Draft Report

Sixth Street PARC

Park, Arts, River and Connectivity Improvements Project

City of Los Angeles

Traffic Impact Analysis

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LADOT

CONSULTING GPA

DRAFT REPORT
TRAFFIC IMPACT ANALYSIS

Sixth Street PARC
City of Los Angeles

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April 2019

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EXECUTIVE SUMMARY

A Traffic Impact Study was conducted for the proposed Sixth Street Park, Arts, River, and Connectivity Improvements Project (Sixth Street PARC) located in areas underneath and adjacent to the upcoming Sixth Street Viaduct in the City of Los Angeles. The project site is approximately 13 acres in size and is bounded by Mateo Street to the west and the United States Highway 101 (U.S. 101) to the east. The key findings and conclusions of this analysis are as follows:

- As per the site plan, the proposed project site is divided into the following sections: (1)West park; (2)Arts Plaza and River Gateway; (3) East park. These areas include 630-square foot (sq.ft.) café, an Arts Plaza performance area, two soccer fields, a 2,000-sq.ft. building featuring concessions and public restrooms, two flexible play and performance lawns, sports courts, children's play area, picnic areas, skate park, and dog play areas.

- As per the site plan, the project would provide several on-street and off-street parking locations. West park visitors will park in available spaces on the east side of Mateo Street directly adjacent to the project. East park visitors will park on Mission Road, Anderson Street, Clarence Street, and in a dedicated parking lot adjacent to Anderson Street.

- This traffic impact analysis includes an analysis of 12 intersections which were selected as per discussions with Los Angeles Department of Transportation (LADOT) staff.

- This traffic impact study analyzed two scenarios for trip generation. The first scenario analyzes trips generated by the Sixth Street PARC. The second scenario analyzes trips generated by a 2,000-person event hosted at the Sixth Street PARC. A 2,000-person event during a typical weekday PM peak hour was evaluated because it can represent worse case conservative scenario that would encompass a single, large event that could occur infrequently as well as multiple, simultaneous small events that could occur weekly.

- Trip credits were applied based on the 223,900 sq.ft. of heavy industrial existing land use. The 115 AM peak hour trips and 153 PM peak hour trips that were generated by the existing industrial land use were credited towards the project.

- As per the project site plan, the project is estimated to generate approximately 177 new daily trips, 81 new trips during the AM peak hour and 68 new trips during the PM peak hour. After the trip credits are applied, the project is expected to generate less trips than the existing land use. Therefore, the project is estimated to generate 34 less trips in the AM peak hour and 85 less trips in the PM peak hour than the existing land use.

- The Sixth Street PARC will host events such as concerts, festivals, soccer tournaments, and farmer's markets. A 2,000-person event at the project site is estimated to generate 250 weekday PM peak hour trips.

- Weekday peak hour intersection operations analysis was conducted for (6) scenarios including Existing (2018), Existing (2018) With Project, Existing (2018) With Project Event, Cumulative (2023) Without Project, Cumulative (2023) With Project, and Cumulative (2023) With Project Event conditions.

- For Existing (2018), Existing (2018) With Project, and Existing (2018) With Project Event conditions, eleven study intersections would operate at Level of Service (LOS) C or better during the AM peak period. During the PM peak period, nine study intersections operate at LOS C or

better while the remaining three intersections would operate at LOS D or worse.

- For Cumulative (2023) Without Project and With Project conditions, three study intersections are projected to operate at LOS C or better during the AM peak period. During the PM peak period, one intersection would operate at LOS C or better while the remaining eleven intersections would operate at LOS D or worse.

- For Cumulative (2023) With Project Event conditions, one study intersection is projected to operate at LOS C during the PM peak period. The remaining eleven intersections would operate at LOS D or worse.

- Based on City of Los Angeles significant traffic impact criteria, the proposed project would not result in significant impacts. A 2,000-person event at the proposed project would result in temporary impacts during the event day at the intersections of Boyle Avenue at 7th Street.

- A CMP arterial evaluation was conducted as per LADOT Traffic Study Guidelines. The project is expected to add fewer than 50 peak hour trips to the arterial monitoring station on Alameda Street at Washington Street and therefore no additional CMP arterial analysis is required.

- The proposed project would require a total of 83 parking spaces to meet peak parking demands. Per project site plan, a total of 45 parking spaces would be provided.

- The impacts of construction-related trips (trucks and construction employees) on the street system are projected to be negligible since these trips can be scheduled with increased frequency during off-peak hours.

I. INTRODUCTION

Project Description

This report documents the results of the Traffic Impact Study completed for the proposed Sixth Street Park, Arts, River & Connectivity (PARC) Project for the City of Los Angeles. The proposed project is located in areas underneath and adjacent to the upcoming Sixth Street Viaduct in the City of Los Angeles, CA. The project site is approximately 13 acres in size and is bounded by Mateo Street to the west and U.S. 101 to the east. **Figure 1** illustrates the project vicinity and project location.

The proposed project site is divided into three areas: (1) West Park, which is located in Central City North Community Plan; (2) Arts Plaza and River Gateway, which is located in the Central City North Community Plan and along the west and east banks of the Los Angeles River (LA River) channel; and (3)East Park, which is located in the Boyle Heights Community Plan. Construction would be divided into two phases. Phase I would consist of constructing the General Park Elements as well as East Park, West Park, Arts Plaza and River Gateway. Phase II could consist of installing reinforced concrete planted terraces along the banks of the LA River. Construction within Phase I may be phased from East to West as space becomes available below the Viaduct. The following General Park elements would be constructed as part of Phase I of the proposed Project:

- Typical park site furnishings and amenities, which would include benches, tables, bike racks, bicycle rentals, kiosks, drinking fountains, safety bollards, lighting and signage, fencing, gates, trash receptacles/enclosures, and equipment and maintenance storage units(s);
- Pedestrian paths, bicycle paths and connections, and internal park roadways and service roads;
- Park lighting;
- Minor relocations of existing street lighting along Santa Fe Avenue, Mission Road, and Anderson Street within the Project Area;
- Pedestrian street lighting on Santa Fe Avenue, Anderson Street, and South Clarence Street;
- Public art sculpture and associated interpretive exhibits;
- Utility connections (electrical and plumbing);
- Utility relocations and undergrounding in some areas may be required; Other miscellaneous utility improvements such as installation of WiFi, security cameras, and hookups for food trucks, temporary performance equipment (sound and lighting), and water;
- Site soil would be remediated to standards acceptable by the Los Angeles County Fire Department and the Department of Toxic Substances Control prior to proposed Project construction. Some soil remediation activities may also be required during construction;
- Irrigation systems and open space;
- Demolition of existing urban infrastructure, such as pavement and roadways;
- Landscaping would be consistent with the City's RIO Ordinance (Ordinance Number 183145), which requires that 75 percent of any project's newly landscaped area be planted with any combination of native trees, plants and shrubs, species defined as WatershedWise (i.e., climate adapted and non-invasive plants), or species listed in the Los Angeles River Master Plan Landscaping Guidelines and Plan Palette;
- Connectivity improvements, which may include, but are not limited to, a pedestrian activated crosswalk signal on Santa Fe Avenue, a speed table at the continental crosswalk on Santa Fe Avenue, and speed tables with solar-powered rectangular rapid flashing beacons at South Clarence Street, Mission Road, and South Anderson Street;
- Retaining wall(s), which would be between approximately 2- and 17-feet high; and
- Stormwater infrastructure improvements, which would include proposed stormwater drainage systems that would capture runoff from the proposed Project Site and tributary Viaduct areas,

route stormwater to structural and low impact development (LID) best management practices (BMP) (e.g., proprietary vaults with media-filled cartridges, catch basin filter inserts, incidental infiltration during sheet flow and within localized vegetated basins, and below-grade capture and use systems), and discharge to existing stormwater drainage facilities that drain to the LA River.

The West Park/Arts Plaza and River Gateway will include the following improvements:

- One approximately 630-square foot café building with outdoor plaza seating;
- One approximately 172-square foot building with public restroom;
- Arts Plaza performance area(s), public gathering/assembly areas with capacity up to approximately 1,000 people;
- One flexible play and performance lawn;
- Adult fitness equipment;
- Small and large dog play areas;
- Landscaped seating area;
- Public art sculpture (approximately 30 feet high, 24 feet wide; by 11 feet long);
- Rain garden;
- Reconstruction and rehabilitation of existing pedestrian/vehicular LA River Access Tunnel entrance to the River (widening the tunnel opening; resurfacing the tunnel entryway, pavement, and tunnel floor; painting, and lighting improvements). Installation of safety features, including removable bollards or a gate to restrict vehicle access to the tunnel and warning devices to deter pedestrian access during flood events;
- Space for future electric vehicle charging station and City of Los Angeles Department of Transportation (LADOT) mobility hub elements;
- Space for secure bike parking and space for Metro bikeshare; and
- Space for future landscaped garden areas.

The East Park will include the following improvements:

- East Building with approximately 332-square-foot concession area, 252-square-foot public restrooms, and 635-square-foot office space and 571-square-foot storage space for City of Los Angeles Department of Recreation and Parks (RAP);
- Two synthetic turf soccer fields with field lighting, one for youth Under-8 players, and one for youth Under-10 players;
- One flexible play and performance lawn and potential second flexible play and performance lawn with combine capacity to hold events up to approximately 2,800 people;
- Adult-sized flexible sports court for basketball, futsal, and volleyball;
- Salvaged bridge light poles and salvaged arch as barrier/seat wall;
- Nature walk, meadow and adult fitness circuit;
- Splash pad with outdoor shower;
- Designated picnic and grilling areas;
- Landscaped seating areas and raining gardens;
- Small dog and large dog play areas;
- Parking plaza with 14 dedicated spaces on site (approximately 9 of which would be used by RAP staff);
- Children's play area; and
- Skate park elements.

The park is for daily use and will also host special events such as concerts, festivals, soccer tournaments, and farmer's markets. The number of event attendees may vary from 150 to 5,000 depending on the type

of event.

Vehicular access to the project site would be provided via several on-street and off-street parking areas. West park visitors will park in available spaces on the east side of Mateo Street directly adjacent to the project. East Park visitors will park on Mission Road, Anderson Street, and Clarence Street. The site plan is shown in **Figure 2**.

Construction of Phase I would begin at or near the completion of the Viaduct Replacement Project. The Viaduct construction is expected to be completed by the end of 2021 but is subject to change. The duration of construction of Phase I is expected to last approximately two years. Assuming Phase I construction starts at the end of 2021, construction is anticipated to be completed by the end of 2023. Phase II elements would be constructed independently of Phase I elements. The duration of Phase II is assumed to be 6 months and assumed to take place in 2022.

Study Methodology

A Traffic Impact Study was conducted to analyze the traffic conditions under peak hour conditions in the project area under the following six scenarios:

1. Existing (2018) Conditions
2. Existing (2018) With Project Conditions
3. Existing (2018) With Project Event Conditions
4. Cumulative (2023) Without Project Conditions
5. Cumulative (2023) With Project Conditions
6. Cumulative (2023) With Project Event Conditions

The project study area, study intersections, and future analysis were defined in consultation with LADOT staff. A Memorandum of Understanding (MOU) which outlined all the study assumptions, growth rate, project trip generation and distribution, was submitted and approved as part of this Traffic Impact Analysis. The approved MOU is incorporated as a reference in **Appendix A** of this report.

Traffic count data was collected during the month of March in 2017. Since the 6th Street bridge was closed in February 2016, data collected in 2014 from other traffic studies was also utilized in this study. To be conservative, a growth rate of 1% was applied to count data collected in 2014 and 2017 to obtain 2018 traffic volumes for Existing (2018) conditions. Per the Los Angeles County Congestion Management Program, traffic volumes in Los Angeles are forecast to grow between 0.18% annually from 2010 to 2020 and 0.24% annually after 2020. Therefore, a growth factor of 1.011 was applied to 2018 volumes to calculate traffic projections for Cumulative (2023) scenarios.

