	114	75	101	222	1	135	0	222	1	135	
	Left-Through-Right	0							0				0		
	Left-Right	0							0				0		
	Left	1	20	0	20	20	12	33	1	33	0	33	1	33	
	Left-Through	0							0				0		
	Through	2	209	0	417	209	46	489	2	245	0	489	2	245	
	Through-Right	0							0				0		
	Right	1	12	0	65	12	28	97	1	0	0	97	1	0	
	Left-Through-Right	0							0				0		
	Left-Right	0							0				0		
	Left	1	107	0	107	107	141	255	1	255	0	255	1	255	
	Left-Through	0							0				0		
	Through	2	289	11	589	295	589	1203	2	602	11	1214	2	607	
	Through-Right	0							0				0		
	Right	1	209	0	283	209	205	505	1	338	0	505	1	338	
	Left-Through-Right	0							0				0		
	Left-Through	1	78	0	78	78	91	174	1	174	0	174	1	174	
	Left-Through	0							0				0		
	Through	2	225	2	452	226	407	885	2	443	2	887	2	444	
	Through-Right	0							0				0		
	Right	1	60	0	70	60	191	265	1	249	0	265	1	249	
	Left-Through-Right	0							0				0		
	Left-Right	0							0				0		
	Left	1	588	0	588	570	786	1010	1	1012	0	786	1	1012	
	Left-Through	0							0				0		
	Through	2	367	0	367	373	776	1012	2	781	0	781	2	781	
CRITICAL VOLUMES			SUM: 935			SUM: 1786			SUM: 1793			SUM: 1793			
VOLUME/CAPACITY (V/C) RATIO:			0.623			1.191			1.195			1.195			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.523			1.091			1.095			1.095			
LEVEL OF SERVICE (LOS):			A			F			F			F			

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Flower Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
5	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0	2	0		2		2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	NB-- 0	SB-- 0	NB-- 0	0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	EB-- 0	WB-- 0	EB-- 0	0
Override Capacity		2	2	2	2	0		2		2
		0	0	0	0	0		0		0
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-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
	Left-Through-Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left	138	0	138	36	182	4	186	0	186
	Left-Through	1296	3	359	859	2235	2	2237	0	2237
	Through-Right	389	1	389	364	777	0	777	0	777
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0	0
	Left-Through	830	2	415	727	1608	16	1624	0	1624
	Through-Right	104	1	104	264	374	0	374	0	374
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	48	1	48	77	128	1	129	0	129
	Left-Through	1219	2	610	841	2135	10	2145	0	2145
	Through-Right	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 389 East-West: 610 SUM: 999	North-South: 777 East-West: 1068 SUM: 1845	North-South: 777 East-West: 1073 SUM: 1850	North-South: 777 East-West: 1073 SUM: 1850	North-South: 777 East-West: 1073 SUM: 1850	North-South: 777 East-West: 1073 SUM: 1850	North-South: 777 East-West: 1073 SUM: 1850	North-South: 777 East-West: 1073 SUM: 1850
VOLUME/CAPACITY (V/C) RATIO:			0.666	1.230	1.233	1.233	1.233	1.233	1.233	1.233
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.566	1.130	1.133	1.133	1.133	1.133	1.133	1.133
LEVEL OF SERVICE (LOS):			A	F	F	F	F	F	F	F

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour


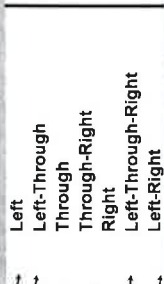
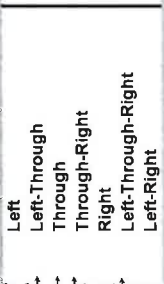

I/S #:	North-South Street:	Flower Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:		5/31/2019							
6	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:		1045 Olive							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		0		2		0		2							
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		0							
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		0							
MOVEMENT			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		
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right		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	
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through	1313	3	438	2	1315	3	795	991	2385	3	796	2	2387	3	796	
		Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right	227	1	227	0	227	1	314	73	314	1	314	0	314	1	314	
		Left-Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right	24	1	24	0	24	1	30	5	30	1	30	0	30	1	30	
		Left-Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND		Left	114	1	114	1	115	1	462	341	462	1	463	1	463	1	463	
		Left-Through		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right	228	1	228	8	236	1	392	150	392	1	400	8	400	1	400	
		Right	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	
CRITICAL VOLUMES			North-South: 438 East-West: 228 SUM: 666		North-South: 438 East-West: 236 SUM: 674		North-South: 795 East-West: 492 SUM: 1287		North-South: 796 East-West: 493 SUM: 1289		North-South: 796 East-West: 493 SUM: 1289		North-South: 796 East-West: 493 SUM: 1289		North-South: 796 East-West: 493 SUM: 1289			
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT:			0.444 0.344		0.449 0.349		0.858 0.758		0.859 0.759		0.859 0.759		0.859 0.759		0.859 0.759			
LEVEL OF SERVICE (LOS):			A		A		C		C		C		C		C			

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019									
7	East-West Street:	Olympic Boulevard	Projection Year:	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive									
<div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		No. of Phases	2	0	2	0	2	0	2									
		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	0	0	NB-- 0 SB-- 0	0								
		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	0	0	EB-- 0 WB-- 0	0								
		2	2	2	2	2	2	2	2	2								
		0	0		0				0									
MOVEMENT		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		
	Left	78	0	78	3	81	81	36	119	0	119	3	122	0	122	122	0	122
	Left-Through		1							1				1				1
	Through-Right	293	0	257	1	294	261	28	339	0	327	1	340	0	330	340	0	330
	Right	65	0	257	0	65	261	7	76	0	327	0	76	1	330	76	0	330
	Left-Through-Right		0							0				0				0
Left-Right		0							0				0				0	0
	Left	37	0	37	0	37	37	16	55	0	55	0	55	0	55	55	0	55
	Left-Through		1							1				1				1
	Through-Right	388	0	286	0	388	286	45	457	0	345	0	457	0	345	457	0	345
	Right	110	0	286	0	110	286	5	122	0	345	0	122	1	345	122	0	345
	Left-Through-Right		0							0				0				0
Left-Right		0							0				0				0	0
	Left	88	1	88	0	88	88	23	116	1	116	0	116	1	116	116	1	116
	Left-Through		0							0				0				0
	Through-Right	756	1	433	20	776	443	742	1545	1	845	20	1565	1	855	1565	1	855
	Right	110	0	110	0	110	110	28	145	0	145	0	145	0	145	145	0	145
	Left-Through-Right		0							0				0				0
Left-Right		0							0				0				0	0
	Left	26	1	26	0	26	26	3	31	1	31	0	31	1	31	31	1	31
	Left-Through		0							0				0				0
	Through-Right	1103	1	604	8	1111	608	901	2072	1	1113	8	2080	1	1117	2080	1	1117
	Right	104	0	104	0	104	104	43	153	0	153	0	153	0	153	153	0	153
	Left-Through-Right		0							0				0				0
Left-Right		0							0				0				0	0
CRITICAL VOLUMES		North-South: 364 East-West: 692 SUM: 1056	North-South: 367 East-West: 696 SUM: 1063	North-South: 464 East-West: 1229 SUM: 1693	North-South: 467 East-West: 1233 SUM: 1700	North-South: 467 East-West: 1233 SUM: 1700	North-South: 467 East-West: 1233 SUM: 1700	North-South: 467 East-West: 1233 SUM: 1700	North-South: 467 East-West: 1233 SUM: 1700									
VOLUME/CAPACITY (V/C) RATIO:		0.704	0.609	1.129	1.133	1.133	1.133	1.133	1.133									
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.604	0.609	1.029	1.033	1.033	1.033	1.033	1.033									
LEVEL OF SERVICE (LOS):		B	B	F	F	F	F	F	F									

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hope Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	5/31/2019								
8	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:	1045 Olive								
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			2		0		2		2		2							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
			0		0		0		0		0							
MOVEMENT			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		
NORTHBOUND	Left		34	0	34	0	34	34	36	72	0	72	0	72	0	72		
	Left-Through			1	204	0	339	204	51	411	1	350	0	411	1	350		
	Through-Right			0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right		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		
SOUTHBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through			0														
	Through-Right		418	1	259	0	418	259	28	472	1	309	0	472	1	309		
	Right		99	0	99	0	99	99	40	145	0	145	0	145	0	145		
	Left-Through-Right			0	0													
EASTBOUND	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through			0														
	Through-Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right			0	0													
WESTBOUND	Left		40	0	40	0	40	40	5	47	0	47	0	47	0	47		
	Left-Through			1														
	Through-Right		265	0	305	9	274	314	506	787	0	834	9	796	0	843		
	Right		100	1	100	4	104	104	22	128	1	128	4	132	1	132		
	Left-Through-Right			0														
CRITICAL VOLUMES			North-South: 293 East-West: 305 SUM: 598		North-South: 293 East-West: 314 SUM: 607		North-South: 381 East-West: 834 SUM: 1215		North-South: 381 East-West: 843 SUM: 1224		North-South: 381 East-West: 843 SUM: 1224							
VOLUME/CAPACITY (V/C) RATIO:			0.399		0.405		0.810		0.816		0.816							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.299		0.305		0.710		0.716		0.716							
LEVEL OF SERVICE (LOS):			A		A		C		C		C							

PROJECT IMPACT

Change in v/c due to project: **0.006** NO Fully mitigated? **0.006** N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:		
9	East-West Street:	8th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:		
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			2		2		2		2		
			0		0		0		0		
MOVEMENT			No. of Lanes		Total Volume		No. of Lanes		Total Volume		
			Lane Volume		Lane Volume		Lane Volume		Lane Volume		
			Volume		Project Traffic		Added Volume		Total Volume		
			0		0		0		0		
			0		0		0		0		
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	
	Left-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	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	
	Left-Through	1391	3	464	12	1403	468	678	2155	3	718
	Through-Right	258	1	258	0	258	258	89	363	1	363
	Right	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left	202	1	202	0	202	202	320	534	1	534
	Left-Through	920	3	307	4	924	308	959	1936	3	645
	Through-Right	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 464 East-West: 307 SUM: 771		North-South: 468 East-West: 308 SUM: 776		North-South: 718 East-West: 645 SUM: 1363		North-South: 722 East-West: 647 SUM: 1369		
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.514 0.414 A		0.517 0.417 A		0.909 0.809 D		0.913 0.813 D		

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:				
10	East-West Street:	9th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:				
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			2		0		2		2				
			0		0		0		0				
			0		0		0		0				
			0		0		0		0				
EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT				
MOVEMENT			Project Traffic	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	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
SOUTHBOUND	Left	269	1	269	269	162	448	1	448	0	448	1	448
	Left-Through	1495	3	498	502	762	2349	3	783	12	2361	3	787
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	988	3	329	331	1149	2198	3	733	6	2204	3	735
	Through-Right	190	1	190	204	262	464	1	464	14	478	1	478
	Right	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
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES			North-South: 502 East-West: 331 SUM: 833	North-South: 783 East-West: 733 SUM: 1516	North-South: 787 East-West: 735 SUM: 1522								
VOLUME/CAPACITY (V/C) RATIO: V/C LESS ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):			0.551 0.451 A	1.011 0.911 E	1.015 0.915 E	1.015 0.915 E							

PROJECT IMPACT

Change in v/c due to project: **0.004** Δv/c after mitigation: **0.004**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019					
11	East-West Street:	Olympic Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive					
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?		No. of Phases	2	0	0	2	0	0	2	0					
		NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	0	0	0	0	0	0	0					
Override Capacity		2	2	0	0	2	2	0	2	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	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
SOUTHBOUND	Left	115	1	115	24	139	177	299	1	299	24	323	1	323	
	Left-Through	1299	3	433	2	1301	701	2080	3	693	2	2082	3	694	
	Through-Right	232	1	232	0	232	118	364	1	364	0	364	1	364	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	725	1	433	20	745	522	1292	1	843	20	1312	1	853	
	Through-Right	141	1	141	0	141	243	393	0	393	0	393	0	393	
	Right	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	
WESTBOUND	Left	114	1	114	3	117	21	142	1	142	3	145	1	145	
	Left-Through	1000	2	500	8	1008	829	1891	2	946	8	1899	2	950	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES		North-South: 433 East-West: 547 SUM: 980	North-South: 434 East-West: 580 SUM: 994	North-South: 693 East-West: 985 SUM: 1678	North-South: 694 East-West: 998 SUM: 1692	North-South: 694 East-West: 998 SUM: 1692					North-South: 694 East-West: 998 SUM: 1692				
VOLUME/CAPACITY (V/C) RATIO:		0.653	0.663	1.119	1.128	1.128					1.128				
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.553	0.563	1.019	1.028	1.028					1.028				
LEVEL OF SERVICE (LOS):		A	A	F	F	F					F				

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	5/31/2019							
12	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:	1045 Olive							
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>			2		2		2		2								
			0		0		0		0								
			0		0		0		0								
			0		0		0		0								
			0		0		0		0								
MOVEMENT			EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
			Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right	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	
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	1419	3	473	6	1425	475	854	2360	3	787	6	2366	3	789	788
		Through-Right	156	1	156	0	156	156	84	250	1	250	0	250	1	250	250
		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
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Right	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
WESTBOUND		Left	111	1	111	15	126	126	131	249	1	249	15	264	1	264	261
		Left-Through	264	1	264	13	277	277	448	728	1	728	13	741	1	741	739
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Right	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
CRITICAL VOLUMES			North-South: 473 East-West: 264 SUM: 737		North-South: 475 East-West: 277 SUM: 752		North-South: 787 East-West: 728 SUM: 1515		North-South: 789 East-West: 741 SUM: 1530		North-South: 789 East-West: 741 SUM: 1530		North-South: 788 East-West: 739 SUM: 1527				
VOLUME/CAPACITY (V/C) RATIO:			0.491		0.501		1.010		1.020		1.018						
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.391		0.401		0.910		0.920		0.918						
LEVEL OF SERVICE (LOS):			A		A		E		E		E						

PROJECT IMPACT

Change in v/c due to project: **0.010** YES
 Δv/c after mitigation: **0.008** YES
 Fully mitigated? **YES**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019						
13	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
<div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2		0	2	0	2	0	2	0						
		NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	0	0					
		EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	0	0					
		2	0	2	0	2	0	2	0	2	0					
MOVEMENT			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION				
NORTHBOUND	<div>Left</div> <div>Left-Through</div> <div>Through</div> <div>Through-Right</div> <div>Right</div> <div>Left-Through-Right</div> <div>Left-Right</div>	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	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	<div>Left</div> <div>Left-Through</div> <div>Through</div> <div>Through-Right</div> <div>Right</div> <div>Left-Through-Right</div> <div>Left-Right</div>	88	0	88	0	88	20	113	0	113	0	113	0	113	0	113
		1088	1	588	16	1104	761	1916	1	1015	16	1932	1	1023	1	1023
		178	0	178	2	180	130	319	1	319	2	321	1	321	1	321
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	<div>Left</div> <div>Left-Through</div> <div>Through</div> <div>Through-Right</div> <div>Right</div> <div>Left-Through-Right</div> <div>Left-Right</div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		456	1	267	11	467	480	964	1	564	11	975	1	569	1	569
		77	0	77	0	77	81	163	0	163	0	163	0	163	0	163
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	<div>Left</div> <div>Left-Through</div> <div>Through</div> <div>Through-Right</div> <div>Right</div> <div>Left-Through-Right</div> <div>Left-Right</div>	75	0	75	0	75	112	192	0	192	0	192	0	192	0	192
		655	1	403	1	656	402	1097	1	1097	1	1098	1	1098	1	1098
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES			North-South: 588	North-South: 596	North-South: 1015	North-South: 1097	North-South: 1023	North-South: 1098	North-South: 1023	North-South: 1098						
VOLUME/CAPACITY (V/C) RATIO:			East-West: 403	East-West: 403	East-West: 1097	East-West: 2121	East-West: 1098	East-West: 2121	East-West: 1098	East-West: 1098						
V/C LESS ATSAC/ATCS ADJUSTMENT:			SUM: 991	SUM: 999	SUM: 2112	SUM: 2112	SUM: 2121	SUM: 2121	SUM: 2121	SUM: 2121						
LEVEL OF SERVICE (LOS):			0.661	0.666	1.408	1.408	1.414	1.414	1.414	1.414						
			0.561	0.566	1.308	1.308	1.314	1.314	1.314	1.314						
			A	A	F	F	F	F	F	F						

PROJECT IMPACT

Change in v/c due to project: **0.006** Δv/c after mitigation: **0.006**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue		Year of Count:	2017	Ambient Growth: (%)		1	Conducted by:	Amir A	Date:	5/31/2019			
	East-West Street:	Venice Boulevard			Projection Year:	2023	Peak Hour:			PM		Reviewed by:	Project:	1045 Olive	
14	No. of Phases			2	2	2		2	2		2				
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0	0	0		0	0		0				
	Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 EB-- 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0		SB-- 0 WB-- 0	NB-- 0 EB-- 0		SB-- 0 WB-- 0				
	ATSAC-1 or ATSAC+ATCS-2?			2	2	2		2	2		2				
	Override Capacity			0	0	0		0	0		0				
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
SOUTHBOUND	Left	153	0	153	0	153	2	164	0	164	0	164	0	164	164
	Left-Through	1019	2	391	16	1035	806	1888	2	684	16	1904	2	689	689
	Through-Right	89	1	89	0	89	19	113	1	113	0	113	1	113	113
	Right	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
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through	432	1	256	0	432	68	527	1	337	0	527	1	337	337
	Through-Right	80	0	80	0	80	61	146	0	146	0	146	0	146	146
	Right	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
WESTBOUND	Left	30	0	30	0	30	4	36	0	36	0	36	0	36	36
	Left-Through	315	1	188	0	315	71	405	1	275	0	405	1	275	275
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	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
CRITICAL VOLUMES				North-South: 391 East-West: 286 SUM: 677	North-South: 396 East-West: 286 SUM: 682	North-South: 684 East-West: 373 SUM: 1057	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062	North-South: 689 East-West: 373 SUM: 1062
VOLUME/CAPACITY (V/C) RATIO:				0.451	0.455	0.705	0.708	0.708	0.708	0.708	0.708	0.708	0.708	0.708	0.708
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.351	0.355	0.605	0.608	0.608	0.608	0.608	0.608	0.608	0.608	0.608	0.608
LEVEL OF SERVICE (LOS):				A	A	B	B	B	B	B	B	B	B	B	B

PROJECT IMPACT

Change in v/c due to project: **0.003** Δv/c after mitigation: **0.003**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:								
15	East-West Street:	17th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:								
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			2		2		2		2								
			0		0		0		0								
			0		0		0		0								
			0		0		0		0								
			0		0		0		0								
MOVEMENT			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	
NORTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Right	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	
SOUTHBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	738	3	246	11	749	492	1275	3	425	11	1286	3	429	3	429
		Through-Right	552	1	552	5	557	379	965	1	965	5	970	1	970	1	970
		Right	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
EASTBOUND		Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Right	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
WESTBOUND		Left	41	0	41	0	41	76	120	0	120	0	120	0	120	0	120
		Left-Through	1198	1	620	0	1198	426	1698	1	909	0	1698	1	1698	1	909
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Right	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
CRITICAL VOLUMES			North-South: 552 East-West: 620 SUM: 1172			North-South: 557 East-West: 620 SUM: 1177			North-South: 965 East-West: 909 SUM: 1874			North-South: 970 East-West: 909 SUM: 1879			North-South: 970 East-West: 909 SUM: 1879		
VOLUME/CAPACITY (V/C) RATIO:			0.781			0.785			1.249			1.253			1.253		
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.681			0.685			1.149			1.153			1.153		
LEVEL OF SERVICE (LOS):			B			B			F			F			F		

PROJECT IMPACT

Change in v/c due to project: 0.004
 Significant impacted? NO
 Δv/c after mitigation: 0.004
 Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Grand Avenue		Year of Count:	2017	Ambient Growth: (%):			Conducted by:	Amir A	Date:	5/31/2019				
	East-West Street:	18th Street	Projection Year:			2023	Peak Hour:	PM					Reviewed by:	1045 Olive		
16	No. of Phases			3	0	0	3	0	0	0	0	3				
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0	0	0	0	0	0	0	0	0				
	Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0 EB-- 0	0 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	0 0	SB-- 0 WB-- 0	NB-- 0 EB-- 0	0 0	0 0				
	ATSAC-1 or ATSAC+ATCS-2?			2	2	2	2	2	2	2	2	2				
	Override Capacity			0	0	0	0	0	0	0	0	0				
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	312	2	172	0	312	172	15	346	2	190	0	346	2	190	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTHBOUND	Left	236	1	236	3	239	239	154	405	1	405	3	408	1	408	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	570	2	285	8	578	289	414	1019	2	510	8	1027	2	514	
	Right	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	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	1150	2	383	11	1161	387	941	2162	2	721	11	2173	2	724	
	Right	157	1	157	0	157	157	151	318	1	318	0	318	1	318	
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	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	
CRITICAL VOLUMES		North-South: 408 East-West: 383 SUM: 791	North-South: 411 East-West: 387 SUM: 798	North-South: 595 East-West: 721 SUM: 1316	North-South: 598 East-West: 724 SUM: 1322	North-South: 598 East-West: 724 SUM: 1322	North-South: 598 East-West: 724 SUM: 1322									
VOLUME/CAPACITY (V/C) RATIO:		0.555	0.560	0.924	0.928	0.928	0.928									
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.455	0.460	0.824	0.828	0.828	0.828									
LEVEL OF SERVICE (LOS):		A	A	D	D	D	D									

PROJECT IMPACT

Change in v/c due to project: 0.004
Significant impacted? NO
Fully mitigated? N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:	5/31/2019								
17	East-West Street:	8th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:	1045 Olive								
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			2		0		2		2		2							
			0		0		0		0		0							
			NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		0							
			EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		0							
			2		2		2		2		2							
			0		0		0		0		0							
MOVEMENT			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	247	1	247	4	251	251	328	590	1	590	4	594	1	594	594	1	594
	Left-Through		0		8	885	295	730	1661	3	554	8	1669	3	556	1669	3	556
	Through-Right	877	3	292														
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0	0														
SOUTHBOUND	Left-Right	0	0							0				0			0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Left-Through-Right	0	0	0						0				0			0	
	Left-Right	0	0							0				0			0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right	0	0							0				0			0	
	Left-Right	0	0							0				0			0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES	Through-Right	897	3	299	0	897	299	945	1897	3	632	0	1897	3	632	1897	3	632
	Right	96	1	96	0	96	96	72	174	1	174	0	174	1	174	174	1	174
	Left-Through-Right	0	0							0				0			0	
	Left-Right	0	0							0				0			0	
		North-South: 292	295	299	North-South: 295	299	299	North-South: 590	594	594	594	594	North-South: 594	594	594	594	594	594
			East-West: 299	299	299	East-West: 299	299	632	632	632	632	East-West: 632	632	632	632	632	632	
			SUM: 591	594	594	SUM: 594	594	SUM: 1226	1226	SUM: 1226	1226	SUM: 1226	1226	SUM: 1226	1226	SUM: 1226	1226	
VOLUME/CAPACITY (V/C) RATIO:			0.394	0.396	0.396	0.396	0.815	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817	0.817
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.294	0.296	0.296	0.296	0.715	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
LEVEL OF SERVICE (LOS):			A	A	A	A	C	C	C	C	C	C	C	C	C	C	C	C

PROJECT IMPACT

Change in v/c due to project: **0.002** NO Fully mitigated? **0.002** N/A

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019											
18	East-West Street:	9th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive											
Opposed Ø'ing: N/S-1, EW-2 or Both-3?		No. of Phases	2	0	0	2	0	0	2	0											
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	0	0	NB-- 0 SB-- 0	0	NB-- 0 SB-- 0	0											
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	0	0	EB-- 0 WB-- 0	0	EB-- 0 WB-- 0	0											
Override Capacity		2	2	0	2	0	2	0	2	0											
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	744	3	248	12	756	252	885	1675	3	558	12	1687	3	562	12	1687	3	562		
	Through-Right	212	1	212	4	216	216	119	344	1	344	4	348	1	348	4	348	1	348		
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
EASTBOUND	Left	193	0	193	0	193	193	376	581	0	581	0	581	0	581	0	581	0	581		
	Left-Through	1092	2	428	6	1098	430	934	2093	2	891	6	2099	2	893	6	2099	2	893		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CRITICAL VOLUMES		North-South: 248 East-West: 428 SUM: 676	North-South: 252 East-West: 430 SUM: 682	North-South: 558 East-West: 891 SUM: 1449	North-South: 562 East-West: 893 SUM: 1455					North-South: 562 East-West: 893 SUM: 1455					North-South: 562 East-West: 893 SUM: 1455						
VOLUME/CAPACITY (V/C) RATIO:		0.451	0.455	0.966	0.970					0.970					0.970						
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.351	0.355	0.866	0.870					0.870					0.870						
LEVEL OF SERVICE (LOS):		A	A	D	D					D					D						

PROJECT IMPACT

Change in v/c due to project: **0.004** **NO** **0.004** after mitigation: **0.004** **N/A**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:							
19	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:							
	No. of Phases															
	Opposed Ø'ing: N/S-1, EW-2 or Both-3?	2	0	2	0	2	0	2	0	2						
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0						
	ATSAC-1 or ATSAC+ATCS-2?	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0						
	Override Capacity	2	0	2	0	2	0	2	0	2						
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	
NORTHBOUND	Left	217	0	217	11	228	228	155	385	0	385	11	396	0	394	
	Left-Through		1							1				1		
	Through	832	2	350	13	845	358	751	1634	2	673	13	1647	2	680	
	Through-Right		0							0				0		
	Right	155	1	155	6	161	161	37	202	1	202	6	208	1	207	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through	0	0	0	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	0	0	0	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
EASTBOUND	Left	104	1	104	4	108	108	143	253	1	253	4	257	1	256	
	Left-Through		0							0				0		
	Through	726	2	363	6	732	366	517	1288	2	644	6	1294	2	647	
	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through		0							0				0		
	Through	903	1	488	7	910	492	738	1697	1	953	7	1704	1	956	
	Through-Right		1							1				1		
	Right	73	0	73	0	73	73	131	208	0	208	0	208	0	208	
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
CRITICAL VOLUMES		North-South: 350 East-West: 592 SUM: 942	North-South: 358 East-West: 600 SUM: 958	North-South: 673 East-West: 1206 SUM: 1879	North-South: 681 East-West: 1213 SUM: 1892	North-South: 680 East-West: 1212 SUM: 1892					North-South: 680 East-West: 1212 SUM: 1892					
VOLUME/CAPACITY (V/C) RATIO:		0.628	0.639	1.253	1.263	1.261					1.263					
V/C LESS ATSAC/ATCS ADJUSTMENT:																
LEVEL OF SERVICE (LOS):																

PROJECT IMPACT

Change in v/c due to project: **0.010** **YES**
 Significant impacted? **YES**
 Δv/c after mitigation: **0.008**
 Fully mitigated? **YES**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019					
20	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive					
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2		2		2		2		2					
		0		0		0		0		0					
		NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0					
		2		2		2		2		2					
		0		0		0		0		0					
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
<div></div>	160	0	160	20	180	180	301	471	0	471	20	491	0	491	
	920	2	360	40	960	380	865	1842	2	771	40	1882	2	791	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	
<div></div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<div></div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<div></div>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	300	1	300	7	307	307	306	624	1	624	7	631	1	631	
	102	1	102	25	127	127	79	187	1	187	25	212	1	212	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRITICAL VOLUMES		North-South: 360 East-West: 300 SUM: 660	North-South: 380 East-West: 307 SUM: 687	North-South: 771 East-West: 624 SUM: 1395	North-South: 791 East-West: 631 SUM: 1422	North-South: 791 East-West: 631 SUM: 1422	North-South: 791 East-West: 631 SUM: 1422	North-South: 791 East-West: 631 SUM: 1422	North-South: 791 East-West: 631 SUM: 1422	North-South: 791 East-West: 631 SUM: 1422					
VOLUME/CAPACITY (V/C) RATIO:		0.440	0.458	0.930	0.948	0.948	0.948	0.948	0.948	0.948					
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.340	0.358	0.830	0.848	0.848	0.848	0.848	0.848	0.848					
LEVEL OF SERVICE (LOS):		A	A	D	D	D	D	D	D	D					

PROJECT IMPACT

Change in v/c due to project: **0.018** Δv/c after mitigation: **0.018**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019											
21	East-West Street:	Pico Boulevard	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive											
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0	2	0	2	0	2	0											
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	0	NB--	0	NB--	0	NB--	0											
		SB--	0	0	SB--	0	SB--	0	SB--	0											
		EB--	0	0	EB--	0	EB--	0	EB--	0											
ATSAC-1 or ATSAC+ATCS-2?		WB--	0	0	WB--	0	WB--	0	WB--	0											
Override Capacity		2	2	2	2	2	2	2	2	2											
		0	0	0	0	0	0	0	0	0											
MOVEMENT		EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume		
NORTHBOUND	Left	109	1	109	0	109	109	148	264	1	264	0	264	1	264	0	264	1	264		
	Left-Through		0							0				0				0			
	Through	862	2	431	41	903	452	1033	1948	2	974	41	1989	2	995	-6	1983	2	992		
	Through-Right		0							0				0				0			
	Right	12	1	12	0	12	12	49	62	1	62	0	62	1	62	0	62	1	62		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through		0							0				0				0			
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Through-Right		0							0				0				0			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
EASTBOUND	Left	63	0	63	11	74	74	149	216	0	216	11	227	0	227	-2	225	0	225		
	Left-Through		1							1				1				1			
	Through	393	1	323	0	393	345	333	750	1	750	0	750	1	750	0	750	1	750		
	Through-Right		0							0				0				0			
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through		0							0				0				0			
	Through	583	1	326	1	584	326	381	1000	1	574	1	1001	1	575	0	1001	1	575		
	Through-Right		1							1				1				1			
	Right	68	0	68	0	68	68	76	148	0	148	0	148	0	148	0	148	0	148		
	Left-Through-Right		0							0				0				0			
	Left-Right		0							0				0				0			
CRITICAL VOLUMES		North-South: 431 East-West: 389 SUM: 820	North-South: 452 East-West: 400 SUM: 852	North-South: 974 East-West: 790 SUM: 1764	North-South: 995 East-West: 802 SUM: 1792	North-South: 992 East-West: 800 SUM: 1792															
VOLUME/CAPACITY (V/C) RATIO:		0.547	0.568	1.176	1.198	1.195															
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.447	0.468	1.076	1.098	1.095															
LEVEL OF SERVICE (LOS):		A	A	F	F	F															

PROJECT IMPACT

Change in v/c due to project: **0.022** Δv/c after mitigation: **0.019**
 Significant impacted? **YES** Fully mitigated? **NO**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019						
22	East-West Street:	16th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
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?		No. of Phases	2		2		2		2							
		NB--	0	SB--	0	NB--	0	SB--	0	NB--	0					
		EB--	0	WB--	0	EB--	0	WB--	0	EB--	0					
		WB--	2		2		2		2		2					
Override Capacity		0	0		0		0		0							
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	25	0	25	0	25	25	11	38	0	38	0	38	0	38	
	Left-Through	984	2	336	41	1025	350	1145	2190	2	743	41	2231	2	756	
	Through-Right															
	Right	85	1	85	0	85	85	0	90	1	90	0	90	1	90	
	Left-Through-Right															
Left-Right			0							0				0		
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right															
Left-Right			0							0				0		
EASTBOUND	Left	73	0	73	0	73	73	32	109	0	109	0	109	0	109	
	Left-Through	540	1	343	0	540	343	38	611	1	415	0	611	1	415	
	Through-Right															
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through-Right															
Left-Right			0							0				0		
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Left-Through	417	1	241	0	417	241	63	506	1	294	0	506	1	294	
	Through-Right															
	Right	65	0	65	0	65	65	13	82	0	82	0	82	0	82	
	Left-Through-Right															
Left-Right			0							0				0		
CRITICAL VOLUMES		North-South: 336 East-West: 343 SUM: 679	North-South: 350 East-West: 343 SUM: 693	North-South: 743 East-West: 415 SUM: 1158	North-South: 756 East-West: 415 SUM: 1171	North-South: 756 East-West: 415 SUM: 1171										
VOLUME/CAPACITY (V/C) RATIO:		0.453	0.462	0.772	0.781											
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.353	0.362	0.672	0.681											
LEVEL OF SERVICE (LOS):		A	A	B	B											

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

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	2017	Ambient Growth: (%):	1	Conducted by:	Amir A	Date:	5/31/2019						
23	East-West Street:	17th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive						
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2		0		2			2	2						
		0		0		0			0	0						
		0		0	SB--	0	SB--	0	NB--	0	SB--					
		0		0	WB--	0	WB--	0	EB--	0	WB--					
		2		2		2		2			2					
		0		0		0			0	0						
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT			FUTURE CONDITION W/ PROJECT			FUTURE W/ PROJECT W/ MITIGATION		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Total Volume	Lane Volume
NORTHBOUND	Left	273	0	273	0	273	273	44	334	0	334	0	334	0	334	334
	Left-Through		1							1				1		
	Through	998	2	424	30	1028	434	868	1927	2	754	30	1957	2	1953	762
	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0		
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Through-Right		0							0				0		
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0		
	Left-Right		0							0				0		
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through		0							0				0		
	Through	943	1	517	0	943	523	458	1459	1	922	0	1459	1	1459	927
	Through-Right		1							1				1		
	Right	91	0	91	11	102	102	288	385	0	385	11	396	0	394	394
	Left-Through-Right		0							0				0		
CRITICAL VOLUMES		North-South: 424	East-West: 517	SUM: 941	North-South: 434	East-West: 523	SUM: 957	North-South: 754	East-West: 922	SUM: 1676	North-South: 764	East-West: 928	SUM: 1689	North-South: 762	East-West: 927	SUM: 1689
VOLUME/CAPACITY (V/C) RATIO:		0.627			0.638			1.117			1.128			1.126		
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.527			0.538			1.017			1.028			1.026		
LEVEL OF SERVICE (LOS):		A			A			F			F			F		

PROJECT IMPACT

Change in v/c due to project: **0.011** **YES**
 Δv/c after mitigation: **0.009**
 Fully mitigated? **YES**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Olive Street	Year of Count:	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
24	East-West Street:	18th Street	Projection Year:	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity									
MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	Lane Volume
 NORTHBOUND	0	0	0	0	0	0	0	0	0
	532	3	177	19	551	184	436	1001	334
	46	1	46	0	46	46	0	49	49
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
 SOUTHBOUND	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
 EASTBOUND	643	1	553	11	654	558	476	1159	958
	1017	1	553	3	1020	558	634	1714	958
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
 WESTBOUND	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
CRITICAL VOLUMES									
			North-South: 177	North-South: 184	North-South: 334	North-South: 340	North-South: 340	North-South: 340	North-South: 340
			East-West: 553	East-West: 558	East-West: 958	East-West: 962	East-West: 962	East-West: 962	East-West: 962
			SUM: 730	SUM: 742	SUM: 1292	SUM: 1302	SUM: 1302	SUM: 1302	SUM: 1302
			0.487	0.495	0.861	0.868	0.868	0.868	0.868
			0.387	0.395	0.761	0.768	0.768	0.768	0.768
VOLUME/CAPACITY (V/C) RATIO:									
V/C LESS ATSAC/ATCS ADJUSTMENT:									
LEVEL OF SERVICE (LOS):									