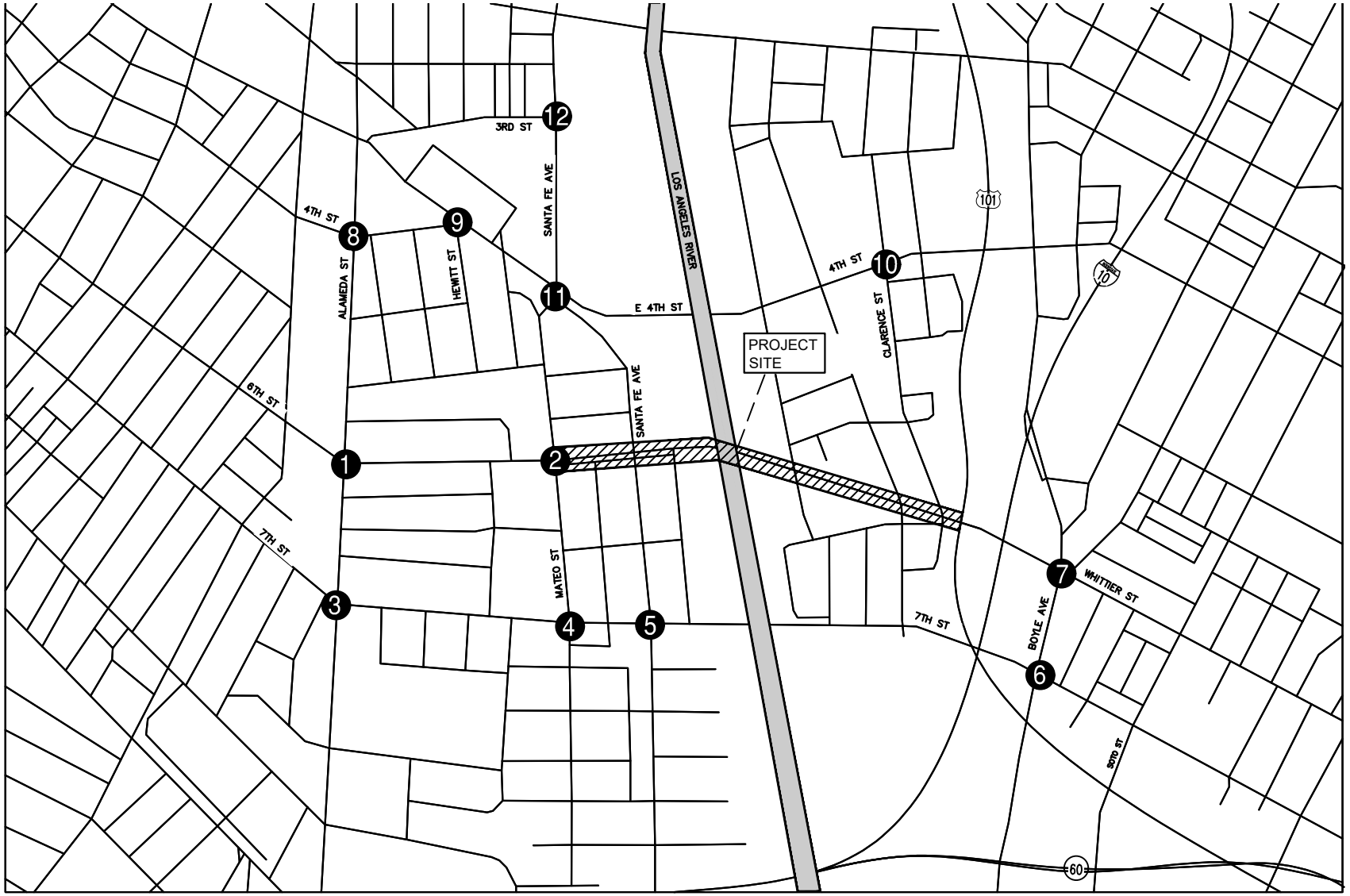

FIGURE 1
6TH STREET PARC
PROJECT VICINITY MAP

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LEGEND

#	Study Intersection ID
	Project Site

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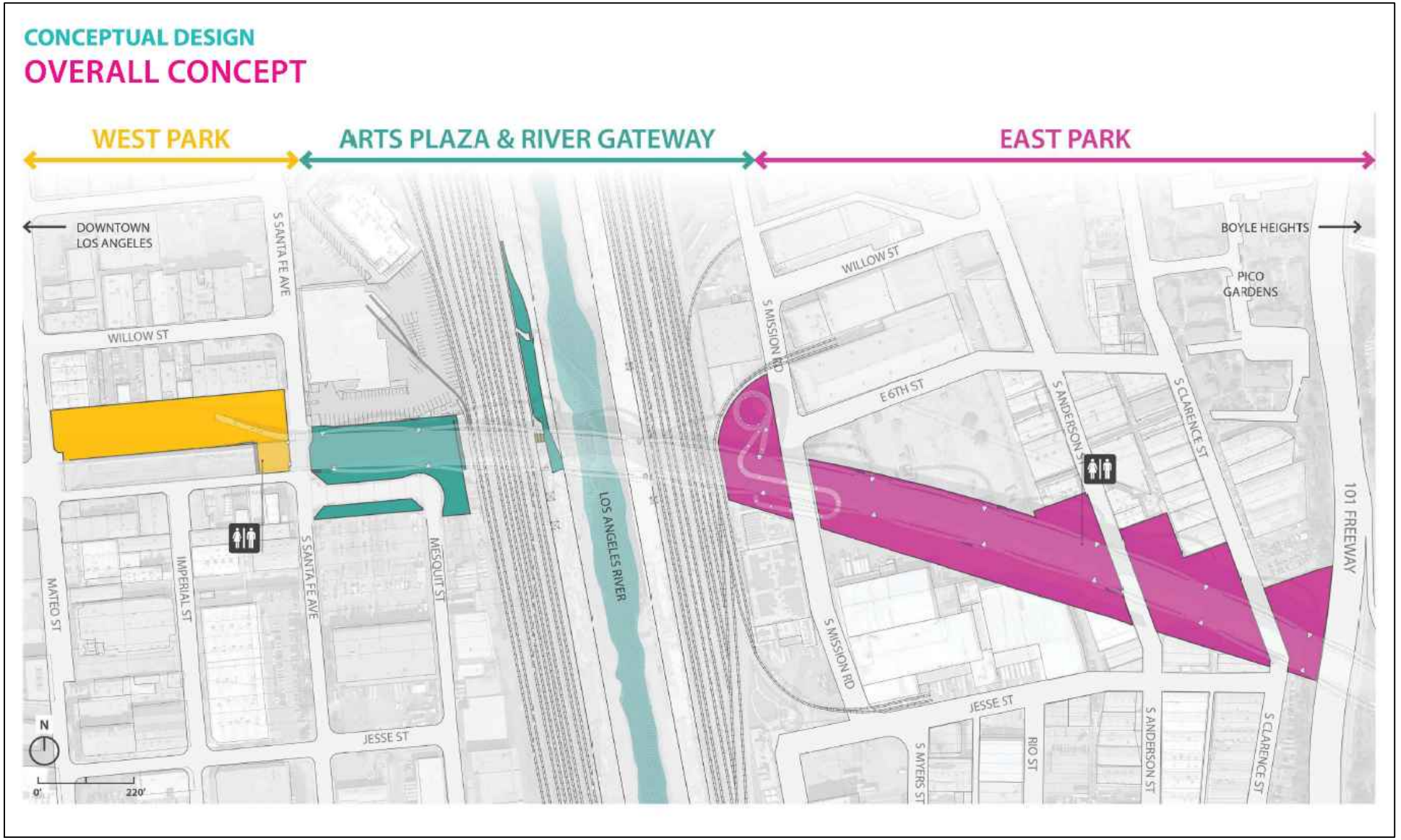

FIGURE 2
6TH STREET PARC
PROPOSED PROJECT SITE PLAN

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II. EXISTING CONDITIONS

Study Area

The project site would be located under and adjacent to the Sixth Street Viaduct between Mateo Street to the west and the U.S. 101 to the east, in the City of Los Angeles. The project spans from the Downtown Los Angeles Arts District on the west side of the LA River to the neighborhood of Boyle Heights on the east side of the LA River.

The 12 intersections identified in conjunction with City staff for the purpose of this Traffic Impact Study are listed in **Table 1.**

Table 1 – Study Area Intersections

Intersection #	*Northbound/ Southbound*	*Eastbound/ Westbound*	*Jurisdiction*	*Signalized*	*Signal System*
1	Alameda Street	6th Street	City of Los Angeles	Yes	ATSAC
2	Mateo Street	6th Street	City of Los Angeles	Yes	ATSAC
3	Alameda Street	7th Street	City of Los Angeles	Yes	ATSAC
4	Mateo Street	7th Street	City of Los Angeles	Yes	ATSAC
5	Santa Fe Avenue	7th Street	City of Los Angeles	Yes	ATSAC
6	Boyle Avenue	7th Street	City of Los Angeles	Yes	ATSAC
7	Boyle Avenue	Whittier Boulevard	City of Los Angeles	Yes	ATSAC
8	Alameda Street	4th Street	City of Los Angeles	Yes	ATSAC
9	Hewitt Street	4th Street	City of Los Angeles	No	-
10	Clarence Street	4th Street	City of Los Angeles	No	-
11	Santa Fe Avenue	Mateo Street	City of Los Angeles	No	-
12	Santa Fe Avenue	3rd Street	City of Los Angeles	No	-

LADOT provided information on whether the signalized study intersections were under the control of the automated traffic surveillance and control (ATSAC) system and/or the adaptive traffic control system (ATCS). The ATSAC system allows for monitoring of intersection traffic conditions to adjust the traffic signal timing in response to changing traffic conditions. The ATCS system continuously detects vehicular traffic volumes to determine "optimal" signal timings based on the traffic volumes collected. All signalized study intersections are currently included in the ATSAC system. Funding for the ATCS system has been obtained for the project intersections and is expected to be installed prior to the build out year.

An intersection Level of Service (LOS) analysis was performed at the study intersections using existing lane configurations and traffic control to assess significant impacts resulting from the proposed project.

Figure 3 illustrates the project study intersections location as well as the existing lane configurations and traffic control at each location. The following section describes the existing street system in the study area.

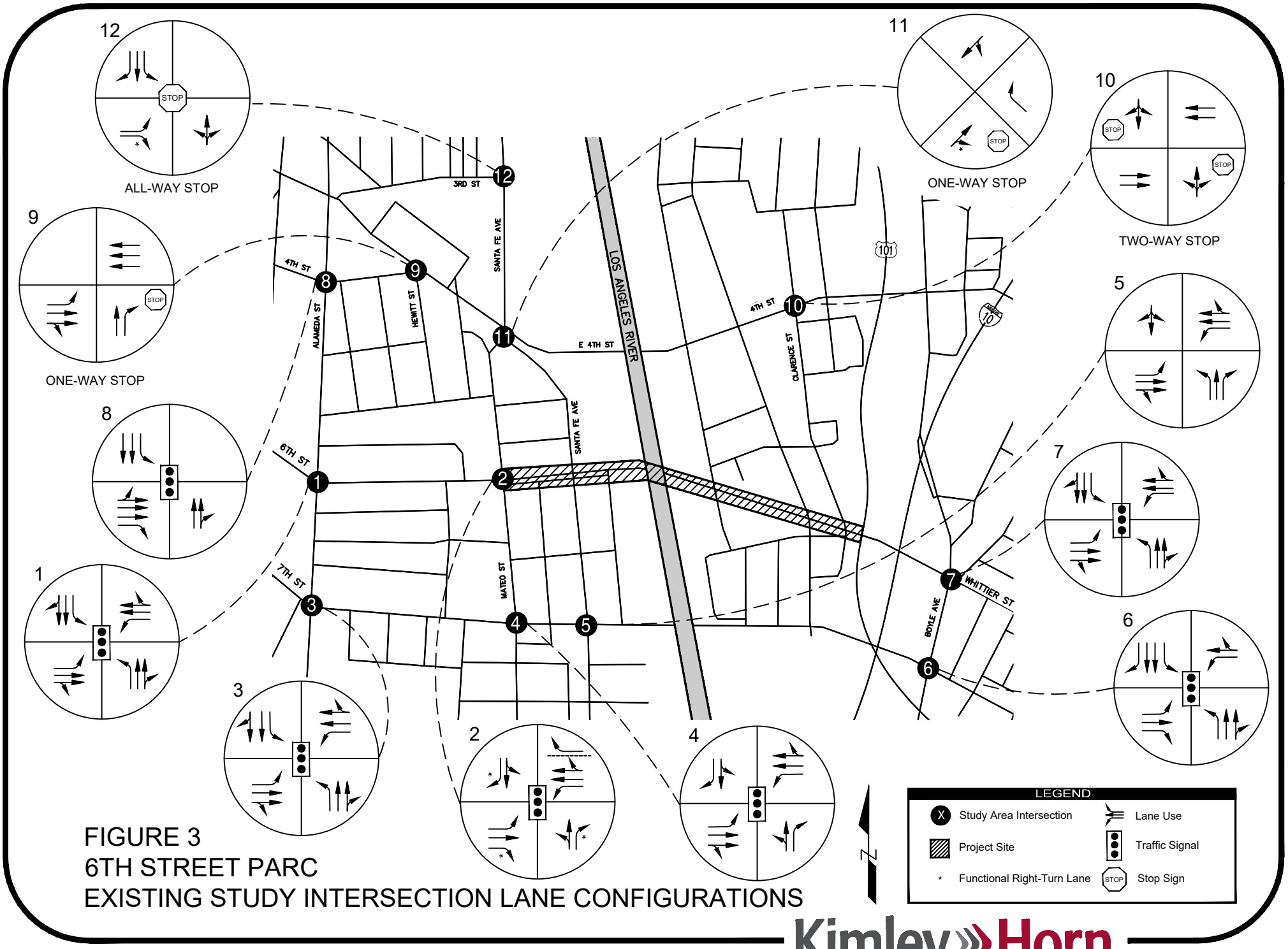

FIGURE 3
6TH STREET PARC
EXISTING STUDY INTERSECTION LANE CONFIGURATIONS

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Existing Street System

The project site is located under and adjacent to the Sixth Street Viaduct between Mateo Street on the west and U.S. 101 on the east. The key roadways near the site are noted below. The *City of Los Angeles Mobility Plan* was used for street classification.

Santa Fe Avenue – Santa Fe Avenue south of 4th Street is classified as Avenue II within the City of Los Angeles. Santa Fe Avenue north of 4th Street is classified as Avenue III (modified 2-way secondary highway). Santa Fe runs in the north-south direction with one lane in each direction and on-street parking allowed on both sides of the street within the project vicinity.

Mateo Street – Mateo Street is an arterial classified as Avenue III within the City of Los Angeles. Mateo Street runs in the north-south direction. Mateo Street provides one lane in each direction with on-street parking allowed on both sides of the street within the project vicinity.

Alameda Street – Alameda Street is an arterial classified as Avenue I within the City of Los Angeles. Alameda Street runs in the north-south direction with access to U.S. 101 and I-10. Alameda Street runs in the north-south direction with two lanes in each direction and on-street parking is prohibited within the project vicinity.

Hewitt Street – Hewitt Street is classified as a collector street located between 4th Street on the north and Palmetto Street on the south. Hewitt Street runs in the north-south direction and provides one lane in each direction. On-street parking is allowed on both sides of the street within the project vicinity

Clarence Street – Clarence Street is classified as a local street within the City of Los Angeles. Clarence Street runs in the north-south direction and provides one lane in each direction. On-street parking is allowed on both sides of the street within the project vicinity.

Boyle Avenue – Boyle Avenue is an arterial classified as Avenue II (modified 2-way secondary highway north of Whitter Avenue) and runs in the north-south direction. Boyle Avenue is two lanes in each direction south of Hollenbeck Drive and one lane in each direction north of Hollenbeck Drive. On-street parking is allowed on both sides of the street within the project vicinity.

3rd Street – 3rd Street is an arterial classified as Avenue II. 3rd Street is one-way and provides four lanes in the west direction west of Alameda Street. East of Alameda Street, 3rd street is two-way and provides one lanes in each direction. On-street parking is allowed on both sides of the street within the project vicinity. 3rd Street provides a striped bicycle lane in the west direction. In the east direction, a striped bicycle lane is provided from Alameda Street to Garey Street.

4th Street – 4th Street is an arterial classified as Avenue II except between Hewitt Street and Alameda Street where 4th Street is classified as Avenue I. 4th Street is one-way and provides two lanes in the east direction west of Hewitt Street. East of Hewitt Street, 4th Street is two-way and provides two lanes in each direction. On-street parking is prohibited within the project vicinity.

6th Street/Whittier Boulevard – 6th Street is an arterial classified as Avenue II. 6th Street runs in the east-west direction with access to U.S. 101, I-10, SR-50 and I-5 freeways at the east. 6th Street provides two lanes in each direction with on-street parking allowed on both sides of the street within the project vicinity. West of the LA River, the arterial is 6th Street. East of the LA River, the arterial is Whittier Boulevard.

7th Street – 7th Street is an arterial classified as Avenue II west of Boyle Avenue. East of Boyle Avenue, 7th Street is classified as a collector street. 7th Street runs in the east-west direction and provides two lanes

in each direction west of Boyle Avenue. East of Boyle Avenue, 7th Street provides one lane in each direction. On-street parking is allowed on both sides of the street within the project vicinity.

Existing Public Transit System

There are eight different transit lines that currently serve the project study area. These transit lines are operated by Los Angeles County Transportation Authority (Metro) and LADOT. The following transit lines are near the project study area:

- Metro Local and Limited Lines (18, 53, 60, 62, 106, 720, 760) (Bus) (all within 0.5 miles of project)
- Metro Dash Line A (Bus) (0.4 miles from project)

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities exist near the project and throughout the study area. Crosswalks are provided at signalized intersections. Sidewalks exist along the frontage of the Sixth Street PARC areas. Bicycle lanes do not exist within the study area.

Level of Service Methodology for Signalized Intersections

The following section includes the methodology utilized for this analysis.

The LADOT traffic impact study guidelines require use of the Transportation Research Board's Critical Movement Analysis (CMA), Circular 212 Planning Method, to analyze traffic operating conditions at the signalized study intersections. CMA is a method which determines the volume to capacity (V/C) ratio on a critical lane basis and Level of Service (LOS) associated with each V/C ratio at a signalized intersection. V/C ratios are measured on a scale of 0 to 1.000. LOS describes the quality of traffic flow and is a measure of such factors as travel speed, travel time, and flow interruptions. LOS ranges from "A" to "F".

Table 2 presents the volume to capacity ratios using the Circular 212 method. CMA calculation (CMAC) spreadsheets were utilized in this analysis to determine the LOS at the study intersections.

Table 2 – Intersection Level of Service (LOS) Definitions

V/C Value Signalized [1]	Related LOS Rating
0 to 0.600	A – Excellent free flow conditions
0.601 to 0.700	B – Unconstrained flow
0.701 to 0.800	C – Somewhat constrained flow, maneuverability is reduced
0.801 to 0.900	D – Constrained flow, little maneuverability
0.901 to 1.000	E – Significant vehicle queuing; not all vehicles clear intersection in one cycle
Greater than 1.000	F – Excessive delay; vehicles require more than one signal cycle to clear the intersection

[1]*Based upon Circular 212 methodology for signalized intersections*

City of Los Angeles Significant Impact Criteria

The City of Los Angeles determines that a project impact at a signalized intersection is considered significant if the following conditions are met:

LOS	V/C Ratio	Project Related Increase in 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	>0.901 – 1.00	Equal to or greater than 0.010
F	Greater than 1.000	Equal to or greater than 0.010

Source: City of Los Angeles Transportation Impact Study Guidelines, December 2016

Using these criteria, a project would not have a significant impact at an intersection if it operates at LOS D after the addition of the proposed project traffic and the incremental change in V/C is less than 0.020. However, if the intersection is operating at LOS F after the addition of the proposed project traffic and the V/C ratio is 0.010 or greater, the project would be considered to have a significant impact.

In accordance with LADOT analysis procedures, the V/C ratio calculated using the CMA methodology is reduced by 0.07 for all the project intersections, since they are all included in the Automated Traffic Surveillance and Control (ATSAC) system. An additional reduction of 0.03 is applied to the V/C ratio to account for improved operation due to the Adaptive Traffic Control System (ATCS), and increased

efficiency from the ATSAC/ATCS system that is not captured in the CMA methodology.

Level of Service Methodology for Unsignalized Intersections

The CMA method is only applicable to signalized intersections. In accordance with LADOT analysis procedures, unsignalized intersections will be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device(s) but will not be included in the impact analysis. The overall intersection delay was measured at the unsignalized intersections using the Highway Capacity Manual (HCM) method. If an unsignalized intersection has a resultant LOS E or F in the "With Project" scenarios, then the intersection is evaluated for the potential installation of a new traffic signal using a traffic signal warrant analysis. This study utilized the peak hour signal warrant to decide if a traffic control signal shall be considered.

III. TRAFFIC ANALYSIS

This section presents Level of Service (LOS) analysis for the Existing (2018) and Cumulative (2023) conditions.

Existing Traffic Volumes

The following sections include the peak hour traffic volumes and existing operating conditions at each study intersection. Weekday traffic counts were conducted during the morning peak hours (7:00 to 9:00 AM) and evening peak hours (4:00 to 6:00 PM) at eleven (11) intersections on Wednesday, March 01, 2017. Traffic count worksheets are provided in **Appendix B** of this report.

Existing (2018) Conditions LOS Analysis

As requested by LADOT, the Existing (2018) conditions need to reflect traffic patterns as if the 6th Street bridge was in operation. The 6th Street bridge was demolished in February 2016; therefore, the counts collected in March 2017 do not account for the 6th Street bridge being open. The LOS analysis for existing traffic conditions used peak hour turning movement count data from 2014/2015 traffic studies to supplement counts collected in 2017. Traffic count worksheets from previous traffic studies are provided in **Appendix B** of this report. Traffic counts collected in March 2017 were used at intersections not included in previous traffic studies. A conservative growth rate of 1% per year was applied to calculate traffic projections for Existing (2018) conditions.

Table 3 presents the existing peak hour V/C ratio and the corresponding LOS for each study intersection. CMA worksheets for the signalized intersections and Synchro worksheets for the unsignalized intersections are provided in **Appendix C** of this report.

Table 3 – Existing (2018) Conditions LOS for Study Intersections

Signalized Intersections		Existing (2018) LOS Analysis Results			
		A.M. Peak Hour		P.M. Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS
1	Alameda Street at 6th Street	0.613	B	0.656	B
2	Mateo Street at 6th Street	0.460	A	0.759	C
3	Alameda Street at 7th Street	0.604	B	0.639	B
4	Mateo Street at 7th Street	0.331	A	0.420	A
5	Santa Fe Avenue at 7th Street	0.468	A	0.644	B
6	Boyle Avenue at 7th Street	0.493	A	0.540	A
7	Boyle Avenue at Whittier Blvd	0.797	C	0.824	D
8	Alameda Street at 4th Street	0.321	A	0.574	A
Unsignalized Intersections		**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**
9	Hewitt Street at 4th Street[1]	8.1	A	229.5	F
10	Clarence Street at 4th Street	23.1	C	7.9	A
11	Santa Fe Avenue at Mateo Street	7.6	A	9.7	A
12	Santa Fe Avenue at 3rd Street	35.2	E	59.9	F

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

Table 3 indicates that for Existing (2018) conditions, seven of the eight signalized study intersections currently operate at LOS C or better during the AM and PM peak periods. The remaining intersection, Boyle Avenue and Whittier Boulevard, currently operates at LOS D during the PM peak hour.

Two of the four unsignalized study intersections currently operate at LOS C or better during the AM and PM peak periods. The intersection of Hewitt Street at 4th Street is projected to operate at LOS F during the PM peak hour. Also, the intersection of Santa Fe Avenue at 3rd Street is projected to operate at LOS F during the PM peak hour.

Peak hour analysis worksheets for Existing (2018) conditions are provided in **Appendix C** of this report**.** **Figure 4** illustrates the existing peak hour traffic volumes at the study intersections.

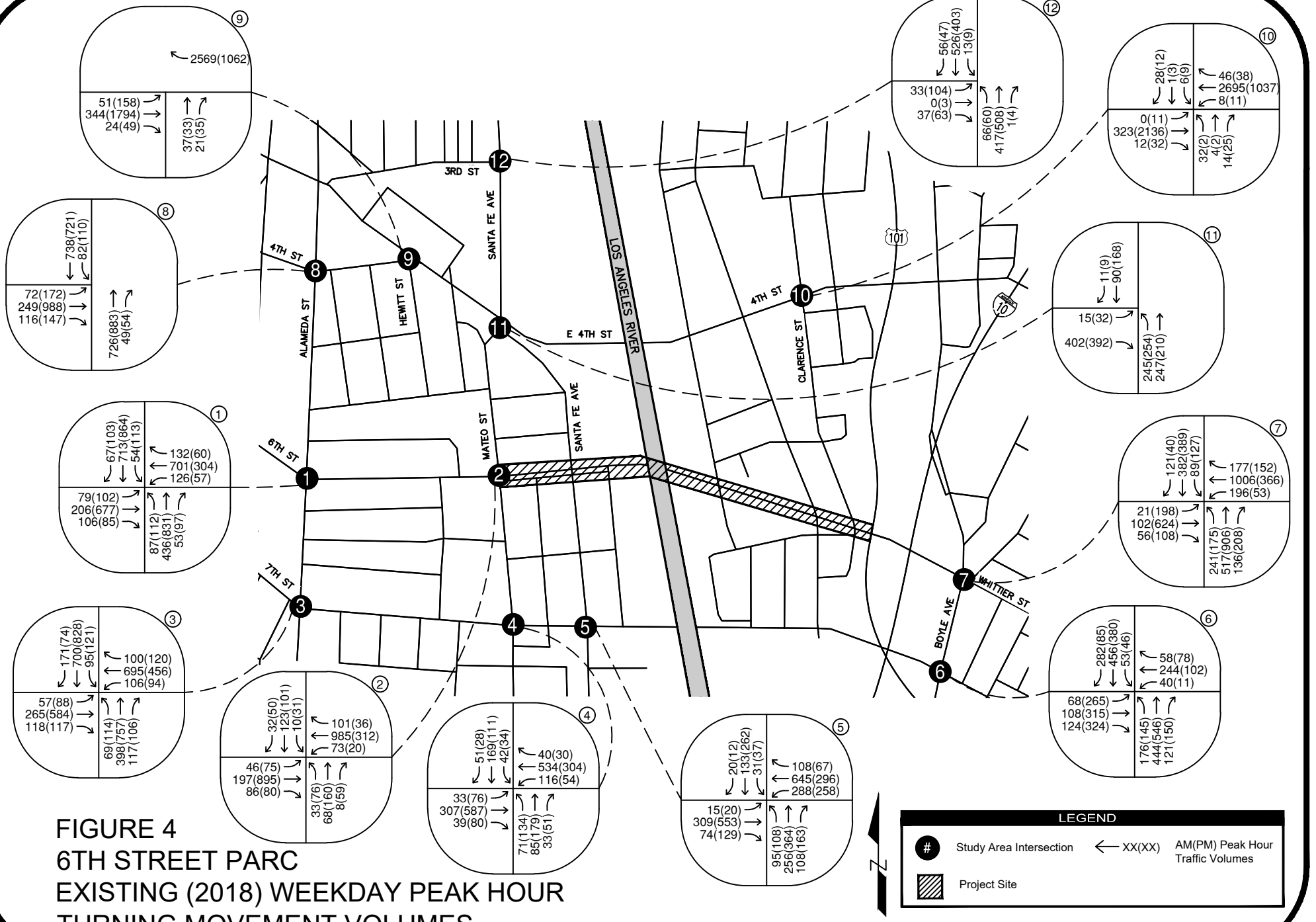

FIGURE 4
6TH STREET PARC
EXISTING (2018) WEEKDAY PEAK HOUR
TURNING MOVEMENT VOLUMES

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Project Trip Generation

The proposed project includes a total site area of approximately 12.05 acres in size and consists of the construction of a soccer complex, park, and coffee shop.

Weekday daily, AM and PM peak hour trips were estimated for the project using trip generation rates from the ITE publication entitled *Trip Generation, 9th Edition*. Trip generation rates and the resulting trips that would be generated by the proposed project are presented in **Table 4**.

The project is estimated to generate 177 new daily trips; 81 new trips would be generated during the AM peak hour and 68 new trips during the PM peak hour. An existing land use credit was applied to the project generated trips. Since the Sixth Street PARC is replacing 223,900 sq.ft. of heavy industrial land use, the number of trips generated by the existing industrial land use were credited towards the number of trips generated by the Sixth Street PARC. After the trip credits are applied, the project is expected to generate less net trips than the existing land use. Therefore, the project is estimated to generate 34 less trips in the AM peak hour and 85 less trips in the PM peak hour than the existing land use. Trip generation was submitted to and approved by the LADOT as part of the MOU.

Project Trip Distribution

Development the of project traffic forecasts for the proposed project consisted of a three-step process that includes the project's potential trip generation, trip distribution, and traffic assignment to the street system within the study area.

The incoming and outgoing Project Trip Distribution are illustrated in **Figure 5**. Trips were distributed to four access points across the project site; one access point in the West Park and three access points in the East Park. The project weekday peak hour volumes at the study intersections are illustrated in **Figure 6**. Trip distribution utilized was submitted to and approved by the LADOT as part of the MOU. The MOU is attached to **Appendix A** of this report.

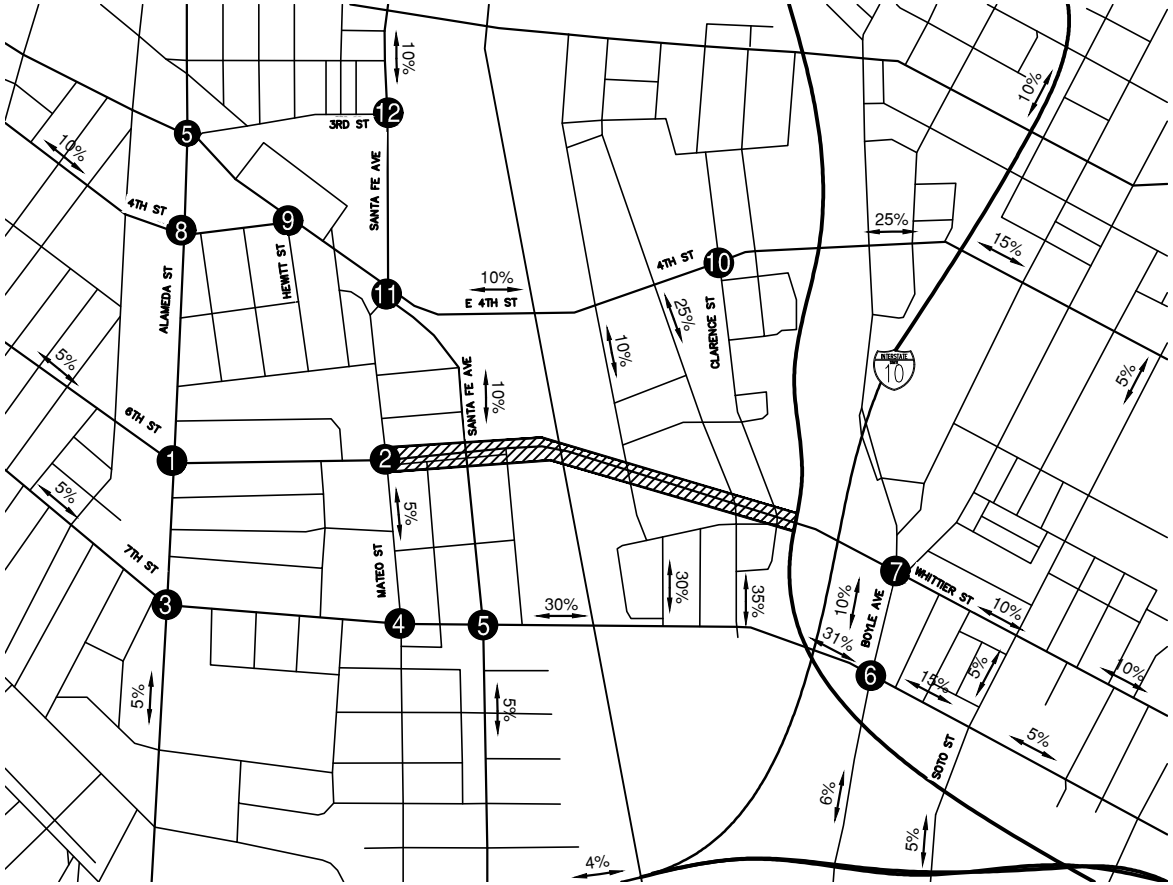
Event Trip Generation and Trip Distribution

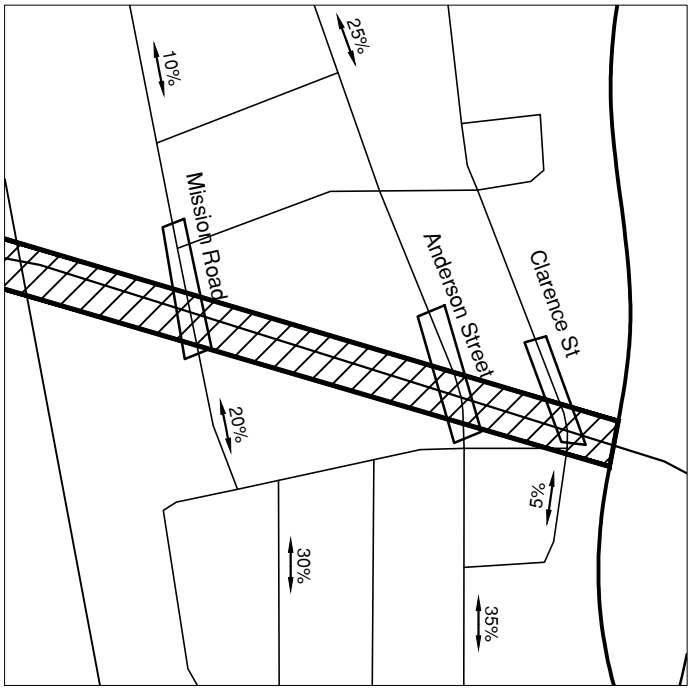
The proposed project site will host events with estimated event capacities between 25 people and 5,000 people. These events were not included in the project trip generation, but they are included as an additional analysis scenario to evaluate operations when events are hosted at the project site. Smaller events such as recreational games and farmer's markets are estimated to occur approximately once or twice a week. Larger events such as concerts, festivals, and soccer tournaments with estimated capacities greater than 1,000 people will each occur approximately one to two times per year. The study analyzed a 2,000-person event during a typical weekday PM peak hour to represent a worse case conservative scenario that would encompass a single, large event that could occur infrequently as well as multiple, simultaneous small events that could occur weekly.

For weekday evening events, it is assumed that attendees would start to arrive during the PM peak period. Weekday evening events are assumed to start around 7 PM and 25% of attendees are expected to arrive by 6 PM. An average vehicle occupancy of 2 persons per vehicle is assumed for a conservative estimate. Under these assumptions, it is estimated an additional 250 vehicles will arrive during the PM peak period during special events. Trip generation rates and the resulting trips that would be generated by a 2,000-person event at the project are presented in **Table 5.** The incoming and outgoing project trip distribution percentages from **Figure 5** were utilized for the event trip distribution. The event PM weekday peak hour volumes at the study intersections are illustrated in **Figure 7**. Trip generation for special events was submitted to and approved by the LADOT as part of the MOU.