PROJECT IMPACT

Change in v/c due to project: **0.007** Δv/c after mitigation: **0.007**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
25	East-West Street:	Olympic Boulevard	Projection Year:		Peak Hour:		Reviewed by:		Project:									
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			2		2		2		2									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
MOVEMENT			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		
NORTHBOUND		Left	54	1	54	0	54	54	112	1	112	0	112	1	112	1	112	
		Left-Through		0							0				0			
		Through	437	1	256	0	437	256	384	848	1	471	0	848	1	471	1	471
		Through-Right		1							1				1			
		Right	75	0	75	0	75	75	14	94	0	94	0	94	0	94	0	94
SOUTHBOUND		Left-Through-Right		0						0				0				
		Left-Right		0							0				0			
		Left	71	1	71	0	71	71	26	101	1	101	0	101	1	101	1	101
		Left-Through		0							0				0			
		Through	571	1	354	10	581	359	316	922	1	621	10	932	1	626	1	626
EASTBOUND		Through-Right		1						1				1				
		Right	137	0	137	0	137	137	175	320	0	320	0	320	0	320	0	320
		Left-Through-Right		0							0				0			
		Left-Right		0							0				0			
		Left	166	1	166	0	166	166	74	250	1	250	0	250	1	250	1	250
WESTBOUND		Left-Through		0						0				0				
		Through	807	1	447	6	813	453	402	1259	1	714	6	1265	1	720	1	720
		Through-Right		1							1				1			
		Right	87	0	87	6	93	93	77	169	0	169	6	175	0	175	0	175
		Left-Through-Right		0							0				0			
WESTBOUND		Left-Right		0						0				0				
		Left	48	1	48	0	48	48	48	99	1	99	0	99	1	99	1	99
		Left-Through		0							0				0			
		Through	685	1	378	7	692	381	640	1367	1	745	7	1374	1	749	1	749
		Through-Right		1							1				1			
WESTBOUND		Right	70	0	70	0	70	70	49	123	0	123	0	123	0	123	0	123
		Left-Through-Right		0							0				0			
		Left-Right		0							0				0			
		Left																
		Left-Through																
CRITICAL VOLUMES			North-South: 408 East-West: 544 SUM: 952		North-South: 413 East-West: 547 SUM: 960		North-South: 733 East-West: 995 SUM: 1728		North-South: 738 East-West: 999 SUM: 1737		North-South: 738 East-West: 999 SUM: 1737							
VOLUME/CAPACITY (V/C) RATIO:			0.635		0.640		1.152		1.158		1.158		1.158		1.158			
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.535		0.540		1.052		1.058		1.058		1.058		1.058			
LEVEL OF SERVICE (LOS):			A		A		F		F		F		F		F			

PROJECT IMPACT

Change in v/c due to project: **0.006** Δv/c after mitigation: **0.006**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:		Ambient Growth: (%):		Conducted by:		Date:									
26	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:									
	No. of Phases	2	2		2		2		5/31/2019									
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0		0		0		1045 Olive									
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0		0		0		SB--									
		0	0		0		0		WB--									
	ATSAC-1 or ATSAC+ATCS-2?	2	2		2		2		0									
	Override Capacity	0	0		0		0		0									
MOVEMENT			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		
NORTHBOUND	Left		3	1	3	0	3	3	55	58	1	58	0	58	1	58		
	Left-Through			0							0				0			
	Through		464	2	232	0	464	232	400	893	2	447	0	893	2	447		
	Through-Right			0							0				0			
	Right		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left-Through-Right			0							0				0			
	Left-Right			0							0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through			0							0				0			
	Through		715	2	358	1	716	358	287	1046	2	523	1	1047	2	524		
EASTBOUND	Through-Right			0							0				0			
	Right		107	1	107	15	122	122	38	152	1	152	15	167	1	167		
	Left-Through-Right			0							0				0			
	Left-Right			0							0				0			
	Left		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WESTBOUND	Left-Through			0							0				0			
	Through		0	0	0	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	0	0	0		
	Left-Through-Right			0							0				0			
CRITICAL VOLUMES	Left		33	1	33	0	33	33	34	69	1	69	0	69	1	69		
	Left-Through			0							0				0			
	Through		279	1	279	17	296	296	293	589	1	589	17	606	1	606		
	Through-Right			0							0				0			
	Right		49	1	49	0	49	49	13	65	1	65	0	65	1	65		
VOLUME/CAPACITY (V/C) RATIO:	Left-Through-Right			0							0				0			
	Left-Right			0							0				0			
	North-South:	361	North-South:	361	North-South:	581	North-South:	581	North-South:	581	North-South:	581	North-South:	581	North-South:	581		
	East-West:	279	East-West:	296	East-West:	589	East-West:	589	East-West:	589	East-West:	589	East-West:	589	East-West:	589		
	SUM:	640	SUM:	657	SUM:	1170	SUM:	1170	SUM:	1170	SUM:	1188	SUM:	1188	SUM:	1188		
V/C LESS ATSAC/ATCS ADJUSTMENT:	Volume/Capacity	0.427	0.438	0.780	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692		
	ATSAC/ATCS	0.327	0.338	0.680	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692	0.680	0.692		
	Ratio	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B		
	Level of Service	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B		
	Level of Service	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B		

PROJECT IMPACT

Change in v/c due to project: **0.012** Δv/c after mitigation: **0.012**
 Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:		2017	Ambient Growth: (%)		1	Conducted by:		Amir A	Date:	5/31/2019		
27	East-West Street:	Olympic Boulevard	Projection Year:		2023	Peak Hour:		PM	Reviewed by:			Project:	1045 Olive		
<div>No. of Phases</div> <div>Opposed Ø'ing: N/S-1, E/W-2 or Both-3?</div> <div>Right Turns: FREE-1, NRTOR-2 or OLA-3?</div> <div>ATSAC-1 or ATSAC+ATCS-2?</div> <div>Override Capacity</div>		2		0	0	0	0	2	0	0	2	0	2		
		NB-- 0 SB-- 0		NB-- 0 SB-- 0	0	0	0	0	0	0	0	0	0	0	
		EB-- 0 WB-- 0		EB-- 0 WB-- 0	0	0	0	0	0	0	0	0	0	0	
		2		0	2	0	2	0	2	0	2	0	2	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
NORTHBOUND	Left	56	0	56	56	122	0	122	0	122	122	0	122		
	Left-Through	1	1	328	0	544	328	350	927	1	830	0	927	1	830
	Through-Right	0	0	0	0	68	43	16	88	1	57	0	88	1	57
	Right	68	1	43	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
SOUTHBOUND	Left	0	0	0	0	5	0	0	5	0	0	5	0	0	0
	Left-Through	0	0	0	6	478	478	356	857	1	857	6	863	1	863
	Through-Right	472	0	0	0	108	79	89	204	1	136	0	204	1	135
	Right	108	1	80	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
EASTBOUND	Left	56	1	56	58	137	1	137	2	139	1	139	1	139	1
	Left-Through	0	0	0	4	613	351	310	956	1	551	4	960	1	553
	Through-Right	609	1	349	0	0	0	53	146	0	146	0	146	0	146
	Right	88	0	88	0	88	88	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
WESTBOUND	Left	50	1	50	0	50	50	9	62	1	62	0	62	1	62
	Left-Through	0	0	0	7	640	351	585	1257	1	669	7	1264	1	672
	Through-Right	633	1	347	0	0	0	15	80	0	80	0	80	0	80
	Right	61	0	61	0	61	61	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
CRITICAL VOLUMES		North-South: 528 East-West: 403 SUM: 931	North-South: 534 East-West: 409 SUM: 943	North-South: 979 East-West: 806 SUM: 1785	North-South: 985 East-West: 811 SUM: 1796	North-South: 985 East-West: 811 SUM: 1796									
VOLUME/CAPACITY (V/C) RATIO:		0.621	0.629	1.190	1.197	1.197									
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.521	0.529	1.090	1.097	1.097									
LEVEL OF SERVICE (LOS):		A	A	F	F	F									

PROJECT IMPACT

Change in v/c due to project: **0.007** Δv/c after mitigation: **0.007**
Significant impacted? **NO** Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Broadway	Year of Count:	2017	Ambient Growth: (%)	1	Conducted by:	Amir A	Date:	5/31/2019
28	East-West Street:	11th Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	1045 Olive
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2	0	2	0	2	0	2	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0
ATSAC-1 or ATSAC+ATCS-2?		EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0
Override Capacity		2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0
MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT		
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	Lane Volume
NORTHBOUND	Left	57	1	57	0	57	94	33	94	94
	Left-Through		0							
	Through	585	2	293	0	585	517	412	1033	517
	Through-Right		0							
	Right	0	0	0	0	0	0	0	0	0
SOUTHBOUND	Left-Through-Right		0							
	Left-Right		0							
	Left	0	0	0	0	0	0	0	0	0
	Left-Through		0							
	Through	596	1	318	0	596	547	406	1039	550
EASTBOUND	Through-Right		1							
	Right	39	0	39	6	45	54	13	60	60
	Left-Through-Right		0							
	Left-Right		0							
	Left	0	0	0	0	0	0	0	0	0
WESTBOUND	Left-Through		0							
	Through	0	0	0	0	0	0	0	0	0
	Through-Right		0							
	Right	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							
CRITICAL VOLUMES	Left-Right		0							
	Left	103	1	103	0	103	164	55	164	164
	Left-Through		0							
	Through	321	1	321	11	332	635	294	646	646
	Through-Right		0							
VOLUME/CAPACITY (V/C) RATIO:	Right	45	1	45	0	45	66	18	66	66
	Left-Through-Right		0							
	Left-Right		0							
	Left		0							
	Left-Through		0							
SUM:		North-South: 375	375	375	North-South: 378	378	641	North-South: 644	North-South: 644	644
		East-West: 321	321	321	East-West: 332	635	635	East-West: 646	East-West: 646	646
		SUM: 696	696	696	SUM: 710	1276	1276	SUM: 1290	SUM: 1290	1290
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.464			0.473		0.851	0.860	0.860	0.860
LEVEL OF SERVICE (LOS):		A			A		C	C	C	C

PROJECT IMPACT

Change in v/c due to project: 0.009
 Significant impacted? NO
 Δv/c after mitigation: 0.009
 Fully mitigated? N/A

1045 Olive Project - PM Peak Hour

PROJECT IMPACT

Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Main Street	Year of Count:	Ambient Growth: (%)	Conducted by:	Date:												
30	East-West Street:	11th Street	Projection Year: 2023	Peak Hour: PM	Reviewed by:	Project: 1045 Olive												
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	2	2	2	2												
		NB--	0	NB--	0	NB--	0											
		SB--	0	SB--	0	SB--	0											
		WB--	0	WB--	0	WB--	0											
		ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2											
		Override Capacity	0	0	0	0												
MOVEMENT			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		
NORTHBOUND	Left	86	1	86	0	86	86	27	118	1	118	0	118	1	118	0	118	
	Left-Through		0							0				0				
	Through	576	2	288	0	576	288	584	1195	2	598	0	1195	2	598	0	1195	
	Through-Right		0							0				0				
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND	Left-Through-Right		0							0				0				
	Left-Right		0							0				0				
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Left-Through		0							0				0				
	Through	407	1	407	1	408	408	521	953	1	953	1	954	1	954	0	954	
EASTBOUND	Through-Right		0							0				0				
	Right	97	1	97	6	103	103	80	183	1	183	6	189	1	189	0	189	
	Left-Through-Right		0							0				0				
	Left-Right		0							0				0				
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
WESTBOUND	Left-Through		0							0				0				
	Through	84	0	84	0	84	84	47	136	0	136	0	136	0	136	0	136	
	Through-Right	278	1	181	6	284	184	259	554	1	345	6	560	1	348	0	560	
	Right	65	1	65	0	65	65	7	76	1	76	0	76	1	76	0	76	
	Left-Through-Right		0							0				0				
CRITICAL VOLUMES			North-South: 493 East-West: 181 SUM: 674	North-South: 494 East-West: 184 SUM: 678	North-South: 1071 East-West: 345 SUM: 1416	North-South: 1072 East-West: 348 SUM: 1420					North-South: 1072 East-West: 348 SUM: 1420							
VOLUME/CAPACITY (V/C) RATIO:			0.449	0.452	0.944	0.947					0.947							
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.349	0.352	0.844	0.847					0.847							
LEVEL OF SERVICE (LOS):			A	A	D	D					D							

PROJECT IMPACT

Change in v/c due to project: 0.003
Significant impacted? NO

Δv/c after mitigation: 0.003
Fully mitigated? N/A

1045 Olive Project - PM Peak Hour

PROJECT IMPACT

Category	Impact	Mitigation	Residual Risk
1. Environmental	1.1. Deforestation and habitat loss	1.1.1. Implement strict logging regulations and enforce them.	1.1.2. Low
	1.2. Carbon emissions	1.2.1. Transition to renewable energy sources.	1.2.2. Medium
	1.3. Water pollution	1.3.1. Install wastewater treatment plants.	1.3.2. Low
2. Social	2.1. Displacement of indigenous communities	2.1.1. Conduct thorough land rights assessments.	2.1.2. Medium
	2.2. Loss of biodiversity	2.2.1. Establish protected areas and wildlife corridors.	2.2.2. Low
3. Economic	3.1. Market volatility	3.1.1. Diversify investment portfolio.	3.1.2. Medium
	3.2. Unemployment	3.2.1. Invest in local infrastructure and job training programs.	3.2.2. Low
4. Governance	4.1. Corruption	4.1.1. Implement transparent procurement processes.	4.1.2. Medium
	4.2. Weak legal system	4.2.1. Engage with local legal experts and reform advocates.	4.2.2. Low
5. Technology	5.1. Data privacy concerns	5.1.1. Implement robust data protection policies.	5.1.2. Low
	5.2. Cybersecurity risks	5.2.1. Invest in advanced cybersecurity measures.	5.2.2. Medium
6. Health	6.1. Air pollution	6.1.1. Enforce strict air quality standards.	6.1.2. Medium
	6.2. Water contamination	6.2.1. Regularly monitor water quality and implement filtration systems.	6.2.2. Low
7. Education	7.1. Lack of skilled workforce	7.1.1. Partner with educational institutions for vocational training.	7.1.2. Medium
	7.2. Low literacy rates	7.2.1. Launch community-based literacy programs.	7.2.2. Low
8. Infrastructure	8.1. Poor road conditions	8.1.1. Invest in road maintenance and construction.	8.1.2. Medium
	8.2. Limited access to electricity	8.2.1. Develop decentralized renewable energy systems.	8.2.2. Low
9. Agriculture	9.1. Soil degradation	9.1.1. Promote sustainable farming practices.	9.1.2. Medium
	9.2. Pesticide use	9.2.1. Encourage integrated pest management.	9.2.2. Low
10. Urbanization	10.1. Rapid population growth	10.1.1. Plan for sustainable urban development.	10.1.2. Medium
	10.2. Informal settlements	10.2.1. Implement slum upgrading programs.	10.2.2. Low
11. Climate Change	11.1. Sea level rise	11.1.1. Invest in coastal defense infrastructure.	11.1.2. Medium
	11.2. Extreme weather events	11.2.1. Develop early warning systems and disaster preparedness plans.	11.2.2. Low
12. Globalization	12.1. Cultural homogenization	12.1.1. Support local cultural heritage and traditions.	12.1.2. Medium
	12.2. Income inequality	12.2.1. Implement progressive taxation and social welfare programs.	12.2.2. Low
13. Digital Divide	13.1. Limited internet access	13.1.1. Invest in broadband infrastructure.	13.1.2. Medium
	13.2. Digital literacy gaps	13.2.1. Launch digital literacy training programs.	13.2.2. Low
14. Migration	14.1. Brain drain	14.1.1. Create incentives for skilled professionals to stay.	14.1.2. Medium
	14.2. Refugee crises	14.2.1. Engage in humanitarian aid and refugee resettlement programs.	14.2.2. Low
15. Pandemics	15.1. Zoonotic diseases	15.1.1. Strengthen surveillance and early detection systems.	15.1.2. Medium
	15.2. Healthcare system weaknesses	15.2.1. Invest in healthcare infrastructure and workforce training.	15.2.2. Low
16. Space Exploration	16.1. Resource depletion	16.1.1. Implement sustainable resource management practices.	16.1.2. Medium
	16.2. Environmental contamination	16.2.1. Establish strict planetary protection protocols.	16.2.2. Low
17. Artificial Intelligence	17.1. Job displacement	17.1.1. Invest in retraining and upskilling programs.	17.1.2. Medium
	17.2. Privacy concerns	17.2.1. Implement robust data protection regulations.	17.2.2. Low
18. Nanotechnology	18.1. Health risks	18.1.1. Conduct thorough safety assessments.	18.1.2. Medium
	18.2. Environmental impacts	18.2.1. Monitor and regulate nanomaterial releases.	18.2.2. Low
19. Biotechnology	19.1. Genetic engineering	19.1.1. Establish strict ethical guidelines.	19.1.2. Medium
	19.2. Biosecurity	19.2.1. Implement strict biosafety protocols.	19.2.2. Low
20. Robotics	20.1. Unemployment	20.1.1. Invest in education and training for the future workforce.	20.1.2. Medium
	20.2. Privacy concerns	20.2.1. Implement data protection measures.	20.2.2. Low
21. Quantum Computing	21.1. Data security	21.1.1. Develop quantum-resistant encryption algorithms.	21.1.2. Medium
	21.2. Job displacement	21.2.1. Invest in retraining and upskilling programs.	21.2.2. Low
22. Virtual Reality	22.1. Addiction	22.1.1. Promote responsible use and digital literacy.	22.1.2. Medium
	22.2. Privacy concerns	22.2.1. Implement robust data protection measures.	22.2.2. Low
23. Augmented Reality	23.1. Privacy concerns	23.1.1. Implement robust data protection measures.	23.1.2. Low
	23.2. Job displacement	23.2.1. Invest in retraining and upskilling programs.	23.2.2. Medium
24. 3D Printing	24.1. Intellectual property	24.1.1. Establish clear legal frameworks.	24.1.2. Medium
	24.2. Environmental impacts	24.2.1. Monitor and regulate material use and waste.	24.2.2. Low
25. Space Exploration	25.1. Resource depletion	25.1.1. Implement sustainable resource management practices.	25.1.2. Medium
	25.2. Environmental contamination	25.2.1. Establish strict planetary protection protocols.	25.2.2. Low
26. Artificial Intelligence	26.1. Job displacement	26.1.1. Invest in retraining and upskilling programs.	26.1.2. Medium
	26.2. Privacy concerns	26.2.1. Implement robust data protection measures.	26.2.2. Low
27. Nanotechnology	27.1. Health risks	27.1.1. Conduct thorough safety assessments.	27.1.2. Medium
	27.2. Environmental impacts	27.2.1. Monitor and regulate nanomaterial releases.	27.2.2. Low
28. Biotechnology	28.1. Genetic engineering	28.1.1. Establish strict ethical guidelines.	28.1.2. Medium
	28.2. Biosecurity	28.2.1. Implement strict biosafety protocols.	28.2.2. Low
29. Robotics	29.1. Unemployment	29.1.1. Invest in education and training for the future workforce.	29.1.2. Medium
	29.2. Privacy concerns	29.2.1. Implement data protection measures.	29.2.2. Low
30. Quantum Computing	30.1. Data security	30.1.1. Develop quantum-resistant encryption algorithms.	30.1.2. Medium
	30.2. Job displacement	30.2.1. Invest in retraining and upskilling programs.	30.2.2. Low
31. Virtual Reality	31.1. Addiction	31.1.1. Promote responsible use and digital literacy.	31.1.2. Medium
	31.2. Privacy concerns	31.2.1. Implement robust data protection measures.	31.2.2. Low
32. Augmented Reality	32.1. Privacy concerns	32.1.1. Implement robust data protection measures.	32.1.2. Low
	32.2. Job displacement	32.2.1. Invest in retraining and upskilling programs.	32.2.2. Medium
33. 3D Printing	33.1. Intellectual property	33.1.1. Establish clear legal frameworks.	33.1.2. Medium
	33.2. Environmental impacts	33.2.1. Monitor and regulate material use and waste.	33.2.2. Low

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Los Angeles Street	Year of Count:		Ambient Growth: (%)		Conducted by:		Date:									
32	East-West Street:	11th Street	Projection Year:		Peak Hour:		Reviewed by:		Project:									
No. of Phases Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity			2		2		2		2									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
			0		0		0		0									
MOVEMENT			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		
NORTHBOUND		Left	31	0	31	0	31	36	69	0	69	0	69	69	1	69		
		Left-Through		1				1				1				1		
		Through	497	1	342	0	497	172	700	0	700	1	557	700	1	557		
		Through-Right		0		0	0	0	0	0	0	0	0	0	0	0		
		Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTHBOUND		Left-Through-Right		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		
		Left		0		0	0	0	0	0	0	0	0	0	0	0		
		Left-Through		0		0	2	827	507	137	1013	1	626	2	1015	1	627	
		Through-Right	825	1	506	0	827	186	186	41	238	1	238	0	238	1	238	
EASTBOUND		Left-Through-Right		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		
		Left		0		0	0	0	0	0	0	0	0	0	0	0	0	
		Left-Through		0		0	0	0	0	0	0	0	0	0	0	0	0	
		Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
WESTBOUND		Left-Through-Right		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	
		Left	116	0	116	0	116	116	123	0	123	0	123	0	123	1	123	
		Left-Through		1		5	237	177	297	543	1	333	5	548	1	336	1	
		Through-Right	232	1	174	0	237	66	66	34	104	1	104	0	104	1	104	
CRITICAL VOLUMES			North-South: 537 East-West: 174 SUM: 711		North-South: 538 East-West: 177 SUM: 715		North-South: 695 East-West: 333 SUM: 1028		North-South: 696 East-West: 336 SUM: 1032									
VOLUME/CAPACITY (V/C) RATIO:			0.474		0.477		0.685		0.688									
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.374		0.377		0.585		0.588									
LEVEL OF SERVICE (LOS):			A		A		A		A									

Level of Service Worksheet

1045 Olive Project - PM Peak Hour



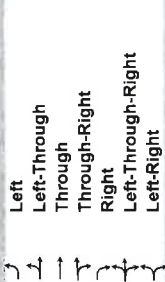

I/S #:	North-South Street:	Olive Street	Year of Count:	Ambient Growth: (%)	Conducted by:	Date:	5/31/2019
33	East-West Street:	12th Street	Projection Year: 2023	Peak Hour: PM	Reviewed by:	Project:	1045 Olive
Opposed Ø'ing: N/S-1, E/W-2 or Both-3? Right Turns: FREE-1, NRTOR-2 or OLA-3? ATSAC-1 or ATSAC+ATCS-2? Override Capacity							
NORTHBOUND	No. of Phases		2		2		2
	NB-- 0 SB-- 0		NB-- 0 SB-- 0		NB-- 0 SB-- 0		0
	EB-- 0 WB-- 0		EB-- 0 WB-- 0		EB-- 0 WB-- 0		0
	2		2		2		2
	0		0		0		0
SOUTHBOUND	Left		0		0		0
	Left-Through		0		0		0
	Through		930 2		52 2259		2259 2
	Through-Right		47 1		0 70		70 1
	Right		0 0		0 0		0 0
EASTBOUND	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
WESTBOUND	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
CRITICAL VOLUMES	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
VOLUME/CAPACITY (V/C) RATIO:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
V/C LESS ATSAC/ATCS ADJUSTMENT:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
LEVEL OF SERVICE (LOS):	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
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	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0		0		0
	Left-Through		0		0		0
	Through		0		0		0
	Through-Right		0		0		0
	Right		0		0		0
SUM:	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
	Left-Through		71		192		192
	Through		100		354		354
SUM:	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
	Left-Right		0		0		0
	Left		63 1		8 200		200 0
SUM:	Left-Through		71		192		192
	Through		100		354		354
	Through-Right		0		0		0
	Right		0		0		0
	Left-Through-Right		0		0		0
SUM:	Left		0				

PROJECT IMPACT

Change in v/c due to project: **0.014**
 Δv/c after mitigation: **0.014**
 Significant impacted? **NO**
 Fully mitigated? **N/A**

Level of Service Worksheet

1045 Olive Project - PM Peak Hour

I/S #:	North-South Street:	Hill Street	Year of Count:	Ambient Growth: (%):	1	Conducted by:	Date:	5/31/2019							
34	East-West Street:	Pico Boulevard	Projection Year: 2023	Peak Hour:	PM	Reviewed by:	Project:	1045 Olive							
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		No. of Phases	2017	2	2	Amir A									
Right Turns: FREE-1, NRTOR-2 or OLA-3?			2023	0	0										
ATSAC-1 or ATSAC+ATCS-2?				0	0										
Override Capacity				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	
 NORTHBOUND	Left	49	1	49	0	49	40	92	1	92	0	92	1	92	
	Left-Through		0						0				0		
	Through	419	1	231	0	419	362	807	1	432	0	807	1	432	
	Through-Right		1						1				1		
	Right	42	0	42	0	42	12	57	0	57	0	57	0	57	
	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
 SOUTHBOUND	Left	21	1	21	0	21	17	39	1	39	0	39	1	39	
	Left-Through		0						0				0		
	Through	684	1	402	0	684	250	976	1	625	0	976	1	626	
	Through-Right		1						1				1		
	Right	119	0	119	1	120	148	274	0	274	1	275	0	275	
	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
 EASTBOUND	Left	61	0	61	0	61	63	128	0	128	0	128	0	128	
	Left-Through		1						1				1		
	Through	452	0	310	0	452	250	730	0	658	0	730	0	658	
	Through-Right		1						1				1		
	Right	45	0	310	0	45	25	73	0	658	0	73	0	658	
	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
 WESTBOUND	Left	61	0	61	0	61	0	65	0	65	0	65	0	65	
	Left-Through		1						1				1		
	Through	488	0	323	0	488	371	889	0	596	0	889	0	596	
	Through-Right		1						1				1		
	Right	36	0	323	0	36	5	43	0	596	0	43	0	596	
	Left-Through-Right		0						0				0		
	Left-Right		0						0				0		
CRITICAL VOLUMES		North-South: 451 East-West: 384 SUM: 835	North-South: 451 East-West: 384 SUM: 835	North-South: 717 East-West: 724 SUM: 1441	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	North-South: 718 East-West: 724 SUM: 1442	
VOLUME/CAPACITY (V/C) RATIO:		0.557	0.557	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	0.961	
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.457	0.457	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	
LEVEL OF SERVICE (LOS):		A	A	D	D	D	D	D	D	D	D	D	D	D	

PROJECT IMPACT

Change in v/c due to project: **0.000** Δv/c after mitigation: **0.000**
Significant impacted? **NO** Fully mitigated? **N/A**

N-4 VMT Analysis, 2019

Memorandum

To: Wes Pringle, LADOT

From: Michael Bates
Amir Ainechi

Subject: 1045 Olive Project – VMT Analysis

Date: September 12, 2019

Introduction

This memorandum provides an analysis of vehicle-miles traveled (VMT) for the 1045 Olive Project using the City of Los Angeles VMT Calculator. The analysis shows that with applying the VMT impact criteria established by LADOT, the Proposed Project would not have significant VMT impacts. The project has an approved Transportation Impact Study (TIS). This information is being provided in addition to that study.

Background to VMT Analysis

State of California Senate Bill 743¹, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding transportation impact analysis. Under SB 743, the focus of transportation analysis will shift from driver delay – typically measured by traffic level of service (LOS) – to a new measurement that better address the state's goals on reduction of greenhouse gas emission (GHG), creation of multimodal transportation and promotion of mixed-use developments. Since 2014, the Governor's Office of Planning and Research has been developing guidelines and has recommended that vehicle-miles traveled (VMT) replace LOS as the primary measure of transportation impacts. Fully implemented guidelines were originally scheduled to be in place by January 1, 2016. However, an extension has allowed cities more time to establish an analysis methodology. The City of Los Angeles has updated its travel demand model, and has developed and calibrated to local conditions an impact evaluation methodology and transportation impact thresholds based on VMT. This is called the VMT Calculator. The City of Los Angeles has adopted the new CEQA methodology and thresholds as of July 30, 2019.

¹ SB 743(Steinberg, 2013).

VMT Analysis

VMT Screening

In accordance with LADOT, an initial assessment of the development project is conducted to determine if a VMT transportation assessment is required. A Development Project is defined as any proposed land use project that changes the use within an existing structure, creates an addition to an existing structure, or new construction, which includes any occupied floor area.

With respect to VMT, a VMT transportation assessment is required for Development Projects or Transportation Projects that meet the following criteria:

- If the Development Project is estimated to generate a net increase of 250 or more daily vehicle trips and requires discretionary action.

For the purpose of screening for daily vehicle trips, a proposed project's daily vehicle trips should be estimated using the VMT Calculator tool or the most recent edition of the ITE Trip Generation Manual. TDM strategies should not be considered for the purpose of screening. If existing land uses are present on the project site or there were previously terminated land uses that meet the criteria for trip credits, the daily vehicle trips generated by the existing or qualified terminated land uses can be estimated using the VMT Calculator tool and subtracted from the Project's daily vehicle trips to determine the increase in daily vehicle trips.

In accordance with these provisions, the project is expected to generate a net increase of 1,971 daily trips and thus a project VMT analysis is required. The summary results of the project screening are provided in Table 1 below. The VMT Calculator results for existing trips are shown on Appendix A.

VMT Thresholds

The LADOT VMT Calculator analyses in terms of Household VMT per Capita, and Work VMT per Employee. LADOT has identified thresholds for significant VMT impacts by sub-area of the city. For the Central Area the following thresholds have been identified:

Household VMT per Capita: 6.0
Work VMT per Employee: 7.6

Table 1. Trip Generation – Project Screening

	<i>Land Use</i>	<i>Scale</i>	<i>Daily Vehicle Trips</i>
Proposed	Multi-Family	794 DU	
	Sub-total		2,002
Existing	Manufacturing	14,653 sf	
	Sub-total		31
	Net Difference [Proposed – Existing]		1,971
	Analysis Required (Net Difference > 250)		Yes

VMT with Project

The VMT results are summarized in Table 2. The results show that with the Proposed Project, the Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and the Work VMT per Capita would be 0.0 compared to the threshold of 7.6. Therefore, it is concluded that the Project would not cause significant VMT impacts. Appendix B provides the analysis results. It is also noted that the threshold for Household VMT per Capita at 6.0 is set at 15% below the average for the Central Area, so the average is 7.1. The Project's Household VMT per Capita of 4.2 is therefore 30% below the threshold and 41% below the average for the Central Area.

Table 2 Summary of VMT Results

<i>Category</i>	<i>Household</i>			<i>Work</i>		
<i>Scenario</i>	<i>Household VMT Threshold</i>	<i>Household VMT Per Capita</i>	<i>Impact</i>	<i>Work VMT Threshold</i>	<i>Work VMT per Employee</i>	<i>Impact</i>
VMT With Proposed Project	6.0	4.2	No	7.6	0.0	No

The detailed application of the VMT calculator is described below.

Application of the LADOT VMT Calculator

Input on Project Land Use Information

This part of the VMT Calculator includes entering the Project location address by its latitude and longitude (to identify the specific location of the Project for the correct application of the VMT Calculator localized data), and the type and quantity of proposed land uses. Table 3 shows the land use quantities used for the traffic impact analysis in the 1045 Olive Project Transportation Study (as shown in Table 3.1 of the Transportation Study). The Traffic Study assumed 12,504 sq. ft. of retail commercial as restaurants in order to provide a conservative analysis.

Table 3. Project Land Uses

<i>Land Use</i>	<i>Quantity</i>
<u>Existing Land Uses</u>	
Manufacturing	14,653 SF
<u>Proposed Land Uses</u>	
Apartments	794 DU
High-Turnover Restaurant	6,252 SF
Quality Restaurant	6,252 SF

The following information was entered into the VMT Calculator land use categories as shown in Table 4.

Table 4. Project Land Uses as Entered into VMT Calculator

<i>Land Use</i>	<i>Quantity</i>
Housing (multi-family)	794 DU

According to Section 2.2.2² (Screening Criteria) of the new LADOT Transportation Assessment Guidelines, a portion of, or entirety of a project that contains small-scale or local serving retail land uses are assumed to have less than significant VMT impacts and can be excluded from the VMT analysis if less than 50,000 sq. ft. Local serving retail land uses include restaurants. Therefore, the Project's restaurant land uses were not input in the VMT Calculator.

Input on Project Design Features and Mitigation Measures

The VMT Calculator allows input of various TDM strategies as either Project Design Features or as Mitigation Measures. The Project Design Features and Mitigation Measures for the 1045 Olive Project as identified in the approved Traffic Study were input into the VMT calculator as appropriate. The correspondence is shown in Table 5.

² Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines, July 2019.