Table 4 – Sixth Street PARC - Trip Generation Table

ITE Code	Land Use Description	Unit	No. of Units	Daily Rate	AM Rate	PM Rate	Daily Trips	% AM Trips In	% AM Trips Out	% PM Trips In	% PM Trips Out	AM Trips In	AM Trips Out	AM Trips	PM Trips In	PM Trips Out	PM Trips
417	Regional Park - East Park	Acre(s)	5.71	4.57	0.15	0.20	27	57%	43%	44%	56%	1	0	1	1	1	2
417	Regional Park - West Park	Acre(s)	1.45	4.57	0.15	0.20	7	57%	43%	44%	56%	1	0	1	0	1	1
488	Soccer Complex	Field(s)	2.00	71.33	1.4	17.70	143	57%	43%	67%	33%	2	1	3	24	12	36
936	Coffee/Donut Shop	1,000 Sq Ft	0.70		108.38	40.75	0	51%	49%	50%	50%	39	37	76	15	14	29
Subtotal of Trips							177					43	38	81	40	28	68
Existing Land Use Credit																	
120	General Heavy Industrial	1,000 Sq Ft	-223.9	1.5	0.51	0.68	-336	50%	50%	50%	50%	-58	-57	-115	-77	-76	-153
Total Trip Generation							**-159**					**-15**	**-19**	**-34**	**-37**	**-48**	**-85**





East Park Parking Areas Trip Distribution

LEGEND

#	Intersection ID
	Project Site
	Project Parking
XX%	% Project Traffic

FIGURE 5
6TH STREET PARC
PROJECT TRIP DISTRIBUTION PERCENTAGES

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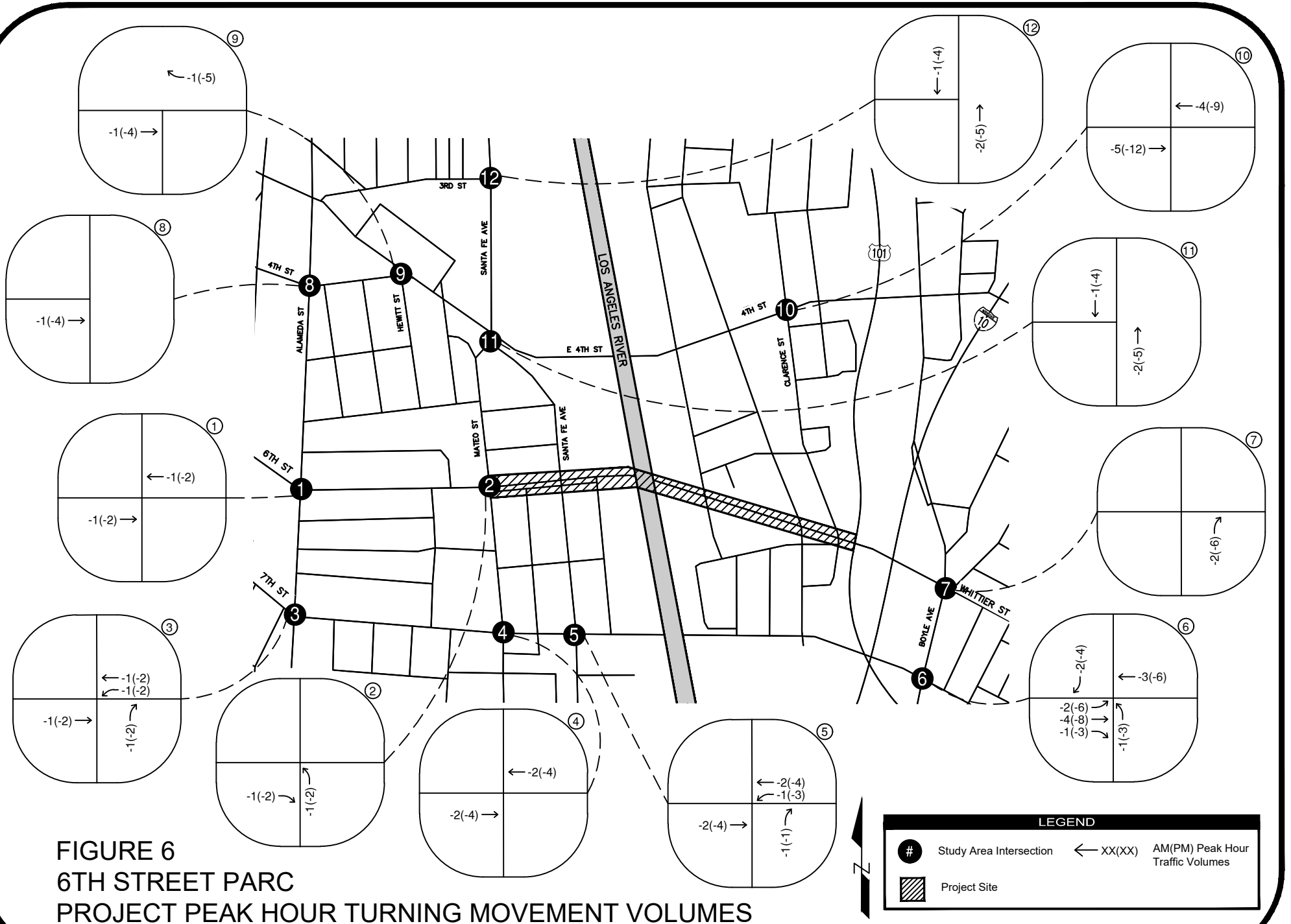

FIGURE 6
6TH STREET PARC
PROJECT PEAK HOUR TURNING MOVEMENT VOLUMES

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Table 5 – Sixth Street PARC – Event Trip Generation Table

ITE Code	Land Use Description	Unit	No. of Units	Daily Rate	PM Rate	Daily Trips	% PM Trips In	% PM Trips Out	PM Trips In	PM Trips Out	PM Trips
417	Regional Park - East Park	Acre(s)	5.71	4.57	0.20	27	44%	56%	1	1	2
417	Regional Park - West Park	Acre(s)	1.45	4.57	0.20	7	44%	56%	0	1	1
488	Soccer Complex	Field(s)	2.00	71.33	17.70	143	67%	33%	24	12	36
936	Coffee/Donut Shop	1,000 Sq Ft	0.70		40.75	0	50%	50%	15	14	29
	Special Event	Attendees	2,000		0.13	2,000			250	0	250
Subtotal of Trips						2,177			290	28	318
Existing Land Use Credit											
120	General Heavy Industrial	1,000 Sq Ft	-223.9	1.5	0.68	-336	50%	50%	-77	-76	-153
Total Trip Generation						**1,841**			**213**	**-48**	**165**

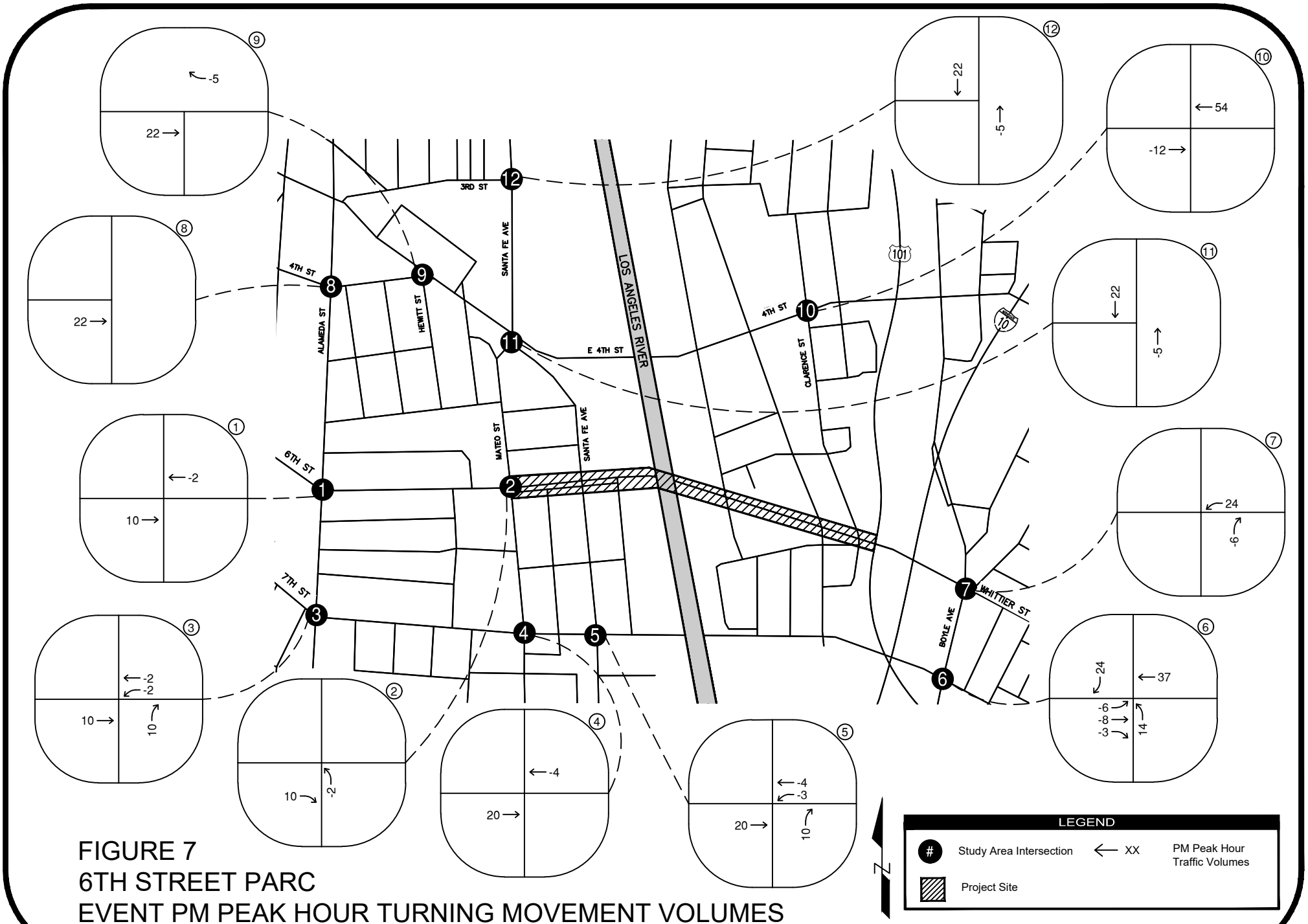

FIGURE 7
6TH STREET PARC
EVENT PM PEAK HOUR TURNING MOVEMENT VOLUMES

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Existing (2018) With Project Conditions LOS

Existing (2018) With Project conditions add the estimated project traffic to the Existing Base conditions and are used to evaluate the net change in the traffic conditions. These volumes were assigned to the existing baseline network. **Table 6** presents the Existing (2018) With Project peak hour V/C ratio and the corresponding LOS for each of the 12 study intersections.

Table 6 – Existing (2018) With Project Conditions Intersection LOS

Signalized Intersections		Existing (2018) Without Project LOS Analysis Results				Existing (2018) With Project LOS Analysis Results				Change in V/C		Significant Impact?	
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour					
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	AM	PM	AM	PM
1	Alameda Street at 6th Street	0.613	B	0.656	B	0.612	B	0.655	B	-0.001	-0.001	No	No
2	Mateo Street at 6th Street	0.460	A	0.759	C	0.459	A	0.758	C	-0.001	-0.001	No	No
3	Alameda Street at 7th Street	0.604	B	0.639	B	0.603	B	0.637	B	-0.001	-0.002	No	No
4	Mateo Street at 7th Street	0.331	A	0.420	A	0.331	A	0.419	A	0.000	-0.001	No	No
5	Santa Fe Avenue at 7th Street	0.468	A	0.644	B	0.467	A	0.641	B	-0.001	-0.003	No	No
6	Boyle Avenue at 7th Street	0.493	A	0.540	A	0.489	A	0.531	A	-0.004	-0.009	No	No
7	Boyle Avenue at Whittier Blvd	0.797	C	0.824	D	0.796	C	0.822	D	-0.001	-0.002	No	No
8	Alameda Street at 4th Street	0.321	A	0.574	A	0.321	A	0.573	A	0.000	-0.001	No	No
Unsignalized Intersections		**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Signal Warrant Analysis Required?**			
9	Hewitt Street at 4th Street[1]	8.1	A	229.5	F	8.1	A	228.4	F	Yes			
10	Clarence Street at 4th Street	23.1	C	7.9	A	22.7	C	7.6	A	No			
11	Santa Fe Avenue at Mateo Street	7.6	A	9.7	A	7.6	A	9.7	A	No			
12	Santa Fe Avenue at 3rd Street	35.2	E	59.9	F	34.7	D	57.5	F	Yes			

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

Table 6 indicates that for Existing (2018) With Project conditions, seven of the eight signalized study intersections are projected to operate at LOS C or better during the AM and PM peak periods. The remaining intersection, Boyle Avenue and Whittier Boulevard, is projected to operate at LOS D during the PM peak hour.

Under Existing (2018) With Project Conditions, two of the four unsignalized study intersections are projected to operate at LOS C or better during the AM and PM peak periods. The intersection of Hewitt Street at 4th Street is projected to operate at LOS F during the PM peak hour. Also, the intersection of Santa Fe Avenue at 3rd Street is projected to operate at LOS F during the PM peak hour. Since the Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections operate at LOS F, these unsignalized intersections need to be evaluated for the installation of a new traffic signal per LADOT analysis procedures.

Table 6 indicates the project will not have a significant impact in Existing (2018) conditions. Peak hour analysis worksheets for Existing (2018) With Project conditions are provided in **Appendix C** of this report. **Figure 8** illustrates the Existing (2018) With Project conditions peak hour traffic volumes at the study intersections.

Existing (2018) With Project Conditions Signal Warrant Analysis

A traffic signal warrant analysis was conducted per the 2014 edition of the California Manual for Uniform Traffic Control Devices (MUTCD) for evaluating the need for traffic signals. Warrant 3 (Peak-Hour) was evaluated for unsignalized intersections that operate at LOS E of F under Existing (2018) With Project Conditions, Existing (2018) With Project Event Conditions, Cumulative (2023) With Project Conditions, and Cumulative (2023) With Project Event Conditions. Warrant 3 is the peak hour warrant of the MUTCD and states the need for consideration of a traffic control signal if *either of the following* two parts is met:

A. If ***all three*** of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

    1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) equals or exceeds: 5 vehicle-hours for a one-lane approach, and

    2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vph for two moving lanes; and

    3. The total entering volume serviced during the hour equals or exceeds 800 vehicles per hour for intersections with four or more approaches or 650 vph for intersections with three approaches.

B. The plotted point representing the vehicles per hour (total of both approaches) and the corresponding vehicles per hour on the minor street (higher approach – one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

The peak-hour vehicular volume warrant (Warrant 3) were evaluated for unsignalized intersections that operate at LOS E of F under Existing (2018) With Project Conditions. **Table 7** presents the results of the peak hour traffic signal warrant analysis for unsignalized intersections that operate at LOS E of F under Existing (2018) With Project Conditions. **Table 7** indicates the Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections do not warrant a signal under Existing (2018) conditions.

Table 7 – Existing (2018) Conditions Peak Hour Signal Warrant Analysis Results

Unsignalized Intersections	Signal Warrant Met?
Hewitt Street at 4th Street	No
Santa Fe Avenue at 3rd Street	No

Source: Kimley-Horn, March 2018

Peak Hour Signal Warrant worksheets for the unsignalized intersections are provided in **Appendix D** of this report.

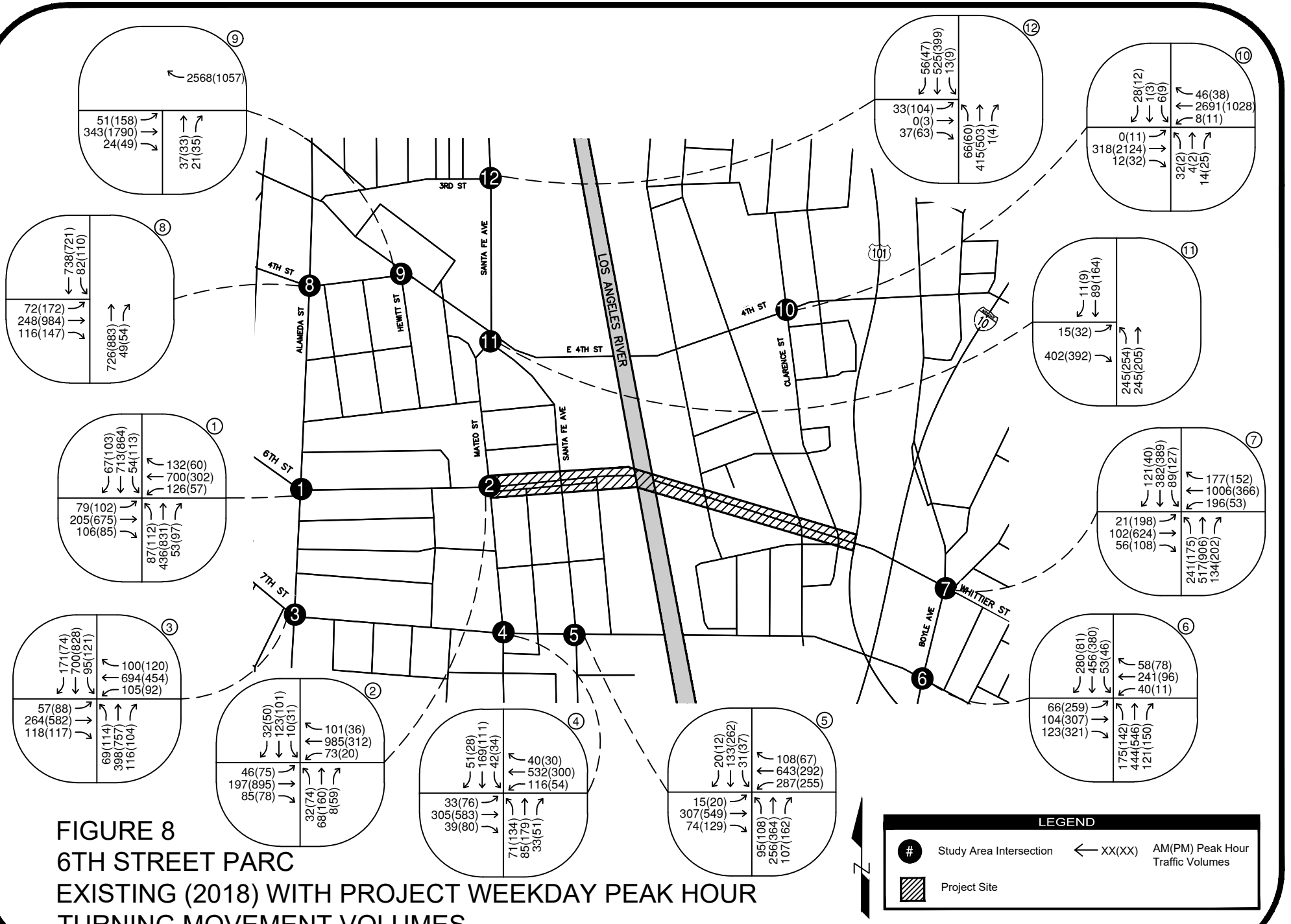

FIGURE 8
6TH STREET PARC
EXISTING (2018) WITH PROJECT WEEKDAY PEAK HOUR TURNING MOVEMENT VOLUMES

Kimley»Horn

Existing (2018) With Project Event Conditions LOS

Existing (2018) With Project Event conditions add the estimated event traffic to the Existing Base conditions and are used to evaluate the net change in the traffic conditions and to identify potential traffic impacts associated with events hosted at the proposed project. These volumes were assigned to the existing baseline network. **Table 8** presents the Existing (2018) With Project Event peak hour V/C ratio and the corresponding LOS for each of the study intersections.

Table 8 – Existing (2018) With Project Event Conditions Intersection LOS

Signalized Intersections		Existing (2018) Without Project LOS Analysis Results		Existing (2018) With Project Event LOS Analysis Results		Change in V/C	Significant Impact?
		P.M. Peak Hour		P.M. Peak Hour			
		V/C Ratio	LOS	V/C Ratio	LOS	PM	PM
1	Alameda Street at 6th Street	0.656	B	0.659	B	0.003	No
2	Mateo Street at 6th Street	0.759	C	0.758	C	-0.001	No
3	Alameda Street at 7th Street	0.639	B	0.641	B	0.002	No
4	Mateo Street at 7th Street	0.420	A	0.427	A	0.007	No
5	Santa Fe Avenue at 7th Street	0.644	B	0.649	B	0.005	No
6	Boyle Avenue at 7th Street	0.540	A	0.563	A	0.023	No
7	Boyle Avenue at Whittier Blvd	0.824	D	0.822	D	-0.002	No
8	Alameda Street at 4th Street	0.574	A	0.579	A	0.005	No
Unsignalized Intersections		**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Signal Warrant Analysis Required?**	
9	Hewitt Street at 4th Street[1]	229.5	F	219.5	F	Yes	
10	Clarence Street at 4th Street	7.9	A	7.8	A	No	
11	Santa Fe Avenue at Mateo Street	9.7	A	10.1	B	No	
12	Santa Fe Avenue at 3rd Street	59.9	F	60.1	F	Yes	

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

Table 8 indicates that for Existing (2018) With Project Event conditions, seven of the eight signalized study intersections are projected to operate at LOS C or better during the PM peak hour. The remaining intersection, Boyle Avenue and Whittier Boulevard, is projected to operate at LOS D during the PM peak hour.

Under Existing (2018) With Project Event conditions, two of the four unsignalized study intersections are projected to operate at LOS B or better during the PM peak hour. The intersection of Hewitt Street at 4th Street is projected to operate at LOS F during the PM peak hour. Also, the intersection of Santa Fe Avenue at 3rd Street is projected to operate at LOS F during the PM peak hour. Since the Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections operate at LOS F, these unsignalized intersections need to be evaluated for the installation of a new traffic signal per LADOT analysis procedures.

Table 8 indicates a project event will not have a significant impact in Existing (2018) With Project Event conditions. Peak hour analysis worksheets for Existing (2018) With Project Event conditions are provided in **Appendix C** of this report. **Figure 9** illustrates the Existing With Project conditions peak hour traffic volumes at the study intersections.

Existing (2018) With Project Event Conditions Signal Warrant Analysis

Table 9 presents the results of the peak hour traffic signal warrant analysis for unsignalized intersections that operate at LOS E of F under Existing (2018) With Project Event Conditions. **Table 7** indicates the Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections do not warrant a signal under Existing (2018) With Project Event conditions.

Table 9 – Existing (2018) With Project Event Conditions Peak Hour Signal Warrant Analysis

Unsignalized Intersections	Signal Warrant Met?
Hewitt Street at 4th Street	No
Santa Fe Avenue at 3rd Street	No

Source: Kimley-Horn, March 2018

Peak Hour Signal Warrant worksheets for the unsignalized intersections are provided in **Appendix D** of this report.

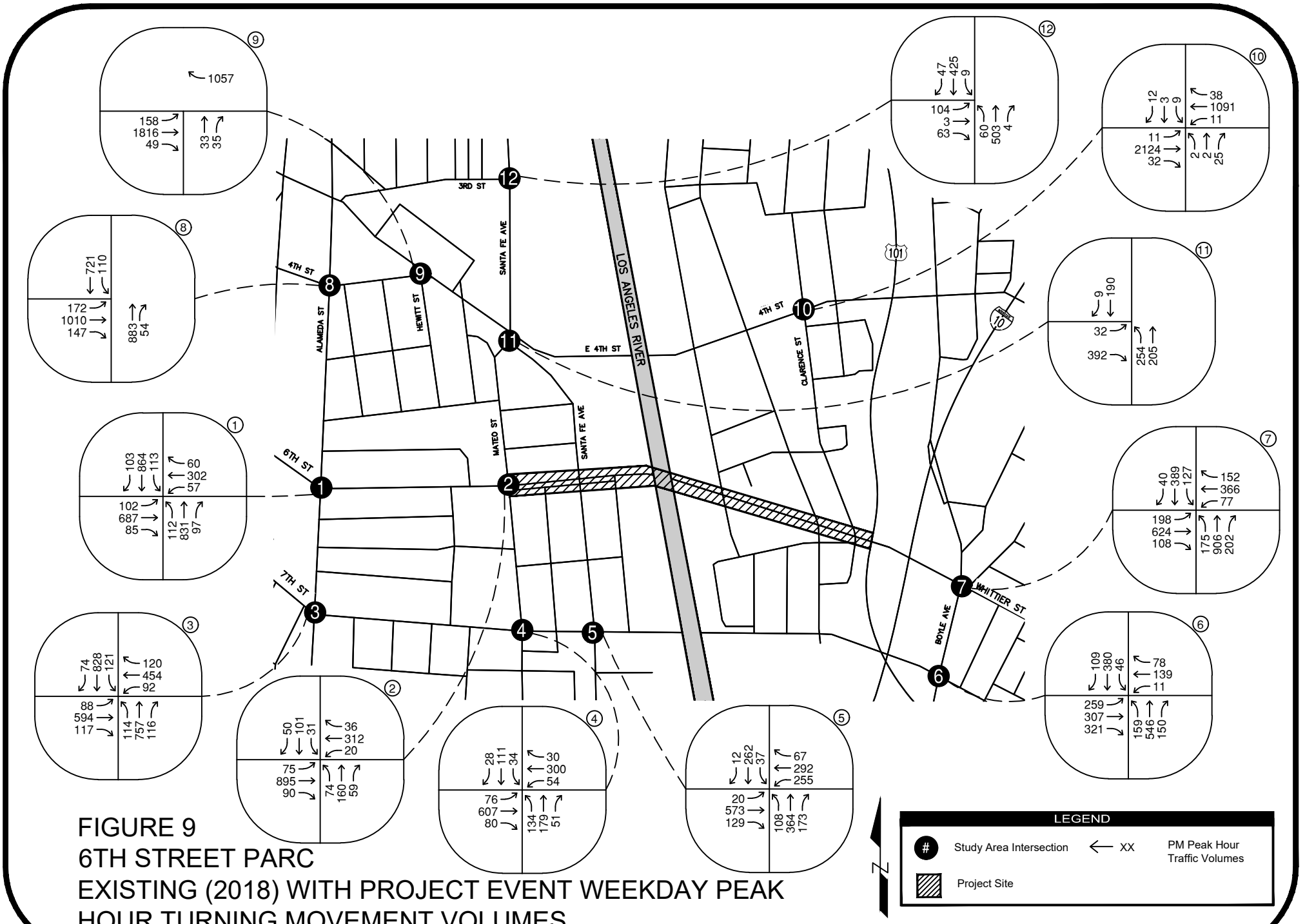

FIGURE 9
6TH STREET PARC
EXISTING (2018) WITH PROJECT EVENT WEEKDAY PEAK HOUR TURNING MOVEMENT VOLUMES

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Cumulative (2023) Conditions

The Cumulative (2023) Base Conditions traffic represents the sum of existing volumes, ambient growth and the traffic estimated from related projects assigned to the future roadway network. There were 44 approved and pending related projects identified in discussions with LADOT within a 2-mile radius that were included in this traffic impact analysis. The following sections discuss the ambient growth and related projects traffic generation and assignment, and future roadway improvements expected to be implemented by the year 2023 for analysis of Cumulative (2023) conditions.

Ambient Growth

Regional ambient growth was estimated as an annual percentage increase over the existing traffic volumes. A growth factor of 1.011 was applied to the 2018 peak hour traffic volumes to represent year 2023 traffic volumes, in accordance with discussions with LADOT. The 1.011 growth factor is consistent with the growth rate found in the *Congestion Management Program for Los Angeles County* (CMP) (Los Angeles County Metropolitan Transportation Authority, 2010). Per CEQA guidelines, an estimation of cumulative project impacts can either be estimated using a list of future projects, or by projecting the areawide growth within the project vicinity. This analysis was done using both methods to present a conservative scenario.

Related Projects Traffic Generation and Assignment

Traffic volumes from related projects (approved or pending projects expected to be built by the year 2023 in the proposed project vicinity) were added to the study intersections to simulate future traffic conditions with expected new development in the area. The list of related projects was provided by LADOT as of January 9, 2018. **Table 10** lists the related projects and the trips generated by each related project based on trip generation rates from the ITE publication entitled *Trip Generation, 9th Edition.*

Figure 10 illustrates the location of the related projects in the vicinity of the project site and **Figure 11** provides the projected peak hour trips for these related projects. The projected peak hour trips for the related projects were added to existing volumes and ambient growth for Cumulative (2023) traffic analysis.

Table 10 – Cumulative Project Trip Generation Table

Map No.	ITE Code(s)	Project Name	Address	Description	Daily	AM Peak Hour			PM Peak Hour		
						IN	OUT	TOTAL	IN	OUT	TOTAL
1	522, 826, 220	950 E. 3rd Street	950 E. 3rd Street	Santa Fe Freight Yard Redevelopment, 532 student school, 30,062 sq.ft. of retail, 635 apartment units	6,372	162	177	339	245	213	458
2	710, 826, 932	Mixed-Use (Coca-Cola)	963 E. 4th Street	78,600 sq.ft. office, 25,000 sq.ft. of retail. 20,000 sq.ft. of restaurant	2,512	106	22	128	113	138	251
3	220, 826, 932	Mixed-Use	2051 E. 7th Street	320 apartment units, 5,000 sq.ft. of restaurant, 15,000 sq.ft. of retail	2,310	17	127	144	145	64	208
4	826, 932	Mixed-Use	826 S. Mateo Street	90 live/work, 11,000 sq.ft. of retail, 5,600 sq.ft. of restaurant	1,267	11	34	45	62	39	101
5	826	Retail (Palmetto & Mateo)	555 S. Mateo Street	153,000 sq.ft. of retail	4,300	5	30	35	220	205	425
6	710, 826	Mixed-Use (Old Ford Factory)	2030 E. 7th Street	243,583 sq.ft. of office, 40,000 sq.ft. of retail	2,306	274	34	308	69	249	318
7	710	Office	540 S Santa Fe Avenue	89,825 sq.ft. office	726	90	12	102	17	81	98
8	220, 932, 710	Mixed-Use	360 S. Alameda Street	52 apartment units, 2,400 sq. ft. restaurant, and 6,900 sq.ft. office	648	24	33	57	33	28	61
9	220, 826, 932	Camden Arts Mixed-Use	1525 E. Industrial Street	328 apartment units, 27,300 sq. ft. office, 6,400 sq.ft. of retail, 5,700 sq.ft. of restaurant	2,288	58	73	131	86	69	155
10	730	Metro Emergency Security Operations Center	410 N. Center Street	110,000 sq.ft. office	1,165	87	0	87	0	79	79

Map No.	ITE Code(s)	Project Name	Address	Description	Daily	AM Peak Hour			PM Peak Hour		
						IN	OUT	TOTAL	IN	OUT	TOTAL
11	932	Restaurant	500 S. Mateo St	12,882 sq.ft. high-turnover restaurant	1,052	48	41	89	50	31	81
12	310, 826, 931	400 S. Alameda Hotel	400 S. Alameda St	66 room hotel, 2,130 sq.ft. restaurant, 840 sq.ft. retail	512	20	19	38	23	14	37
13	710, 820, 932	Mixed Use	2130 E. Violet St	94,000 sq.ft. office, 3,500 sq.ft. retail, 4,000 sq.ft. restaurant	1,351	137	30	167	39	122	161
14	826, 925, 710, 492, 443	Challenge Cream & Butter Bldg-Exclusive Club	929 E. 2nd St.	36,955 sq.ft. of retail, 1,024 sq.ft. of retail, 8,157 sq.ft. of event space, 10,784 sq.ft. bar/lounge, 45,759 sq.ft. offices, 6,378 sq.ft. private health club, 49 sq.ft. private movie theater	2,153	68	12	80	105	96	201
15	220, 820, 932, 710	Mixed-Use (Revised)	1800 E. 7th Street	122 apartment units, 3,245 sq.ft. retail, 4,605 sq.ft. restaurant, 2,700 sq.ft. office	992	25	52	77	54	34	87
16	220, 710, 820, 932, 580	520 Mateo St MU	520 S Mateo Street	600 apartment units, 110,000 sq.ft. office, 15,000 sq.ft. retail, 15,000 sq.ft. restaurant, 10,000 sq.ft. museum	4,995	157	220	377	274	223	497
17	710, 932, 820, 310	ROW DTLA Mixed-Use	777 S Alameda Street	850,400 sq.ft. office, 117,400 sq.ft. restaurant, 66,200 sq.ft. retail, 125 hotel room units	916	-134	-172	-306	-157	35	-122
18	220, 710, 820, 932, 850	Mixed-Use	668 S Alameda Street	475 apartment units, 25,200 sq.ft. office, 17,500 sq.ft. retail, 7,900 sq.ft. office, 16,300 sq.ft. restaurant, 15,300 sq.ft. supermarket	4,002	107	182	289	216	145	361
19	820, 932, 310, 220, 590	Arts District Center (Mixed-Use)	1129 E 5th Street	26,979 sq.ft. retail, 31,719 sq.ft. restaurant, 113 hotel room units, 129 apartment units, 2,430 sq.ft. art school, 10,341 sq.ft. art gallery	4,674	130	140	270	157	69	226