Table 5 – 1045 Olive Project - TDM Strategies in VMT Calculator

VMT Calculator		Transportation Study			
TDM Strategy In VMT Calculator	TDM Sub Strategy In VMT Calculator	Project Design Feature in Traffic Study	Mitigation Measure in Traffic Study	Inputs to VMT Calculator	Notes
Parking	Reduce Parking Supply				
	Unbundle Parking				
	Parking Cash-Out				
	Price Workplace Parking				
	Residential Area Parking Permits				
Transit					
	Reduce Transit Headways				
	Implement Neighborhood Shuttle				
	Transit Subsidies				
Education & Encouragement					
	Voluntary Travel Behavior Change Program				
Commute Trip Reductions	Promotions & Marketing				
Commute Trip Reductions	Required Commute Trip Reduction Program		Vehicle Trip Reduction Measures – TDM Program	Required Commute Trip Reduction Program – 100 percent of employees eligible	

VMT Calculator		Transportation Study			
TDM Strategy In VMT Calculator	TDM Sub Strategy In VMT Calculator	Project Design Feature in Traffic Study	Mitigation Measure in Traffic Study	Inputs to VMT Calculator	Notes
	Employer-Sponsored Vanpool or Shuttle				
	Ride-Share Program				
Shared Mobility	Car-Share				
	Bike-Share				
	School Carpool Program				
Bicycle Infrastructure	Implement / Improve On-Street Bicycle Facility		Make a one-time financial contribution of \$75,000 to the City's Bicycle Trust Fund, the monies to be used to improve and/or maintain bicycle facilities in the area of the Proposed Project.	Implement / Improve On-street Bicycle Facility	
	Include Bike Parking Per LAMC	Yes		Yes	
	Include Secure Bike Parking and Showers				
Neighborhood Infrastructure	Traffic Calming Improvements				
	Pedestrian Network Improvements	Improve sidewalks adjacent to and within the Project. Add pedestrian amenities such as: landscaping and setbacks, shade, benches, pedestrian-scale lighting, etc., along the Olive Street and 11 th Street edges of the Project Site.		Pedestrian Network Improvements – within project only	

Appendix A
VMT Analysis
Existing Project Trips

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project
Scenario: Existing Trips
Address: 1045 S OLIVE ST, 90015



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

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation city code parking provision for the project site 100
☐ Proposed Prj ☐ Mitigation actual parking provision for the project site 74

Unbundle Parking
☐ Proposed Prj ☐ Mitigation monthly parking cost (dollar) for the project site 225

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation percent of employees eligible 50

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation daily parking charge (dollar) 6.00
☐ Proposed Prj ☐ Mitigation percent of employees subject to priced parking 50

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation cost (dollar) of annual permit 200

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Land Use Type	Value	Unit
Retail General Retail	5.171	kSF
Retail General Retail	5.171	kSF
Industrial Manufacturing	14.653	kSF

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

Analysis Results

Proposed Project	With Mitigation
31 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 = 6.0 15% Below APC	Household: N/A Threshold = 6.0 15% Below APC
Work: N/A Threshold = 7.6 15% Below APC	Work: N/A Threshold = 7.6 15% Below APC

Appendix B

VMT Analysis Results

VMT Calculator Inputs and Outputs

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project
Scenario: Traffic Study - Proposed Project
Address: 1045 S OLIVE ST, 90015



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 Pj ☐ Mitigation
city code parking provision for the project site: 100
actual parking provision for the project site: 74

Unbundle Parking ☐ Proposed Pj ☐ Mitigation
monthly parking cost (dollar) for the project site: 225

Parking Cash-Out ☐ Proposed Pj ☐ Mitigation
percent of employees eligible: 50

Price Workplace Parking ☐ Proposed Pj ☐ Mitigation
daily parking charge (dollar): 6.00
percent of employees subject to priced parking: 50

Residential Area Parking Permits ☐ Proposed Pj ☐ Mitigation
cost (dollar) of annual permit: 200

B **Transit**

C **Education & Encouragement**

D **Commute Trip Reductions**

E **Shared Mobility**

F **Bicycle Infrastructure**

G **Neighborhood Enhancement**

Analysis Results

Proposed Project	With Mitigation
2,002 Daily Vehicle Trips	1,990 Daily Vehicle Trips
9,945 Daily VMT	9,883 Daily VMT
4.2 Household VMT per Capita	4.2 Household VMT per Capita
0.0 Work VMT per Employee	0.0 Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	Work: No Threshold = 7.6 15% Below APC

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 12, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 12, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Analysis Results				
Total Employees: 0				
Total Population: 1,789				
Proposed Project		With Mitigation		
2,002	Daily Vehicle Trips	1,990	Daily Vehicle Trips	
9,945	Daily VMT	9,883	Daily VMT	
4.2	Household VMT per Capita	4.2	Household VMT per Capita	
0	Work VMT per Employee	0	Work VMT per Employee	
Significant VMT Impact?				
APC: Central				
Impact Threshold: 15% Below APC Average				
Household = 6.0				
Work = 7.6				
Proposed Project		With Mitigation		
VMT Threshold	Impact	VMT Threshold	Impact	
Household > 6.0	No	Household > 6.0	No	No
Work > 7.6	No	Work > 7.6	No	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 12, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

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

(cont. on following page)

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 12, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
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
Transit Implement neighborhood shuttle	Degree of implementation (low, medium, high)	0	0
	Employees and residents eligible (%)	0%	0%
	Employees and residents eligible (%)	0%	0%
	Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00
Transit subsidies	Employees and residents eligible (%)	0%	0%
	Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00
	Employees and residents participating (%)	0%	0%
	Employees and residents participating (%)	0%	0%
Education & Encouragement	Voluntary travel behavior change program	0%	0%
	Promotions and marketing	0%	0%
	Employees and residents participating (%)	0%	0%
	Employees and residents participating (%)	0%	0%
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 12, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.			
Strategy Type	Description	Proposed Project	Mitigations
Commuter Trip Reductions	Required commute trip reduction program	0%	100%
	Employer sponsored vanpool or shuttle		
	Degree of implementation (low, medium, high)	0	0
	Employees eligible (%)	0%	0%
	Employer size (small, medium, large)	0	0
Shared Mobility	Ride-share program	0%	0%
	Car share	0	0
	Car share project setting (Urban, Suburban, All Other)		
Bike share	Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)	0	0
	School carpool program	0	0
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 12, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



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)	Yes
	Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes
	Include secure bike parking and showers	Includes indoor bike parking/lockers, showers, & repair station (Yes/No)	0
Neighborhood Enhancement	Traffic calming improvements	Streets with traffic calming improvements (%)	0%
		Intersections with traffic calming improvements (%)	0%
		Included (within project and connecting off-site/within project only)	
	Pedestrian network improvements		within project only within project only

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 12, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy													
	Place type: Urban												
	Home Based Work			Home Based Other			Non-Home Based Other			Non-Home Based Other			Source
	Proposed	Mitigated	Attraction	Proposed	Mitigated	Attraction	Proposed	Mitigated	Attraction	Proposed	Mitigated	Attraction	
Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Parking sections 1 - 6
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Transit sections 1 - 3
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Education & Encouragement sections 1 - 2
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Commute Trip Reductions sections 1 - 4
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Shared Mobility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Appendix B, Shared Mobility sections 1 - 3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 12, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

	Home Based Work				Home Based Other				Home Based Other				Non-Home Based Other				Source
	Production		Attraction		Production		Attraction		Production		Attraction		Production		Attraction		
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/improve on-street bicycle facility		0.0%	0.6%	0.0%	0.6%	0.0%	0.6%	0.0%	0.6%	0.0%	0.6%	0.0%	0.6%	0.0%	0.6%	Appendix B, Bicycle Infrastructure sections 1 - 3
	Bike parking per LAMC		0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	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%	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%	0.0%	0.0%	Appendix B, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		Home Based Other Attraction		Home Based Other Production		Home Based Other Attraction		Non-Home Based Other Production		Non-Home Based Other Attraction	
	Mitigated		Mitigated		Mitigated		Mitigated		Mitigated		Mitigated	
	Proposed		Proposed		Proposed		Proposed		Proposed		Proposed	
COMBINED TOTAL	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
MAX. TDM EFFECT	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

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

where: X% =

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: September 12, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



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	1,075	-43.6%	606	5.9	6,305	3,555
Home Based Other Production	2,879	-64.4%	1,026	4.0	11,486	4,099
Non-Home Based Other Production	0	0.0%	0	7.2	0	0
Home-Based Work Attraction	0	0.0%	0	7.9	0	0
Home-Based Other Attraction	521	-65.4%	180	5.6	2,919	1,015
Non-Home Based Other Attraction	289	-23.0%	223	6.5	1,869	1,439

MXD Methodology with TDM Measures

	Proposed Project			Project with Mitigation Measures		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-1.6%	596	3,498	-2.2%	593	3,476
Home Based Other Production	-1.6%	1,010	4,032	-2.2%	1,003	4,007
Non-Home Based Other Production	-1.6%	0	0	-2.2%	0	0
Home-Based Work Attraction	-1.6%	0	0	-22.8%	0	0
Home-Based Other Attraction	-1.6%	177	999	-2.2%	176	993
Non-Home Based Other Attraction	-1.6%	219	1,416	-2.2%	218	1,407

MXD VMT Methodology Per Capita & Per Employee

Total Population: 1,789

Total Employees: 0

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	7,530	7,483
Total Home Based Work Attraction VMT	0	0
Total Home Based VMT Per Capita	4.2	4.2
Total Work Based VMT Per Employee	0.0	0.0

N-5 EIR Alternatives – LOS Traffic Evaluation

**1045 Olive Project
EIR Project Alternatives – Traffic**

July 12, 2019

A. Trip Generation

Table 1. Trip Generation Comparison Summary

<i>Option</i>	<i>Land Uses</i>	<i>Estimated Trip Generation</i>						
		<i>Daily</i>	<i>AM Peak Hour</i>			<i>PM Peak Hour</i>		
			<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
Proposed Project	794 DUs Apartments 12,504 sq.ft. Restaurant	2,227	39	157	196	138	62	200
Alternative 1 No Project with Full Rental Program	8,913 sq.ft Restaurant 26,738 sq.ft Retail	876	16	17	33	48	30	78
Alternative 2 Reduced Density – FAR of 6:1 (No TFAR)	300 DUs Apartments 12,504 sq.ft. Restaurant	1,287	26	71	97	78	35	113
Alternative 3 Reduced Density – Increased Commercial Use with Senior Housing FAR of 6:1 (No TFAR)	315 DUs Senior Housing 18,750 sq.ft Retail 6,250 sq.ft. Restaurant	1,083	24	39	63	53	38	91

B. Traffic Impacts

Alternative 1 – No Project with Full Rental Program

Alternative 1 would generate approximately 83% fewer trips than the Proposed Project in the AM peak hour. It would generate 33 net AM peak hour trips compared to 196 net trips for the Proposed Project. In the PM peak hour, Alternative 1 would generate approximately 61% fewer trips than the Proposed Project. It would generate 78 PM peak hour trips compared to 200 trips for the Proposed Project. Access would be provided only from the alley.

The Proposed Project would have significant impacts at one intersection in the AM peak hour. The proposed mitigation measures would fully mitigate the significant impact and there would be no remaining unmitigated impacts in the AM peak hour. In the PM peak hour, the Proposed Project would have significant impacts at four intersections. The proposed mitigation measures would fully mitigate the significant impacts at all four impacted intersections and there would be no remaining unmitigated impacts in the AM or PM peak hours.

Alternative 1 would not require approval through CEQA. However, in the interests of a comparison with the Proposed Project, a review of potential impacts has been carried out for this alternative. Based on a review of the V/C ratios, LOS results, and V/C ratio increases in the impact analysis (Tables 6.1 REV, 6.2 REV, 7.2 REV & 7.3 REV in the Traffic Study), Alternative 1 could potentially reduce significant impacts from one to zero in the AM peak hour and the mitigation measure would likely not be required. In the PM peak hour, Alternative 1 could potentially reduce significant impacts from four to zero and the mitigation measures would likely not be required. Similar to the Project, there would be no remaining significant impacts.

Alternative 2 – Reduced Density – FAR of 6:1 (No TFAR)

Alternative 2 would generate approximately 51% fewer trips than the Proposed Project in the AM peak hour. It would generate 97 net AM peak hour trips compared to 196 net trips for the Proposed Project. In the PM peak hour, Alternative 2 would generate approximately 44% fewer trips than the Proposed Project. It would generate 113 PM peak hour trips compared to 200 trips for the Proposed Project. Access would be the same as for the Project.

Based on a review of the V/C ratios, LOS results, and V/C ratio increases in the impact analysis (Tables 6.1 REV, 6.2 REV, 7.2 REV & 7.3 REV in the Traffic Study), Alternative 2 could potentially reduce significant impacts from one to zero in the AM peak hour. The mitigation measure would therefore likely not be required. In the PM peak hour, Alternative 2 could potentially reduce significant impacts from four to one. With mitigation, impacts could be reduced from one to zero in the PM peak hour. Similar to the Project, there would be no remaining significant impacts.

Alternative 3 – Reduced Density – Increased Commercial Use with Senior Housing FAR of 6:1
(No TFAR)

Alternative 3 would generate approximately 68% fewer trips than the Proposed Project in the AM peak hour. It would generate 63 net AM peak hour trips compared to 196 net trips for the Proposed Project. In the PM peak hour, Alternative 3 would generate approximately 55% fewer trips than the Proposed Project. It would generate 91 PM peak hour trips compared to 200 trips for the Proposed Project. Access would be provided only from the alley.

Based on a review of the V/C ratios, LOS results, and V/C ratio increases in the impact analysis (Tables 6.1 REV, 6.2 REV, 7.2 REV & 7.3 REV in the Traffic Study), Alternative 3 could potentially reduce significant impacts from one to zero in the AM peak hour. The mitigation measure would therefore likely not be required. In the PM peak hour, Alternative 3 could potentially reduce significant impacts from four to zero. The mitigation measures would therefore likely not be required. Similar to the Project, there would be no remaining significant impacts.

N-6 EIR Alternatives - VMT Traffic Evaluation

Memorandum

To: Wes Pringle, LADOT

From: Michael Bates
Amir Ainechi

Subject: 1045 Olive Project – Project Alternatives VMT Analysis

Date: September 17, 2019

Introduction

This memorandum provides an analysis of vehicle-miles traveled (VMT) for the Project Alternatives of the 1045 Olive Project using the City of Los Angeles VMT Calculator. The analysis shows that with applying the VMT impact criteria established by LADOT, the Project Alternatives would not have significant VMT impacts. The Project Alternatives are not discussed in the approved Transportation Impact Study (TIS) for the Proposed Project but are included in the Draft Environmental Impact Report (DEIR). This information is being provided in addition to that study.

Background to VMT Analysis

State of California Senate Bill 743¹, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding transportation impact analysis. Under SB 743, the focus of transportation analysis will shift from driver delay – typically measured by traffic level of service (LOS) – to a new measurement that better address the state's goals on reduction of greenhouse gas emission (GHG), creation of multimodal transportation and promotion of mixed-use developments. Since 2014, the Governor's Office of Planning and Research has been developing guidelines and has recommended that vehicle-miles traveled (VMT) replace LOS as the primary measure of transportation impacts. Fully implemented guidelines were originally scheduled to be in place by January 1, 2016. However, an extension has allowed cities more time to establish an analysis methodology. The City of Los Angeles has updated its travel demand

¹ SB 743(Steinberg, 2013).

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model, and has developed and calibrated to local conditions an impact evaluation methodology and transportation impact thresholds based on VMT. This is called the VMT Calculator. The City of Los Angeles has adopted the new CEQA methodology and thresholds as of July 30, 2019.

Project Alternatives

The following alternatives were considered in the DEIR, and are analyzed here.

Proposed Project: The Proposed Project was analyzed in the TIS. It includes 794 dwelling units (DU) of apartments and 12,504 sq. ft. of Restaurant.

Alternative 1: This is a No Project alternative with a full rental program including 8,913 sq. ft. of Restaurant and 26,738 sq. ft. of Retail uses.

Alternative 2: This is a reduced density Alternative with Floor Area Ratio (FAR) of 6:1. It includes 300 DU of apartments and 12,504 sq. ft. of Restaurant.

Alternative 3: This a reduced density Alternative with FAR of 6:1 combined with an increase in the commercial use. It includes 315 DU of Senior Housing, 18,750 sq. ft. of Retail, and 6,250 sq. ft. of Restaurant.

VMT Analysis

VMT Screening

In accordance with LADOT, an initial assessment of the development project is conducted to determine if a VMT transportation assessment is required. A Development Project is defined as any proposed land use project that changes the use within an existing structure, creates an addition to an existing structure, or new construction, which includes any occupied floor area.

With respect to VMT, a VMT transportation assessment is required for Development Projects or Transportation Projects that meet the following criteria:

- If the Development Project is estimated to generate a net increase of 250 or more daily vehicle trips and requires discretionary action.

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For the purpose of screening for daily vehicle trips, a proposed project's daily vehicle trips should be estimated using the VMT Calculator tool or the most recent edition of the ITE Trip Generation Manual. TDM strategies should not be considered for the purpose of screening. If existing land uses are present on the project site or there were previously terminated land uses that meet the criteria for trip credits, the daily vehicle trips generated by the existing or qualified terminated land uses can be estimated using the VMT Calculator tool and subtracted from the Project's daily vehicle trips to determine the increase in daily vehicle trips.

In accordance with these provisions, the Proposed Project is expected to generate a net increase of 1,971 daily trips and thus a project VMT analysis is required.

Alternative 1 consists of less than 50,000 sq. ft. of retail use, and is therefore exempt from the VMT analysis.

Alternative 2 is expected to generate a net increase of 729 daily trips and thus a VMT analysis is required.

Alternative 3 is expected to generate a net increase of 296 daily trips and thus a VMT analysis is required.

The summary results of the project screening are provided in Table 1. The VMT Calculator results for existing trips are shown on Appendix A.

VMT Thresholds

The LADOT VMT Calculator analyses in terms of Household VMT per Capita, and Work VMT per Employee. LADOT has identified thresholds for significant VMT impacts by sub-area of the city. For the Central Area the following thresholds have been identified:

Household VMT per Capita: 6.0

Work VMT per Employee: 7.6

VMT with Project Alternatives

The VMT results are summarized in Table 2. The results show that with the Proposed Project, the Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and the Work VMT per Capita would be 0.0 compared to the threshold of 7.6. It is also noted that the threshold for Household VMT per Capita at 6.0 is set at 15% below the average for the Central Area, so the average is 7.1. The Project's Household VMT per Capita of 4.2 is

Table 1. Trip Generation – Project Screening

	<i>Land Use</i>	<i>Scale</i>	<i>Daily Vehicle Trips</i>
<i>Proposed Project</i>			
Proposed	Multi-Family	794 DU	2,022
Existing	Manufacturing	14,653 sf	31
	Net Difference [Proposed – Existing]		1,971
	Analysis Required (Net Difference >250)		Yes
<i>Alternative 1</i>			
Proposed	N/A	N/A	N/A
Existing	Manufacturing	14,653 sf	31
	Net Difference [Proposed – Existing]		N/A
	Analysis Required (Net Difference >250)		No
<i>Alternative 2</i>			
Proposed	Multi-Family	300 DU	760
Existing	Manufacturing	14,653 sf	31
	Net Difference [Proposed – Existing]		729
	Analysis Required (Net Difference >250)		Yes
<i>Alternative 3</i>			
Proposed	Senior Housing	315 DU	327
Existing	Manufacturing	14,653 sf	31
	Net Difference [Proposed – Existing]		296
	Analysis Required (Net Difference >250)		Yes

Table 2 Summary of VMT Results

<i>Category</i>	<i>Household</i>			<i>Work</i>		
<i>Scenario</i>	<i>Household VMT Threshold</i>	<i>Household VMT Per Capita</i>	<i>Impact</i>	<i>Work VMT Threshold</i>	<i>Work VMT per Employee</i>	<i>Impact</i>
VMT With Proposed Project	6.0	4.2	No	7.6	0.0	No
VMT With Alternative 1 – No Project with Full Rental Program ¹	N/A	N/A	N/A	N/A	N/A	N/A
VMT With Alternative 2 – Reduced Density	6.0	4.2	No	7.6	0.0	No
VMT With Alternative 3 – Reduced Density – Increased Commercial Use with Senior Housing	6.0	3.3	No	7.6	0.0	No

1. Exempt from VMT analysis because less than 50,000 sq. ft. of Retail.

therefore 30% below the threshold and 41% below the average for the Central Area.

Alternative 1 is a No Project Alternative and since it is less than 50,000 sq. ft. of retail use, it is exempt from VMT analysis.

Alternative 2 Household VMT per Capita would be 4.2 compared to the threshold of 6.0, and the Work VMT per Capita would be 0.0 compared to the threshold of 7.6. Alternative 2 Household VMT per Capita of 4.2 is therefore 30% below the threshold and 41% below the average for the Central Area.

Alternative 3 Household VMT per Capita would be 3.3 compared to the threshold of 6.0, and the Work VMT per Capita would be 0.0 compared to the threshold of 7.6. Alternative 3 Household VMT per Capita of 3.3 is therefore 45% below the threshold and 54% below the average for the Central Area.

Therefore, it is concluded that the Proposed Project and Project Alternatives would not cause significant VMT impacts. Appendix B provides the analysis results.

The detailed application of the VMT calculator is described below.

Application of the LADOT VMT Calculator

Input on Project Land Use Information

This part of the VMT Calculator includes entering the Project location address by its latitude and longitude (to identify the specific location of the Project for the correct application of the VMT Calculator localized data), and the type and quantity of proposed land uses. Table 3 shows the land use quantities for the Proposed Project and Project Alternatives. Table 4 shows the information that was input in to the VMT Calculator land use categories.

According to Section 2.2.2² (Screening Criteria) of the new Transportation assessment guidelines a portion of, or entirety of a project that contains small-scale or local serving retail land uses are assumed to have less than significant VMT impacts and can be excluded from the VMT analysis if less than 50,000 sq. ft. Local serving retail land uses include restaurants. Therefore, restaurant and retail land uses were not input into the VMT Calculator for the Proposed Project and Project Alternatives.

² Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines, July 2019

Table 3. Project Land Uses

<i>Land Use</i>	<i>Quantity</i>			
	<i>Proposed Project</i>	<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
<u>Existing Land Uses</u>				
Manufacturing	14,653 SF	14,653 SF	14,653 SF	14,653 SF
<u>Proposed Land Uses</u>				
Apartments	794 DU		300 DU	
Senior Housing				315 DU
High-Turnover Restaurant	6,252 SF	8,913 SF	6,252 SF	6,250 SF
Quality Restaurant	6,252 SF		6,252 SF	
Retail		26,738 SF		18,750 SF

Table 4. Project Land Uses as Entered into VMT Calculator

<i>Land Use</i>	<i>Quantity</i>			
	<i>Proposed Project</i>	<i>Alternative 1¹</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Housing (multi-family)	794 DU		300 DU	
Housing (Senior)				315 DU

1. Exempt from VMT analysis because less than 50,000 sq. ft. of Retail.

Input on Project Design Features and Mitigation Measures

The VMT Calculator allows input of various TDM strategies as either Project Design Features or as Mitigation Measures. The Project Design Features and Mitigation Measures for the 1045 Olive Project as identified in the approved Traffic Study were input into the VMT calculator as appropriate. The correspondence is shown in Table 5.

As shown in Table 5, for Alternative 2, the same Project Design Features and Mitigation Measures as the Proposed Project are input in the VMT Calculator. For Alternative 3, only the Project Design Features are included due to different land uses and much lower trip total.

Table 5 – TDM Strategies in VMT Calculator

VMT Calculator		Transportation Study			
TDM Strategy in VMT Calculator	TDM Sub Strategy in VMT Calculator	Project Design Feature in Traffic Study	Mitigation Measure in Traffic Study	Inputs to VMT Calculator	Notes
Parking	Reduce Parking Supply				
	Unbundle Parking				
	Parking Cash-Out				
	Price Workplace Parking				
	Residential Area Parking Permits				
Transit					
	Reduce Transit Headways				
	Implement Neighborhood Shuttle				
	Transit Subsidies				
Education & Encouragement					
	Voluntary Travel Behavior Change Program				
	Promotions & Marketing				
Commute Trip Reductions					
	Required Commute Trip Reduction Program		Vehicle Trip Reduction Measures – TDM Program	Required Commute Trip Reduction Program – 100 percent of employees eligible	Applied to Proposed Project and Alternative 2

VMT Calculator		Transportation Study			
TDM Strategy In VMT Calculator	TDM Sub Strategy In VMT Calculator	Project Design Feature in Traffic Study	Mitigation Measure in Traffic Study	Inputs to VMT Calculator	Notes
	Employer-Sponsored Vanpool or Shuttle				
	Ride-Share Program				
Shared Mobility	Car-Share				
	Bike-Share				
	School Carpool Program				
Bicycle Infrastructure	Implement / Improve On-Street Bicycle Facility		Make a one-time financial contribution of \$75,000 to the City's Bicycle Trust Fund, the monies to be used to improve and/or maintain bicycle facilities in the area of the Proposed Project.	Implement / Improve On-street Bicycle Facility	Applied to Proposed Project and Alternative 2
	Include Bike Parking Per LAMC	Yes		Yes	Applied to Proposed Project, Alternative 2, and Alternative 3
	Include Secure Bike Parking and Showers				
Neighborhood Infrastructure	Traffic Calming Improvements				
	Pedestrian Network Improvements	Improve sidewalks adjacent to and within the Project. Add pedestrian amenities such as: landscaping and setbacks, shade, benches, pedestrian-scale		Pedestrian Network Improvements – within project only	Applied to Proposed Project, Alternative 2, and Alternative 3

VMT Calculator		Transportation Study			
TDM Strategy In VMT Calculator	TDM Sub Strategy In VMT Calculator	Project Design Feature in Traffic Study	Mitigation Measure in Traffic Study	Inputs to VMT Calculator	Notes
		lighting, etc., along the Olive Street and 11 th Street edges of the Project Site.			

Appendix A
VMT Analysis
Existing Project Trips

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project

Scenario: Traffic Study - Existing Trips

Address: 1045 S OLIVE ST, 90015



Land Use Type	Value	Unit
Industrial Manufacturing	14 653	kst
Industrial Manufacturing	14 653	kst

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

Reduce Parking Supply
☐ Proposed Pj ☐ Mitigation
 city code parking provision for the project site: 100
 actual parking provision for the project site: 74

Unbundle Parking
☐ Proposed Pj ☐ Mitigation
 monthly parking cost (dollar) for the project site: 225

Parking Cash-Out
☐ Proposed Pj ☐ Mitigation
 percent of employees eligible: 50

Price Workplace Parking
☐ Proposed Pj ☐ Mitigation
 daily parking charge (dollar): 6.00
 percent of employees subject to priced parking: 50

Residential Area Parking Permits
☐ Proposed Pj ☐ Mitigation
 cost (dollar) of annual permit: 200

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
31 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 = 6.0 15% Below APC	Household: N/A Threshold = 6.0 15% Below APC
Work: N/A Threshold = 7.6 15% Below APC	Work: N/A Threshold = 7.6 15% Below APC

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



Appendix B
VMT Analysis Results

Appendix B-1

VMT Analysis Results
Proposed Project

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project
 Scenario: Traffic Study - Proposed Project
 Address: 1045 S OLIVE ST, 90015



Land Use Type: Housing | Multi-Family
 Value: 794
 Unit: 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
 city code parking provision for the project site: 100
 actual parking provision for the project site: 74

☐ Unbundle Parking
 monthly parking cost (dollar) for the project site: 225

☐ Parking Cash-Out
 percent of employees eligible: 50

☐ Price Workplace Parking
 daily parking charge (dollar): 6.00
 percent of employees subject to priced parking: 50

☐ Residential Area Parking Permits
 cost (dollar) of annual permit: 200

B **Transit**

C **Education & Encouragement**

D **Commute Trip Reductions**

E **Shared Mobility**

F **Bicycle Infrastructure**

G **Neighborhood Enhancement**

Analysis Results

Proposed Project	With Mitigation
2,002 Daily Vehicle Trips	1,990 Daily Vehicle Trips
9,945 Daily VMT	9,883 Daily VMT
4.2 Household VMT per Capita	4.2 Household VMT per Capita
0.0 Work VMT per Employee	0.0 Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	Work: No Threshold = 7.6 15% Below APC



CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Analysis Results			
Total Employees: 0			
Total Population: 1,789			
Proposed Project		With Mitigation	
2,002	Daily Vehicle Trips	1,990	Daily Vehicle Trips
9,945	Daily VMT	9,883	Daily VMT
4.2	Household VMT per Capita	4.2	Household VMT per Capita
0	Work VMT per Employee	0	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

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

(cont. on following page)

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

Strategy Type	Description	Proposed Project	Mitigations
Commute Trip Reductions	Required commute trip reduction program	0%	100%
	Employee sponsored carpool or shuttle	0%	0%
	Degree of implementation (low, medium, high) Employees eligible (%)	0%	0%
	Employer size (small, medium, large)	0%	0%
	Ride-share program	0%	0%
Shared Mobility	Car share	0%	0%
	Bike share	0%	0%
	School carpool program	0%	0%
	(cont. on following page)		

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019
Project Name: 1045 Olive Project
Project Scenario: Traffic Study - Proposed Project
Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

	Home Based Work				Home Based Other				Non-Home Based Other				Source
	Production		Attraction		Production		Attraction		Production		Attraction		
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Parking sections 1 - 6
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Transit	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Appendix B, Transit sections 1 - 3
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Education & Encouragement sections 1 - 2
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Commute Trip Reductions sections 1 - 4
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Appendix B, Shared Mobility sections 1 - 3
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

	Home Based Work Production		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	
Bicycle Infrastructure	Implement/improve on-street bicycle facility	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	Appendix B, Bicycle Infrastructure sections 1 - 3
	Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Improve secure bike parking and lockers	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Neighborhood Enhancement	Traffic calming improvements	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	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		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
COMBINED TOTAL	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
MAX. TDM EFFECT	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

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

where: X%=

urban center	75%
urban	75%
compact infill	40%
suburban center	20%
suburban	15%

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project

Project Address: 1045 S OLIVE ST, 90015



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	1,075	-43.6%	606	5.9	6,305	3,555
Home Based Other Production	2,879	-64.4%	1,026	4.0	11,486	4,099
Non-Home Based Other Production	0	0.0%	0	7.2	0	0
Home-Based Work Attraction	0	0.0%	0	7.9	0	0
Home-Based Other Attraction	521	-65.4%	180	5.6	2,919	1,015
Non-Home Based Other Attraction	289	-23.0%	223	6.5	1,869	1,439

MXD Methodology with TDM Measures

	Proposed Project			Project with Mitigation Measures		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-1.6%	596	3,498	-2.2%	593	3,476
Home Based Other Production	-1.6%	1,010	4,032	-2.2%	1,003	4,007
Non-Home Based Other Production	-1.6%	0	0	-2.2%	0	0
Home-Based Work Attraction	-1.6%	0	0	-22.8%	0	0
Home-Based Other Attraction	-1.6%	177	999	-2.2%	176	993
Non-Home Based Other Attraction	-1.6%	219	1,416	-2.2%	218	1,407

MXD VMT Methodology Per Capita & Per Employee

Total Population: 1,789

Total Employees: 0

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	7,530	7,483
Total Home Based Work Attraction VMT	0	0
Total Home Based VMT Per Capita	4.2	4.2
Total Work Based VMT Per Employee	0.0	0.0

Appendix B-2

VMT Analysis Results
Alternative 2

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project

Scenario: Traffic Study - Proposed Project (Alternative 2)

Address: 1045 S OLIVE ST, 90015



Land Use Type: Housing | Multi-Family

Value: 300

Unit: DU

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

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation
city code parking provision for the project site: 100
actual parking provision for the project site: 74

Unbundle Parking
☐ Proposed Prj ☐ Mitigation
monthly parking cost (dollar) for the project site: 225

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation
percent of employees eligible: 50

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation
daily parking charge (dollar): 6.00
percent of employees subject to priced parking: 50

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation
cost (dollar) of annual permit: 200

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
760 Daily Vehicle Trips	755 Daily Vehicle Trips
3,773 Daily VMT	3,749 Daily VMT
4.2 Household VMT per Capita	4.2 Household VMT per Capita
0.0 Work VMT per Employee	0.0 Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	Work: No Threshold = 7.6 15% Below APC



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

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Alterna

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Project Information			
Land Use Type	Value	Units	
Housing	Single Family	0	DU
	Multi Family	300	DU
	Townhouse	0	DU
	Hotel	0	Rooms
Affordable Housing	Motel	0	Rooms
	Family	0	DU
	Senior	0	DU
	Special Needs	0	DU
	Permanent Supportive	0	DU
	General Retail	0.000	ksf
	Furniture Store	0.000	ksf
	Pharmacy/Drugstore	0.000	ksf
	Supermarket	0.000	ksf
	Bank	0.000	ksf
Retail	Health Club	0.000	ksf
	High-Turnover Sit-Down 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
	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: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Alternative)

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Analysis Results			
Total Employees: 0			
Total Population: 676			
Proposed Project		With Mitigation	
760	Daily Vehicle Trips	755	Daily Vehicle Trips
3,773	Daily VMT	3,749	Daily VMT
4.2	Household VMT per Capita	4.2	Household VMT per Capita
0	Work VMT per Employee	0	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs			
Strategy Type	Description	Proposed Project	Mitigations
Parking	Reduce parking supply	0	0
	City code parking provision (spaces)		
	Actual parking provision (spaces)	0	0
	Monthly cost for parking (\$)	50	50
	Employees eligible	0%	0%
	Daily parking charge (\$)	\$0.00	\$0.00
	Employee's subject to priced parking (%)	0%	0%
	Cost of annual permit (\$)	\$0	\$0
	Parking cash out		
	Price workplace parking		
	Residential area parking permits		

(cont. on following page)

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

Strategy Type	Description	Proposed Project	Mitigations
Transit	Reduce transit headways	0%	0%
	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
Transit	Implement neighborhood shuttle	0	0
	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
	Employees and residents participating (%)	0%	0%
Education & Encouragement	Voluntary travel behavior change program	0%	0%
	Promotions and marketing	0%	0%
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

Strategy Type	Description	Proposed Project	Mitigations
Commute Trip Reductions	Required commute trip reduction program	0%	100%
	Employees participating (%)		
	Degree of implementation (low, medium, high)	0	0
	Employer sponsored vanpool or shuttle (%)	0%	0%
	Employer's eligible (small, medium, large)	0	0
Shared Mobility	Ride share program	0%	0%
	Employees eligible (%)		
	Car share project certina (Urban, Suburban, All Other)	0	0
	Within 500 feet of existing bike share station OR implementing new bike share station (Yes/No)	0	0
	Level of implementation (Low, Medium, High)	0	0
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 SOLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

Strategy Type	Description	Proposed Project	Mitigations
Bicycle Infrastructure	Implement/Improve on-street bicycle facility	0	Yes
	Bike parking per LAMC	Yes	Yes
	Meets City Bike Parking Code (Yes/No)		
	Includes indoor bike parking/backpacks, showers, & repair station (Yes/No)	0	0
Neighborhood Enhancement	Traffic calming improvements	0%	0%
	Traffic calming improvements (%)	0%	0%
	Traffic calming improvements (%)	0%	0%
	Included (within project and connecting off-site/within project only)	within project only	within project only

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project (Alternative 2)
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

	Home Based Work				Home Based Other				Home Based Other				Non-Home Based Other				Source
	Production		Attraction		Production		Attraction		Production		Attraction		Production		Attraction		
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply Unleashed parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Parking sections 1 - 6
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out Price reduction	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking Residential area	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking permits Reduce transit headways	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Transit sections 1 3
	Implement neighborhood shuttle Transit subsidy	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Promotional unit marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Required commute trip reduction program	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Education & Encouragement sections 1 - 2
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Employer sponsored vinylpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Commute Trip Reductions sections 1 - 4
		0%	0%	0%	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%	0%	0%	0%	
	Car 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%	0.00%	0.00%	0.00%	
	Bike share Subsidy/Carpool program	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Shared Mobility		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Appendix B, Shared Mobility sections 1 - 3
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Alternative 2)

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

	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	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	Appendix B, Bicycle Infrastructure sections 1 - 3
	Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Neighborhood Enhancement	Traffic calming improvements	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	Appendix B, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	

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	2%	2%	2%	23%	2%	2%	2%	2%	2%	2%	2%	2%
MAX. TDM EFFECT	2%	2%	2%	23%	2%	2%	2%	2%	2%	2%	2%	2%

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

where: X%=

urban center	75%
urban	75%
compact infill	40%
suburban center	20%
suburban	15%

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern:

Project Address: 1045 S OLIVE ST, 90015



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	406	-43.5%	229	5.9	2,382	1,345
Home Based Other Production	1,088	-64.1%	390	4.0	4,340	1,559
Non-Home Based Other Production				7.2		
Home-Based Work Attraction				7.9		
Home-Based Other Attraction	197	-65.2%	69	5.6	1,103	386
Non-Home Based Other Attraction	109	-22.9%	84	6.5	706	544

MXD Methodology with TDM Measures

	Proposed Project			Project with Mitigation Measures		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-1.6%	226	1,324	-2.2%	224	1,315
Home Based Other Production	-1.6%	384	1,534	-2.2%	382	1,525
Non-Home Based Other Production	-1.6%	0	0	-2.2%	0	0
Home-Based Work Attraction	-1.6%	0	0	-22.8%	0	0
Home-Based Other Attraction	-1.6%	67	380	-2.2%	67	377
Non-Home Based Other Attraction	-1.6%	83	535	-2.2%	82	532

MXD VMT Methodology Per Capita & Per Employee

Total Population: 676

Total Employees: 0

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	2,858	2,840
Total Home Based Work Attraction VMT	0	0
Total Home Based VMT Per Capita	4.2	4.2
Total Work Based VMT Per Employee	0.0	0.0

Appendix B-3

VMT Analysis Results
Alternative 3

CITY OF LOS ANGELES VMT CALCULATOR Version 1.1



Project Information

Project: 1045 Olive Project
Scenario: Traffic Study - Proposed Project (Alternative 3)
Address: 1045 S OLIVE ST, 90015



Land Use Type	Value	Unit
Housing Affordable Housing - Senior	315	DU
Housing Affordable Housing - Senior	315	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	city code parking provision for the project site
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	100
Unbundle Parking	actual parking provision for the project site
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	74
Parking Cash-Out	monthly parking cost (dollar) for the project site
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	225
Price Workplace Parking	percent of employees eligible
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	50
Residential Area Parking Permits	daily parking charge (dollar)
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	6.00
	percent of employees subject to priced parking
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	50
	cost (dollar) of annual permit
<input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	200
B	
Transit	
C	
Education & Encouragement	
D	
Commute Trip Reductions	
E	
Shared Mobility	
F	
Bicycle Infrastructure	
G	
Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation
327 Daily Vehicle Trips	327 Daily Vehicle Trips
1,617 Daily VMT	1,617 Daily VMT
3.3 Household VMT per Capita	3.3 Household VMT per Capita
0.0 Work VMT per Employee	0.0 Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	Household: No Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	Work: No Threshold = 7.6 15% Below APC



CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Alterna

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Project Information		
Land Use Type	Value	Units
Housing	0	DU
	0	DU
	0	DU
	0	Rooms
	0	Rooms
Affordable Housing	0	DU
	315	DU
	0	DU
	0	DU
	0	DU
Retail	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
	0.000	ksf
Office	0.000	ksf
	0.000	ksf
	0	Seats
	0	ksf
	0.000	ksf
Industrial	0.000	ksf
	0.000	ksf
	0.000	ksf
School	0	Students
	0	Students
Other	0	Trips

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Alternative)

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

Analysis Results			
Total Employees: 0			
Total Population: 381			
Proposed Project		With Mitigation	
327	Daily Vehicle Trips	327	Daily Vehicle Trips
1,617	Daily VMT	1,617	Daily VMT
3.3	Household VMT per Capita	3.3	Household VMT per Capita
0	Work VMT per Employee	0	Work VMT per Employee
Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average			
Household = 6.0			
Work = 7.6			
Proposed Project		With Mitigation	
VMT Threshold	Impact	VMT Threshold	Impact
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs

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

(cont. on following page)

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

Strategy Type	Description	Proposed Project	Mitigations
Transit	Reduce transit headways	0%	0%
	Reduction in headways (increase in frequency) (%) Existing transit mode share (as a percent of total daily trips) (%) Lines within project site improved (<50%, >=50%)	0%	0%
	Implement neighborhood shuttle	0	0
	Degree of implementation (low, medium, high)	0%	0%
	Employees and residents eligible (%)	0%	0%
Education & Encouragement	Transit subsidies	0%	0%
	Employees and residents eligible (%) Amount of transit subsidy per passenger (daily equivalent) (\$)	\$0.00	\$0.00
	Voluntary travel behavior change program	0%	0%
	Employees and residents participating (%) Promotions and marketing	1%	0%
(cont. on following page)			

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern

Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Strategy Inputs, Cont.