Map No.	ITE Code(s)	Project Name	Address	Description	Daily	AM Peak Hour			PM Peak Hour		
						IN	OUT	TOTAL	IN	OUT	TOTAL
20	220, 310, 820	Mixed-Use	330 S Alameda Street	186 apartment units, 10,415 sq.ft. office, 11,925 sq.ft. retail	1,662	36	76	112	91	65	156
21	220, 820	MU (Little Tokyo Galleria)	333 S Alameda Street	994 apartment units, 99,000 sq.ft. retail	8,445	134	260	394	390	329	719
22	710, 820	4th & Hewitt MU	401 S Hewitt Street	255,514 sq.ft. office, 4,970 sq.ft. retail	3,493	365	76	441	100	324	424
23	220, 150, 710, 931, 932, 820, 580, 310, 520	6AM (6th & Alamdea MU)	1206 E 6th Street	1,736 apartment units, 316,632 sq.ft. warehouse, 253,514 sq.ft. office, 22,639 sq.ft. quality restaurant, 22,639 sq.ft. high-turnover restaurant, 82,332 sq.ft. retail, 22,429 sq.ft. art museum, 514 hotel rooms, 300 student school	14,258	437	585	1,022	710	642	1,352
24	220, 820,	Mixed-Use	527 S Colyton Street	275 apartment units, 11,375 sq.ft. retail, 11,375 sq.ft. artist production	0	0	0	0	0	0	0
25	220	Mixed-Use	609 E 5th Street	151 apartment units	1,004	15	62	77	61	33	94
26	220	Residential	713 E 5th Street	51 apartment units	208	15	10	25	9	8	17
27	220, 820	Mixed-Use	930 E 6th Street	236 apartment units, 12,000 sq.ft. retail	1,074	17	79	96	70	32	102
28	220, 710, 820	Hewitt & 4th MU	940 E 4th Street	93 apartment units, 6,000 sq.ft. office, 12,000 sq.ft. retail	788	14	37	51	44	31	75
29	220	Apartments	656 S Stanford Avenue	82 apartment units	1,463	8	34	42	33	18	51
30	222, 820, 220, 710	Weingart Towers (Affordable Housing)	554 S San Pedro Street	378 affordable housing units, 1,758 sq.ft. retail, 4 apartment units, 4,410 sq.ft. office, 5,932	588	33	23	57	29	31	60

Map No.	ITE Code(s)	Project Name	Address	Description	Daily	AM Peak Hour			PM Peak Hour		
						IN	OUT	TOTAL	IN	OUT	TOTAL
				sq.ft. dining room/flex space							
31	222, 220, 820	San Pedro Tower (Affordable Housing)	600 S San Pedro Street	298 affordable housing units, 5 apartment units, 16,773 sq.ft. office, 3,136 sq.ft.	636	38	25	63	30	37	67
32	220	508 4th Street – Affordable Apartments	508 E 4th Street	41 apartment units	167	8	12	20	8	6	14
33	710, 820, 932	Mixed-Use	640 S Santa Fe Avenue	91,185 sq.ft. office, 9,430 sq.ft. retail, 6,550 sq.ft. restaurant	1,330	90	8	98	43	114	157
34	537	Charter School	443 S Soto Street	625 student enrollement	277	131	112	243	32	25	57
35	220, 710, 820, 222	2110 Bay Street Mixed-Use Project	2110 Bay Street	99 apartment units, 113,350 sq.ft. office, 43,657 sq.ft. retail, 11 affordable housing units	2,394	180	63	243	89	192	281
36	220, 710, 932, 820, 110	1024 Mateo St MU	1024 S Mateo Street	104 apartment units, 101,983 sq.ft. office, 16,279 sq.ft. restaurant, 5,830 sq.ft. retail, 5,519 sq.ft. light industrial	2,095	144	79	223	82	123	205
37	710, 220, 310, 820, 932, 493, 580, 850	Mixed-Use	670 S Mesquit Street	944,055 sq.ft. office, 308 apartment units, 236 hotel room units, 79,240 sq.ft. retail, 89, 576 sq.ft restaurant, 62,148 sq.ft. gym, 93,617 sq.ft. studio/event/gallery/museum, 56,912 sq.ft. grocery	22,845	1258	321	1579	640	1,195	1,835
38	220, 820, 710	Mixed-Use	2143 E Violet Street	320 apartment units, 46,670 sq.ft. retail, 224,292 sq.ft. office	4,477	329	122	451	130	330	460
39	710, 932, 820	Mixed-Use	1100 E 5th Street	220 live/work units, 4,350 sq.ft. live/work office, 15,671	2,583	79	119	198	133	74	207

Map No.	ITE Code(s)	Project Name	Address	Description	Daily	AM Peak Hour			PM Peak Hour		
						IN	OUT	TOTAL	IN	OUT	TOTAL
				sq.ft. office, 19,609 sq.ft. restaurant, 9,250 sq.ft. retail							
40	710, 932, 820	Mixed-Use	676 S Mateo Street	185 live/work units, 3,900 sq.ft. live/work office, 15,005 sq.ft. restaurant, 8,375 sq.ft. retail	1,990	50	98	145	106	51	1,990
41	130	SPR-Industrial Park	1005 S Mateo Street	94,849 sq.ft. industrial	426	40	9	49	10	39	49
42	850, 492, 932	Mixed-Use	1000 S Santa Fe Street	14,193 sq.ft. market, 6,793 sq.ft. health club, 10,065 sq.ft. restaurant	966	36	38	74	49	20	69
43	220, 820	Hillcrest MU – In Construction/Open 2018	1745 E 7th Street	57 apartment units, 6,000 sq.ft. retail	635	10	25	35	34	23	57
44	710, 820	Hyperloop One HQ	219 E Bay Street	203,670 sq.ft. office, 18,330 sq.ft. retail	2,029	194	10	224	57	192	249
Total					**120,374**	**5,053**	**3,349**	**8,419**	**4,731**	**5,868**	**12,430**

Source: LADOT (as of January 9, 2018)

FIGURE 10
6TH STREET PARC
CUMULATIVE PROJECTS LOCATIONS

N

LEGEND

- # Study Intersection ID
- # Cumulative Project Location and Number
- Project Site

Kimley»Horn

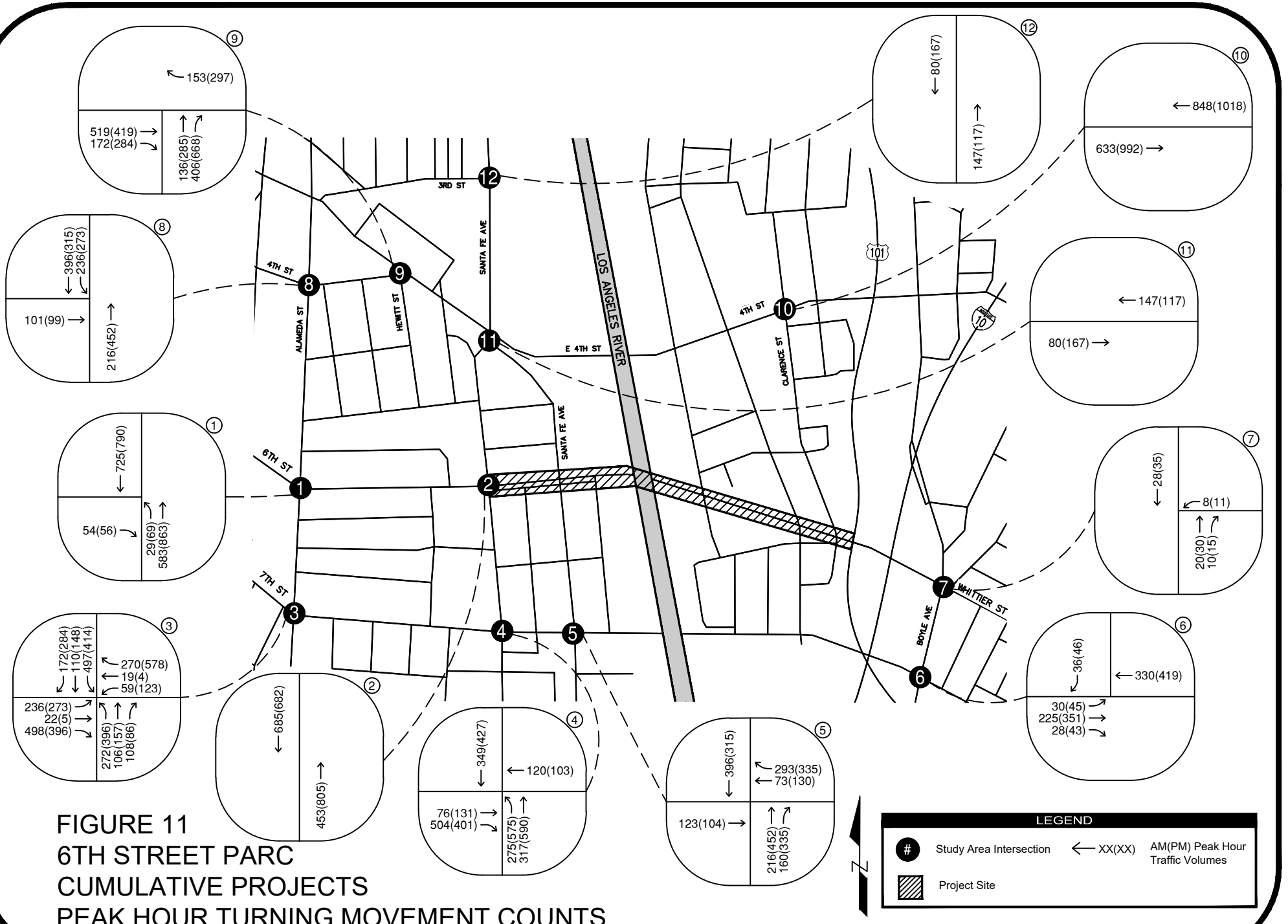


FIGURE 11
6TH STREET PARC
CUMULATIVE PROJECTS
PEAK HOUR TURNING MOVEMENT COUNTS

Kimley»Horn

Future Roadway Improvements

The following discusses roadway improvement projects analyzed for changes to the physical configuration at the study intersections for Cumulative (2023) conditions.

Metro Regional Connector – The Metro Regional Connector project is a 1.9 mile underground light-rail system that will extend the Metro Gold Line Little Tokyo/Arts District Station to the 7th Street/Metro Center Station, allowing passengers to make direct transfers between the Blue, Expo, Red, and Purple Lines. The Metro Regional Connector will serve the areas of Little Tokyo, the Arts District, Civic Center, the Historic Core, Broadway, Grand Avenue, Bunker Hill, Flower Street, and the Financial District. Three new transit stations are anticipated to be complete and in operation by Year 2020. The Metro Regional Connector, which, other than the stations, is primarily underground, would not affect the configurations of the study intersections and would not affect the Cumulative (2023) base conditions.

Future Bicycle System – The 2010 Bicycle Plan and the Mobility Plan 2035 present a regionally integrated bicycle network within the study area. The 2010 Bicycle Plan designates roadways used for Backbone, Neighborhood Network, and Green Network. Within the study area, bicycle routes/bicycle friendly streets are prioritized for 7th Street from Main Street to Soto Street. The City plans to design and construct 200 miles of bicycle facilities every five years, subject to funding and staffing ability. Since the proposed bicycle route along 7th Street is not included in the current LADOT Bicycle Program current project list and there has been no funding allocated for it, it is unlikely that it will be completed by 2020. Therefore, this bicycle route was not included in the Cumulative (2023) base conditions.

Future Pedestrian Network – The Pedestrian Network established in the 2010 Bicycle Plan and Mobility Plan 2035 includes areas on arterial streets prioritized for pedestrian safety enhancements to serve local pedestrian activity. The Pedestrian Enhanced District of the Mobility Plan has designated arterial streets within the study area as Pedestrian Segments, including 7th Street, 6th Street, Los Angeles Street, and 8th Street. Along these arterial streets, pedestrian improvements could be prioritized to provide better connectivity to and from major destinations within communities. The pedestrian improvements have not been finalized or funded, and therefore were not included in the Cumulative (2023) base conditions.

Cumulative (2023) Without Project Conditions LOS

Table 11 presents the Cumulative (2023) Without Project peak hour V/C ratio and the corresponding LOS for all project intersections.

Table 11 – Cumulative (2023) Without Project Conditions Intersection LOS

Signalized Intersection		Cumulative (2023) Without Project LOS Analysis Results			
		A.M. Peak Hour		P.M. Peak Hour	
		V/C Ratio	LOS	V/C Ratio	LOS
1	Alameda Street at 6th Street	0.895	D	1.009	F
2	Mateo Street at 6th Street	0.945	E	1.333	F
3	Alameda Street at 7th Street	1.193	F	1.341	F
4	Mateo Street at 7th Street	0.976	E	1.379	F
5	Santa Fe Avenue at 7th Street	0.811	D	0.993	E
6	Boyle Avenue at 7th Street	0.762	C	0.884	D
7	Boyle Avenue at Whittier Blvd	0.826	D	0.862	D
8	Alameda Street at 4th Street	0.571	A	0.935	E

Unsignalized Intersections		Delay, sec.	LOS	Delay, sec.	LOS
9	Hewitt Street at 4th Street[1]	56.2	F	*	F
10	Clarence Street at 4th Street	*	F	39.8	E
11	Santa Fe Avenue at Mateo Street	8.6	A	14.9	B
12	Santa Fe Avenue at 3rd Street	95.4	F	139.4	F

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

*Delay exceeds LOS F threshold

Table 11 indicates that for Cumulative (2023) Without Project conditions, six of the eight signalized study intersections are projected to operate at LOS D or worse during the AM peak period. During the PM peak period, all signalized intersections would operate at LOS D or worse. The intersection of Alameda Street at 6th Street is projected to operate at LOS F during the PM peak hour. Mateo Street at 6th Street is projected to operate at LOS F during the PM peak hour. The intersection of Alameda Street at 7th Street is projected to operate at LOS F during the AM and PM peak periods. The intersection of Mateo Street at 7th Street is projected to operate at LOS F during the PM peak hour.

Under the Cumulative (2023) Without Project conditions, three of the four unsignalized study intersections are projected operate at LOS E or worse during the AM and PM peak periods. The intersections of Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street are projected to operate at LOS F during the AM and PM peak periods. Also, the intersection of Clarence Street at 4th Street is projected to operate at LOS F during the AM peak period.

Peak hour analysis worksheets for Cumulative (2023) Without Project conditions are provided in **Appendix C** of this report. **Figure 12** illustrates the peak hour traffic volumes for Cumulative (2023) Without Project conditions.

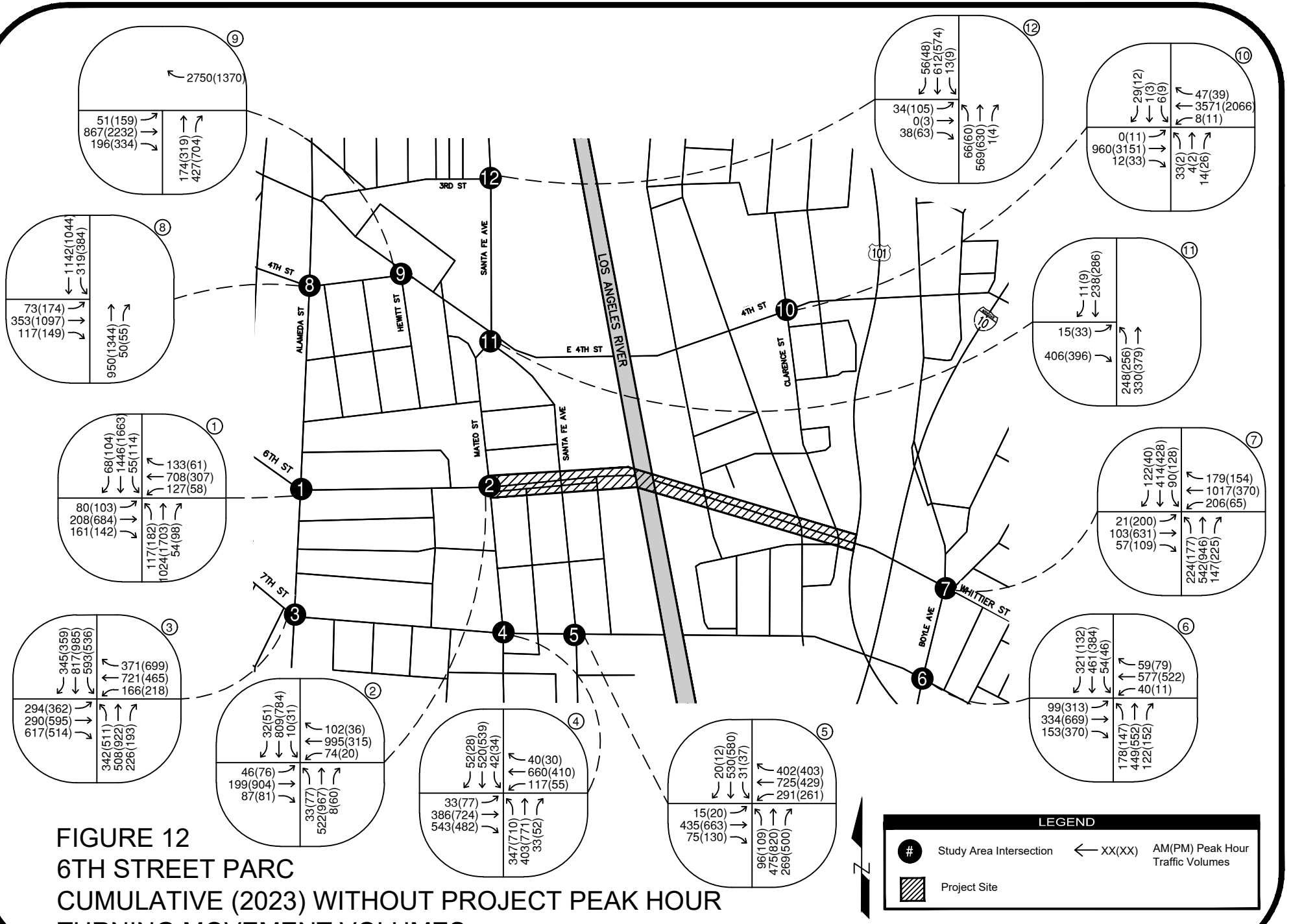


FIGURE 12
6TH STREET PARC
CUMULATIVE (2023) WITHOUT PROJECT PEAK HOUR
TURNING MOVEMENT VOLUMES

Kimley»Horn

Cumulative (2023) With Project Conditions LOS

The Cumulative (2023) With Project traffic volumes represent the sum of existing traffic volumes raised by the ambient growth factor, the traffic estimated from related projects, and the project trips. **Table 12** below presents the Cumulative (2023) With Project Conditions peak hour V/C ratio and the corresponding LOS for the project intersections.