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project (Alternative 3)
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy													
Place type: Urban													
	Home Based Work Production			Home Based Work Attraction			Home Based Other Production			Home Based Other Attraction			Source
	Proposed	Mitigated	0%	Proposed	Mitigated	0%	Proposed	Mitigated	0%	Proposed	Mitigated	0%	
Parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Parking sections 1 - 6
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Transit sections 1 - 3
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Education & Encouragement sections 1 - 2
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Commute Trip Reductions sections 1 - 4
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Appendix B, Shared Mobility sections 1 - 3
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: September 16, 2019
 Project Name: 1045 Olive Project
 Project Scenario: Traffic Study - Proposed Project (Alternative 3)
 Project Address: 1045 S OLIVE ST, 90015



Version 1.0

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Urban

	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		
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Bicycle Infrastructure	Implement/improve on-street bicycle facility	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	Appendix B, Bicycle Infrastructure sections 1 - 3
	Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	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%	
Neighborhood Enhancement	Tree/landscaping improvements	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	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	

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	
	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
COMBINED TOTAL	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
MAX. TDM EFFECT												

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

where: X%=

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

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: September 16, 2019

Project Name: 1045 Olive Project

Project Scenario: Traffic Study - Proposed Project (Altern.

Project Address: 1045 S OLIVE ST, 90015



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	155	-35.1%	101	5.9	911	591
Home Based Other Production	416	-59.3%	169	4.0	1,659	676
Non-Home Based Other Production	7	0.0%	7	7.2	50	36
Home-Based Work Attraction	5	0.0%	5	7.9	39	30
Home-Based Other Attraction	75	-60.7%	30	5.6	422	167
Non-Home Based Other Attraction	42	-21.7%	33	6.5	270	211

MXD Methodology with TDM Measures

	Proposed Project			Project with Mitigation Measures		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-1.6%	99	581	-1.6%	99	581
Home Based Other Production	-1.6%	166	665	-1.6%	166	665
Non-Home Based Other Production	-1.6%	0	0	-1.6%	0	0
Home-Based Work Attraction	-1.6%	0	0	-1.6%	0	0
Home-Based Other Attraction	-1.6%	29	164	-1.6%	29	164
Non-Home Based Other Attraction	-1.6%	32	208	-1.6%	32	208

MXD VMT Methodology Per Capita & Per Employee

Total Population: 381

Total Employees: 0

APC: Central

	Proposed Project	Project with Mitigation Measures
Total Home Based Production VMT	1,246	1,246
Total Home Based Work Attraction VMT	0	0
Total Home Based VMT Per Capita	3.3	3.3
Total Work Based VMT Per Employee	0.0	0.0

The Los Angeles Fire Department continually evaluates fire station placement and overall Department services for the entire City, as well as specific areas. The development of this proposed project, along with other approved and planned projects in the immediate area, may result in the need for the following:

1. Increased staffing for existing facilities. (I.E., Paramedic Rescue Ambulance and EMT Rescue Ambulance resources.)
2. Additional fire protection facilities.
3. Relocation of present fire protection facilities.

For additional information, please contact the Fire Development Services Section, Hydrants & Access Unit at **(213) 482-6543**.

RALPH M. TERRAZAS,
Fire Chief

Kristin Crowley, Fire Marshal
Bureau of Fire Prevention and Public Safety

KC:RED:yw

M-2 Police Protection

LOS ANGELES POLICE DEPARTMENT

CHARLIE BECK
Chief of Police



ERIC GARCETTI
Mayor

P. O. Box 30158
Los Angeles, Calif. 90030
Telephone: (213) 486-6000
TDD: (877) 275-5273
Ref #:14.7

January 17, 2018

Ms. Jessie Barkley
ESA
233 Wilshire Boulevard, Suite 150
Santa Monica, California 90401

Dear Ms. Barkley:

The proposed 1045 Olive Project falls within the geographical boundaries of the Los Angeles Police Department's Central Area. A project of this size could have a minor impact on police services in the Central Area. The Department is available to advise you on crime prevention features appropriate for the design of the property in this project. The Department strongly recommends that the developers contact Community Relationship Division, Crime Prevention Through Environmental Design, Officer Christopher Gibson, at (213) 486-6000.

Upon completion of the project, you are encouraged to provide the Central Area Commanding Officer with a diagram of each portion of the property. The diagram should include access routes and any additional information that might facilitate police response.

Should you have any questions regarding this response, please contact Sergeant David Tango, Community Relationship Division, at (213) 486-6000.

Very truly yours,

CHARLIE BECK
Chief of Police

A blue ink signature of Al Neal, written in a cursive style.

AL NEAL, Captain
Commanding Officer
Community Relationship Division

Enclosure

The proposed 1045 Olive Project will be under the jurisdiction of Central Community Police Station, located at 251 East 6th Street, Los Angeles, CA 90014. Telephone Number (213) 833-3707.

The project site is approximately 1.2 miles and 5 minutes without traffic from the Police Station in Reporting District (RD) 0182.

Central Geographic Area is approximately 4.5 square miles and consists of 52 Reporting Districts. The service boundaries for Central Area are as follows: Stadium Way, Pasadena Freeway to the North, Washington Boulevard, 7th Street to the South, Los Angeles River to the East, and the Harbor Freeway to the West.

It has approximately 370 sworn personnel and 30 civilian support staff assigned. It is a culturally diverse community with a population of approximately 40,000 people. The officer to resident ratio is; 1 officer to 108 residents in Central Area. Additionally, there are special service teams available within the LAPD to service Central Area.

Central Station's emergency response system is directly linked to the Los Angeles Police Department Communications Division's Dispatch Centers. Communications Division has the responsibility to staff and answer, on a 24-hour basis, the telephones upon which calls for service are received. This includes 911 emergency calls (police, fire, and paramedic). Communication Division handles only police related calls for the City.

The average response time to emergency calls for service in Central Area during 2016 was 2.7 minutes. The average response time for non-emergency calls for service in Central Area during 2016 was 13.7 minutes.

Crime Statistics for all Central Area through January 17, 2018:

CRIMES	YTD 2017	YTD 2016	YTD 2015
HOMICIDE	21	11	11
RAPE	104	90	96
ROBBERY	718	682	688
AGGRAVATED ASSAULT	1180	909	952
BURGLARY	375	324	350
MOTOR VEHICLE THEFT	391	399	430
BURGLARY FROM MOTOR VEHICLE	1360	1100	913
PERSONAL/OTHER THEFT	2680	2629	2569

Prepared by:

Officer Christopher Gibson
Community Relationship Division
213 486-6000



233 Wilshire Boulevard
Suite 150
Santa Monica, CA 90401
310.451.4488 **phone**
310.451.5279 **fax**

www.esassoc.com

telephone notes

project	1045 Olive	project no.	DPCRH05.EP
date	November 1, 2018	time	10:21
present	Marissa Mathias		
route to			
contact	Officer Christopher Gibson		
title			
agency	Los Angeles Police Department, Community Relationship Division		
phone	213-486-6000		
subject	Police Station Development and Capital Improvements		
action required			

Received call back from Officer Christopher Gibson 11/1/2018. Asked Officer Gibson if there were any plans for police development in the Central City Community or if there were any LAPD capital improvement plans. Officer Gibson answered no to both questions.

Appendix M-2

Table 1 - Estimate of New Population and Households from Related Projects in the Central Community Police Station Service Area

Yellow Rows are outside of the Central Community Police Service area					Average Household Size 2.43		
No. [a]	Project	Address	Use	Size	Household Size [c]	Population	Household Count
1	Apartments	1247 S Grand Ave.	Apartments	115 du	2.43	279	115.00
			Commercial	4,610 sf			
2	1400 S Figueroa Residential Project	1400 S Figueroa	Apartments	106 du	2.43	258	106
3	Mixed-Use	820 S Olive St.	Apartments	522 du	2.43	1268	522
			Retail	4,500 sf			
			Office	3,295 sf			
4	Variety Arts Project	940 S Figueroa St.	Restaurant	10,056 sf			
			Bar	5,119 sf			
5	Apartments	1011 S Park View St	Apartments	108 Units			
6	DTLA South Park - Site 1	1120 S Grand Ave	High-rise Apt	666 du	2.43	1618	666
			Commercial/Retail	20,690 sf			
7	DTLA South Park - Site 4	1230 S Olive St.	Apartments	360 du	2.43	875	360
			Commercial	6,400 sf			
8	Mixed-Use (Herald Examiner)	146 W 11th (11th St. / Broadway)	Apartments	391 du	2.43	950	391
			Office	39,725 sf			
		1111 S Broadway	Retail	49,000 sf			
9	Mixed-Use	327 N Fremont Ave (Fremont / Temple)	Apartments	600 du	2.43	1458	600
			Retail	30,000 sf			
10	Restaurant Project	1036 S Grand Ave.	Restaurant	7,149 sf			
11	2222 S Figueroa	2222 S Figueroa St.	Condominium	1,063 du			
			Retail	18,000 sf			
12	LA Plaza Cultural Village	527 N Spring St.	Apartments	345 du	2.43	838	345
		555 N Broadway	Retail	23,000 sf			
			Specialty Retail	21,000 sf			
			Restaurant	11,000 sf			
13	Mixed-Use	720 W Washington Blvd.	Apartments	105 du	2.43	255	105
			Retail	2,650 sf			
14	Onyx Apartment	Pico Blvd. b/w Flower and Grand	Apartments	419 du	2.43	1018	419
		1306 S Hope St	Retail	42,000 sf			
15	G12 Project	North of Pico b/w Grand and Olive	Apartments	640 du	2.43	1555	640
		1200 S Grand Av	Retail	45,000 sf			
16	Mixed-Use	1050 S. Grand Ave (Grand Ave. / 11th St.)	Condominiums	151 du	2.43	367	151
			Retail	3,472 sf			
			Restaurant	2,200 sf			
17	Embassy Hotel	831 S Grand Ave.	Hotel	183 Rooms			
			Restaurant	3,084 sf			
			Theater	12,780 sf			
			Banquet	4,773 sf			
			Lounge	2,163 sf			
			Bar	11,840 sf			
18	11th & Hill Project	1115 S Hill St.	Condominiums	528 du	2.43	1283	528
			Retail	6,091 sf			
19	Mixed Use	SOLA Village	Condominiums	900 du			
		1900 S Broadway	Apartments (Rental)	550 du			
			Hotel	210 Rooms			
			Retail/Commercial	143,100 sf			
			Office	180,000 sf			
			Gallery/Museum	17,600 sf			
			Gym	8,000 sf			
20	New Medical Office Building (Good Samaritan Hospital)	Wilshire Blvd/Witmer St.	Imaging center, pharmacy, surgical suites, and physician offices	56,450 sf			
21	Charter High School	1552 W Rockwood St	Charter High School	600 Students			
22	Park/Fifth Project	427 W 5th	Condominiums	660 du	2.43	1604	660
		437 S Hill St	Restaurant	13,742 sf			
23	9th & Flower Project	830 S Hope St	Apartments	525 du	2.43	1276	525
			Retail	6,200 sf			
24	Mixed Use	1435 W 3rd Street	Apartment	122 du			
			Retail	3,500 sf			
25	Grand Avenue Project	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street.	Condominiums	1,648 du	2.43	4005	1648
			Apartments	412 du	2.43	1001	412

		Parcel L/M-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street	Retail	225,250 sf			
			Supermarket	53,000 sf			
			Restaurant	67,000 sf			
			Health Club	50,000 sf			
			Event Facility	250 seats			
			Hotel	275 Rooms			
	237 S Grand Av		Office	681,000 sf			
26	Washington Bl Opportunity MU (Mercy Hsg)	E Washington Bl/Los Angeles St	Residential Units	230 du	2.43	559	230
		220 E Washington Bl	Specialty Retail/Restaurant	19,000 sf			
			Renovate Residential Units	32 du	2.43	78	32
27	Mixed Use	2100 S Figueroa	Condominium	291 du			
			Retail	7,134 sf			
28	9th / Olive Project	840/888 S. Olive St.	Apartments	303 du	2.43	736	303
			Retail	9,680 sf			
			Restaurant	1,500 sf			
29	Broadway Trade Center	801 S Broadway	Office	400,000 sf			
			Hotel	150 Rooms			
30	Beverly + Lucas Project	1430 W Beverly Bl	Apartments	157 du			
31	Broadway Mixed	955 S Broadway	Apartments	201 du	2.43	488	201
			Retail	6,000 sf			
32	801 S Olive Street Project	801 S Olive St.	Apartments	363 du	2.43	882	363
			Retail	2,500 sf			
			Restaurant	10,000 sf			
33	Mixed-Use Building	233 W Washington Bl	Apartments	160 du	2.43	389	160
			Retail	24,250 sf			
34	Bixel & Lucas Project	1102 W 6th St	Apartments	649 du			
			Retail	39,996 sf			
35	Mixed-Use	215 W 14th St.	Condominiums	154 du	2.43	374	154
			Retail	10,700 sf			
36	SB OMEGA	601 S Main St.	High-rise Condo	452 du	2.43	1098	452
			Retail	25,000 sf			
37	Hill Mixed	920 S Hill	Apartments	239 du	2.43	581	239
			Retail	5,400 sf			
38	Witmer Project	1329 W. 7th St. (7th / Witmer)	Condominiums	94 du			
			Retail	2,000 sf			
39	1133 Hope Street Project	1133 Hope Street	Condominiums	208 du	2.43	505	208
			Restaurant	5,029 sf			
40	700 Cesar Chavez Ave Project	700 Cesar Chavez	Apartment	300 du	2.43	729	300
			Retail	8,000 sf			
41	Spring St. Hotel	633 S Spring	Hotel	176 Room	2.43	428	176
			Conference Space	1,200 sf			
			Restaurant	8,400 sf			
			Bar	5,290 sf			
42	Wakaba LA	southwest corner of San Pedro and 2nd	Apartments	240 du	2.43	583	240
			Retail	16,000 sf			
43	1600 S Figueroa	1600 S Figueroa St.	Condominium	202 du	2.43	491	202
			Apartments	134 du	2.43	326	134
			Hotel	250 rooms			
44	Mixed-Use	928 S Broadway	Apartments	662 du	2.43	1609	662
			Retail	47,000 sf			
			Live/Work	11,000 sf			
			Office	34,824 sf			
45	Los Angeles Street Civic Center Project	150 N Los Angeles Street	Government Office	712,500 sf			
			Retail	35,000 sf			
			Child Care Facility	2,500 sf			
46	Metropolis Mixed-Use	851 S. Francisco St. (8th St. / Francisco St.) 899 S. Francisco St.	Hotel	480 Rooms			
			Condominiums	836 du	2.43	2031	836
			Office	988,225 sf			
			Retail	46,000 sf			
47	Mixed-Use Development	1027 W. Wilshire Project (Wilshire / St. Paul St.)	Condominiums	402 du			
			Retail	7,428 sf			
48	Residential Project	1027 S Olive Street	Apartments	100 du	2.43	243	100
49	Embassy Tower	848 S Grand Av	Hi-rise Condominiums	420 du	2.43	1021	420

			Market	38,500 sf			
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Figueroa St. / 11th St.	Residential	1,264 du	2.43	3072	1264
			Educational	95,706 sf			
			Retail	148,583 sf			
			Restaurants	60,000 sf			
			Health Club	12,309 sf			
			Sport Bar	6,000 sf			
			Hotel	183 Rooms			
			Office	367,300 sf			
			Production Studio	298,500 sf			
			Convention Center Expansion	250,000 sf			
51	City Market Project	San Pedro Street b/w 9th St and 12th St.	University	1,400 Students			
		1057 S San Pedro St.	Shopping Center	176,733 sf			
			Cinema	744 Seats			
			Apartments	945 du	2.43	2296	945
			Hotel	210 Rooms			
			Retail	224,862 sf			
			Office	294,641 sf			
52	Wilshire Grand Redevelopment Project	930 W Wilshire Bl	Hotel Rooms	560 Rooms			
		900 W Wilshire Bl	Residential Units	100 du	2.43	243	100
			Office	1,500,000 sf			
			Retail/Restaurant	275,000 sf			
53	Flower (1212) Mixed -Use	1212 W Flower	Apartments	730 du	2.43	1774	730
			Retail/Restaurant	10,500 sf			
			Office	70,465 sf			
54	Olympic / Hill Project	Northwest corner of Olympic / Hill	Apartments	300 du	2.43	729	300
			Retail	14,500 sf			
		301 W Olympic Bl	Restaurant	8,500 sf			
55	785 S Towne	785 S Towne Ave.	Joint Living and Work Quarters	60 du			
56	1700 W Olympic Hotel	1700 W Olympic	Hotel	160 Rooms			
57	Mixed-Use	534 S Main St	Apartments	160 du	2.43	389	160
			Retail	18,000 sf			
			Restaurant	3,500 sf			
			Fast-food Restaurant	3,500 sf			
58	USC Student Housing	505 W 31st St.	Apartments	73 du			
59	400 S Broadway Mixed-Use Project	400-416 Broadway	Apartments	450 du	2.43	1094	450
			Retail	6,904 sf			
			Lounge	5,000 sf			
60	1001 S Olive	1001 S Olive St	Apartments	225 du	2.43	547	225
			Restaurant	5,000 sf			
61	Olive & Olympic	Northeast corner of Olive & Olympic	Apartments	263 du	2.43	639	263
		960 S Olive St.	Restaurant	14,500 sf			
62	L.A Trade Tech College - 5-Year Master Plan	400 Washington Blvd. (Washington Blvd. / Flower St.)	5-year Master Plan Project	21,300 Enrollment			
63	Palmetto	Northeast corner of Palmetto & Sealton	Apartments	310 du	2.43	753	310
			Commercial	11,375 sf			
			Production Space	11,736 sf			
64	Mixed Use	1335 W 1st St	Apartments	102 du			
			Retail	3,514 sf			
65	Residential	459 S Hartford Ave	Apartments	94 du			
66	330 S Alameda	330 S Alameda	Apartments	186 du	2.43	452	186
			Commercial	22,340 sf			
67	Mixed-Use Project	1150 W Wilshire	Apartment	80 du			
			Restaurant	4,589 sf			
68	Mixed Use	737 S Spring	Apartments	320 du	2.43	778	320
			Pharmacy	25,000 sf			
69	Apartments	1218 W Ingraham St	Apartments	90 du			
70	Foreman and Clark Building	400,402 W 7th St. , 701, 715 S. Hill St	Apartments	165 du	2.43	401	165
			Bar	11,902 sf			
			Restaurant	14,032 sf			
71	Apartments	740 S Hartford St	Apartments	80 du			
72	Cecil Hotel Reno	640 S Main St.	Hotel	299 Rooms			
			Apartments	301 du	2.43	731	301
73	Clinic	649 S Wall St.	Medical Office	66 employee			
			Assisted Living	55 bed			

74	Garland Building	740 S Broadway	Apartments	47 du	2.43	114	47
75	Northeast Tower	215 W 9th St	Condominiums	210 du	2.43	510	210
			Retail	9,000 sf			
76	400 S Alameda Hotel	400 S Alameda St	Hotel	66 Rooms			
			Restaurant	2,130 sf			
			Retail	840 sf			
77	Hotel + Retail	649 S Olive St	Hotel	241 Rooms			
78	Charter School (K-5)	1633 W 11th St	School	460 Students			
79	Residential	810 E Pico Blvd	Retail	181,620 sf			
80	Mixed Use	732 S Spring St	Apartments	400 du	2.43	972	400
			Pharmacy/Drug Store	15,000 sf			
81	Mixed Use	340 S Hill	Apartments	428 du	2.43	1040	428
			Retail	6,700 sf			
82	Hill Mixed	940 S Hill	Apartments	232 du	2.43	564	232
			Retail	14,000 sf			
83	Condominiums	742 S Hartford Ave	Condominiums	58 du			
84	Budokan of Los Angeles	237-249 S Los Angeles St.	Sports Complex	43,453 sf			
85	Mixed Use	1145 W 7th St	Condominiums	126 du			
			Apartments	100 du			
			Retail	7,200 sf			
86	Sapphire Mixed Use	1111 W 6th St	Apartments	369 du			
			Retail	18,600 sf			
			Quality Restaurant	2,200 sf			
			Coffee Shop	1,200 sf			
87	Vibiana Lofts	225 S Los Angeles St.	Condominiums	300 du	2.43	729	300
			Retail	3,400 sf			
88	Laborers Local 300 Headquarters	2005 W Pico Blvd.	Office	30,300 sf			
89	Pacific Charter Elementary School	1700 W Pico Blvd.	School	450 Pupils			
90	Valencia Project	1501 Wilshire Blvd.	Apartments	218 du			
			Retail	6,100 sf			
			Other	1,500 sf			
91	Retail / Restaurant	201 S Broadway	Retail and Restaurant	27,765 sf			
92	Legal Aid Foundation of LA	1550 W 8th St.	Office	33,957 sf			
93	Apex Phase II	700 W 9th St.	Condominiums	341 du	2.43	829	341
			Retail	11,687 sf			
94	Pharmacy / Drug Store	1302 W Washington Blvd.	Other	16,572 sf			
95	Charter High School	1929 W Pico Blvd.	School	480 Pupils			
96	Medallion Phase II	300 S Main St.	Apartments	471 du	2.43	1145	471
			Restaurant	27,780 sf			
			Retail	5,190 sf			
97	Alexan South Broadway	850 S Hill St.	Apartments	300 du	2.43	729	300
			Restaurant	3,500 sf			
			Retail	3,500 sf			
98	Proper Hotel	1106 S Broadway	Hotel	148 Rooms			
			Restaurant	17,452 sf			
99	Catalina Building	443 S San Pedro St.	Live/Work	78 du	2.43	190	78
100	1201 S Grand	1201 S Grand Ave.	Condominiums	126 du	2.43	306	126
101	Mixed Use	118 S Astronaut Onizuka St	Apartment	77 du	2.43	187	77
102	Mixed Use	360 S Alameda	Apartment	52 du	2.43	126	52
			Restaurant	2,400 sf			
			Creative Office	6,900 sf			
103	Brooks Building	644 S Broadway	Apartments	30 du	2.43	73	30
			Bar	2,500 sf			
104	950 S Broadway	950 S Broadway	Apartments	30 du	2.43	73	30
			Retail	7,500 sf			
105	Grand Residence	1229 S Grand Ave	Condominiums	161 Units	2.43	391	161
			Restaurant	2,085 sf			
106	Hotel & Apartments	675 S Bixel St	Apartments	425 Units			
			Hotel	126 Rooms			
			Retail	4,874 sf			
107	Mixed-Use	1235 W 7th St	Condominiums	303 Units			
			Retail	5,959 sf			
108	Mixed-Use Project	1800 E 7th St.	Apartments	122 du			
			Office	13,600 sf			
109	1745 E 7th St	1745 E 7th St	Apartments	57 du	2.43	139	57
			Commercial	6,000 sf			
110	1322 Linwood Apts.	1322 W Linwood Ave.	Apartments	45 Units			
111	Mixed-Use	1334 S Flower St.	Apartments	188 Units	2.43	457	188
			Retail / Restaurant	10,096 sf			
112	LUXE Hotel	1020 S Figueroa St.	Condo	650 Units	2.43	1580	650

	Mixed-Use		Hotel	300 Room			
			Restaurant	40,000 sf			
			Retail	40,000 sf			
113	Mixed-Use	1400 S Flower St.	Apartments	147 Units	2.43	357	147
			Retail	6,921 sf			
114	Fig + Pico Hotel	Northeast corner of Figueroa St. & Pico Blvd.	Hotel	1,162 Room			
			Retail	13,145 sf			
115	Mixed-Use Project (Mostly private club)	929 E 2nd St	Retail	41,019 sf			
			Other	63,893 sf			
116	Apartments	1300 W Court St	Apartments	43 du			
117	Urban View Lofts Project	495 S Hartford	Apartments	220 du			
118	Child Care	3014 S Royal St	Child Care Facility	7,997 sf			
119	1930 Wilshire MU	1930 Wilshire Blvd	Apartments	478 du			
			Theater	850 Seats			
			Classroom	50 Student			
			Hotel	220 Rooms			
120	Mixed-Use	2528 S Grand Ave	Apartments	296 du			
			Retail	5,000 sf			
121		425 S Union Ave	Apartments	32 du			
122	Medical Office	1122 W Washington Blvd	Office	60,000 sf			
123	Mixed-Use	945 W 8th St.	Condominium	781 du	2.43	1898	781
			Retail	6,700 sf			
124	Ferante	1000 W Temple St.	Apartments	1,500 du			
			Retail	30,000 sf			
125	Mixed-Used	668 Alameda Street	Apartments	475 du	2.43	1154	475
			Office	43,000 sf			
			Specialty Retail	9,000 sf			
			Restaurant	17,000 sf			
			Supermarket	15,000 sf			
126	1100 E 5th St (Mixed-Use)	1100 E 5th Street	Apartment	213 du	2.43	518	213
			Retail	14,495 sf			
			Arts & Production Space	14,495 sf			
127	Figueroa Hotel	3101 S Figueroa St	Hotel	275 rooms			
			Bar	1,178 sf			
128	6th & Alameda Mixed-Use	1206 6th St	Apartments	1,736 du	2.43	4218	1736
			Office	253,514 sf			
			Community-Serving Commercial	127,610 sf			
			Art Space	22,429 sf			
			Hotel	514 Rooms			
			School	300 Student			
129	5th & Hill Center MU	333 W 5th St	Condominiums	80 du	2.43	194	80
			Hotel	200 Rooms			
			Restaurant	5,000 sf			
			Bar	22,500 sf			
130	Tribune Media's DTLA Tower	232 West 2nd St	Condominiums	107 du	2.43	260	107
			Office	534,044 sf			
			Retail	7,200 sf			
131	433 S Main St	433 S Main	Condominiums	196 du	2.43	476	196
			Retail	5,300 sf			
			Restaurant	900 sf			
132	Mixed-Use	1100 S Main St	Apartments	379 du	2.43	921	379
			Other	25,810 sf			
133	Mixed Use	520 S Mateo St	Apartments	600 du	2.43	1458	600
			Restaurant	15,000 sf			
			Retail	15,000 sf			
			Office	30,000 sf			
134	Southern California Flower Market Project	755 S Wall St	Apartment	323 du	2.43	785	323
			Office	53,200 sf			
			Retail	4,400 sf			
			Other	4,420 sf			
			Other	125 Persons			
135	Hellman / Banco Building	354 S Spring St.	Apartments	212 du	2.43	515	212
136		1301 W Colton St	Apartments	29 du			
137	Downtown LA Hotel	926 W James M Wood Blvd	Hotel	247 Rooms			
138	Arts District Center (Mixed- Use)	1101 E 5th St	Apartments	228 du	2.43	554	228
			Retail	23,000 sf			
			Office	27,860 sf			
			Hotel	149 Rooms			

			Other	56,100 sf			
139	1316 Court & 1323 Colton Apts	1316 W Court St	Apartments	122 du			
140	Figueroa Centre	911 S Figueroa St.	Condominiums	200 du	2.43	486	200
			Hotel	220 rooms			
			Retail	44,080 sf			
			Restaurant	50,000 sf			
141	Mixed-Use	1323 Grand Ave	Apartments	284 du	2.43	690	284
			Retail	6,300 sf			
142	Times Mirror Square	100 S Broadway	Apartments	1,127 du	2.43	2739	1127
			Office	285,088 sf			
			Supermarket	50,000 sf			
			Quality Restaurant	22,200 sf			
			High Turnover Restaurant	53,389 sf			
143	Mixed-Use	1000 S Hill St	Apartments	498 du	2.43	1210	498
			Retail	8,707 sf			
144	Mixed-Use	601 S Central Ave	Apartments	236 du	2.43	573	236
			Retail	12,000 sf			
145	845 S Olive & 842 Grand MU	845 S Olive	Apartments	208 du	2.43	505	208
			Retail	810 sf			
			Other	1,620 sf			
146	Olympia Mixed-Use	1001 W Olympic	Apartments	1,367 du	2.43	3322	1367
			Retail	20,000 sf			
			Other	20,000 sf			
147	Mixed-Use	806 E 3rd St	Bar/Lounge	3,047 sf			
			Restaurant	7,720 sf			
			Retail	6,171 sf			
148	Mixed-Use	755 S Los Angeles	Retail	32,400 sf			
			Office	65,000 sf			
			Restaurant	4,000 sf			
149	2250-2270 W Pico Blvd Hotel	2250 W Pico Blvd	Hotel	125 Rooms			
150	USC Children's Creative Learning Center	2716 S Severance St.	Other	9,955 sf			
151	Apartments	101 N Glendale Blvd.	Apartments	55 du			
152		1420 Bonnie Brae St	Apartments	29 du			
153	Mixed-Use	609 E 5th St	Apartments	151 du	2.43	367	151
154	8th & Fig	744 S Figueroa St.	Apartments	438 du	2.43	1064	438
			Retail	3,750 sf			
			Restaurant	3,750 sf			
155	Affordable Housing Development	508 E 4th St	Apartments	41 du	2.43	100	41
156	Residential	713 E 5th St	Apartments	51 du	2.43	124	51
157	Mixed-Use	401 Hewitt St	Office	255,514 sf			
			Retail	4,970 sf			
			Other	9,940 sf			
158	8th, Grand & Hope Tower	754 S Hope St	Apartments	409 du	2.43	994	409
			Retail	7,329 sf			
159	Mixed-Use	333 Alameda St	Apartments	994 du	2.43	2415	994
			Retail	99,300 sf			
160	19-story Affordable Housing Skid Row	600 S San Pedro St	Affordable Housing	303 du	2.43	736	303
			Retail	19,907 sf			
161	Hewitt & 4th MU	940 E 4th St	Apartments	93 du	2.43	226	93
			Office	6,000 sf			
			Retail	14,248 sf			
162	Affordable Housing Skid Row	552 S San Pedro St	Affordable Housing	378 du	2.43	919	378
			Apartments	4 du	2.43	10	4
			Retail	1,758 sf			
			Office	4,410 sf			
			Dining Room/Flex Space	5,932 sf			
163	2005 James M Wood Hotel	2005 W James M Wood Blvd	Hotel	100 Rooms			
164	1300 Figueroa Hotel	1300 S Figueroa St	Hotel	1,024 Rooms			
165		656 S Stanford Ave	Apartments	82 du	2.43	199	82
166	Mixed-Use	1018 W Ingraham St	Apartments	37 du			
			Retail	1,890 sf			
167	Apartments	1246 W Court St	Apartments	54 du			
168	14th St/Hill St (DTLA) MU	1340 S Hill St	Apartments	235 du	2.43	571	235
			Retail	5,250 sf			

			Other	4,000 sf			
169		1219 S Hope St	Hotel	75 Rooms			
170	Santa Fe Freight Yard Redvelopment	950 E 3rd St.	Apartments	635 du	2.43	1543	635
			Retail	30,062 sf			
171	Mixed-Use (Coca Cola)	963 E 4th St.	Office	78,600 sf			
			Retail	25,000 sf			
			Restaurant	20,000 s.f			
172	Retail	555 S Mateo St	Retail	153,000 sf			
173	Camden Arts Project	1525 Industrial St.	Apartments	344 du	2.43	836	344
			Office	21,413 sf			
			Restaurant	6,084 sf			
174	Restaurant	500 S Mateo St.	Restaurant	12,882 sf			
175	Apartments	1255 E Elden Ave	Apartments	103 du			
176	Mixed-Use	550 S Main St	Apartments	159 du	2.43	386	159
			Retail	23,000 sf			
177	Freehand Hotel	416 W 8th St	Hotel	226 rooms			
			Retail	8,000 sf			
178	Assisted Living	1030 S Lake St	Assisted Living	338 Beds			
			Senior Housing	34 du			
179	Beaudry Ave & 2nd St MU	130 S Beaudry Ave	Apartments	230 du			
			Other	9,000 sf			
180	Olympic & Hoover Mixed-Use	2501 W Olympic Bl	Apartments	173 du			
			Retail	36,180 sf			
181	Olympic Tower Project MU	815 W Olympic Bl	Hotel	373 Rooms			
			Condominiums	374 du	2.43	909	374
			Retail	65,074 sf			
			Conference Center	10,801 sf			
			Office	33,498 sf			
182	Hotel	361 S Spring	Hotel	315 Rooms			
183	Harris Building Office Conversion	11th St & Main St	Office	52,000 sf			
184	Mixed-Use	1410 S Flower St.	Apartments	152 du	2.43	369	152
			Retail	1,184 sf			
185	Mixed-Use	1322 W Maryland St.	Apartments	47 du			
			Retail	760 sf			
186	Apartments	655 San Pedro St.	Apartments	81 du	2.43	197	81
187	Fashion District Tower	222 E 7th St	Apartments	452 du	2.43	1098	452
			Commercial	13,655 sf			
188		605 E 4th St.	Restaurant	3,798 sf			
189	716 S Spring	716 S Spring	Restaurant	6,208 sf			
190	DTLA South Park/Mack Urban Site 2	1120 S Olive	Apartments	713 DU	2.43	1733	713
			Retail	7,125 sf			
			Restaurant	7,125 sf			
191	DTLA South Park/Mack Urban Site 3	1105 S. Olive	Appartments	537 DU	2.43	1305	537
			Retail	3,794 sf			
			Restaurant	3,794 sf			
Infrastructure Projects							
192	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station			Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations		
193	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Vernon Ave.			Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers		
194	Los Angeles Streetcar	Broadway between 1st St. & 11th St., 11 th St. between Figueroa St. & Broadway, Figueroa St. between 11th St. & 7 th St., 7 th St. between Figueroa St. & Hill St., Hill St. between 7th St. & 1 st St., and 1 st St. between Hill St. & Broadway			Enhance mobility and transit circulation and support the growth and revitalization of downtown.		
195	7th street Improvement Project	7th St. between SR 110 and Olive Street			Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding.		

Notes:

du = dwelling units

sf = square feet

emp = employees

[a] Related Projects List was prepared as a component of the Traffic Study, Appendix N of this Draft EIR. Calculations do not include the Infrastructure Projects as they do not involve discreet developments quare footage.

Compiled by ESA, 2019.

Total Population	Total Households
96,046	39,525

20	Imaging center, pharmacy, surgical suites, and physician offices	56,450 sf								
21	Charter High School	600 Students								
22	Condominiums	660 DU								
	Restaurant	13,742 sf		13.74		13.74				
23	Apartments	525 DU								
	Retail	6,200 sf	6.20			6.20				
24	Apartment	122 DU								
	Retail	3,500 sf								
25	Condominiums	1,648 DU								
	Apartments	412 DU								
	Retail	225,250 sf	225.25			225.25				
	Supermarket	53,000 sf	53.00			53.00				
	Restaurant	67,000 sf		67.00		67.00				
	Health Club	50,000 sf			50.00	50.00				
	Event Facility [e][f]	250 seats								2.25
	Hotel	275 Rooms					275.00	137.50		
	Office	681,000 sf				681.00				
26	Residential Units	230 DU								
	Specialty Retail/Restaurant	19,000 sf	19.00			19.00				
	Renovate Residential Units	32 DU								
27	Condominium	291 DU								
	Retail	7,134 sf								
28	Apartments	303 DU								
	Retail	9,680 sf	9.68			9.68				
	Restaurant	1,500 sf		1.50		1.50				
29	Office	400,000 sf				400.00				
	Hotel	150 Rooms					150.00	75.00		
30	Apartments	157 DU								
31	Apartments	201 DU								
	Retail	6,000 sf	6.00			6.00				
32	Apartments	363 DU								
	Retail	2,500 sf	2.50			2.50				
	Restaurant	10,000 sf		10.00		10.00				
33	Apartments	160 DU								
	Retail	24,250 sf	24.25			24.25				
34	Apartments	649 DU								
	Retail	39,996 sf								
35	Condominiums	154 DU								
	Retail	10,700 sf	10.70			10.70				
36	High-rise Condo	452 DU								
	Retail	25,000 sf	25.00			25.00				
37	Apartments	239 DU								
	Retail	5,400 sf	5.40			5.40				
38	Condominiums	94 DU								
	Retail	2,000 sf								
39	Condominiums	208 DU								
	Restaurant	5,029 sf		5.03		5.03				
40	Apartment	300 DU								
	Retail	8,000 sf	8.00			8.00				
41	Hotel	176 Room					176.00	88.00		
	Conference Space [e][f]	1,200 sf								1.20
	Restaurant	8,400		8.40		8.40				
	Bar	5,290 sf		5.29		5.29				
42	Apartments	240 DU								

	Retail	16,000 sf	16.00			16.00					
43	Condominium	202 DU									
	Apartments	134 DU									
	Hotel	250 rooms						250.00	125.00		
44	Apartments	662 DU									
	Retail	47,000 sf	47.00			47.00					
	Live/Work	11,000 sf	11.00			11.00					
	Office	34,824 sf					34.82				
45	Government Office	712,500 sf					712.50				
	Retail	35,000 sf	3.50			3.50					
	Child Care Facility [g]	2,500 sf								50.00	
46	Hotel	480 Rooms						480.00	240.00		
	Condominiums	836 D.U									
	Office	988,225 sf					988.23				
	Retail	46,000 sf	46.00			46.00					
47	Condominiums	402 D.U									
	Retail	7,428 sf									
48	Apartments	100 DU									
49	Hi-rise Condominiums	420 DU									
	Market	38,500 sf	38.50			38.50					
50	Residential	1,264 DU									
	Educational [g]	95,706 sf								1914.12	
	Retail	148,583 sf	148.58			148.58					
	Restaurants	60,000 sf		60.00		60.00					
	Health Club	12,309 sf			12.31	12.31					
	Sport Bar	6,000 sf		6.00		6.00					
	Hotel	183 Rooms						183.00	91.50		
	Office	367,300 sf					367.30				
	Production Studio [e]	298,500 sf									298.50
	Convention Center Expansion [e][f]	250,000 sf									250.00
51	University	1,400 Students								1,400.00	
	Shopping Center	176,733 sf	176.73			176.73					
	Cinema [f]	744 Seats			6.70	6.70					
	Apartments	945 DU									
	Hotel	210 Rooms						210.00	105.00		
	Retail	224,862 sf	224.86			224.86					
	Office	294,641 sf					294.64				
52	Hotel Rooms	560 Rooms						560.00	280.00		
	Residential Units	100 DU									
	Office	1,500,000 sf					1,500.00				
	Retail/Restaurant	275,000 sf	275.00			275.00					
53	Apartments	730 DU									
	Retail/Restaurant	10,500 sf	105.00			105.00					
	Office	70,465 sf					70.47				
54	Apartments	300 DU									
	Retail	14,500 sf	145.00			145.00					
	Restaurant	8,500 sf		8.50		8.50					
55	Joint Living and Work Quarters	60 DU									
56	Hotel	160 Rooms									
57	Apartments	160 DU									
	Retail	18,000 sf	18.00			18.00					
	Restaurant	3,500 sf		3.50		3.50					

	Retail	3,400 sf	3.40		3.40				
88	Office	30,300 sf							
89	School	450 Pupils							
90	Apartments	218 DU							
	Retail	6,100 sf							
	Other [e]	1,500 sf							
91	Retail and Restaurant	27,765 sf	27.77		27.77				
92	Office	33,957 sf							
93	Condominiums	341 DU							
	Retail	11,687 sf	11.69		11.69				
94	Other [e]	16,572 sf							
95	School	480 Pupils							
96	Apartments	471 DU							
	Restaurant	27,780 sf		27.78	27.78				
	Retail	5,190 sf	5.19		5.19				
97	Apartments	300 DU							
	Restaurant	3,500 sf		3.50	3.50				
	Retail	3,500 sf	3.50		3.50				
98	Hotel	148 Rooms					148.00	74.00	
	Restaurant	17,452 sf		17.45	17.45				
99	Live/Work	78 DU							
100	Condominiums	126 DU							
101	Apartment	77 DU							
102	Apartment	52 DU							
	Restaurant	2,400 sf		2.40	2.40				
	Creative Office	6,900 sf				6.90			
103	Apartments	30 DU							
	Bar	2,500 sf		2.50	2.50				
104	Apartments	30 DU							
	Retail	7,500 sf	7.50		7.50				
105	Condominiums	161 Units							
	Restaurant	2,085 sf		2.09	2.09				
106	Apartments	425 Units							
	Hotel	126 Rooms							
	Retail	4,874 sf							
107	Condominiums	303 Units							
	Retail	5,959 sf							
108	Apartments	122 DU							
	Office	13,600 sf							
109	Apartments	57 DU							
	Commercial	6,000 sf	6.00		6.00				
110	Apartments	45 Units							
111	Apartments	188 Units							
	Retail / Restaurant	10,096 sf	10.10		10.10				
112	Condo	650 Units							
	Hotel	300 Room					300.00	150.00	
	Restaurant	40,000 sf		40.00	40.00				
	Retail	40,000 sf	40.00		40.00				
113	Apartments	147 Units							
	Retail	6,921 sf	6.92		6.92				
114	Hotel	1,162 Room					1,162.00	581.00	
	Retail	13,145 sf	13.15		13.15				
115	Retail	41,019 sf	41.02		41.02				
	Other [e]	63,893 sf							63.89
116	Apartments	43 DU							
117	Apartments	220 DU							

118	Child Care Facility [g]	7,997 sf								
119	Apartments	478 DU								
	Theater [f]	850 Seats								
	Classroom	50 Student								
	Hotel	220 Rooms								
120	Apartments	296 DU								
	Retail	5,000 sf								
121	Apartments	32 DU								
122	Office	60,000 sf								
123	Condominium	781 DU								
	Retail	6,700 sf	6.70			6.70				
124	Apartments	1,500 DU								
	Retail	30,000 sf								
125	Apartments	475 DU								
	Office	43,000 sf					43.00			
	Specialty Retail	9,000 sf	9.00			9.00				
	Restaurant	17,000 sf		17.00		17.00				
	Supermarket	15,000 sf	15.00			15.00				
126	Apartment	213 DU								
	Retail	14,495 sf	14.50			14.50				
	Arts & Production Space [e]	14,495 sf								14.50
127	Hotel	275 rooms								
	Bar	1,178 sf								
128	Apartments	1,736 DU								
	Office	253,514 sf					253.51			
	Community-Serving Commercial	127,610 sf	127.61			127.61				
	Art Space [e]	22,429 sf								22.43
	Hotel	514 Rooms					514.00	257.00		
	School	300 Student							300.00	
129	Condominiums	80 DU								
	Hotel	200 Rooms					200.00	100.00		
	Restaurant	5,000 sf		5.00		5.00				
	Bar	22,500 sf		22.50		22.50				
130	Condominiums	107 DU								
	Office	534,044 sf					534.04			
	Retail	7,200 sf	7.20			7.20				
131	Condominiums	196 DU								
	Retail	5,300 sf	5.30			5.30				
	Restaurant	900 sf		0.90		0.90				
132	Apartments	379 DU								
	Other [e]	25,810 sf								25.81
133	Apartments	600 DU								
	Restaurant	15,000 sf		15.00		15.00				
	Retail	15,000 s.f	15.00			15.00				
	Office	30,000 s.f					30.00			
134	Apartment	323 DU								
	Office	53,200 sf					53.20			
	Retail	4,400 sf	4.40			4.40				
	Other [e]	4,420 sf								4.42
	Other [e]	125 Persons								0.13
135	Apartments	212 D.U								
136	Apartments	29 DU								
137	Hotel	247 Rooms					247.00	123.50		
138	Apartments	228 DU								
	Retail	23,000 sf	23.00			23.00				

	Office	27,860 sf				27.86				
	Hotel	149 Rooms					149.00	74.50		
	Other [e]	56,100 sf								56.10
139	Apartments	122 DU								
140	Condominiums	200 DU								
	Hotel	220 rooms					220.00	110.00		
	Retail	44,080 sf	44.08			44.08				
	Restaurant	50,000 sf		50.00		50.00				
141	Apartments	284 DU								
	Retail	6,300 sf	6.30			6.30				
142	Apartments	1,127 DU								
	Office	285,088 sf				285.09				
	Supermarket	50,000 sf	50.00			50.00				
	Quality Restaurant	22,200 sf		22.20		22.20				
	Hight Turnover Restaurant	53,389 sf		53.39		53.39				
143	Apartments	498 DU								
	Retail	8,707 sf	8.71			8.71				
144	Apartments	236 DU								
	Retail	12,000 sf	12.00			12.00				
145	Apartments	208 DU								
	Retail	810 sf	0.81			0.81				
	Other [e]	1,620 sf								1.62
146	Apartments	1,367 DU								
	Retail	20,000 sf	20.00			20.00				
	Other	20,000 sf								20.00
147	Bar/Lounge	3,047 sf		3.05		3.05				
	Restaurant	7,720 sf		7.72		7.72				
	Retail	6,171 sf	6.17			6.17				
148	Retail	32,400	32.40			32.40				
	Office	65,000					65.00			
	Restaurant	4,000		4.00		4.00				
149	Hotel	125 Rooms								
150	Other [e]	9,955 sf								
151	Apartments	55 DU								
152	Apartments	29 DU								
153	Apartments	151 DU								
154	Apartments	438 DU								
	Retail	3,750 sf	3.75			3.75				
	Restaurant	3,750 sf		3.75		3.75				
155	Apartments	41 DU								
156	Apartments	51 DU								
157	Office	255,514 sf				255.51				
	Retail	4,970 sf	4.97			4.97				
	Other [e]	9,940 sf								9.94
158	Apartments	409 DU								
	Retail	7,329 sf	7.33			7.33				
159	Apartments	994 DU								
	Retail	99,300 sf	99.30			99.30				
160	Affordable Housing	303 DU								
	Retail	19,907 sf	19.907			19.91				
161	Appartments	93 DU								
	Office	6,000 sf					6.00			
	Retail	14,248 sf	14.248			14.25				
162	Affordable Housing	378 DU								
	Apartment	4 DU								

	Retail	1,758 sf	1.758		1.76				
	Office	4,410 sf				4.41			
	Dining Room/Flex Space	5,932 sf		5.93	5.93				
163	Hotel	100 Rooms							
164	Hotel	1,024 Rooms					1,024	512	
165	Apartments	82 DU							
166	Apartments	37 DU							
	Retail	1,890 sf							
167	Apartments	54 DU							
168	Apartments	235 DU							
	Retail	5,250 sf	5.25		5.25				
	Other [e]	4,000 sf							4.00
169	Hotel	75 Rooms					75	37.5	
170	Apartments	635 DU							
	Retail	30,062 sf	30.06		30.06				
171	Office	78,600 sf				78.60			
	Retail	25,000 sf	25.00		25.00				
	Restaurant	20,000 s.f		20.00	20.00				
172	Retail	153,000 sf	153.00		153.00				
173	Apartments	344 DU							
	Office	21,413 sf				21.41			
	Restaurant	6,084 sf		6.08	6.08				
174	Restaurant	12,882 sf		12.88	12.88				
175	Apartments	103 DU							
176	Apartments	159 DU							
	Retail	23,000 sf	23.00		23.00				
177	Hotel	226 rooms					226.00	113.00	
	Retail	8,000 sf	8.00		8.00				
178	Assisted Living	338 Beds							
	Senior Housing	34 DU							
179	Apartments	230 DU							
	Other [e]	9,000 sf							
180	Apartments	173 DU							
	Retail	36,180 sf							
	Hotel	373 Rooms					373.00	186.50	
	Condominiums	374 DU							
181	Retail	65,074 sf	65.07		65.07				
	Conference Center [e][f]	10,801 sf							10.80
	Office	33,498 sf				33.50			
182	Hotel	315 Rooms					315.00	157.50	
183	Office	52,000 sf				52.00			
184	Apartments	152 DU							
	Retail	1,184 sf	1.18		1.18				
185	Apartments	47 DU							
	Retail	760 sf							
186	Apartments	81 DU							
187	Apartments	452 DU							
	Commercial	13,655 sf	13.66		13.66				
188	Restaurant	3,798 sf		3.80	3.80				
189	Restaurant	6,208 sf		6.21	6.21				
	Appartments	713 DU							
190	Retail	7,125 sf	7.13		7.13				
	Restaurant	7,125 sf		7.13	7.13				
	Appartments	537 DU							
191	Retail	3,794 sf	3.79						
	Restaurant	3,794 sf		3.79	3.79				

TOTALS	3,085	668	192	3,940	6,843	8,026	4,013	3,665	841
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Infrastructure Projects

192	Metro Regional Connector	Metro Little Tokyo/Arts District Station to Metro 7th Street/Metro Center Station	Provide continuous service between Metro Blue, Expo, Red and Purple Lines and connectors to other rail lines with three new transit stations
193	MyFigueroa	Figueroa St. between 7th St. & 41st St., 11th St. between Figueroa St. & Broadway, and Martin Luther King Jr. Blvd. between Figueroa St. & Vernon Ave.	Convert Figueroa St., 11th St., and Martin Luther King Jr. Blvd. to provide complete multimodal streets that better serve the needs of pedestrians, bicycles and transit riders, while still accommodating drivers
194	Los Angeles Streetcar	Broadway between 1st St. & 11th St., 11 th St. between Figueroa St. & Broadway, Figueroa St. between 11th St. & 7 th St., 7 th St. between Figueroa St. & Hill St., Hill St. between 7th St. & 1 st St., and 1 st St. between Hill St. & Broadway	Enhance mobility and transit circulation and support the growth and revitalization of downtown.
195	7th street Improvement Project	7th St. between SR 110 and Olive Street	Streetscape improvements including sidewalk enhancements, better integration of transportation modes, intersection improvements, street lighting, and wayfinding.

Notes:

du = dwelling units

sf = square feet

emp = employees

[a] Related Projects List was prepared as a component of the Traffic Study, Appendix X of this Draft EIR. Calculations do not include the Infrastructure Projects as they do not involve discrete developments square footage.

[b] Employee Generation Rates for these uses are based on data provided in the Los Angeles Unified School District, 2016 Developer Fee Justification Study.

[c] It is assumed that each hotel room is approximately 500 square feet.

[d] The employee generation factor for schools is based on dividing the total school district employees by the total student enrollment, which results in 0.084 employees per student. Data is provided in the LAUSD 2017-2018 Fingertip Facts, https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/32/NewlyUpdatedFingertip%20Facts2017-18_English.pdf.

[e] The projects that fall under Other include a variety of uses, including bus facility, event facilities, gallery/museum, conference centers, and other uses that do not have a specific generation rate. In those cases, the closest possible generation factor is used.

[f] It is assumed that cinema, theater, sports complex, event facility, auditorium, convention center, conference, meeting space, and assembly hall will require approximately 9 square feet per seat.

[g] It is assumed that each child would require approximately 50 sf in the child care facility.

[h] Related Project Number 73 uses the number of provided employees rather than a generation factor.

Compiled by ESA, 2019.

M-3 Schools



LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

DATE: January 11, 2018

TO: Jessie Barkley
Senior Managing Associate
ESA
233 Wilshire Boulevard, Suite 150
Santa Monica, CA 90401

FROM: Rena Perez, Director
Master Planning & Demographics

SUBJECT: Environmental Impact Report Information Requested for: **1045 OLIVE PROJECT**, 1033-1057 South Olive Street, Los Angeles, CA 90015 within the Central City Community Plan Area. The construction of a mixed-use high-rise building will contain a maximum of 794 residential units and 12,504 square feet of commercial uses.

Included please find a **LAUSD Schools Enrollments and Capacities Report** for the schools that may be impacted by the development project(s) in question. This report contains data on each school's current and projected capacities, enrollments, and school calendars, and is designed to address any questions pertaining to overcrowding and factors related to school capacity.

Please note that *no new school construction is planned* and the data in this report already take into account portable classrooms on site, additions being built onto existing schools, student permits and transfers, specific educational programs running at the schools, and any other operational activities or educational programming that affects the capacities and enrollments of LAUSD's schools.

Additional information on LAUSD's Capital Improvement programs can be found on LAUSD's Facilities Services Division main webpage at www.laschools.org.

MASTER PLANNING AND DEMOGRAPHICS RESPONSE TO SPECIFIC QUESTIONS

Questions:
1, 3-6 (The project is located in a **HIGH SCHOOL** attendance choice/option area.) Please see LAUSD Schools Enrollments and Capacities Report details;

Question: 2 Please contact the LAUSD Developer Fee Program Office (DFPO) at (213) 241-0715 for more information regarding fees and student generation rates.

ATTACHMENTS

1. LAUSD SCHOOLS ENROLLMENTS AND CAPACITIES REPORT
2. BOUNDARY DESCRIPTIONS FOR SCHOOLS SERVING PROPOSED PROJECT
Boundary descriptions for existing schools identified as serving the proposed project

Sincerely,



Rena Perez, Director

LAUSD SCHOOLS ENROLLMENTS AND CAPACITIES

PROJECT SERVED: 1045 OLIVE PROJECT, 1033-1057 South Olive Street, Los Angeles, CA 90015 within the Central City Community Plan Area. The construction of a mixed-use high-rise building will contain a maximum of 794 residential units and 12,504 square feet of commercial uses.

SCHOOL YEAR: 2016-2017

(Current and projected enrollments/capacities reflect data from School Year (SY) 2016-17.)

1	2	3	4	5	6	7	8	9	10	11	12
Cost Center Code	School Name	Current Calendar	Current Capacity	Resident Enrollment	Actual Enrollment	Current seating overage/shortage	Overcrowded Now?	Projected Capacity	Projected Enrollment	Projected seating overage/shortage	Overcrowding Projected in Future?
1550501	9th St El	1 TRK	360	287	342	73	No	324	381	(57)	Yes
1805801	Liechty MS	1 TRK	1104	1600	989	(496)	Yes	1027	1755	(728)	Yes
a	SCHOOL CHOICE AREA TOTALS (schools listed below)	-	7041	6932	5331	109	No	6618	6880	(262)	Yes
	BELMONT HS ZONE OF CHOICE										
1820701	Contreras LC ALC	1 TRK	453	-	431	-	-	426	-	-	-
1851601	Cortines Sch of VAPA	1 TRK	1796	-	1470	-	-	1688	-	-	-
1851701	Contreras LC Bus Tr	1 TRK	511	-	446	-	-	480	-	-	-
1852701	Contreras LC Soc Jus	1 TRK	521	-	477	-	-	490	-	-	-
1854301	Belmont SH	1 TRK	1861	-	975	-	-	1749	-	-	-
1854401	Roybal LC	1 TRK	1507	-	1188	-	-	1417	-	-	-
1877401	Contreras LC Glbl St	1 TRK	392	-	344	-	-	368	-	-	-

^a Schools & programs that are part of a "school choice area" pull enrollments from the school(s) that have resident areas, as defined by attendance boundaries.

The individual school and calculated total capacities and enrollments for school choice areas are reported to show current and projected seating overage/shortage and overcrowding (shaded green color).

If any of the school choice area schools is multi-track, then the service area is considered overcrowded.

Schools Planned to Relieve Known Overcrowding

NONE

see next page

NOTES:

- ¹ School's ID code.
- ² School's name
- ³ The reported school year school calendar. Schools operate on a 'multi-track' calendar (listed as 4 TRK), because of overcrowded conditions.
- ⁴ School's operating capacity for the reported school year. The maximum number of students the school can serve during the reported school year, with the school's classroom utilization, and while operating on its reported calendar. Excludes capacity allocated to charter co-locations. Includes capacity for magnet programs.
- ⁵ The total number of students living in the school's attendance area and who are eligible to attend the school at the start of the reported school year, plus students enrolled at any on-site magnet centers.
 - Multi-track calendars are utilized as one method of providing relief to overcrowded schools by increasing enrollment capacities.
 - A key goal of the Superintendent and Board of Education is to return all schools to a traditional 2-semester calendar (1 TRK) (SY 17-18).
- ⁶ The number of students actually attending the school at the start of the reported school year, including magnet students.
- ⁷ Reported school year seating overage or (shortage): equal to (capacity) - (resident enrollment).
- ⁸ Reported school year overcrowding status of school. The school is overcrowded if any of these conditions exist:
 - School is on a multi-track calendar.
 - There is a seating shortage.
 - There is a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 20 seats.
- ⁹ School planning capacity. Formulated from a baseline calculation of the number of eligible classrooms and classroom utilization after implementing LAUSD operational goals, which include operating on a 2-semester (1 TRK) calendar and assumed budget resources which allow for reductions in class size. Includes capacity allocated to charter co-locations. Includes capacity for magnet programs.
- ¹⁰ Projected 5-year total number of students living in the school's attendance area and who are eligible to attend the school as of the start of the school year. Includes magnet students.
- ¹¹ Projected seating overage or (shortage): equal to (projected capacity) - (projected enrollment).
- ¹² Projected overcrowding status of school. The school will be considered overcrowded in the future if any of these conditions exist:
 - School remains on a multi-track calendar.
 - There is a seating shortage in the future.
 - There is a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 20 seats in the future.
- ‡ Magnet Schools with Resident Kindergarten Enrollment: Resident enrollment is reported for Kindergarten only. Actual enrollment is reported for all grades in school. Projected capacities and enrollments not reported.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

LOC. CODE: 5505

COST CENTER: 1550501

SUBJECT: NEW SERVICE BOUNDARY DESCRIPTION FOR NINTH STREET SCHOOL
EFFECTIVE JULY 1, 2013.

The area described below has been approved as the attendance area served by the above-mentioned school. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This boundary supersedes boundary effective July 1, 1984 (updated 7-1-1994, 7-1-2009).

This is an official copy for your file.

(GRADES K - 5)

FIRST STREET * ALAMEDA STREET * FOURTH STREET * LOS ANGELES RIVER *
15TH STREET AND EXTENSION * CENTRAL AVENUE * 14TH PLACE * SAN PEDRO
STREET * 14TH STREET AND EXTENSION * MAIN STREET * 14TH STREET * HILL
STREET * VENICE BOULEVARD * HOPE STREET AND EXTENSION * FOURTH
STREET * OLIVE STREET.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: MARK HOVATTER, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics

Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT

Facilities Services Division

LOC. CODE: 8058

COST CENTER: 1805801

SUBJECT: UPDATE BOUNDARY DESCRIPTION FOR JOHN LIECHTY MIDDLE SCHOOL
EFFECTIVE JULY 1, 2009 (UPDATED 7-1-2010).

Reconfiguration has changed the grade levels serviced by this school and the boundary description has been updated to reflect this change. This updating does not change the intent of the boundary as it was approved on July 1, 2009. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 6 - 8)

THIRD STREET TO UNION PLACE * THIRD STREET (BOTH SIDES EXCLUDED)
* LOMA DRIVE (BOTH SIDES EXCLUDED) * SIXTH STREET * WITMER STREET
(BOTH SIDES EXCLUDED) * WILSHIRE BOULEVARD * HARBOR FREEWAY *
THIRD STREET * MAIN STREET * PICO BOULEVARD * HILL STREET * VENICE
BOULEVARD * HARBOR FREEWAY * 14TH STREET AND EXTENSION (BOTH
SIDES EXCLUDED) * VALENCIA STREET (BOTH SIDES EXCLUDED) * PICO
BOULEVARD (BOTH SIDES) TO UNION AVENUE * PICO BOULEVARD * BONNIE
BRAE STREET (BOTH SIDES EXCLUDED) * TWELFTH STREET * ALVARADO
STREET * SIXTH STREET * CORONADO STREET (BOTH SIDES).

(GRADES 7 - 8)

AREA I

THIRD STREET * HARBOR FREEWAY * WILSHIRE BOULEVARD * WITMER
STREET (BOTH SIDES) * SIXTH STREET * LOMA DRIVE (BOTH SIDES) * THIRD
STREET TO UNION PLACE (SOUTH SIDE INCLUDED).

AREA II

PICO BOULEVARD (BOTH SIDES EXCLUDED) * VALENCIA STREET (BOTH
SIDES) * 14TH STREET AND EXTENSION (BOTH SIDES) * HARBOR FREEWAY
* VENICE BOULEVARD * UNION AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: JAMES SOHN, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics

Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT

Facilities Services Division

LOC. CODE: 8543

COST CENTER: 1854301

SUBJECT: CLARIFICATION OF THE BOUNDARY DESCRIPTION FOR BELMONT HIGH SCHOOL
EFFECTIVE JULY 1, 2013 (CLARIFIED 7-1-2014; 7-1-2015; 7-1-2016).

This clarification of the existing boundary description does not change the intent of the boundary as it was approved on July 1, 2013 (clarified 7-1-2014, 7-1-2015). The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

BELMONT ACADEMIC ZONE

(GRADES 9 - 12)

MELROSE AVENUE * NORMANDIE AVENUE * HOLLYWOOD FREEWAY * VERMONT AVENUE * BEVERLY BOULEVARD * TEMPLE STREET * SILVER LAKE BOULEVARD * BELLEVUE AVENUE * MICHELTORENA STREET * MARATHON STREET * RAMPART BOULEVARD * SUNSET BOULEVARD * ALVARADO STREET * EFFIE STREET AND EXTENSION INCLUDING 1872 EFFIE STREET, 1698 AND 1699 LEMOYNE STREET, AND 1698 AND 1699 LUCRETIA AVENUE * LUCRETIA AVENUE * ECHO PARK AVENUE (BOTH SIDES EXCLUDED) * MORTON AVENUE (BOTH SIDES EXCLUDED) * MORTON PLACE, INCLUDING MORTON WALK (BOTH SIDES EXCLUDED) * SARGENT PLACE AND EXTENSION (BOTH SIDES, INCLUDING 1698 AND 1699 SARGENT PLACE, EXCLUDED) * ACADEMY ROAD AND EXTENSION EASTERLY AND SOUTHERLY TO THE INTERSECTION OF STADIUM WAY AND PASADENA FREEWAY * STADIUM WAY AND EXTENSION * NORTH SPRING STREET * ALAMEDA STREET * SIXTH STREET * MAIN STREET * PICO BOULEVARD * HARBOR FREEWAY * VENICE BOULEVARD * UNION AVENUE * PICO BOULEVARD * BONNIE BRAE STREET (BOTH SIDES EXCLUDED) * TWELFTH STREET * ALVARADO STREET * PICO BOULEVARD * VERMONT AVENUE * OLYMPIC BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET (BOTH SIDES EXCLUDED) TO ELDEN AVENUE * SAN MARINO STREET * HOOVER STREET * SEVENTH STREET (BOTH SIDES EXCLUDED) * WILSHIRE PLACE (BOTH SIDES EXCLUDED) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET (BOTH SIDES) TO CATALINA STREET * FOURTH STREET * ALEXANDRIA AVENUE (BOTH SIDES) * THIRD STREET * KINGSLEY DRIVE * BEVERLY BOULEVARD * KINGSLEY DRIVE.

OPTIONAL: BELMONT ACADEMIC ZONE AND NORTHEAST ACADEMIC ZONE

NORTH SPRING STREET * BAKER STREET AND EXTENSION * LOS ANGELES RIVER * CESAR E. CHAVEZ AVENUE * ALAMEDA STREET.

(OVER)

OPTIONAL: BELMONT ACADEMIC ZONE AND SOTOMAYOR LEARNING ACADEMIES

WHITMORE AVENUE AND EXTENSION * LANDA STREET (BOTH SIDES, INCLUDING ALL OF TWIN OAK STREET) * LANDA STREET EXTENDED FROM THE INTERSECTION OF LANDA STREET AND STADIUM WAY * GOLDEN STATE FREEWAY * WEST BOUNDARY OF ELYSIAN PARK * ACADEMY ROAD * SARGENT PLACE AND EXTENSION (BOTH SIDES) EXCLUDING 1698 AND 1699 SARGENT PLACE * MORTON PLACE, INCLUDING MORTON WALK (BOTH SIDES) * MORTON AVENUE (BOTH SIDES) * ECHO PARK AVENUE (BOTH SIDES) * LUCRETIA AVENUE AND EXTENSION WESTERLY EXCLUDING 1698 AND 1699 LUCRETIA AVENUE, 1698 AND 1699 LEMOYNE STREET AND 1872 EFFIE STREET * EFFIE STREET AND EXTENSIONS * ALVARADO STREET AND EXTENSION.

Belmont Academic Zone: seven schools or educational programs that students will be able to make application to when resident to Belmont High School. For the current school year students have seven enrollment choices: Belmont High School, Academic Leadership Community at Miguel Contreras Learning Complex, Los Angeles School of Global Studies at Miguel Contreras Learning Complex, School of Business and Tourism at Miguel Contreras Learning Complex, School of Social Justice at Miguel Contreras Learning Complex, Ramon C. Cortines School of Visual and Performing Arts, and Edward Roybal Learning Center. All of these choices will serve grades 9-12.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: MARK HOVATTER, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics

Office of Environmental Health and Safety
Department of Transportation, City of L. A.