Table 12 – Cumulative (2023) With Project Conditions Intersection LOS

Signalized Intersections		Cumulative (2023) Without Project LOS Analysis Results				Cumulative (2023) With Project LOS Analysis Results				Change in V/C		Significant Impact?	
		A.M. Peak Hour		P.M. Peak Hour		A.M. Peak Hour		P.M. Peak Hour					
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	AM	PM	AM	PM
1	Alameda Street at 6th Street	0.895	D	1.009	F	0.894	D	1.008	F	-0.001	-0.001	No	No
2	Mateo Street at 6th Street	0.945	E	1.333	F	0.945	E	1.331	F	0.000	-0.002	No	No
3	Alameda Street at 7th Street	1.193	F	1.341	F	1.193	F	1.339	F	0.000	-0.002	No	No
4	Mateo Street at 7th Street	0.976	E	1.379	F	0.976	E	1.377	F	0.000	-0.002	No	No
5	Santa Fe Avenue at 7th Street	0.811	D	0.993	E	0.811	D	0.990	E	0.000	-0.003	No	No
6	Boyle Avenue at 7th Street	0.762	C	0.884	D	0.758	C	0.875	D	-0.004	-0.009	No	No
7	Boyle Avenue at Whittier Blvd	0.826	D	0.862	D	0.825	D	0.860	D	-0.001	-0.002	No	No
8	Alameda Street at 4th Street	0.571	A	0.935	E	0.571	A	0.934	E	0.000	-0.001	No	No
	Unsignalized Intersections	**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Signal Warrant Analysis?**			
9	Hewitt Street at 4th Street[1]	56.2	F	*	F	56.0	F	*	F	Yes			
10	Clarence Street at 4th Street	*	F	39.8	E	*	F	39.8	E	Yes			
11	Santa Fe Avenue at Mateo Street	8.6	A	14.9	B	8.6	A	14.6	B	No			
12	Santa Fe Avenue at 3rd Street	95.4	F	139.4	F	92.9	F	136.5	F	Yes			

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

*Delay exceeds LOS F threshold

Table 12 indicates that for Cumulative (2023) With Project conditions, six of the eight signalized study intersections are projected to operate at LOS D or worse during the AM peak hour. During the PM peak hour, all intersections are projected to operate at LOS D or worse. Alameda Street at 7th Street is projected to operate at LOS F during the AM and PM peak periods.

Under Cumulative (2023) With Project conditions, three of the four unsignalized study intersections are projected to operate at LOS E or worse during the AM and PM peak periods. Hewitt Street at 4th Street, Clarence Street at 4th Street, and Santa Fe Avenue at 3rd Street intersections operate at LOS E or F; therefore, these unsignalized intersections need to be evaluated for the installation of a new traffic signal per LADOT analysis procedures.

Table 12 indicates the project will not have a significant impact on the study intersections under Cumulative (2023) With Project conditions. Peak hour analysis worksheets for the Cumulative (2023) With Project conditions are provided in **Appendix C** of this report. **Figure 13** illustrates the peak hour traffic volumes for Cumulative (2023) With Project conditions.

Cumulative (2023) With Project Conditions Signal Warrant Analysis

Table 13 presents the results of the peak hour traffic signal warrant analysis for unsignalized intersections that operate at LOS E of F under Cumulative (2023) With Project conditions. **Table 13** indicates that a signal should be considered for Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections under Cumulative (2023) With Project conditions. Since the traffic volumes are lower in the "With Project" scenario compared to the "Without Project" scenario, the signal warrant would be met under both scenarios.

Table 13 – Cumulative (2023) With Project Conditions Peak Hour Signal Warrant Analysis

Unsignalized Intersections	Signal Warrant Met?
Hewitt Street at 4th Street	Yes
Clarence Street at 4th Street	No
Santa Fe Avenue at 3rd Street	Yes

Source: Kimley-Horn, March 2018

Peak Hour Signal Warrant worksheets for the unsignalized intersections are provided in **Appendix D** of this report.

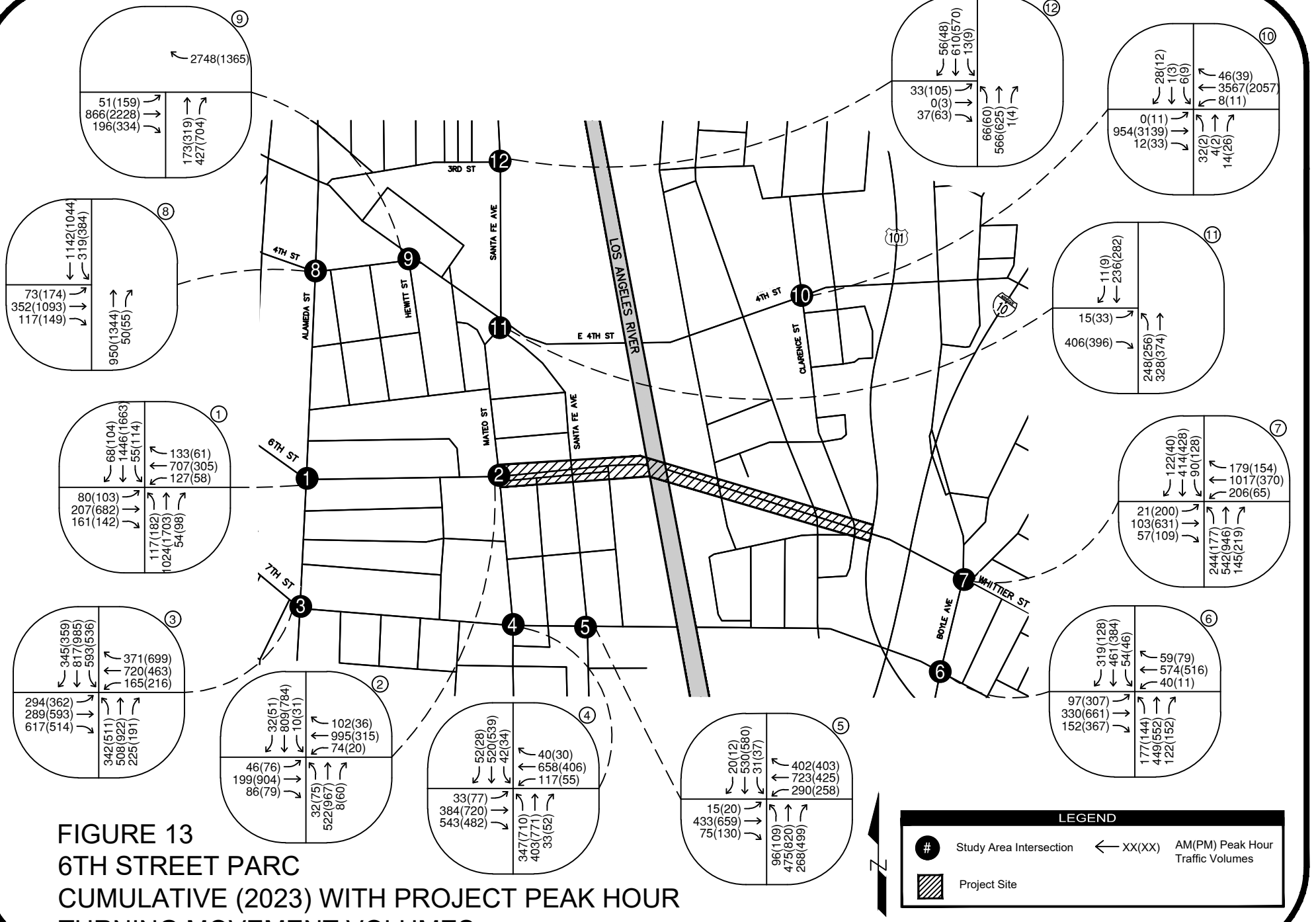


FIGURE 13
6TH STREET PARC
CUMULATIVE (2023) WITH PROJECT PEAK HOUR
TURNING MOVEMENT VOLUMES

Kimley»Horn

Cumulative (2023) With Project Event Conditions LOS

The Cumulative (2023) With Project Event traffic volumes represent the sum of existing traffic volumes raised by the ambient growth factor, the traffic estimated from related projects, and the event project trips. **Table 14** below presents the Cumulative (2023) With Project Event conditions peak hour V/C ratio and the corresponding LOS for the project intersections.

Table 14 – Cumulative (2023) With Project Event Conditions Intersection LOS

Signalized Intersections		Cumulative (2023) Without Project LOS Analysis Results		Cumulative (2023) With Project Event LOS Analysis Results		Change in V/C	Significant Impact?
		P.M. Peak Hour		P.M. Peak Hour			
		V/C Ratio	LOS	V/C Ratio	LOS	PM	PM
1	Alameda Street at 6th Street	1.009	F	1.012	F	0.003	No
2	Mateo Street at 6th Street	1.333	F	1.331	F	-0.002	No
3	Alameda Street at 7th Street	1.341	F	1.339	F	-0.002	No
4	Mateo Street at 7th Street	1.379	F	1.385	F	0.006	No
5	Santa Fe Avenue at 7th Street	0.993	E	0.998	E	0.005	No
6	Boyle Avenue at 7th Street	0.884	D	0.907	E	**0.023**	**Yes**
7	Boyle Avenue at Whittier Blvd	0.862	D	0.860	D	-0.002	No
8	Alameda Street at 4th Street	0.935	E	0.940	E	0.005	No
Unsignalized Intersections		**Delay, sec.**	**LOS**	**Delay, sec.**	**LOS**	**Signal Warrant Analysis?**	
9	Hewitt Street at 4th Street[1]	*	F	*	F	Yes	
10	Clarence Street at 4th Street	39.8	E	39.4	E	Yes	
11	Santa Fe Avenue at Mateo Street	14.9	B	16.3	C	No	
12	Santa Fe Avenue at 3rd Street	139.4	F	141.4	F	Yes	

Source: Kimley-Horn, March 2018

[1]HCM 2010 method does not support this intersection lane configuration; HCM 2000 method used instead

*Delay exceeds LOS F threshold

Table 14 indicates that for Cumulative (2023) With Project Event conditions, all signalized study intersections are projected to operate at LOS D or worse during the PM peak hour. Alameda Street at 6th Street, Mateo Street at 6th Street, Alameda Street at 7th Street, and Mateo at 7th Street are projected to operate at LOS F during the PM peak hour.

Under Cumulative (2023) With Project Event conditions, three of the four unsignalized study intersections are projected to operate at LOS E or worse during the PM peak hour. Hewitt Street at 4th

Street, Clarence Street at 4th Street, and Santa Fe Avenue at 3rd Street intersections operate at LOS E or worse; therefore, these unsignalized intersections need to be evaluated for the installation of a new traffic signal per LADOT analysis procedures.

Table 14 indicates a project event will have a temporary impact on the Boyle Avenue at 7th Street intersection under Cumulative (2023) With Project Event conditions. Peak hour analysis worksheets for Cumulative (2023) With Project Event conditions are provided in **Appendix C** of this report. **Figure 14** illustrates the Cumulative (2023) With Project conditions peak hour traffic volumes at the study intersections.

Cumulative (2023) With Project Event Conditions Signal Warrant Analysis

Table 15 presents the results of the peak hour traffic signal warrant analysis for unsignalized intersections that operate at LOS E of F under Cumulative (2023) With Project Event Conditions. **Table 15** indicates that a signal should be considered for the Hewitt Street at 4th Street and Santa Fe Avenue at 3rd Street intersections under Cumulative (2023) With Project Event conditions. It should be noted, these intersections met the signal warrant under "Without Project" conditions.

Table 15 – Cumulative (2023) With Project Event Conditions Peak Hour Signal Warrant Analysis

Unsignalized Intersections	Signal Warrant Met?
Hewitt Street at 4th Street	Yes
Clarence Street at 4th Street	No
Santa Fe Avenue at 3rd Street	Yes

Source: Kimley-Horn, March 2018

Peak Hour Signal Warrant worksheets for the unsignalized intersections are provided in **Appendix D** of this report.

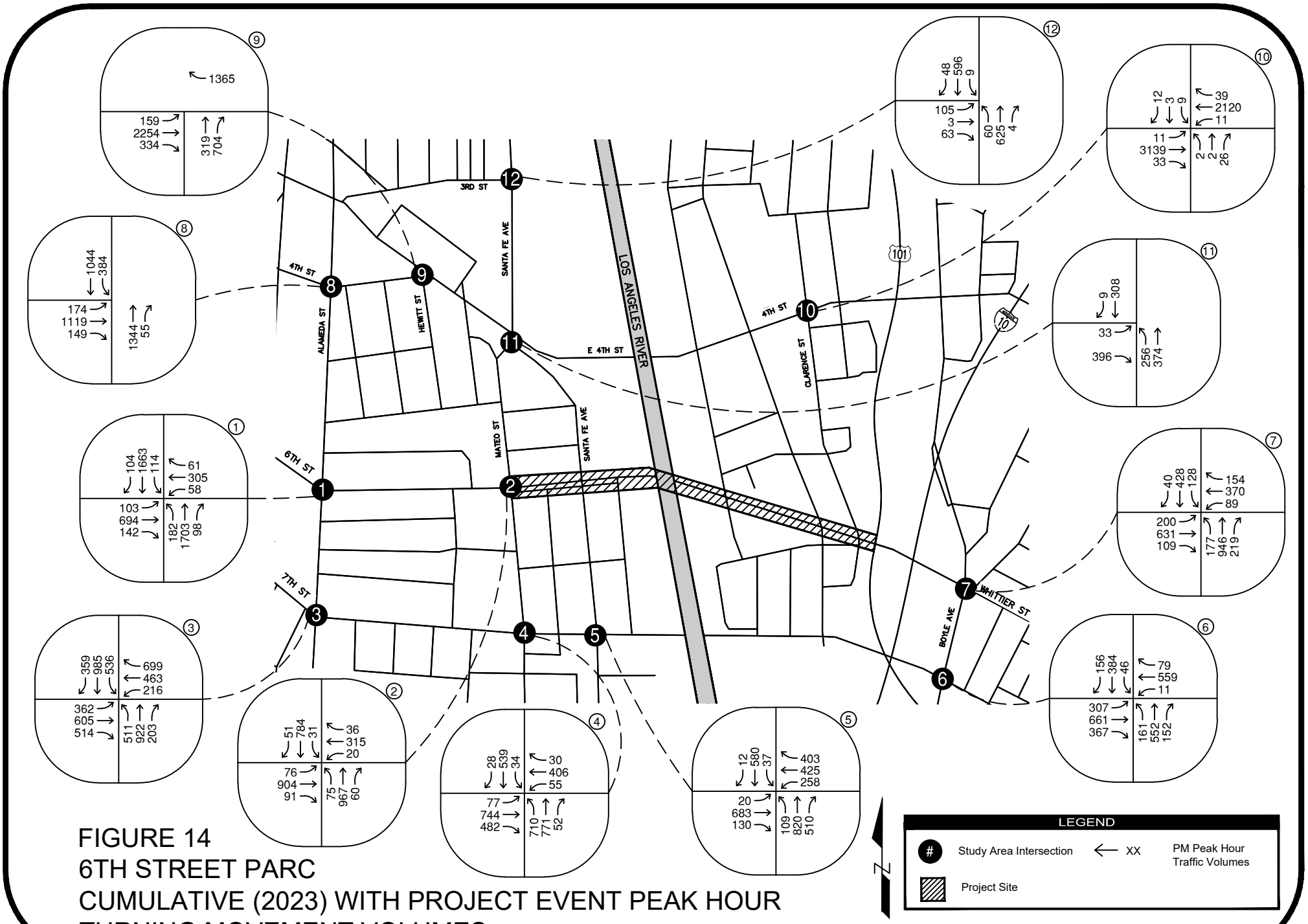


FIGURE 14
6TH STREET PARC
CUMULATIVE (2023) WITH PROJECT EVENT PEAK HOUR TURNING MOVEMENT VOLUMES

Kimley»Horn

Project Impacts

Based on the significant impact criteria as defined by City of Los Angeles, the project is not projected to result in a significant impact. However, events at the project are projected to result in a temporary impact during the event day at the Boyle Avenue at 7th Street intersection. Under Cumulative (2023) With Project Event conditions, the volume to capacity ratio increases from 0.884 to 0.907 at intersection of Boyle Avenue at 7th Street when compared against the Cumulative (2023) Without Project conditions. Mitigation measures as outlined in the following section would bring the temporary traffic impacts at the Boyle Avenue and 7th Street intersections to less than significant levels during events.