Appendix M-3: Calculation of Students from Related Projects										
Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
1	Apartments	Apartments	1247 S Grand Ave.	115				19	5	11
		Commercial				4.61		0	0	0
2	1400 S Figueroa Residential Project	Apartments	1400 S Figueroa	106					5	
3	Mixed-Use	Apartments	820 S Olive St.	522	115.80	56.35		90	26	52
		Retail				4.50		0	0	0
4	Variety Arts Project	Office	940 S Figueroa St.		3.30				0	0
		Restaurant				10.06			0	0
		Bar				5.12			0	0
5	Apartments	Apartments	1011 S Park View St	108						10
6	DTLA South Park - Site 1	High-rise Apt	1120 S Grand Ave	666				110	30	63
		Commercial/Retail				20.69		0	0	0
7	DTLA South Park - Site 4	Apartments	1230 S Olive St.	360				59	16	
		Commercial				6.40		0	0	
8	Mixed-Use (Herald Examiner)	Apartments	146 W 11th (11th St. / Broadway)	391				64	18	37
		Office	1111 S Broadway		39.73			1	1	1
		Retail				49.00		1	0	1
9	Mixed-Use	Apartments	327 N Fremont Ave (Fremont / Temple)	600						57
		Retail				30.00				0
10	Restaurant Project	Restaurant	1036 S Grand Ave.			7.15		0	0	0
11	2222 S Figueroa	Condominium	2222 S Figueroa St.	1,063						
		Retail				18.00				
12	LA Plaza Cultura Village	Apartments	527 N Spring St. 555 N Broadway	345				57	16	33
		Retail				23.00		0	0	0
		Specialty Retail				21.00		0	0	0
		Restaurant				11.00		0	0	0
13	Mixed-Use	Apartments	720 W Washington Blvd.	105						
		Retail				2.65				
14	Onyx Apartment	Apartments	Pico Blvd. b/w Flower and Grand	419					19	
		Retail	1306 S Hope St			42.00			0	
15	G12 Project	Apartments	North of Pico b/w Grand and Olive	640				106	29	60
		Retail	1200 S Grand Av			45.00		1	0	0
16	Mixed-Use	Condominiums		151				25	7	14

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
	ENV2008-4679EA; 2008-CEN-4802	Retail	1050 S. Grand Ave (Grand Ave. / 11th St.)			3.47		0	0	0
		Restaurant				2.20		0	0	0
17	Embassy Hotel	Hotel	831 S Grand Ave.				183	0	0	0
	ZA-2012-912	Restaurant				3.08		0	0	0
		Theater				12.78		0	0	0
		Banquet				4.77		0	0	0
		Lounge				2.16		0	0	0
		Bar				11.84		0	0	0
18	11th & Hill Project	Condominiums	1111 S Hill St.	528				87	24	50
		Retail				6.09		0	0	0
19	Mixed Use	Condominiums	SOLA Village 1900 S Broadway	900						
		Apartments (Rental)		550						
		Hotel					210			
		Retail/Commercial				143.10				
		Office			180.00					
		Gallery/Museum				17.60				
		Gym				8.00				
20	New Medical Office Building (Good Samaritan Hospital) ENV2009-0884EA	Imaging center, pharmacy, surgical suites, and physician offices	Wilshire Blvd/Witmer St.		56.45				1	1
21	Charter High School	Charter High School	1552 W Rockwood St							0
22	Park/Fifth Project	Condominiums	427 W 5th	660				109	30	62
		Restaurant	437 S Hill St			13.74		0	0	0
23	9th & Flower Project	Apartments	830 S Hope St	525				87	24	50
		Retail				6.20		0	0	0
24	Mixed Use	Apartment	1435 W 3rd Street	122						12
	2012-CEN-40016	Retail				3.50				0
25	Grand Avenue Project	Condominiums	Parcel Q and Parcel W - Bounded by 1st Street, Grand Avenue, Hill Street, & Upper 2nd Street. Parcel L/M-2 - Bounded by GTK Way, Hope Street, & Upper 2nd Street 237 S Grand Av	1,648						155
	2006-CEN-3022	Apartments		412						39
		Retail				225.25				3
		Supermarket				53.00				1
		Restaurant				67.00				1
		Health Club				50.00				1
		Event Facility				0.25				0
		Hotel					275			0
		Office			681.00					12
26	Washington Bl Opportunity MU (Mercy Hsg)	Residential Units	E Washington Bl/Los Angeles St 220 E Washington Bl	230						
	2009-CEN-5050	Specialty Retail/Restaurant				19.00				
	CPC-2010-1296	Renovate Residential Units		32						
27	Mixed Use	Condominium	2100 S Figueroa	291						
	2010-CEN-5294	Retail				7.13				
	9th / Olive Project	Apartments		303				50	14	29

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
28		Retail	840/888 S. Olive St.			9.68		0	0	0
		Restaurant				1.50		0	0	0
29	Broadway Trade Center	Office	801 S Broadway		400.00			11	6	7
		Hotel					150	0	0	0
30	Beverly + Lucas Project 2008-CEN-4799	Apartments	1430 W Beverly Bl	157						15
31	Broadway Mixed CPC-2014-2947	Apartments	955 S Broadway	201				33	9	19
		Retail				6.00		0	0	0
32	801 S Olive Street Project	Apartments	801 S Olive St.	363				60	16	34
		Retail				2.50		0	0	0
		Restaurant				10.00		0	0	0
33	Mixed-Use Building ENV2008-0386EA; 2008-CEN-4672	Apartments	233 W Washington Bl	160						
		Retail				24.25				
34	Bixel & Lucas Project	Apartments	1102 W 6th St	649					29	61
		Retail				40.00			0	0
35	Mixed-Use ZA-2016-15	Condominiums	215 W 14th St.	154				25	7	
		Retail				10.70		0	0	
36	SB OMEGA	High-rise Condo	601 S Main St.	452				75	20	43
		Retail				25.00		0	0	0
37	Hill Mixed	Apartments	920 S Hill	239				39	11	23
		Retail				5.40		0	0	0
38	Witmer Project	Condominiums	1329 W. 7th St. (7th / Witmer)	94					4	9
		Retail				2.00			0	0
39	1133 Hope Street Project	Condominiums	1133 Hope Street	208					9	20
		Restaurant				5.03			0	0
40	700 Cesar Chavez Ave Project	Apartment	700 Cesar Chavez	300						28
		Retail				8.00				0
41	Spring St. Hotel	Hotel	633 S Spring	176				29	8	17
		Conf . Spc.				1.20		0	0	0
		Restaurant				8.40		0	0	0
		Bar				5.29		0	0	0
42	Wakaba LA	Apartments	southwest corner of San Pedro and 2nd	240				40		23
		Retail				16.00		0		0
43	1600 S Figueroa	Condominium	1600 S Figueroa St.	202						
		Apartments		134						
		Hotel					250			
44	Mixed-Use	Apartments	928 S Broadway	662				109	30	62
		Retail				47.00		1	0	1
		Live/Work			11.00			0	0	0
		Office			34.82			1	0	1
45	Los Angeles Street Civic Center Project	Government Office	150 N Los Angeles Street		712.50					12
		Retail				35.00				0
		Child Care Facility								0
46	Metropolis Mixed-Use	Hotel					480		0	0

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
		Condominiums	851 S. Francisco St. (8th St. / Francisco St.)	836					38	79
		Office	899 S. Francisco St.		988.23				14	17
		Retail				46.00			0	1
47	Mixed-Use Development	Condominiums	1027 W. Wilshire Project	402					18	38
	2006-CEN-2870	Retail	(Wilshire / St. Paul St.)			7.43			0	0
48	Residential Project	Apartments	1027 S Olive Street	100				16	5	9
49	Embassy Tower	Hi-rise Condominiums		420				69	19	40
	2008-CEN-4779	Market	848 S Grand Av			38.50		1	0	0
50	LASED Entertainment District (Excluding completed development to date) (Includes Oceanwide, Circa and JW Marriott Ext. Projects)	Residential		1,264					57	119
		Educational							0	0
		Retail				148.58			1	2
		Restaurants	Figueroa St. / 11th St.			60.00			1	1
		Health Club				12.31			0	0
		Sport Bar				6.00			0	0
		Hotel					183		0	0
		Office			367.30				5	6
		Production Studio			298.50				4	5
		Convention Center Expansion				250.00			2	3
51	City Market Project	University						0		
		Shopping Center				176.73		3		
		Cinema	San Pedro Street b/w 9th St and 12th St.					0		
		Apartments	1057 S San Pedro St.	945				156		
		Hotel					210	0		
		Retail				224.86		4		
		Office			294.64			8		
52	Wilshire Grand Redevelopment Project	Hotel Rooms					560		0	0
	ENV2009-1577EA; 2009-CEN-5080	Residential Units	930 W Wilshire Bl	100					5	9
		Office	900 W Wilshire Bl		1500.00				21	26
		Retail/Restaurant			275.00				4	5
53	Flower (1212) Mixed -Use	Apartments		730					33	69
		Retail/Restaurant	1212 W Flower			10.50			0	0
		Office			70.47				1	1
54	Olympic / Hill Project	Apartments	Northwest corner of Olympic / Hill	300				49	14	28
		Retail				14.50		0	0	0
		Restaurant	301 W Olympic Bl			8.50		0	0	0
55	785 S Towne ZA-2017-3205-ZAD	Joint Living and Work Quarters	785 S Towne Ave.	60				10		
56	1700 W Olympic Hotel	Hotel	1700 W Olympic				160		0	0
57	Mixed-Use	Apartments		160				26		15
		Retail				18.00		0		0

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
		Restaurant	554 S Main St			3.50		0		0
		Fast-food Restaurant				3.50		0		0
58	USC Student Housing	Student Housing	505 W. 31W. St	73				12		
59	400 S Broadway Mixed-Use Project	Apartments	400-416 Broadway	450				74	20	42
		Retail				6.90		0	0	0
		Lounge				5.00		0	0	0
60	1001 S Olive	Apartments	1001 S Olive St	225				37	10	21
		Restaurant				5.00		0	0	0
61	Olive & Olympic	Apartments	Northeast corner of Olive & Olympic	263				43	12	25
		Restaurant	960 S Olive St.			14.50		0	0	0
62	L.A Trade Tech College - 5-Year Master Plan	5-year Master Plan Project	400 Washington Blvd. (Washington Blvd. / Flower St.)							
63	Palmetto	Apartments	Northeast corner of Palmetto & Sealton	310				51		29
	CPC-2016-3399	Commercial				11.38		0		0
		Production Space			11.74			0		0
64	Mixed Use	Apartments	1335 W 1st St	102						10
	APCC-2015-1040	Retail				3.51				0
65	Residential	Apartments	459 S Hartford Ave	94					4	9
66	330 S Alameda	Apartments	330 S Alameda	186						18
	CPC-2016-3334	Commercial				22.34				0
67	Mixed-Use Project	Apartment	1150 W Wilshire	80					4	8
		Restaurant				4.59			0	0
68	Mixed Use	Apartments	737 S Spring	320				53	14	30
		Pharmacy				25.00		0	0	0
69	Apartments	Apartments	1218 W Ingraham St	90					4	8
70	Foreman and Clark Building	Apartments	400,402 W 7th St. , 701, 715 S. Hill St	165				27	7	16
		Bar				11.90		0	0	0
		Restaurant				14.03		0	0	0
71	Apartments	Apartments	740 S Hartford St	80					4	8
72	Cecil Hotel Reno	Hotel	640 S Main St.				299	0		
	16016-10000-30966	Apartments		301				50		
73	Clinic	Medical Office	649 S Wall St.					0		
		Assisted Living						0		
74	Garland Building DIR-2016-3136-CDO	Apartments	740 S Broadway	47				8	2	4
75	Northeast Tower	Condominiums	215 W 9th St	210				35	9	20
		Retail				9.00		0	0	0
76	400 S Alameda Hotel	Hotel	400 S Alameda St				66			0
		Restaurant				2.13				0
		Retail				0.84				0
77	Hotel + Retail	Hotel	649 S Olive St				241	0	0	0
78	Charter School (K-5)	School	1633 W 11th St						0	0
79	Residential	Retail	810 E Pico Blvd			181.62		3		
80	Mixed Use	Apartments	720 S Santa Fe	400				66	18	38

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
		Pharmacy/Drug Store	732 S Spring St			15.00		0	0	0
81	Mixed Use	Apartments	340 S Hill	428				71	19	40
		Retail				6.70		0	0	0
82	Hill Mixed	Apartments	940 S Hill	232				38	10	22
		Retail				14.00		0	0	0
83	Condominiums	Condominiums	742 S Hartford Ave	58					3	5
84	Bukokan of Los Angeles	Sports Complex	237-249 S. Los Angeles Street						0	0
		Bar							0	0
85	Mixed Use	Condominiums		126					6	12
		Apartments	1145 W 7th St	100					5	9
		Retail				7.20			0	0
86	Sapphire Mixed Use	Apartments		369					17	35
		Retail	1111 W 6th St			18.60			0	0
		Quality Restaurant				2.20			0	0
		Coffee Shop				1.20			0	0
87	Vibiana Lofts	Condominiums	225 S Los Angeles St.	300				49		28
		Retail				3.40		0		0
88	Laborers Local 300 Headquarters	Office	2005 W Pico Blvd.		30.30					1
89	Pacific Charter Elementary School	School	1700 W Pico Blvd.						0	0
90	Valencia Project	Apartments		218					10	21
		Retail	1501 Wilshire Blvd.			6.10			0	0
		Other							0	0
91	Retail / Restaurant	Retail and Restaurant	201 S Broadway			27.77		0		0
92	Legal Aid Foundation of LA	Office	1550 W 8th St.		33.96				0	1
93	Apex Phase II	Condominiums	700 W 9th St.	341					15	32
		Retail				11.69			0	0
94	Pharmacy / Drug Store	Other	1302 W Washington Blvd.							
95	Charter High School	School	1929 W Pico Blvd.							
96	Medallion Phase II	Apartments		471				78	21	44
		Restaurant	300 S Main St.			27.78		0	0	0
		Retail				5.19		0	0	0
97	Alexan South Broadway	Apartments		300				49	14	28
		Restaurant	850 S Hill St.			3.50		0	0	0
		Retail				3.50		0	0	0
98	Proper Hotel	Hotel	1106 S Broadway				148	0	0	0
	ZA-2014-1439	Restaurant				17.45		0	0	0
99	Catalina Building	Live/Work	443 S San Pedro St.	78				13		7
100	1201 S Grand	Condominiums	1201 S Grand Ave.	126				21	6	12
101	Mixed Use	Apartment	118 S Astronaut es. Onizuka St	77				13		7
102	Mixed Use	Apartment		52						5
		Restaurant	360 S Alameda			2.40				0
		Creative Office			6.90					0
103	Brooks Building	Apartments	644 S Broadway	30				5	1	3

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
		Bar	944 S Broadway			2.50		0	0	0
104	950 S Broadway	Apartments	950 S Broadway	30				5	1	3
	DIR-2015-844-CDO	Retail				7.50		0	0	0
105	Grand Residence	Condominiums	1229 S Grand Ave	161				27	7	15
		Restaurant				2.09		0	0	0
106	Hotel & Apartments	Apartments	675 S Bixel St	425					19	40
		Hotel					126		0	0
		Retail				4.87			0	0
107	Mixed-Use	Condominiums	1235 W 7th St	303					14	29
		Retail				5.96			0	0
108	Mixed-Use Project	Apartments	1800 E 7th St.	122				20		
		Office			13.60			0		
109	1745 E 7th St	Apartments	1745 E 7th St	57				9		
		Commercial				6.00		0		
110	1322 Linwood Apts.	Apartments	1322 W Linwood Ave.	45					2	4
111	Mixed-Use	Apartments	1334 S Flower St.	188					8	
		Retail / Restaurant				10.10			0	
112	LUXE Hotel	Condo	1020 S Figueroa St.	650					29	61
	Mixed-Use	Hotel					300		0	0
		Restaurant				40.00			0	0
		Retail				40.00			0	0
113	Mixed-Use	Apartments	1400 S Flower St.	147					7	
		Retail				6.92			0	
114	Fig + Pico Hotel	Hotel	Northeast corner of Figueroa St. & Pico Blvd.				1162		0	0
		Retail				13.15			0	0
115	Mixed-Use Project (Mostly private club)	Retail	929 E 2nd St			41.02				0
		Other								0
116	Apartments	Apartments	1300 W Court St	43						4
117	Urban View Lofts Project	Apartments	495 S Hartford	220					10	21
118	Child Care	Child Care Facility	3014 S Royal St							
119	1930 Wilshire MU	Apartments	1930 Wilshire Blvd	478					22	45
		Theater							0	0
		Classroom							0	0
		Hotel					220		0	0
120	Mixed-Use	Apartments	2528 S Grand Ave	296						
		Retail				5.00				
121		Apartments	425 S Union Ave	32					1	3
122	Medical Office	Office	1122 W Washington Blvd		60.00					
123	Mixed-Use	Condominium	945 W 8th St.	781					35	74
		Retail				6.70			0	0
124	Ferante	Apartments	1000 W Temple St.	1,500						141
	DIR-2015-2158	Retail				30.00				0
125	Mixed-Used	Apartments	668 Alameda Street	475				78		
		Office			43.00			1		
		Specialty Retail				9.00		0		

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
		Restaurant				17.00		0		
		Supermarket				15.00		0		
126	1100 E 5th St (Mixed-Use)	Apartment	1100 E 5th Street	213				35		20
		Retail				14.50		0		0
		Arts & Prodction Space			14.50			0		0
127	Figueroa Hotel	Hotel	3101 S Figueroa St				275			
		Bar				1.18				
128	6th & Alameda	Apartments	1206 6th St	1,736				286		
	Mixed-Use	Office			253.51			7		
		Community-Serving Commercial				127.61		2		
		Art Space				22.43		0		
		Hotel					514	0		
		School						0		
129	5th & Hill Center MU	Condominiums	333 W 5th St	80				13	4	8
		Hotel					200	0	0	0
		Restaurant				5.00		0	0	0
		Bar				22.50		0	0	0
130	Tribune Media's DTLA Tower	Condominiums	232 West 2nd St	107				18		10
		Office			534.04			15		9
		Retail				7.20		0		0
131	433 S Main St	Condominiums	433 S Main	196				32	9	18
		Retail				5.30		0	0	0
		Restaurant				0.90		0	0	0
132	Mixed-Use	Apartments	1100 S Main St	379				62		
		Other						0		
133	Mixed Use	Apartments	520 S Mateo St	600				99		57
	CPC-2016-3853	Restaurant				15.00		0		0
		Retail				15.00		0		0
		Office			30.00			1		1
134	Southern California Flower Market Project	Apartment	755 S Wall St	323				53		
		Office			53.20			1		
		Retail				4.40		0		
		Other						0		
		Other						0		
135	Hellman / Banco Building	Apartments	354 S Spring St.	212				35	10	20
136		Apartments	1301 W Colton St	29						3
137	Downtown LA Hotel ZA-2016-4203	Hotel	926 W James M Wood Blvd				247		0	0
138	Arts District Center (Mixed-Use)	Apartments	1101 E 5th St	228				38		22
		Retail				23.00		0		0
		Office			27.86			1		0
		Hotel					149	0		0
		Other						0		0

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
139	1316 Court & 1323 Colton Apts	Apartments	1316 W Court St	122						12
140	Figueroa Centre	Condominiums	911 S Figueroa St.	200					9	19
		Hotel					220		0	0
		Retail				44.08			0	0
		Restaurant				50.00			0	1
141	Mixed-Use	Apartments	1323 Grand Ave	284				47	13	
		Retail				6.30		0	0	
142	Times Mirror Square	Apartments	100 S Broadway	1,127				186		106
		Office			285.09			8		5
		Supermarket				50.00		1		1
		Quality Restaurant				22.20		0		0
		Hight Turnover Restaurant				53.39		1		1
143	Mixed-Use	Apartments	1000 S Hill St	498				82	22	47
	CPC-2016-4710	Retail				8.71		0	0	0
144	Mixed-Use	Apartments	601 S Central Ave	236				39		
		Retail				12.00		0		
145	845 S Olive & 842 Grand MU	Apartments	845 S Olive	208				34	9	20
		Retail				0.81		0	0	0
		Other						0	0	0
146	Olympia Mixed-Use	Apartments	1001 W Olympic	1,367					62	129
	CPC-2016-4888	Retail				20.00			0	0
		Other							0	0
147		Bar/Lounge	806 E 3rd St			3.05				0
		Restaurant				7.72				0
		Retail				6.17				0
148	Mixed-Use	Retail	755 S Los Angeles			32.40		1		
		Office			65.00			2		
		Restaurant				4.00		0		
149	2250-2270 W Pico Blvd Hotel	Hotel	2250 W Pico Blvd				125			
150	USC Children's Creative Learning Center	Other	2716 S Severance St.							
151	Apartments	Apartments	101 N Glendale Blvd.	55						5
152		Apartments	1420 Bonnie Brae St	29						
153	Mixed-Use	Apartments	609 E 5th St	151				25		14
154	8th & Fig	Apartments	744 S Figueroa St.	438					20	41
		Retail				3.75			0	0
		Restaurant				3.75			0	0
155	Affordable Housing Development	Apartments	508 E 4th St	41				7		4
156	Residential	Apartments	713 E 5th St	51				8		5
157	Mixed-Use	Office	401 Hewitt St		255.51			7		4
		Retail				4.97		0		0
		Other						0		0
158	8th, Grand & Hope Tower	Apartments	754 S Hope St	409				67	18	39
	CPC-2017-552	Retail				7.33		0	0	0

Related Project #	Project	Uses	Address	Dwelling Units	Office (1,000 sf)	Retail (1,000 sf)	Hotel - Rooms	Elementary School Students	Middle School Students	High School Students
159	Mixed-Use	Apartments	333 Alameda St	994				164		94
		Retail				99.30		2		1
160	19-story Affordable Housing Skid Row	Affordable Housing	600 S San Pedro St	303				50		
	CPC-2017-589	Retail				19.91		0		
161	Hewitt & 4th MU	Apartments	940 E 4th St	93				15		9
		Office			6.00			0		0
		Retail				14.25		0		0
162	Affordable Housing Skid Row	Affordable Housing	552 S San Pedro St	378				62		36
	CPC-2017-614	Apartments		4				1		0
		Retail				1.76		0		0
		Office			4.41			0		0
		Dining Room/Flex Space				5.93		0		0
163	2005 James M Wood Hotel	Hotel	2005 W James M Wood Blvd				100		0	0
164	1300 Figueroa Hotel	Hotel	1300 S Figueroa St				1024		0	0
165		Apartments	656 S Standford Ave	82				14		
166	Mixed-Use	Apartments	1018 W Ingraham St	37					2	3
		Retail				1.89		0		0
167	Apartments	Apartments	1246 W Court St	54						5
168	14th St/Hill St (DTLA) MU	Apartments	1340 S Hill St	235				39		
		Retail				5.25		0		
		Other						0		
169		Hotel	1219 S Hope St				75		0	0
170	Santa Fe Freight Yard Redvelopment	Apartments	950 E 3rd St.	635						60
	VTT-72352	Retail				30.06				0
171	Mixed-Use (Coca Cola)	Office	963 E 4th St.		78.60					1
		Retail				25.00				0
		Restaurant				20.00				0
172	Retail	Retail	555 S Mateo St			153.00		3		2
173	Camden Arts Project	Apartments	1525 Industrial St.	344						
		Office			21.41					
		Restaurant				6.08				
174	Restaurant	Restaurant	500 S Mateo St.			12.88		0		0
175	Apartments	Apartments	1255 E Elden Ave	103						10
176	Mixed-Use	Apartments	550 S Main St	159				26		
		Retail				23.00		0		
177	Freehand Hotel	Hotel	416 W 8th St				226	0	0	0
		Retail				8.00		0	0	0
178	Assisted Living	Assisted Living	1030 S Lake St							0
		Senior Housing								0
179	Beaudry Ave & 2nd St MU	Apartments	130 S Beaudry Ave	230						22
		Other								0
180	Olympic & Hoover Mixed-Use	Apartments	2501 W Olympic Bl	173						16
		Retail				36.18				0

M-4 Libraries

Jessie Barkley

From: Jung, Thomas <tjung@lapl.org>
Sent: Monday, February 26, 2018 2:49 PM
To: Jessie Barkley
Subject: 1045 Olive Project - LAPL Response
Attachments: 1045 Olive_LAPL.pdf; 1045 Olive Project_LAPL Response.pdf

Hi Jessie,

Attached you will find the LAPL's response to your inquiry for the 1045 Olive Project.

Thank you.

Tom Jung

Senior Management Analyst I
Business Office
Los Angeles Public Library
Phone: (213) 228-7474
E-mail: tjung@lapl.org

Re: 1045 Olive Project

The following is our response to your questions:

I. Which libraries would serve the proposed project?

- Central Library
- Chinatown Branch Library
- Echo Park Branch Library
- Felipe de Neve Branch Library
- Little Tokyo Branch Library
- Pico Union Branch Library

Central Library

1. Location and hours of operation:

630 W. 5th Street
Los Angeles, CA 90071

Mon: 10-8, Tue: 10-8, Wed: 10-8, Thu: 10-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: 1-5

2. Size (Square Feet):

538,000 square feet

3. Staffing Levels:

390 Full Time employees
250 Volunteers

4. Collection size and amenities:

2.6 million volumes /circulation – 1.2 million

Free Public Wi-Fi
Wireless Printing
Reserve a Computer
Meeting Room Rental
Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. **Actual population served including the assigned census tracts upon which service population is determined:**

3,792,662 per Census 2010 est. City of Los Angeles

9,818,605 per Census 2010 est. County of Los Angeles

• **Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.**

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

• **City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.**

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

The Central Library attracts over 2 million visitors every year who check out over 1.2 million of its books and other items. In addition, Library staff answer over 2 million reference questions and present 2,100 programs that attract nearly 46,000 people each year. Furthermore, nearly 600,000 hours of computer access are provided to Central Library users annually. Therefore, any increase in the residential/business/commercial population that is in close proximity to the Central Library has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures are necessary in order to lessen the impact to these services. These numbers place a stress on library services with increased demands for library staffing, materials, computers and information services.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Chinatown Branch Library

1. Location and hours of operation:

639 N. Hill Street

Los Angeles, CA 90012

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: Closed

2. Size (Square Feet):

14,500 square feet

3. Staffing Levels:

13.5 Full Time employees

74 Volunteers

4. Collection size and amenities:

74,709 volumes /annual circulation – 193,627

Free Public Wi-Fi

Wireless Printing

Reserve a Computer

Meeting Room Rental

Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. Actual population served including the assigned census tracts upon which service population is determined:

11,225 estimated from LA Times Mapping L.A. database and branch library community boundaries.

7. Census tracts that comprise each of the library's service areas (if known):

The LAPL no longer uses census tracts.

• Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

• City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community

reaches a population of 90,000, an additional branch library should be considered for the area.

As it currently stands, the Chinatown branch meets the standard of 12,500 square feet for a service population of less than 45,000. However, any increase in the residential/project population that is in close proximity to this branch has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Echo Park Branch Library

1. Location and hours of operation:

1410 W. Temple Street
Los Angeles, CA 90026

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: Closed

2. Size (Square Feet):

17,543 square feet

3. Staffing Levels:

9.5 Full Time employees
88 Volunteers

4. Collection size and amenities:

43,689 volumes /annual circulation – 93,418

Free Public Wi-Fi
Wireless Printing
Reserve a Computer
Meeting Room Rental
Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. Actual population served including the assigned census tracts upon which service population is determined:

52,842 estimated from LA Times Mapping L.A. database and branch library community boundaries.

7. Census tracts that comprise each of the library's service areas (if known):

The LAPL no longer uses census tracts.

- **Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.**

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

- **City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.**

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

As it currently stands, the Echo Park Branch meets the standard of 14,500 square feet for a service population of more than 45,000. However, any increase in the residential/project population that is in close proximity to this branch has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Felipe de Neve Branch Library

1. Location and hours of operation:

2820 W. 6th Street
Los Angeles, CA 90057

1045 Olive Project

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: Closed

2. Size (Square Feet):

9,273 square feet

22 Volunteers

3. Staffing Levels:

9 Full Time employees

4. Collection size and amenities:

35,424 volumes /annual circulation – 104,076

Free Public Wi-Fi

Wireless Printing

Reserve a Computer

Meeting Room Rental

Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. Actual population served including the assigned census tracts upon which service population is determined:

110,861 estimated from LA Times Mapping L.A. database and branch library community boundaries.

7. Census tracts that comprise each of the library's service areas (if known):

The LAPL no longer uses census tracts.

• Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

• City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new

size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

As it currently stands, the Felipe de Neve Branch does not meet the standard of the need for an additional branch when the service population reaches 90,000. Any increase in the residential/project population that is in close proximity to this branch has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Little Tokyo Branch Library

1. Location and hours of operation:

203 S. Los Angeles Street
Los Angeles, CA 90012

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: Closed

2. Size (Square Feet):

12,500 square feet

3. Staffing Levels:

10 Full Time employees
44 Volunteers

4. Collection size and amenities:

66,634 volumes /annual circulation – 142,247

Free Public Wi-Fi
Wireless Printing
Reserve a Computer
Meeting Room Rental
Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. Actual population served including the assigned census tracts upon which service population is determined:

45,796 estimated from LA Times Mapping L.A. database and branch library community boundaries.

7. Census tracts that comprise each of the library's service areas (if known):

The LAPL no longer uses census tracts.

• Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

• City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

As it currently stands, the Little Tokyo Branch does not meet the standard of 14,500 square feet for a service population of over 45,000. Any increase in the residential/project population that is in close proximity to this branch has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Pico Union Branch Library

1. Location and hours of operation:

1045 Olive Project

1030 S. Alvarado Street
Los Angeles, CA 90006

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30, Sat: 9:30-5:30, Sun: Closed

2. Size (Square Feet):

12,500 square feet

3. Staffing Levels:

10.5 Full Time employees

51 Volunteers

4. Collection size and amenities:

46,562 volumes /annual circulation -129,660

Free Public Wi-Fi

Wireless Printing

Reserve a Computer

Meeting Room Rental

Zoom Text Computer for the Visually Impaired

The branch is a Virtual Library with multiple computer workstations providing public access to LAPL's on-line library catalog, extensive information databases, and the Internet. This branch also provides WIFI connectivity for mobile electronic devices.

STAR – Story Telling and Reading. Star volunteers read aloud with kids of all ages at the library. Reading aloud is fun – and can improve reading skills and encourage a life-long love of books.

5. Programmed or Target Service Population:

The Los Angeles Public Library (LAPL) does not make targeted projections.

6. Actual population served including the assigned census tracts upon which service population is determined:

41,457 estimated from LA Times Mapping L.A. database and branch library community boundaries.

7. Census tracts that comprise each of the library's service areas (if known):

The LAPL no longer uses census tracts.

• Planned, funded, and/or scheduled improvements or expansions to the City library facilities that would serve this Project.

There are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community.

• City library service standards and/or goals that would assist in analyzing the Project's potential impacts from development on local library services.

1045 Olive Project

On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

As it currently stands, the Pico Union Branch meets the standard of 12,500 square feet for a service population of less than 45,000. However, any increase in the residential/project population that is in close proximity to this branch has a direct impact on library services with increased demands for library staffing, materials, computers and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of \$200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

M-5 Parks and Recreation

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(213) 202-2633, FAX (213) 202-2614

December 27, 2017

ESA

Jessie Barkley, Senior Managing Associate
233 Wilshire Boulevard, Suite 150
Santa Monica, CA 90401

**REQUEST FOR INFORMATION REGARDING RECREATIONAL AND PARK SERVICES FOR
THE 1045 OLIVE PROJECT IN THE CITY OF LOS ANGELES**

Dear Ms. Barkley:

The following has been prepared in response to your request for Recreation and Parks information relative to the proposed 1045 Olive Project. This project proposes the development of 751,777 square feet of floor area to include 794 residential units and various retail spaces on a project site located at 1033-1057 S. Olive Street in the Central City Community Plan Area of the City of Los Angeles.

1. The name, location, size, park classification (regional, community, neighborhood, or special use), and available facilities within the parks that would serve the Project site

The following Department of Recreation and Parks facilities are classified as neighborhood parks and are located within a two mile radius of the project site:

- 6th and Gladys Street Park, located at 824 E. 6th Street.
- Alvarado Terrace Park, located at 1342 S. Alvarado Terrace.
- Arts District Park, located at 501 S Hewitt Street.
- Grand Hope Park, located at 900 S. Hope Street.
- Hope and Peace Park, located at 843 Bonnie Brae Street.
- Orthopedic Hospital Universal Access Playground, located at 2400 S. Flower Street.
- Patton Street Pocket Park, located at 317-327 Patton Street.
- Pico Union Park, located at 1827 S. Hoover Street.
- Rockwood Community Park, located at 1571 Rockwood Street.
- Saint James Park, located at 20 S. St. James Park.
- San Julian Park, located at 312 E. 5th Street.
- Spring Street Park, located at 428 S. Spring Street.
- Unidad Park, located at 1644-48 Beverly Boulevard.

The following Department of Recreation and Parks facilities are classified as community parks and are located within a five mile radius of the project site:

- Aliso-Pico Recreation Center, located at 370 S. Clarence Street.
- Alpine Recreation Center, located at 817 Yale Street.



- Augustus F. Hawkins Natural Park, located at 5790 Compton Avenue.
- Bellevue Recreation Center, located at 826 Lucille Avenue.
- Boyle Heights Sports Center, located at 933 S. Mott Street.
- Carlin G. Smith Recreation Center, located at 511 W. Avenue 46.
- Central Recreation Center, located at 1357 E. 22nd Street.
- Cypress Recreation Center, located at 2630 Pepper Avenue.
- Denker Recreation Center, located at 1550 W. 35th Place.
- Downey Pool, located at 1775 N. Spring Street.
- Downey Recreation Center, located at 1772 N. Spring Street.
- Echo Park, located at 751 Echo Park Boulevard.
- Echo Park Deep Pool, located at 1419 Colton Street.
- El Sereno North Park, located at 4410 Garden Homes Avenue.
- El Sereno Recreation Center, located at 4721 Klamath Street.
- El Sereno Senior Citizens Center, located at 4818 Klamath Place.
- Elysian Valley Recreation Center, located at 1811 Ripple Street.
- Evergreen Recreation Center, located at 2839 E. 4th Street.
- EXPO Center, located at 3980 S. Menlo Avenue.
- Fred Roberts Recreation Center, located at 4700 Honduras Street.
- Fremont High School Pool, located at 7630 Towne Avenue.
- Gilbert W. Lindsay Community Center, located at 429 E. 42nd Place
- Hazard Park, located at 2230 Norfolk Street.
- Hollenbeck Park, located at 415 S. St. Louis Street.
- Hoover Recreation Center, located at 1010 W. 25th Street.
- Hostetter Park, located at 3141 E. Olympic Boulevard.
- James Slauson Recreation Center, located at 5306 S. Compton Avenue.
- Lafayette Park, located at 2830 W. 6th Street.
- Lake Street Park, located at 227 N. Lake Street.
- Lemon Grove Recreation Center, located at 4959 Lemon Grove Avenue.
- Lincoln Heights Recreation Center, located at 2303 Workman Avenue.
- Lincoln Heights Youth Center, located at 2500 Griffin Avenue.
- Lincoln Park, located at 3501 Valley Boulevard.
- Loren Miller Recreation Center, located at 2717 Halldale Avenue.
- MacArthur Park, located at 2230 W. 6th Street.
- Martin Luther King Jr. Park, located at 3934 S. Western Avenue.
- Miguel Contreras Learning Center Pool, located at 322 S. Lucas Avenue.
- Montecito Heights Recreation Center, located at 4545 Homer Street.
- Mount Carmel Recreation Center, located at 830 W. 70th Street.
- Msgr. Ramon D. Garcia Recreation Center, located at 1016 S. Fresno Avenue.
- Normandie Recreation Center, located at 1550 S. Normandie Avenue.
- Old Echo Park Boys and Girls, located at 303 Patton Street.
- Parkview Photo Center, located at 2332 W. 4th Street.
- Pecan Recreation Center, located at 127 S. Pecan Street.
- Pershing Square, located at 525 S. Olive Street.

- Queen Anne Recreation Center, located at 1240 West Boulevard.
- Ramona Gardens Park, located at 2830 Lancaster Avenue.
- Ramona Gardens Recreation Center, located at 2830 Lancaster Avenue.
- Ramona Hall Community Center, located at 4580 N. Figueroa Street.
- Rio de Los Angeles State Park, located at 1900 N. San Fernando Road.
- Roosevelt High School Pool, located at 456 S. Mathews Street.
- Rose Hill Park, located at 3606 Boundary Avenue.
- Rose Hill Recreation Center, located at 4530 Mercury Avenue.
- Ross Snyder Recreation Center, located at 1501 W. 41st Street.
- Seoul International Park, located at 3250 San Marino Street.
- Shatto Recreation Center, located at 3191 W. 4th Street.
- Silverlake Recreation Center and Dog Park, located at 1850 W. Silverlake Boulevard.
- South Los Angeles Sports Activity Center, located at 7020 S. Figueroa Street.
- South Park Recreation Center, located at 345 E. 51st Street.
- South Seas House Park, located at 2301 W. 24th Street.
- State Street Recreation Center, located at 716 N. State Street.
- Sycamore Grove Park, located at 4702 N. Figueroa Street.
- Toberman Recreation Center, located at 1725 Toberman Street.
- Tommy Lasorda's Field of Dreams, located at 1901 Waterloo Street.
- Trinity Recreation Center, located at 2415 Trinity Street.
- Van Ness Recreation Center, located at 5720 2nd Avenue.
- Vineyard Recreation Center, located at 2942 Vineyard Avenue.
- Vista Hermosa Soccer Field, located at 1301 W. 1st Street.
- Wabash Recreation Center, located at 2765 Wabash Avenue.

The following Department of Recreation and Parks facilities are classified as regional parks and are located within a ten mile radius of the project site:

- Armand Hammer Golf Course, located at 601 Club View Drive (at Holmby Park).
- Arroyo Seco Park, located at 5568 Via Marisol.
- Ascot Hills Park, located at 4371 Multnomah Street.
- Barnsdall Park, located at 4800 Hollywood Boulevard.
- Cahuenga Peak Phase I, located at 3698 W. Wonderview Road (in Griffith Park).
- Cahuenga Peak Phase II, located at 3698 W. Wonderview Road (in Griffith Park).
- Campo de Cahuenga, located at 3919 Lankershim Boulevard.
- Charles F. Lummis Home, located at 200 E. Avenue 43.
- Cheviot Hills Park, located at 2551 Motor Avenue.
- Coldwater Canyon Park, located at 12601 Mulholland Drive.
- Elysian Park, located at 929 Academy Road.
- Ernest E. Debs Regional Park, located at 4235 Monterey Road.
- Exposition Park Rose Garden, located at 701 State Drive.
- Griffith Park, located at 4730 Crystal Springs Drive.
- Griffith Park Boys Camp, located at 4730 Crystal Springs Drive (in Griffith Park).
- Harding Golf Course, located at 4730 Crystal Springs Drive (in Griffith Park).
- Heritage Square, located at 3800 Homer Street.
- Hollywoodland Girl's Camp, located at 3200 Canyon Drive (in Griffith Park).

- Holmby Park, located at 601 Club View Drive.
- L.A. Equestrian Center, located at 500 Riverside Drive (in Griffith Park).
- L.A. Live Steamers, located at 5202 Zoo Drive (in Griffith Park).
- Los Feliz Golf Course, located at 3207 Los Feliz Boulevard.
- Rancho Park Golf Course, located at 10460 Pico Boulevard.
- Roosevelt Golf Course, located at 2650 N. Vermont Avenue (in Griffith Park).
- Runyon Canyon Park, located at 2000 N. Fuller Avenue.
- South L.A. Wetlands Park, located at 5413 S. Avalon Boulevard.
- Travel Town Museum, located Griffith Park Drive near Zoo Drive (in Griffith Park).
- Wattles Garden Park, located at 1824 N. Curson Avenue.
- Wilson Golf Course, located at 4730 Crystal Springs Drive (in Griffith Park).

For additional information regarding facilities and features available in these parks visit our website: www.laparks.org.

2. Existing ratios of developed parkland per resident on a Citywide basis, and within the Central City North Community Plan Area

The City of Los Angeles overall has a ratio of 0.76 acres of neighborhood and community parkland per 1,000 residents. The Central City Community Plan Area, within which the project is located, has a parkland acres-to-population ratio of neighborhood and community parks of 0.10 acres per 1,000 residents.

3. Current capacity and level of use of parks and recreational facilities near the Project site

While data regarding the level of use for the recreational facilities that serve the project site is not available, parks within the surrounding community are heavily utilized and often overburdened.

4. Any planned improvements to the parks and recreational facilities in the service area of the Project site (i.e., construction or expansion, new facilities, etc.)? If so, please describe.

The City is currently in the process of developing a park at 1st and Broadway and at the 6th Street Viaduct Project.

5. Would Project implementation require the physical expansion of an existing park(s) or a new parks serving the Project site? If so, please describe.

Yes. The City's standard ratio of neighborhood and community parks to population is four (4) acres per 1,000 people, per the Public Recreation Plan. The project proposes the development of 308 residential units which the existing facilities would not have the capacity to serve.

6. City-adopted parks and recreation standards and acreage goals to be used in analyzing the Project.

The Public Recreation Plan, a portion of the Service Element of the City's General Plan, sets a goal of a parkland acres-to-population ratio of neighborhood and community parks of 4.0 acres per 1,000 residents and of regional parks of 6.0 acres per 1,000 residents.

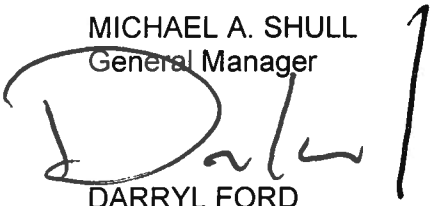
7. Any other design features or special parks and recreation requirements due to the specific attributes of the Project?

If the proposed project requires the approval of a subdivision map, the project may be required by the Advisory Agency to dedicate land within the subdivision for park or recreational purposes, or pay a fee in-lieu, in accordance with the requirements of Los Angeles Municipal Code Section 17.12.

Thank you for the opportunity to provide information relative to the proposed project's impact on recreation and park services. If you have any questions or comments regarding this information please contact Melinda Gejer, of my staff, at (213) 202-2657 or melinda.gejer@lacity.org.

Sincerely,

MICHAEL A. SHULL
General Manager



DARRYL FORD
Senior Management Analyst I
Planning, Maintenance, and Construction Branch

DF/MG:ar

cc: Reading File

**BOARD OF RECREATION AND
PARK COMMISSIONERS**

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CITY OF LOS ANGELES
CALIFORNIA



ERIC GARCETTI
MAYOR

**DEPARTMENT OF
RECREATION AND PARKS**

EXECUTIVE OFFICE
P.O. BOX 86328
LOS ANGELES, CA 90086-0328

MICHAEL A. SHULL
GENERAL MANAGER

Letter sent via email to:
planning.majorprojects@lacity.org

March 16, 2017

Darlene Navarrete, Senior Administrative Clerk
Major Projects
200 N. Spring Street, 7th Floor
Los Angeles, CA 90012

**DEPARTMENT OF RECREATION AND PARKS REPORT AND RECOMMENDATIONS
RELATIVE TO VTT-74531**

Dear Ms. Navarrete:

The City of Los Angeles Department of Recreation and Parks (RAP) has prepared the following report and recommendations in response to your request for comments relative to VTT-74531, a proposed mixed-use development containing 800 residential dwelling units and 15,000 square feet of non-residential floor area located at 1033-1057 S. Olive Street.

RAP's report and recommendation(s) regarding VTT-74531 are as follows:

General Comments:

The applicant is requesting approval of VTT-74531, a described as a mixed-use development containing 800 residential dwelling units which is replacing retail buildings. Los Angeles Municipal Code (LAMC) 12.33 requires most residential projects that create new dwelling units or joint living and work quarters to dedicate land or pay a fee for the purpose of developing park and recreational facilities.

Effective January 11, 2017, RAP is responsible for calculating the required park fees owed by each residential development project, including subdivision projects, pursuant to LAMC 12.33, and issuing the fee calculation letters to applicants. RAP will also be responsible for calculating the required fees for vested projects that are not subject to a park fee pursuant to LAMC 12.33 but were subject to the Recreation and Park Fee provisions that were effective prior to January 11, 2017 (Quimby Fee). The Quimby Fee is calculated on a per dwelling unit basis with the per unit fee determined by the zone in which the dwelling unit is located.



RAP Recommendation:

The applicant is requesting a subdivision in connection with a proposed mixed-use project that will contain residential dwelling units. The application for this vested tentative tract map was deemed complete on January 4, 2017. Pursuant to Los Angeles Municipal Code Section 17.15 C.1, "approval or conditional approval of a vesting tentative map shall confer a vested right to proceed with development in substantial compliance with the ordinances, policies and standards in effect on the date the application is deemed complete, and with the conditions of approval imposed and specifically enumerated by the Advisory Agency, including the submittal of a detailed grading plan under an approved grading permit prior to recordation of the final map." Therefore, pursuant to Los Angeles Municipal Code Sections 17.15 C.1 and 12.33 RAP recommends the following be added as a condition of the approval of VTT-74531:

That the Quimby Fee be based on the R5 Zone.

Thank you for the opportunity to provide information relative to recreation and park issues related to this proposed project. Please provide the RAP contact listed below with any and all agendas, notices, and staff reports for the Advisory Agency actions and/or hearings related to this application.

If you have any questions or comments regarding this information please feel free to contact Melinda Gejer, of my staff, at (213) 202-2657, at your convenience.

Sincerely,

RAMON BARAJAS
Assistant General Manager

A handwritten signature in blue ink, appearing to read 'CSD', is written over the printed name of Cathie Santo Domingo.

CATHIE SANTO DOMINGO
Superintendent

MAS/RB:ln

cc: Reading File

APPENDIX O

Tribal Cultural Resources

1045 OLIVE PROJECT, CITY OF LOS ANGELES, CALIFORNIA

Assembly Bill 52 Consultation Summary Report

Prepared for

1045 Olive, LLC
2200 Biscayne Boulevard
Miami, Florida 33137

June 2019



1045 OLIVE PROJECT, CITY OF LOS ANGELES, CALIFORNIA

Assembly Bill 52 Consultation Summary Report

Prepared for:

1045 Olive, LLC
2200 Biscayne Boulevard
Miami, Florida 33137

June 2019

Project Director:

Monica Strauss, M.A., R.P.A.

Project Manager:

Sara Dietler, B.A.

Report Author:

Sara Dietler, B.A.

Project Location:

Hollywood (CA) USGS 7.5-minute Topographic Quad
Township 1 South, Range 13 West, unsectioned

Acreage: Approx. 0.96 acres

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300
esassoc.com



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STATEMENT OF CONFIDENTIALITY

Cultural resources are nonrenewable, and their scientific, cultural, and aesthetic values can be significantly impaired by disturbance. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the locations of cultural resources are confidential. The legal authority to restrict cultural resources information is in subdivision (r) of Section 6254 and Section 6254.10 of the California Government Code, subdivision (d) of Section 15120 of Title 14 of the California Code of Regulations, Section 304 of the National Historic Preservation Act of 1966, as amended, and Section 9 of the Archaeological Resources Protection Act.

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1045 OLIVE PROJECT

Assembly Bill 52 Consultation Summary Report

Introduction

Environmental Science Associates (ESA) has prepared this Assembly Bill (AB) 52 Consultation Summary Report for the 1045 Olive Project (Project) in support of an Environmental Impact Report (EIR). The Project proposes to construct a mixed-use Project on an approximately 0.96-acres (Project Site) in the City of Los Angeles (City), California. The City is the lead agency pursuant to the California Environmental Quality Act (CEQA).

Public Resources Code (PRC) subdivision 21080.3.1 indicates that California Native American tribes may have expertise concerning tribal cultural resources and lead agencies are required to initiate consultation with tribes that have requested notification in writing of proposed projects within the geographic area that is traditionally and culturally affiliated with the tribe. CEQA indicates that “public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.” (PRC 21084.3(a)).

“Tribal cultural resources” are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant (PRC 21074(a)). A cultural landscape that meets these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. A historical resource, unique archaeological resource, or non-unique archaeological resource may also be a tribal cultural resource if it meets these criteria.

This report summarizes the methods and results of the City’s AB 52 consultation efforts to identify tribal cultural resources that could potentially be impacted by the Project. Consultation was carried out consistent with provisions of PRC 21080.3.1. This report contains a project description including location, details of the Project, and current Project Site conditions; an ethnographic setting or overview of tribal affiliation with the Project area; a brief summary of database searches conducted as part of the Cultural Resources Assessment (appended as Appendix C to the 1045 Olive Project DEIR); a regulatory framework which presents a brief overview of AB 52 and its implementing regulations; the methods and results of the City’s AB 52 consultation; and a conclusion summarizing the results of the consultation process.

Project Location

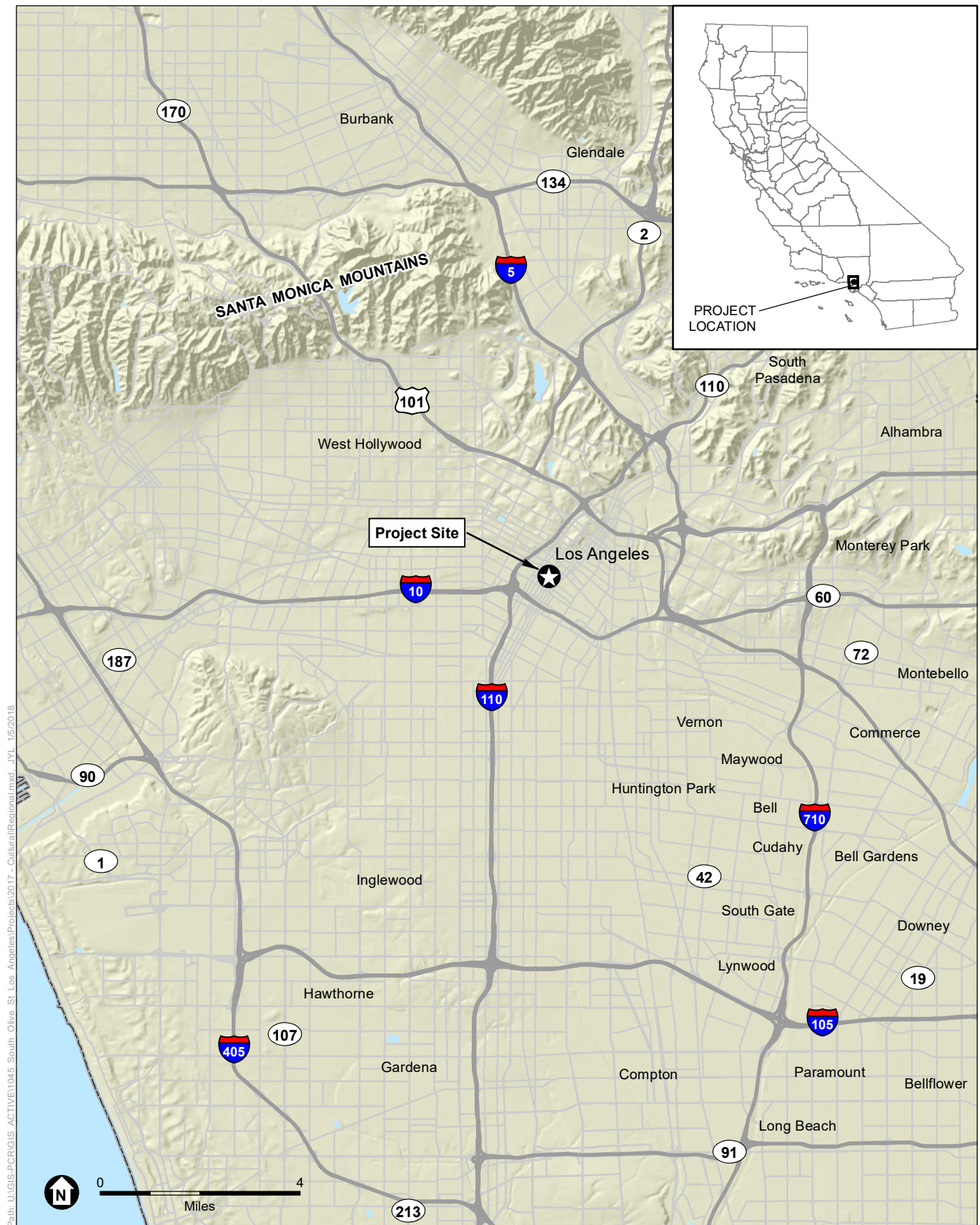
The 0.96-acre (41,603 sf) Project Site is located at the northwest corner of Olive Street and W. 11th Street in the Downtown area and South Park community of the City of Los Angeles (City). **(Figure 1)**. The Project contains assessor parcel numbers (APNs): 5139-010-008 (1033 South Olive St.); 5139-010-002 (1041 South Olive St.); 5139-010-010 (1045 South Olive St.); 5139-010-011 (1053 South Olive St.); 5139-010-001 (1057 South Olive St.). The block is split by a south to north alley at midblock between Olive Street and Grand Avenue. The alley serves as the western boundary of the Project Site. Uses within the block that lie adjacent to the Project include a seven-story mixed-use development to the north, seven-story mixed-use development to the northwest, and a two-story commercial building and 25-story mixed-use high-rise building to the west **(Figure 2)**.

Specifically, the Project Site is situated in an unsectioned portion of Township 1 South, Range 13 West on the Hollywood, CA USGS 7.5-minute topographic quadrangle **(Figure 3)**. The Project Site is currently improved with five vernacular commercial buildings constructed between 1911 and 1947. For the purposes of this analysis the five existing buildings are identified as Buildings A through E as shown on **Figure 3**.

Project Description

The Project would include a maximum of 794 residential units and 12,504 square feet of neighborhood serving commercial (restaurant/retail) uses. A 61-story tower would sit atop a nine level podium structure (Podium) for a total of 70 floors above grade, up to 810 feet in height. The Project would also have six subterranean levels. Approximately 103,380 square feet of open space would be provided, including a ground level public Plaza with landscaping and public art (Plaza). Open space and recreation facilities for residents would be located on the 8th Floor cut-out Terrace and larger 10th Floor Terrace, within mid-building cut-out areas on the upper floor levels and on a Tower Rooftop Terrace and within private balconies.

Vehicle access (ingress/egress) would be provided from one entrance along Olive Street, near the northern property line, and from two entrances from the alley between 11th Street and Olympic Boulevard. An on-site loading and move-in/out service area would also be accessed from the alley. Vehicle parking would be provided within six (6) subterranean parking levels and in eight (8) levels of above-grade parking within the Podium. The Project would require approximately 80,520 cubic yards (cy) of soil removal from the Project Site with maximum excavation depths of approximately 64 feet.

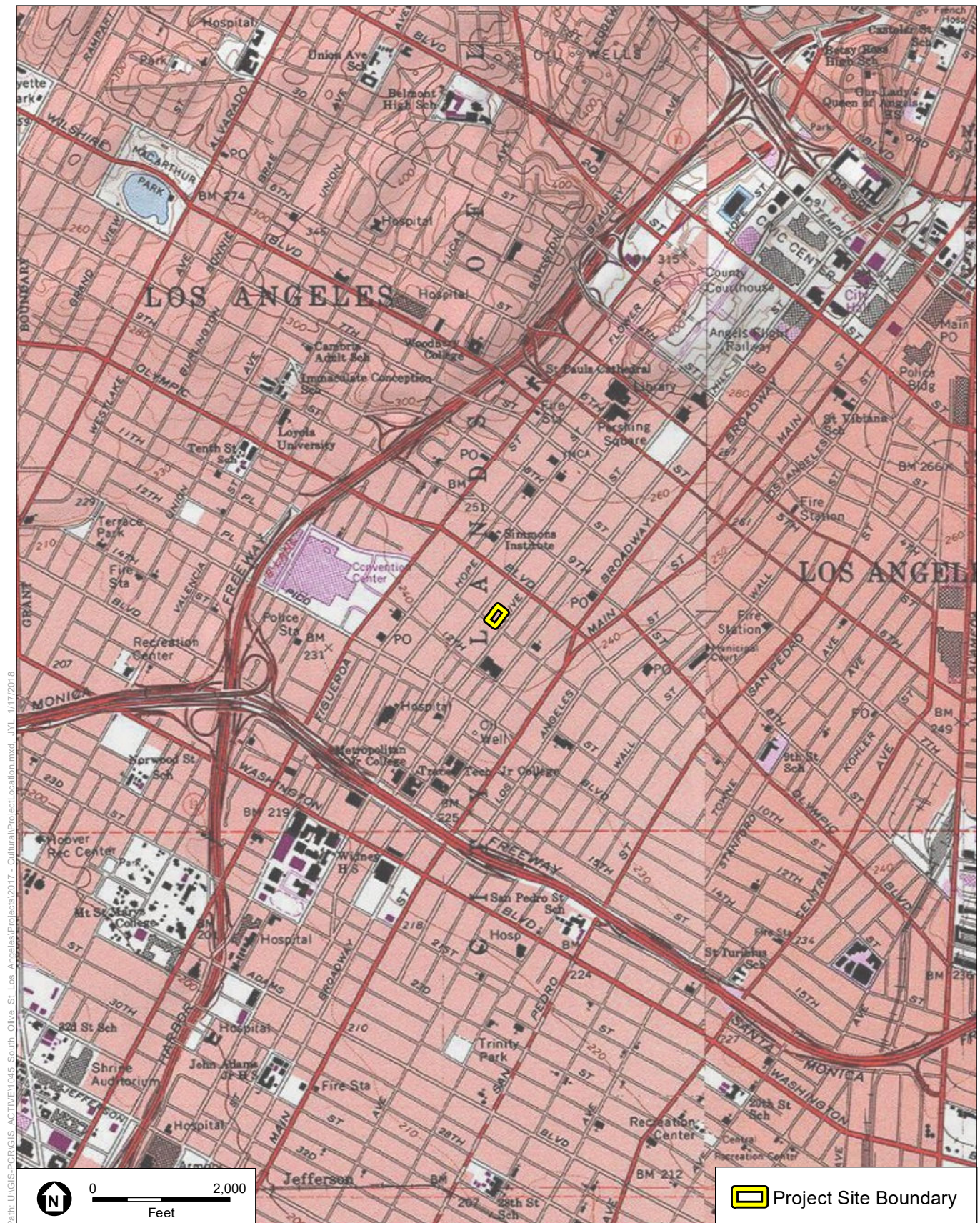


SOURCE: ESRI

1045 Olive Project Cultural Resources Assessment

Figure 1

Regional Location Map



SOURCE: USGS 7.5' Topo Quad Hollywood 1978, 1982

1045 Olive Project Cultural Resources Assessment

Figure 2
Project Location Map



SOURCE: Google

1045 Olive Project Cultural Resources Assessment

Figure 3

Aerial Photograph Showing Project Site Boundary

Regulatory Framework

Assembly Bill 52 and Related Public Resources Code Sections

Assembly Bill (AB) 52 was approved by California State Governor Edmund Gerry “Jerry” Brown, Jr. on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project’s impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt an MND (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native

American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Thresholds of Significance for Tribal Cultural Resources

On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources in an update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016. Appendix G states that a project would result in significant adverse impacts related to tribal cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

According to the PRC Section 21084.2, a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. While what constitutes a “substantial adverse change” to a tribal cultural resource is not defined in the section, guidance on what constitutes a substantial adverse change under CEQA can be drawn from *CEQA Guidelines* Section 15064.5(b). Although applicable specifically to historical resources (as defined in 15064.5(a)), an analogy can be drawn when assessing if there has been a substantial adverse change to a tribal cultural resource. *CEQA Guidelines* Section 15064.5(b)(1) defines a substantial adverse change as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, resulting in material impairment of the historical resource. According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the

requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

In drawing an analogy, a substantial adverse change to a tribal cultural resource could be considered to be the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, resulting in material impairment of the tribal cultural resource.

Similarly, material impairment could include:

- Demolition or material alteration in an adverse manner those characteristics of a tribal cultural resource that justify its eligibility for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k); or
- Demolition of material alteration in an adverse manner those characteristics of a tribal cultural resource that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Mitigating Impacts to Tribal Cultural Resources

PRC Section 21084.3 provides guidance on addressing impacts to tribal cultural resources and states that:

- (a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.
- (b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:
 - (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - (A) Protecting the cultural character and integrity of the resource.
 - (B) Protecting the traditional use of the resource.
 - (C) Protecting the confidentiality of the resource.
 - (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - (4) Protecting the resource.

CEQA Guidelines Section 15370 provides additional guidance on the types of mitigation that may be considered, and includes: avoiding impacts altogether; minimizing impacts; rectifying impacts through repair, rehabilitation, or restoration; reducing impacts through preservation; and compensating for impacts by providing substitute resources.

PRC Section 21082.3(b) indicates that if a project may have a significant impact on a tribal cultural resource, the agency's environmental document shall discuss whether the proposed project has a significant impact on an identified tribal cultural resource and whether feasible alternatives or mitigation measures avoid or substantially less the impact on the identified tribal cultural resource.

PRC Section 21080.3.2 indicates that as part of the consultation pursuant to Section 21080.3.1, California Native American Tribes may propose mitigation measures, including, but not limited to, those recommended in Section 21084.3, capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource. Also, the lead agency may incorporate changes or additions to a project even if not legally required to do so.

California Government Code Sections 6254(r) and 6254.10

Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Setting

Ethnographic Setting

The Project Site is located in a region traditionally occupied by the Takic-speaking Gabrielino Indians. The term "Gabrielino" is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber, 1925). Their neighbors included the Chumash to the north, the Juaneño to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith, 1978). The Gabrielino language is part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Subsistence consisted of hunting, fishing, and gathering.

Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith, 1978). The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leaved cherry.

Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber, 1925). Villages are reported to have been the most abundant in the San Fernando Valley, the Glendale Narrows area north of downtown, and around the Los Angeles River's coastal outlets (Gumprecht, 2001). Gabrielino villages are reported by early explorers to have been most abundant near the Los Angeles River, in the area north of downtown, known as the Glendale Narrows, and those areas along the river's various outlets into the sea. Among those villages north of downtown are *Maawnga* in the Glendale Narrows; *Totongna* and *Kawengna*, in the San Fernando Valley; *Hahamongna*, northeast of Glendale; and the village of *Yaangna*, in the vicinity of present-day downtown Los Angeles.

The exact location of *Yaangna* within downtown Los Angeles continues to be debated, although some believe it to have been located at the present-day location of the Civic Center (McCawley 1996). Other proposed locations are near the present day Union Station (Chartkoff and Chartkoff 1972:64), to the south of the old Spanish Plaza, and near the original site of the Bella Union Hotel located on the 300 Block of North Main Street (Robinson 1963:83, as cited in Dillon 1994:30). Dillon (1994:30) hypothesizes that the Union Station location is an unlikely spot for a large village or habitation, as it lies within the annual Los Angeles River flood zone. Local sources such as the Echo Park Historical Society report that when Gaspar de Portola and Father Juan Crespi camped on the river bank opposite the North Broadway Bridge entrance to Elysian Park, they were served refreshments by *Yaangna* Indian villagers from the current location of the Los Angeles Police Academy (Echo Park Historical Society 2008).

Based on baptismal records, *Yaanga* appears to have been occupied until at least 1813. But by the early 1820s, *Yaanga*'s Gabrielino residents were displaced to an area south of the village site in what is presently the block north of Los Angeles Street and 1st Street, approximately 1.3 miles northwest of the Project Site (Morris et al., 2016). By 1836, the displaced Gabrielino community was known as *Rancho de los Pablinos*, and Los Angeles residents began complaining about the Gabrielino bathing in the *Zanjas* (Morris et al., 2016). As a result of the complaints, the Gabrielino were once again displaced farther to the east near the present-day intersection of Alameda Street and Commercial Street, approximately 1.22 miles northeast of the Project Site. Between 1845 and 1847, they were moved to the east side of the river to a settlement that was known as *Pueblito*, and by 1847, the Gabrielino from *Yaanga* were displaced once again and left without a place in which to form a new community. As a result, the Gabrielino dispersed throughout Los Angeles. A second community or village, named *Geveronga*, may have been located in the vicinity of the current downtown Los Angeles' city center, reported in the San Gabriel baptismal records as located "in the racheria adjoining the Pueblo of Los Angeles" (McCawley 1996:57).

Database Searches

To supplement the ethnographic context above, a summary of database searches conducted for the Cultural Resources Assessment, (included as Appendix C of the 1045 Olive Project DEIR) are summarized here to provide additional context regarding the nature of archaeological resources and sacred lands that have been previously recorded within the Project Site and vicinity.

The Native American Heritage Commission (NAHC) was contacted on November 16, 2017 to request a search of the Sacred Lands File (SLF) which contains an inventory of sites of traditional, cultural, or religious value to the Native American community. The NAHC was provided information such as Project Site location and a brief description of the proposed Project, and a request for a search of the SLF for the Project Site. The NAHC responded to the SLF request in a letter stating that the SLF search was negative for the presence of Native American cultural resources within the Project Site.

A records search for the Project was conducted on December 7, 2017 at the California Historical Resources Information System South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The records search included a review of previous cultural resources studies and previously-recorded cultural resources including archaeological resources within the Project Site and a 0.5-mile radius, and historic architectural resources within the Project Site and a 0.25-mile radius. Although the information center does not provide or keep data regarding tribal cultural resources specifically, this more generalized search of archeological resources disclosed no cultural resources on the Project Site or within a 0.5-mile radius.

Geotechnical Context

According to the Geotechnical Analysis of the Project Site, Appendix E of this Draft EIR, the Project Site lies above artificial fill with depths of 7 to 9.5 feet below ground surface (bgs). In 0 to 7-foot range these fill soils contain wood, cement and brick fragments. The fill can likely be attributed to agricultural use, the turn of the century development and demolition of previous residential structures for the development of the current structures. Below the artificial fill is Holocene-aged younger Quaternary alluvium and Pleistocene-aged older Quaternary Alluvium and the Pliocene-aged Fernando Formation.

Consultation Methods and Results

Pursuant to the requirements of AB 52, on December 21, 2017 the City sent consultation notification letters via certified mail to nine California Native American Tribes on the City's AB 52 Notification List (City of Los Angeles, 2017) that are traditionally and culturally affiliated with the geographic area of the Project. (**Table 1**). The notification letters included a description of the Project, the Project location, and the City's contact information. The notification letters requested that tribes interested in consulting on this Project respond to the City in writing within 30 calendar days of their receipt of the letter. One of the nine Native American groups contacted by the City responded, submitted formal consultation responses to date (Gabrieleño Band of

Mission Indians-Kizh Nation [Kizh Nation]. More information regarding consultation is summarized below. All consultation materials are attached in **Appendix B**.

TABLE 1
SUMMARY OF AB 52 CONSULTATION

Contact	Tribe/Organization	Date AB 52 Notice Sent	Response Received	Date AB 52 Initiation Sent	Consultation Results
Kimia Fatehi, Director, Public Relations	Fernandeño Tataviam Band of Mission Indians	12/21/2017	No Response	-	
Andrew Salas, Chairperson	Gabrieleño Band of Mission Indians – Kizh Nation	12/21/2017	02/08/2018	03/05/2018	Call on 02/08/2018, map submitted
Robert F. Dorame, Tribal Chair/Cultural Resources	Gabrielino Tongva Indians of California Tribal Council	12/21/2017	No response	-	-
Sam Dunlap, Cultural Resources Director	Gabrielino/Tongva Nation	12/21/2017	No Response	-	
Sandonne Goad, Chairperson	Gabrielino/Tongva Nation	12/21/2017	No response	-	-
Anthony Morales, Chairperson	Gabrielino/Tongva San Gabriel Band of Mission Indians	12/21/2017	No response	-	-
Joseph Ontiveros, Cultural Resource Director	Soboba Band of Luiseño Indians	12/21/2017	No response	-	-
John Valenzuela, Chairperson	San Fernando Band of Mission Indians	12/21/2017	No Response	-	-
Michael Mirelez, Cultural Resource Coordinator	Torres Martinez Desert Cahuilla Indians	12/21/2017	No response	-	-

On December 21, 2017, the City submitted formal notification letters to nine Native American individuals and organizations on the City’s AB 52 Notification List. In response to the formal notification letter, on February 8, 2018, the City received a letter via email from Brandy Salas, Administrative Specialist of the Gabrieleño Band of Mission Indians (Tribe) requesting formal consultation. In this letter, Ms. Salas also provided: 1) a Google Earth map with the Project site and an overlay of the 1938 Kirkman-Harriman Pictorial and Historical Map of Los Angeles County, and 2) the Definition of a Tribal Cultural Resource according to CEQA. The email of February 8, 2018 indicated that the project is within a traditional trading route and has a high potential to impact tribal cultural resources. It further stated that “mitigation shall be implemented for the protection of these resources”. On February 8, 2018, the City replied to the Tribe via phone meeting which was detailed in an email dating to March 5, 2018. The email describes the conversation between The City of Los Angeles and Mr. Andrew Salas, Tribal Chairman and Mr. Matthew Teutimez, a tribal member. During the conversation on February 8, 2018, as detailed in the March 5 2018 email:

- The Tribe asked how deep the parking levels would be for the project and the city indicated that there would be six levels of parking.
- The Tribe indicated that they had searched their database and a trident was discovered with a trail/trail system.
- The tribe described the high sensitivity of trading routes as they are part of society and spanned from the ocean to the inland areas and human activity occurred along these routes. Due to the human activities along the routes, tribal cultural resources have been found and continue to be found along trading routes. They provided examples of burials in the Arts District (Downtown Los Angeles) found under old railways which followed the route of the trading routes and artifacts found in Koreatown.
- Olympic Boulevard was trading route.
- Obsidian flakes and manufacturing sites have been found next to roads.
- Provided additional details of the Kirkman-Harriman Pictorial and Historical Map of Los Angeles, specifically explain that the solid red line represented the El Camino Real and the dashed red line on the map represented the Portola Expedition line.

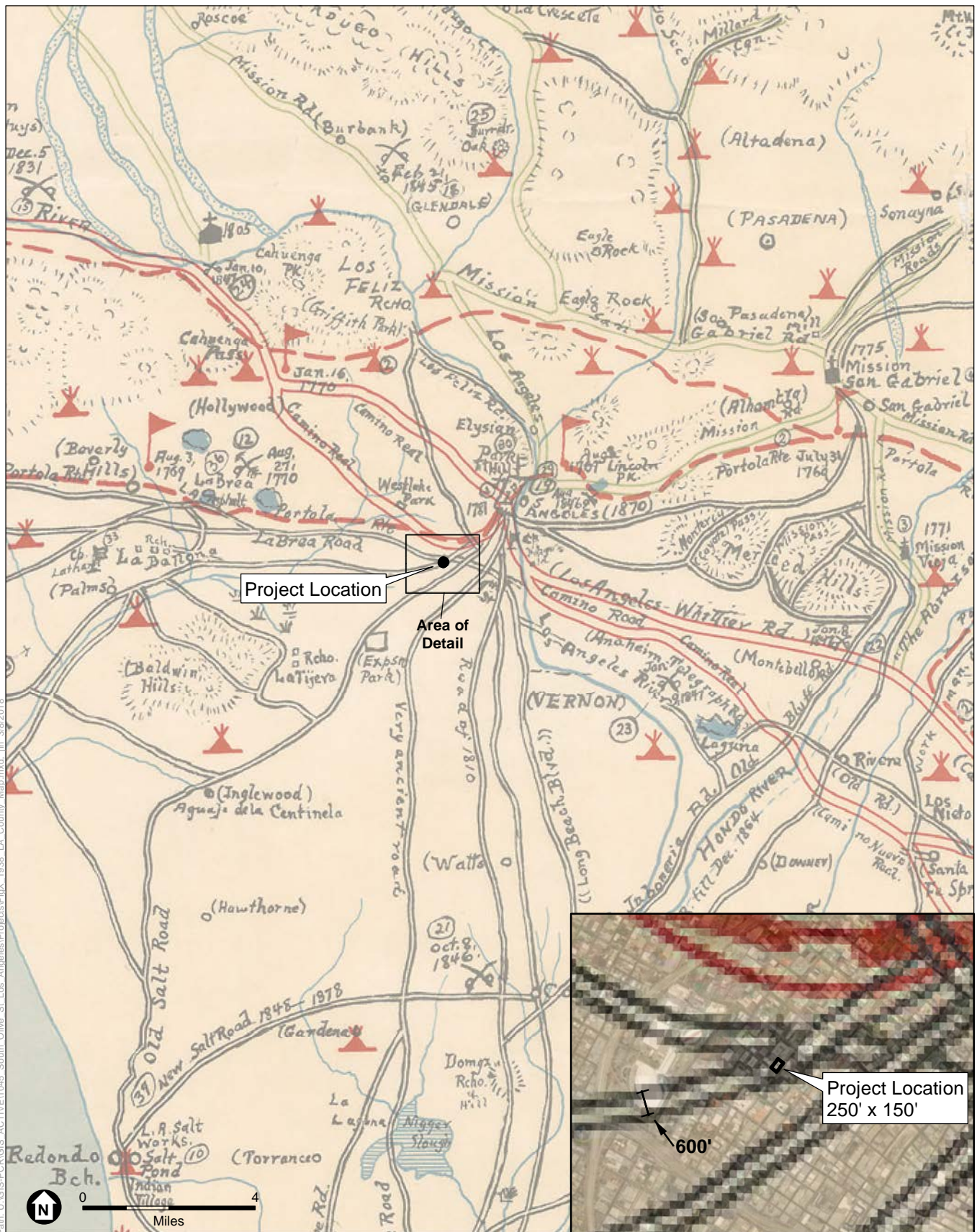
The City requested a larger version of the GIS map but the tribe explained that each GIS map is project site specific. To date, the City has not received any further response letters from the Native American community as part of the AB 52 Tribal consultation effort. Consultation was closed on September 4, 2019.

Kirkman-Harriman Pictorial and Historical Map of Los Angeles County

The *Kirkman-Harriman Pictorial and Historical Map of Los Angeles County* (1938), as shown on **Figure 4**, was reviewed as part of the context research for this study. The map depicts that the Project Site appears to be located near the crossroads of an unmarked road that heads south west from Downtown Los Angeles toward Playa Del Rey, curving to the north to intersect with Colorado Street in Santa Monica and a second road which is labeled as the “La Brea Road.” La Brea Road is depicted as heading to the west from Downtown Los Angeles, and passing the La Brea Tar Pits before heading west and eventually turning north in Santa Monica toward Topanga and Malibu.¹

At this referenced scale, the map shows the Project Site at the intersection of an unnamed road heading west and then south to the coast and the map’s depiction of the “La Brea Road.” However, according to the scale, the 1938 map’s unnamed road would have had a width of approximately 600 feet. The scale of the road does not appear to represent the road’s width accurately as it was likely much narrower.

¹ The Pictorial and Historical Map of Los Angeles County is based off of three control points located at southwest corner near Malibu, California, northwest corner near Gorman, California, and northeast corner near Kramer Junction, California. In reviewing the map, it was taken into account that the Los Angeles County boundary has changed somewhat from the 1938 boundary.



SOURCE: Kirkman-Harriman Pictorial and Historical Map of Los Angeles County (1938)

1045 Olive Project

Figure 4

Kirkman-Harriman Pictorial and Historical Map of Los Angeles County (1938)

La Brea Road appears to be in the location of present-day Wilshire Boulevard which leads from downtown Los Angeles and passes adjacent the La Brea Tar Pits. Wilshire Boulevard is on average approximately 100-feet wide in both downtown Los Angeles and at the La Brea Tar Pits. The estimated accuracy of the map placement is ± 500 -2500 feet. Due to the scale and accuracy of the map, it is unknown if the Project Site falls within either road. Although the map shows old roads and trails it does not depict or record any resources or sites in this location. Regardless of where it falls, although the map suggests the potential for resource sensitivity due to the age and uses of the roads and trails, it does not, nor has the investigation provided any documentation of known resources. Therefore, the map does not provide substantial evidence that any known sacred lands or tribal cultural resources, as defined in PRC Sections 5020.1(k), 5024.1, or 21074, which overlap with or occur within the Project Site, or that any known sacred lands or Tribal cultural resources would be affected by the Project.

Summary and Conclusion

Pursuant to the requirements of AB 52, the City, as lead CEQA agency, notified nine California Native American Tribes on the City's AB 52 Notification List to invite the Tribes to consult and to share information that would assist the City in determining whether the Project could potentially impact tribal cultural resources as defined in PRC 21074. One of the nine Tribes contacted responded to the City's notification letter and (Kizh Nation and Tongva Nation) requested and engaged in consultation meetings with the City.

No Tribal cultural resources as defined in PRC Section 21074(a)(1) that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k), or that are determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to PRC Section 5024.1, have been identified within the Project Site.

During AB52 consultation, the Tribe stressed the potential tribal cultural resources sensitivity of the Project Site and indicated that the Project Site vicinity maintains a high sensitivity for having the potential to encounter resources of prehistoric and historic resources that may be identified as tribal cultural resources. The documentation provided by the tribe as a result of AB 52 consultation described that trading routes were not just roads, as human activity occurred along these routes, and therefore, tribal cultural resources have been found along trading routes.

During the consultation, and as evidence of the existence of these routes, the Kirkman-Harriman Pictorial and Historical Map (1938) was provided by the Tribe to the City. Review of the map indicated that the Project Site is located near an intersection of two roads depicted on the map. Due to the scale and accuracy of the map, it was not possible to know if the Project Site falls within either road. However, regardless of where it falls, the map does not provide substantial evidence that any known sacred lands or tribal cultural resources, as defined in PRC Sections 5020.1(k), 5024.1, or 21074, overlap with or occur within the Project Site, or that any known sacred lands or Tribal cultural resources would be affected by the Project.

Review of the documentation did, however, support the conclusion reached in the Cultural Resources Assessment (appended as Appendix C to the 1045 Olive Project DEIR), that the Project Site has potentially high sensitivity for buried archaeological resources that, once encountered, could potentially be considered a tribal cultural resource. Recommendations made in the Cultural Resources Assessment, provides for unanticipated discovery of such archaeological resources. In addition to the cultural mitigation measure, as an added protection for inadvertent discoveries, the Project would be required to comply with the City's standard conditions of approval for the treatment of inadvertent tribal cultural resource discoveries. The Applicant would be required to comply with these conditions, which provide treatment requiring the immediate halt of construction activities in the vicinity of the discovery, the coordination with Native American tribes and the City, and for the development and implementation of appropriate measures for treating the discovery.

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Appendix A

Personnel



Sara Dietler

Archaeologist

EDUCATION

B.A., Anthropology,
San Diego State
University

19 YEARS EXPERIENCE

CERTIFICATIONS/ REGISTRATION

California BLM Permit,
Principal Investigator,
Statewide

Nevada BLM Permit,
Paleontology, Field
Agent, Statewide

PROFESSIONAL AFFILIATIONS

Society for American
Archaeology (SAA)

Society for California
Archaeology (SCA)

Sara is a senior archaeology and paleontology lead with 20 years of experience in cultural resources management in Southern California. As a senior project manager, she manages technical studies including archaeological and paleontological assessments and surveys, as well as monitoring and fossil salvage for many clients, including public agencies and private developers. She is a cross-trained paleontological monitor and supervisor, familiar with regulations and guidelines implementing the National Historic Preservation Act (NHPA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and the Society of Vertebrate Paleontology guidelines. She has extensive experience providing oversight for long-term monitoring projects throughout the Los Angeles Basin for archaeological, Native American, and paleontological monitoring compliance projects and provides streamlined management for these disciplines.

Relevant Experience

Los Angeles Unified School District (LAUSD) Central Los Angeles High School

#9; Los Angeles, CA. Senior Project Archaeologist & Project Manager. Sara conducted on-site monitoring and investigation of archaeological sites exposed as a result of construction activities. During the data recovery phase in connection with a 19th century cemetery located on-site, she participated in locating of features, feature excavation, mapping, and client coordination. She organized background research on the cemetery, including genealogical, local libraries, city and county archives, other local cemetery records, internet, and local fraternal organizations. Sara advised on the lab methodology and setup and served as project manager. Sara was a contributing author and editor for the published monograph, which was published as part of a technical series, "Not Dead but Gone Before: The Archaeology of Los Angeles City Cemetery."

Downtown Cesar Chavez Median Project, City of Los Angeles, CA. Project Manager. Sara assisted the City of Los Angeles Department of Public Works Bureau of Engineering with a Local Assistance Project requiring consultations with Caltrans cultural resources. Responsible for Caltrans coordination, serving as contributing author and report manager for required ASR, HPSR, and HRER prepared for the project.

Elysian/USC Water Recycling Project Initial Study/Environmental Assessment, Los Angeles, CA. Project Manager. Sara worked on the Initial Study/Mitigated Negative Declaration and an Environmental Assessment/Finding of No Significant Impact to construct recycled water pipelines for irrigation and other industrial uses serving Los Angeles Department of Water and Power customers in downtown Los Angeles, including Elysian Park. The U.S. Environmental Protection Agency is the federal lead agency.



Monica Strauss, RPA

Director, Southern California
Cultural Resources Group

EDUCATION

M.A., Archaeology,
California State
University, Northridge

B.A., Anthropology,
California State
University, Northridge

AA, Humanities, Los
Angeles Pierce College

20 YEARS EXPERIENCE

SPECIALIZED EXPERIENCE

Treatment of Historic
and Prehistoric Human
Remains

Archaeological
Monitoring

Complex Shell Midden
Sites

Groundstone Analysis

PROFESSIONAL AFFILIATIONS

Register of Professional
Archaeologists (RPA),
#12805

Society for California
Archaeology (SCA)

Society for American
Archaeology (SAA)

QUALIFICATIONS

Exceeds Secretary of
Interior Standards

CA State BLM
Permitted

Monica has successfully completed dozens of cultural resources projects throughout California and the greater southwest, where she assists clients in navigating cultural resources compliance issues in the context of CEQA, NEPA, and Section 106. Monica has extensive experience with archaeological resources, historic buildings and infrastructure, landscapes, and Tribal resources, including Traditional Cultural Properties. Monica manages a staff of cultural resources specialists throughout the region who conduct Phase 1 archaeological/paleontological and historic architectural surveys, construction monitoring, Native American consultation, archaeological testing and treatment, historic resource significance evaluations, and large-scale data recovery programs. She maintains excellent relationships with agency staff and Tribal representatives. Additionally, Monica manages a general compliance monitoring team who support clients and agencies in ensuring the daily in-field compliance of overall project mitigation measures.

Relevant Experience

Orange County, Saddle Crest Homes Project EIR, Orange County, CA. Cultural Resources Project Director. The Saddle Crest project includes the development of 65 residential homes on an approximately 113.7-acre site. Monica managed the preparation of a Cultural Resources EIR section as well as a Phase 1 archaeological resources assessment. As part of the Phase 1 archaeological resources assessment, a literature review, a pedestrian survey, and Native American outreach were undertaken to meet CEQA compliance requirements.

Irvine Ranch Water District, Baker Treatment Plant, Orange County, CA. Cultural Resources Principal Investigator. ESA was retained by the Irvine Ranch Water District to provide environmental compliance services. In support of an EIR for the upgrade of the IRWD's Baker Treatment Plant near Lake Forest, ESA cultural resources staff conducted a Phase I Cultural Resources Assessment. Monica directed the archival research, a series of pedestrian surveys, and oversaw the preparation of Phase I Cultural resources Technical reports and the cultural resources section of the EIR.

Topock Compressor Station Remediation CEQA Services. Mohave County, AZ and San Bernardino County, CA. Cultural Resources Project Director. Monica is overseeing the preparation of cultural resources EIR sections and is providing project support to the California Department of Toxic Substances Control (DTSC), including facilitating Native American involvement. DTSC provides oversight of the site investigation and cleanup activities for the Pacific Gas and Electric Company (PG&E) Topock Gas Compressor Station, located in San Bernardino County, 15 miles southeast of Needles, California. Groundwater samples taken under and near the Station were found to be contaminated with hexavalent chromium and other chemicals as result of past disposal activities. Soils contamination is also present at the site, requiring investigation and cleanup. These activities are highly scrutinized by the regional Native American Tribes because the area has important cultural and religious significance. ESA is currently preparing an EIR for soil investigations and will be conducting CEQA

evaluations that tier off of the Program EIR for the Groundwater Remedy. Additional project-specific EIRs may be required for the final remedy, which is currently undergoing engineering design. ESA will provide these services as well as lead the Native American and public participation efforts.

Los Angeles Department of Water and Power, Path 46 Clearance Surveys, San Bernardino, CA. *Project Director.* ESA has been tasked by Los Angeles Department of Water and Power (LADWP) to conduct required surveys for the Path 46 Transmission Line Clearances Project. The project's objective is to restore required code clearances to the transmission conductors, which will be accomplished by grading the ground surface underneath the transmission lines to achieve required height consistency. The work is being conducted in compliance with BLM guidelines and federal laws and statutes. Biological, archaeological, and paleontological resource surveys are currently being conducted for the 77 proposed grading areas, staging areas, and roads. Reports will be written documenting the results of the surveys and providing recommendations on the areas for access, staging areas, and soil distribution that would have the least amount of impacts on natural resources. Monica is providing support to LADWP in their coordination with the BLM, including providing oversight of map preparation, field surveys, and preparation of pre-field research designs and post-field technical reports.

Ballona Wetlands Restoration EIR, Los Angeles County, CA. *Cultural Resources Project Director.* As part of the development of the restoration plan for the Ballona Wetlands, the ESA project team characterized existing conditions that included water and sediment sampling and analysis. The water and sediment quality sampling was performed to develop and evaluate potential restoration alternatives, and to develop a conceptual plan. The ESA project team compiled existing data on and conducted additional sampling for water and sediment to assess potential effects on the proposed wetland restoration habitat from the use of urban runoff and tidal in-flow from Ballona Creek. These data were used to complete a baseline report and restoration alternatives assessment. Monica is assisting the CSCC in fulfilling Army Corps of Engineers requirements under Section 106 of the National Historic Preservation Act. In addition, she is coordinating with Tribal members and is overseeing a team of resource specialists who are compiling cultural resources technical in preparation of the EIR's Cultural Resources section.

Los Angeles Department of Water and Power La Kretz Innovation Campus, Los Angeles County, CA. *Project Director.* The project involved the rehabilitation of the 61,000-square-foot building located at 518-524 Colyton Street, demolition of the building located at 537-551 Hewitt Street, and construction of an open space public plaza and surface parking lot, and involved compliance with Section 106 of the National Historic Preservation Act and consultation with the California State Historic Preservation Officer. ESA is providing archaeological monitoring and data recovery services and is assisting LADWP with meeting their requirements for Section 106 of the National Historic Preservation Act. Monica is providing oversight to archaeological monitors and crew conducting resource data recovery and laboratory analysis, and is providing guidance to LADWP on meeting Section 106 requirements.

Los Angeles Department of Water and Power Lone Pine Landfill Paleontological Resources Recovery, Inyo County, CA. *Cultural Resources Project Director.* At the request of LADWP, ESA responded to a discovery of large mammal bone at the Lone Pine Landfill in an area where borrow materials were being excavated.

ESA conducted geologic map research and recovered what was identified as a mammoth tusk. The tusk was stabilized, prepared for curation, and transported to a storage facility. Monica provided senior oversight of the paleontological resources recovery team and conducted paleontological resources sensitivity training and guidance to landfill staff in the event additional material are encountered.

City of Los Angeles Recreation and Parks, Hansen Dam Skate Park Project, Los Angeles County, CA. *Cultural Resources Principal Investigator.* ESA prepared a joint EA and IS/MND for the Los Angeles Department of Recreation and Parks in coordination with the U.S. Army Corps of Engineers (Corps) for a proposed skate park facility within the Hansen Dam Recreation Area. Monica managed a Phase I Cultural resources Study, coordinated with the Army Corps of Engineers and provided senior review for the EA/IS/MND cultural resources section.

Los Angeles Unified School District, Central Los Angeles High School #9. Los Angeles, CA. *Project Director.* ESA contributed to Data Recovery Report sections for Los Angeles Unified School District's Central High School #9, constructed in downtown Los Angeles. Between 2004 and 2009, Monica led a team of archaeological staff of ten who conducted archaeological monitoring and data recovery of archaeological materials in connection with the 19th century Los Angeles City Cemetery. She coordinated with the Los Angeles County Coroner and office of Vital Statistics to obtain disinterment permits and developed a mitigation plan incorporating components related to the future disposition of remains, artifact curation, and commemoration. She directed an extensive historical research effort to identify the human remains, and at the request of the client, participated in public outreach and coordination with media.

Bureau of Land Management, On-Call Cultural Resources Services, Riverside County, CA. *Project Manager.* ESA has been retained by the Bureau of Land Management under an on-call contract to provide cultural resource services including compliance monitoring for projects under Bureau of Land Management (BLM) jurisdiction. Monica managed a number of projects for the BLM (Palm Springs South Coast Field Office) providing a wide range of cultural resources services for solar projects and other projects taking place on BLM lands in compliance with Section 106 and specified BLM protocols. Services that she and her staff provide under this contract include compliance monitoring and peer review, Phase I archaeological resources surveys, resource evaluations, the preparation of reports, and Native American consultation. Projects completed under this contract include Dos Palmas Phase I Survey and Archaeological Monitoring, National Monument Phase I Survey, Windy Pointe Archaeological Monitoring, and Fast and the Furious Phase I Survey.

Appendix B
**Assembly Bill 52 Consultation
Correspondence**

**DEPARTMENT OF
CITY PLANNING**

**CITY PLANNING
COMMISSION**

DAVID H. J. AMBROZ
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VICE-PRESIDENT

CAROLINE CHOE
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JOHN W. MACK
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MARC MITCHELL
VERONICA PADILLA-CAMPOS
DANA M. PERLMAN

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DEPUTY DIRECTOR
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<http://planning.lacity.org>

December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Gabrieleño Band of Mission Indians – Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA 91723

Dear Mr. Salas:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

The 1045 Olive Project includes the removal of four existing commercial buildings and the construction of a mixed-use high-rise building not to exceed 751,777 square feet containing a maximum of 794 residential units and 12,504 square feet of commercial uses located at the ground and mezzanine levels. At 70 stories, with a 61-story tower above a nine-story podium structure, the Project would reach up to 810 feet in height. Neighborhood serving commercial uses and a residential lobby would front along 11th Street and Olive Street. A public plaza space would be located at the corner of 11th Street and Olive Street. In addition, the Project would provide up to 100,652 square feet of amenity/open space area for its residents located above the podium structure, at mid-tower, on a roof terrace and within private balconies. Vehicle and bicycle parking would be provided per requirements of the LAMC within up to six (6) subterranean levels and eight (8) partial levels above grade (the fifth through ninth levels will contain residential units and other active uses along the perimeter of the Podium along the 11th Street and Olive Street frontages). The maximum floor-area ratio (FAR) for the Transit Area Mixed-Use Project would be 13:1.

Project construction would take place in a single phase anticipated to begin in 2019 with Project buildout projected for 2023. To provide for the new development, approximately 80,520 cubic yards of soil would be excavated, all of which is expected to be exported off site.

Per AB 52, you have the right to consult on a proposed public or private project prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. You have 30 calendar days from receipt of this letter to notify us in writing that you wish to consult on this project. Please provide your contact information and mail your request to:

Los Angeles Department of City Planning
Attn: Sarah Molina Pearson, City Planner
200 N. Spring Street, Room 750
Los Angeles, CA 90012
Email: sarah.molina-pearson@lacity.org
Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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(213) 978-1274

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Gabrielino/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

Dear Mr. Morales:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

The 1045 Olive Project includes the removal of four existing commercial buildings and the construction of a mixed-use high-rise building not to exceed 751,777 square feet containing a maximum of 794 residential units and 12,504 square feet of commercial uses located at the ground and mezzanine levels. At 70 stories, with a 61-story tower above a nine-story podium structure, the Project would reach up to 810 feet in height. Neighborhood serving commercial uses and a residential lobby would front along 11th Street and Olive Street. A public plaza space would be located at the corner of 11th Street and Olive Street. In addition, the Project would provide up to 100,652 square feet of amenity/open space area for its residents located above the podium structure, at mid-tower, on a roof terrace and within private balconies. Vehicle and bicycle parking would be provided per requirements of the LAMC within up to six (6) subterranean levels and eight (8) partial levels above grade (the fifth through ninth levels will contain residential units and other active uses along the perimeter of the Podium along the 11th Street and Olive Street frontages). The maximum floor-area ratio (FAR) for the Transit Area Mixed-Use Project would be 13:1.

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Sincerely,

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Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall, CA 91322

Dear Mr. Valenzuela:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

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Email: sarah.molina-pearson@lacity.org
Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Soboba Band of Luiseño Indians
Joseph Ontiveros, Cultural Resource Director
P.O. Box 487
San Jacinto, CA 92581

Dear Mr. Ontiveros:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

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Los Angeles, CA 90012
Email: sarah.molina-pearson@lacity.org
Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Fernandeño Tataviam Band of Mission Indians
Kimia Fatehi, Director, Public Relations
1019 2nd Street, Ste. 1
San Fernando, CA 91340

Dear Ms. Fatehi:

This letter is to inform you that the Los Angeles Department of City Planning is reviewing the following proposed project:

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Attn: Sarah Molina Pearson, City Planner
200 N. Spring Street, Room 750
Los Angeles, CA 90012
Email: sarah.molina-pearson@lacity.org
Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Torres Martinez Desert Cahuilla Indians
Michael Mirelez, Cultural Resource Coordinator
PO Box 1160
Thermal, CA 92274

Dear Mr. Mirelez:

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Attn: Sarah Molina Pearson, City Planner
200 N. Spring Street, Room 750
Los Angeles, CA 90012
Email: sarah.molina-pearson@lacity.org
Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490
Bellflower, CA 90707

Dear Mr. Dorame:

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Sincerely,

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Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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December 21, 2017

CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Gabrielino/Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908
Los Angeles, CA 90086

Dear Mr. Dunlap:

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Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning

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CASE No.: ENV-2016-4630-EIR
Project Address: 1033 - 1057 S. Olive
Street, Los Angeles, CA, 90015
Community Plan: Central City

Gabrielino/Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231
Los Angeles, CA 90012

Dear Ms. Goad:

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Phone No.: (213)473-9983

Sincerely,

Vincent P. Bertoni, AICP
Director of Planning



Sarah Molina Pearson
City Planner
Major Projects, Department of City Planning



Sarah Molina-Pearson <sarah.molina-pearson@lacity.org>

1033 - 1057 S. Olive St. Los Angeles

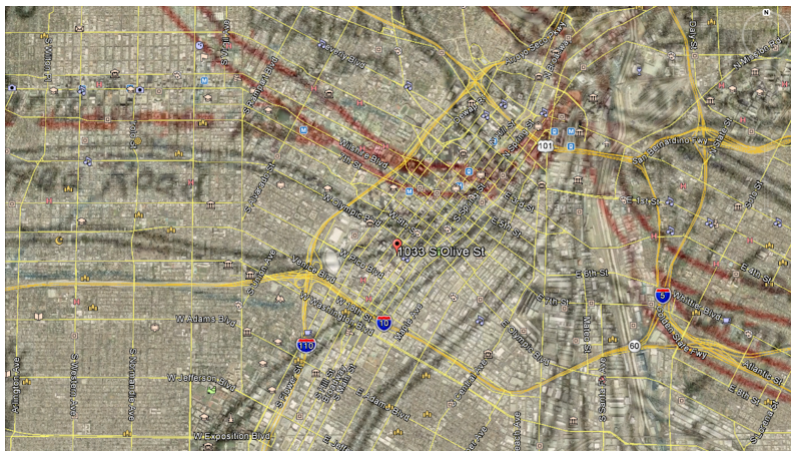
1 message

Administration Gabrieleno Indians <admin@gabrielenoindians.org>

Thu, Feb 8, 2018 at 11:19 AM

To: Sarah Molina-Pearson <sarah.molina-pearson@lacity.org>

Attached is a screenshot of the project site at [1033 - 1057 S. Olive St. Los Angeles](#). The project is *within* a traditional trading route and has a high potential to impact tribal cultural resources. Mitigation shall be implemented for the protection of these resources.

--
Sincerely,

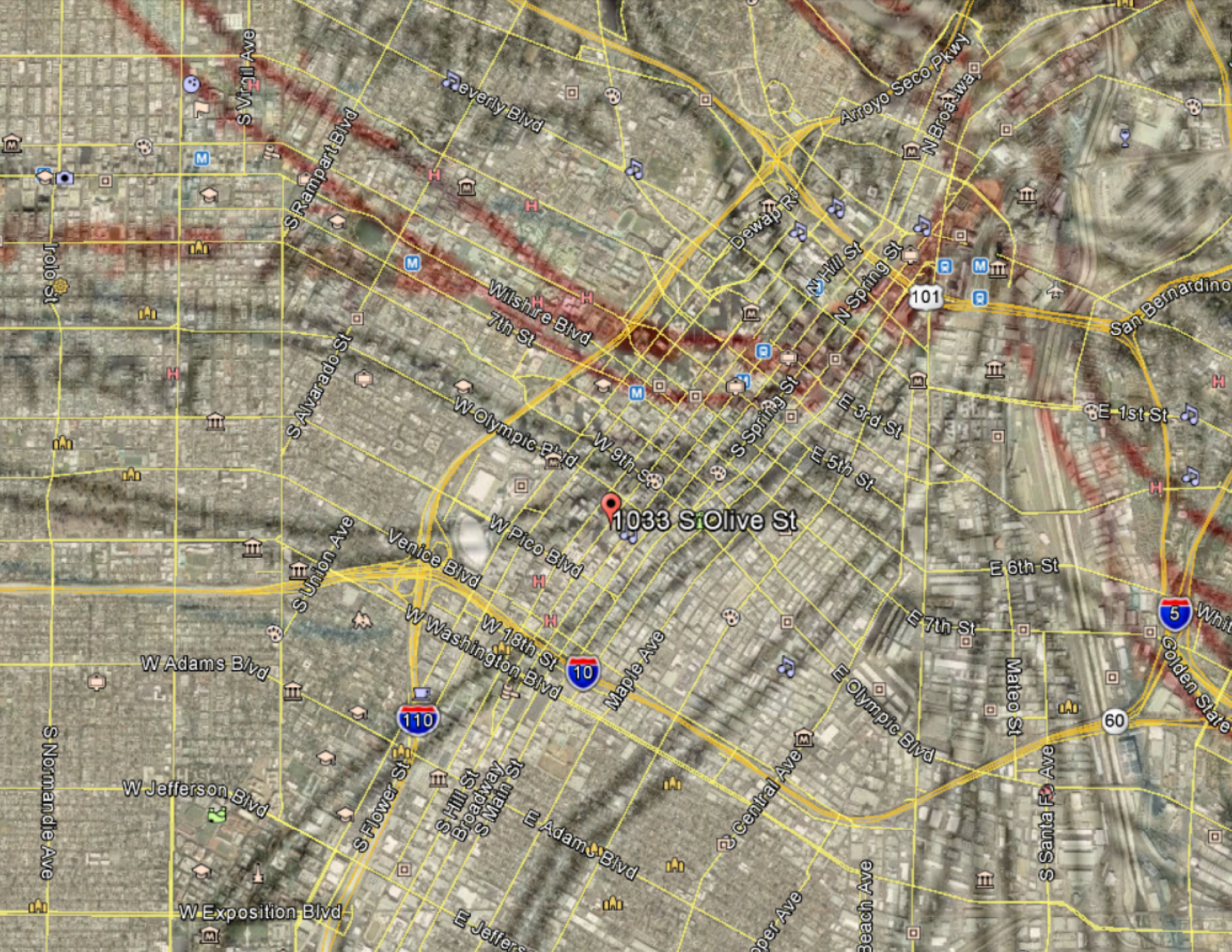
Admin Specialist

Gabrieleno Band of Mission Indians - Kizh Nation

PO Box 393

Covina, CA 91723

Office: [844-390-0787](tel:844-390-0787)website: www.gabrielenoindians.org



**DEPARTMENT OF
CITY PLANNING**

COMMISSION OFFICE
(213) 978-1300

CITY PLANNING COMMISSION

SAMANTHA MILLMAN
PRESIDENT

VAHID KHORSAND
VICE-PRESIDENT

DAVID H. J. AMBROZ

CAROLINE CHOE

HELEN LEUNG

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MARC MITCHELL

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September 4, 2019

Gabrieleño Band of Mission Indians - Kizh Nation
Andrew Salas, Chairman
PO Box 393
Covina, CA 91723

RE: 1045 Olive Street
(Case No. ENV-2016-4630-EIR)("Project")

Dear Chairman Salas,


Thank you for your letter, dated December 28, 2018, relative to the 1045 Olive St. Project, located at 1033-1057 Olive Street (Case No. ENV-2016-4630-EIR). Your letter states that it has been submitted as a written request for AB 52 consultation pursuant to Public Resources Code §21080.3.1. The City sent notifications pursuant to AB 52, including to the Gabrieleño Band of Mission Indians-Kizh Nation, on December 21, 2017. The City received your initial written request for AB 52 consultation on December 28, 2018. Our records indicate that the City and the Gabrieleño Band of Mission Indians-Kizh Nation conducted an AB 52 consultation meeting by phone on February 8, 2018 and a follow-up email communication on March 5, 2018. During this meeting, the Gabrieleño Band of Mission Indians-Kizh Nation did not provide sufficient evidence that tribal resources are located on the project site. Furthermore, the 30-day period for requesting consultation has since closed.

The City, after acting in good faith and after reasonable effort, has concluded that mutual agreement cannot be reached for purposes of AB 52. Based upon the record, the City has determined that no substantial evidence exists to support a conclusion that this Project may cause a significant impact on tribal cultural resources. Therefore, the City has no basis under CEQA to impose any related mitigation measures. However, as an additional protection, the City will add the attached condition of approval under its police powers to protect the inadvertent discovery of tribal cultural resources.

The Draft Environmental Impact Report (Draft EIR) for the Project is expected to be released in the Fall of 2019. Notwithstanding the previous closure of the 30-day period

for requesting consultation under AB 52, your tribe and you may submit comments on the Draft Environmental Impact Report, including those related to the EIR's analysis of reasonably foreseeable impacts to tribal cultural resources. Notice of Completion and Availability of the Draft EIR will be sent to you when it becomes available.

Regards,



Jivar Afshar
Planning Assistant
Major Projects
Department of City Planning

Attachment:
Condition of Approval

Attachment

Condition of Approval - Tribal Cultural Resource Inadvertent Discovery

In the event that objects or artifacts that may be tribal cultural resources are encountered during the course of any ground disturbance activities¹, all such activities shall temporarily cease on the project site until the potential tribal cultural resources are properly assessed and addressed pursuant to the process set forth below:

- Upon a discovery of a potential tribal cultural resource, the project Permittee shall immediately stop all ground disturbance activities and contact the following: (1) all California Native American tribes that have informed the City they are traditionally and culturally affiliated with the geographic area of the proposed project; (2) and the Department of City Planning at (213) 978-1454.
- If the City determines, pursuant to Public Resources Code Section 21074 (a)(2), that the object or artifact appears to be tribal cultural resource, the City shall provide any effected tribe a reasonable period of time, not less than 14 days, to conduct a site visit and make recommendations to the Project permittee and the City regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources.
- The project Permittee shall implement the tribe's recommendations if a qualified archaeologist, retained by the City and paid for by the project Permittee, reasonably concludes that the tribe's recommendations are reasonable and feasible.
- The project Permittee shall submit a tribal cultural resource monitoring plan to the City that includes all recommendations from the City and any effected tribes that have been reviewed and determined by the qualified archaeologist to be reasonable and feasible. The project Permittee shall not be allowed to recommence ground disturbance activities until this plan is approved by the City.
- If the project Permittee does not accept a particular recommendation determined to be reasonable and feasible by the qualified archaeologist, the project Permittee may request mediation by a mediator agreed to by the Permittee and the City who has the requisite professional qualifications and experience to mediate such a dispute. The project Permittee shall pay any costs associated with the mediation.
- The project Permittee may recommence ground disturbance activities outside of a specified radius of the discovery site, so long as this radius has been reviewed by the qualified archaeologist and determined to be reasonable and appropriate.
- Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC) at California State University, Fullerton.
- Notwithstanding the above, any information determined to be confidential in nature, by the City Attorney's office, shall be excluded from submission to the SCCIC or the general public under the applicable provisions of the California Public Records Act, California Public Resources Code, and shall comply with the City's AB 52 Confidentiality Protocols.

¹ Ground disturbance activities shall include the following: excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, pounding posts, augering, backfilling, blasting, stripping topsoil or a similar activity