Recommended Mitigation Measures

This section includes the recommended mitigation measures to mitigate the temporary traffic impacts of events hosted at Sixth Street PARC. The installation of additional amenities for bicyclists, drivers, and transit users would create a mobility hub at the Sixth Street PARC that would encourage event attendees to use alternative modes of transportation. Currently, there are no bicycle facilities in or adjacent to the study area. It is recommended to establish a Bike Share hub at the Sixth Street PARC to allow Bike Share participants to dock bicycles at the project site. The installation of bicycle facilities adjacent to the Sixth Street PARC would encourage park users to arrive via bicycle.

Park visitors arriving via personal vehicles can park at one of the four on-street parking zones or at dedicated parking lots discussed in previous sections. It is recommended to require large event permittees develop a site-specific traffic control plan to provide information on parking and circulation and minimize congestion. Traffic control strategies for events could include inbound/outbound flex lanes and sheriff-controlled intersections. The traffic control plan should also identify nearby public parking facilities and identify passenger pick-up/drop-off locations. Since there are multiple venue areas within the project, it is recommended to schedule events at different dates and times to reduce congestion in the area.

Permanent rideshare pick-up and drop-off zones are recommended for the East Park and West Park to mitigate the parking deficiency. Rideshare pick-up/drop-off zones could be located on S Santa Fe Street adjacent to the West Park and S Mission Road adjacent to the East Park. The pick-up/drop-off zones should be clearly marked, and wayfinding signage should be installed throughout the PARC.

Park visitors arriving via transit can utilize the following existing transit lines that are near the Sixth Street PARC:

- Metro Local and Limited Lines (18, 53, 60, 62, 106, 720, 760) (Bus) (all within 0.5 miles of project) and
- Metro Dash Line A (Bus) (0.4 miles from project).

It is recommended the City coordinate with Metro to identify potential locations to create and expand public transportation within the vicinity of the PARC. Future improvements such as re-routing the Metro Dash Line F (Bus) line to stop at the Sixth Street PARC and constructing a Sixth Street Metro Station (Rail) to serve the Art District and Boyle Heights neighborhoods should be evaluated.

Site Access

Vehicular access to the project site would be provided via several on-street and off-street parking areas. West park visitors will park in available spaces on the east side of Mateo Street directly adjacent to the project. East Park visitors will park on Mission Road, Anderson Street, Clarence Street, and in a dedicated parking lot adjacent to Anderson Street.

Congestion Management Plan (CMP) Compliance

The Los Angeles County Congestion Management Program (CMP) was developed in response to California Proposition 111, approved June 1990, and is intended to address regional congestion by linking land use, transportation, and air quality decisions.

Among the elements of the CMP is a land use analysis program which "requires local jurisdictions to analyze the impacts of land use decisions on the regional transportation system, for projects preparing an Environmental Impact Report (EIR)."

The CMP TIA guidelines indicate that if a proposed project would add 50 or more peak hour trips (during the peak hour of adjacent street traffic) to a CMP arterial intersection, then a CMP arterial intersection analysis must be conducted. Alameda Street is a CMP arterial, with a monitoring station at Washington Street south of the project site. The proposed project is generating fewer trips than the trips generated by the existing land use. Therefore, the proposed project is projected to add fewer than 50 peak hour trips to the arterial monitoring station on Alameda Street and a separate CMP arterial analysis is not required.

Freeway Impact Screening Analysis

A freeway impact screening analysis was conducted as per LADOT Traffic Study Guidelines. The methodology from the agreement between City of Los Angeles and Caltrans District 7 on freeway impact analysis procedures was used for the freeway impact screening analysis. As per the criteria provided by the agreement, if the proposed project meets any of the following criteria, the applicant will be directed to work with Caltrans and to prepare freeway impact analysis, utilizing Caltrans' "Guide for the Preparation of Traffic Impact Studies."

- The project's peak hour trips would result in a 1% or more increase to the freeway mainline capacity of a freeway segment operating at LOS E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2% or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 1% or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 1,500 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2% or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 1,500 vehicles per hour per lane).

The CMP TIA guidelines indicate that if a proposed development project would add 150 or more trips in either direction during the morning or evening peak hours to the mainline freeway monitoring location, then a CMP freeway analysis must be conducted. The largest percentage of trips on a freeway segment for the assumed trip distribution for the 6th Street PARC project is 10% on I-10 north of the project. The trip generation in the AM and PM peak hour for typical conditions show that a negative number of trips

would be generated due to the removal of the existing land use. Therefore, a freeway impact analysis screening is not necessary.

Analysis of a project's impact on a freeway segment would be required of any project that would add 150 trips or more in either direction during the AM or PM weekday peak hours. The project will not generate this level of traffic in either peak hour. Therefore, further analysis of CMP facilities is not required for CMP purposes.

Parking Analysis

The proposed project would require a total of 83 parking spaces to meet peak parking demands as shown in **Table 16**. Per ITE Parking Generation, 4th Edition, 58.8 spaces are required per soccer field. The parking demand for the park totals 118 parking spaces. However, according to Subdivision 4 of Subsection A of Section 12.21 of the City of Los Angeles Municipal Code, parking spaces located within 1,500 feet of a fixed rail station, bus station, or similar transit facility, may replace up to 30 percent of the required automobile parking spaces with bicycle spaces at a ratio of one parking space for every four bicycle spaces provided. This parking analysis replaces 30 percent of the automobile parking spaces with bicycle spaces. After the bicycle parking credit is applied, this project requires 83 parking spaces. The project site provides a total of 45 parking spaces (31 public vehicle parking spaces and 14 dedicated vehicle parking spaces shared by RAP staff). The mitigation measures described above such as the installing a Bike Share hub, designating a Rideshare pick-up/drop-off zone, and providing additional transit routes to the project site will encourage alternative modes of transportation that do not require parking spaces.

Table 16 – Parking Analysis Summary

Land Use	Ratio	Field	Total
Soccer Complex	58.8 spaces/field	2	118
Bicycle Parking Credit			-35
Total Required			**83**
Total Provided			**45**

Source: ITE Parking Generation, 4th Edition & Los Angeles Municipal Code (LAMC)

IV. CONCLUSIONS

This report documents the results of a Traffic Impact Analysis completed for the proposed Sixth Street Park, Arts, River, and Connectivity Improvements Project (Sixth Street PARC) located in areas underneath and adjacent to the upcoming Sixth Street Viaduct in the City of Los Angeles. The following summarizes our key findings and conclusions:

- As per the site plan, the proposed project site is divided into the following sections: (1) West park; (2) Arts Plaza and River Gateway; (3) East park. These areas include 630-sq.ft. café, an Arts Plaza performance area, two soccer fields, a 2,000-sq.ft. building featuring concessions and public restrooms, two flexible play and performance lawns, sports courts, children's play area, picnic areas, skate park, and dog play areas.

- As per the site plan, the project would provide several on-street and off-street parking locations. West park visitors will park in available spaces on the east side of Mateo Street directly adjacent to the project. East park visitors will park on Mission Road, Anderson Street, Clarence Street, and in a dedicated parking lot adjacent to Anderson Street.

- This traffic impact analysis analyzed 12 intersections within the vicinity of the project site.

- The project generates fewer trips than the existing heavy industrial land use. As per the site plan, the project is estimated to generate approximately 159 fewer daily trips, 34 fewer trips during the AM peak hour, and 85 fewer trips during the PM peak hour.

- The Sixth Street PARC will host events such as concerts, festivals, soccer tournaments, and farmer's markets. An event at the project site is estimated to generate 250 weekday PM peak hour trips.

- Weekday peak hour intersection operations analysis was conducted for (6) scenarios including Existing (2018), Existing (2018) With Project, Existing (2018) With Project Event, Cumulative (2023) Without Project, Cumulative (2023) With Project, and Cumulative (2023) With Project Event.

- For Existing (2018), Existing (2018) With Project, and Existing (2018) With Project Event conditions, eleven study intersections would operate at Level of Service (LOS) C or better during the AM peak period. During the PM peak period, nine study intersections operate at Levels of Service (LOS) C or better while the remaining three intersections would operate at LOS D or worse.

- For Cumulative (2023) Without Project and With Project conditions, three study intersections are projected to operate at LOS C or better during the AM peak period. During the PM peak period, one intersection would operate at LOS C or better while the remaining eleven intersections would operate at LOS D or worse.

- For Cumulative (2023) With Project Event conditions, one study intersection is projected to operate at LOS C or better during the PM peak period. The remaining eleven intersections would operate at LOS D or worse.

- Based on City of Los Angeles significant traffic impact criteria, the proposed project would not result in significant impacts. An event at the proposed project would result in temporary impacts during the event day at the intersection of Boyle Avenue at 7th Street.

- The temporary impact at Boyle Avenue at 7th Street occurs during Cumulative (2023) With Project Event Conditions. This temporary impact can be mitigated by event scheduling and site-specific traffic control plans for events.

- A CMP arterial evaluation was conducted as per LADOT Traffic Study Guidelines. The project is expected to add fewer than 50 peak hour trips to the arterial monitoring station on Alameda Street at Washington Street and therefore no additional CMP arterial analysis is required.

- A freeway impact screening analysis was conducted as per LADOT Traffic Study Guidelines for the freeway monitoring stations along U.S. 101, I-10, and SR 60. The proposed development is expected to add fewer than 150 peak hour trips to the monitoring stations on U.S. 101, I-10, and SR-60; therefore, no additional CMP and Freeway screening analysis is required.

- The proposed project would require a total of 83 parking spaces to meet peak parking demands. Per project site plan, a total of 45 parking spaces would be provided.

- The impacts of construction-related trips (trucks and construction employees) on the street system are projected to be negligible since these trips can be scheduled with increased frequency during off-peak hours.

APPENDIX A

MEMORANDUM OF UNDERSTANDING (MOU)

LADOT

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: Sixth Street Park, Arts, River and Connectivity Improvements Project (Sixth Street PARC)

Project Address: Under and adjacent to Sixth Street Viaduct between Mateo Street and Highway 101

Project Description: The park would include athletic fields, playground and fitness equipment, walking and biking paths, a public art and performance area, a dog park area, and a community building.

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

II. TRIP GENERATION

Geographic Distribution: N 20.00 % S 21.00 % E 35.00 % W 24.00 %

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	☐	■
Transportation Demand Management	☐	■
Existing Active Land Use	☐	■
Previous Land Use	■	☐
Internal Trip	☐	■
Pass-By Trip	☐	■

Source of Trip Generation Rate(s)? ■ ITE 9th Edition ☐ Other: _____

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

	IN	OUT	TOTAL
AM Trips	-15	-19	-34
PM Trips	-37	-48	-85

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2020 Ambient or CMP Growth Rate: 0.18 % 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 INFORMATION

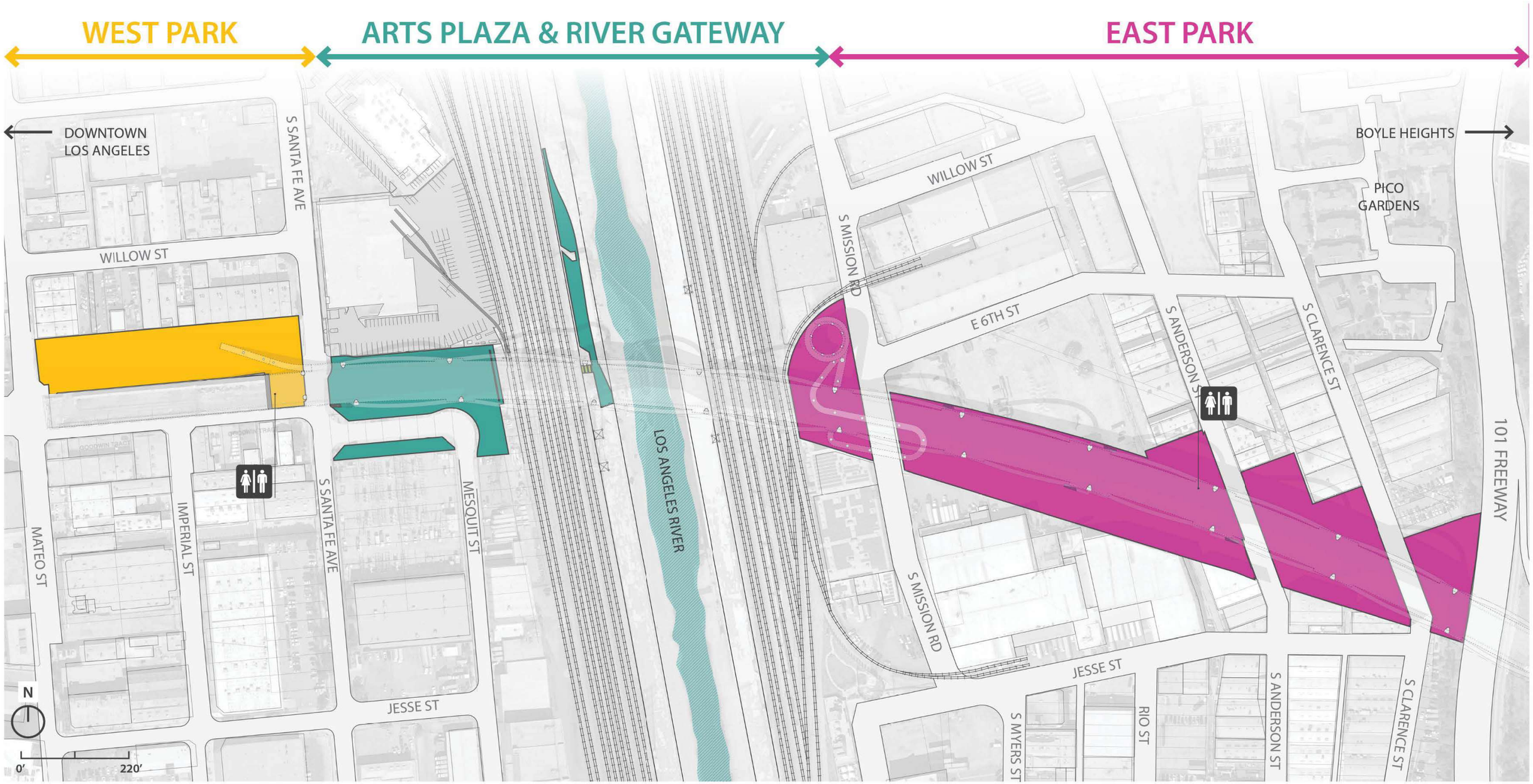
	CONSULTANT	DEVELOPER
Name:	Srikanth Chakravarthy	N/A - City of LA project.
Address:	660 S. Figueroa St., Ste 2050, Los Angeles, CA 90017	
Phone Number:	(213) 261-4037	
E-Mail:	srikanth.chakravarth@kimley-horn.com	

Approved by:

x _____	_____	x Edward Johnson	2-2-18
Consultant's Representative	Date	LADOT Representative	Date

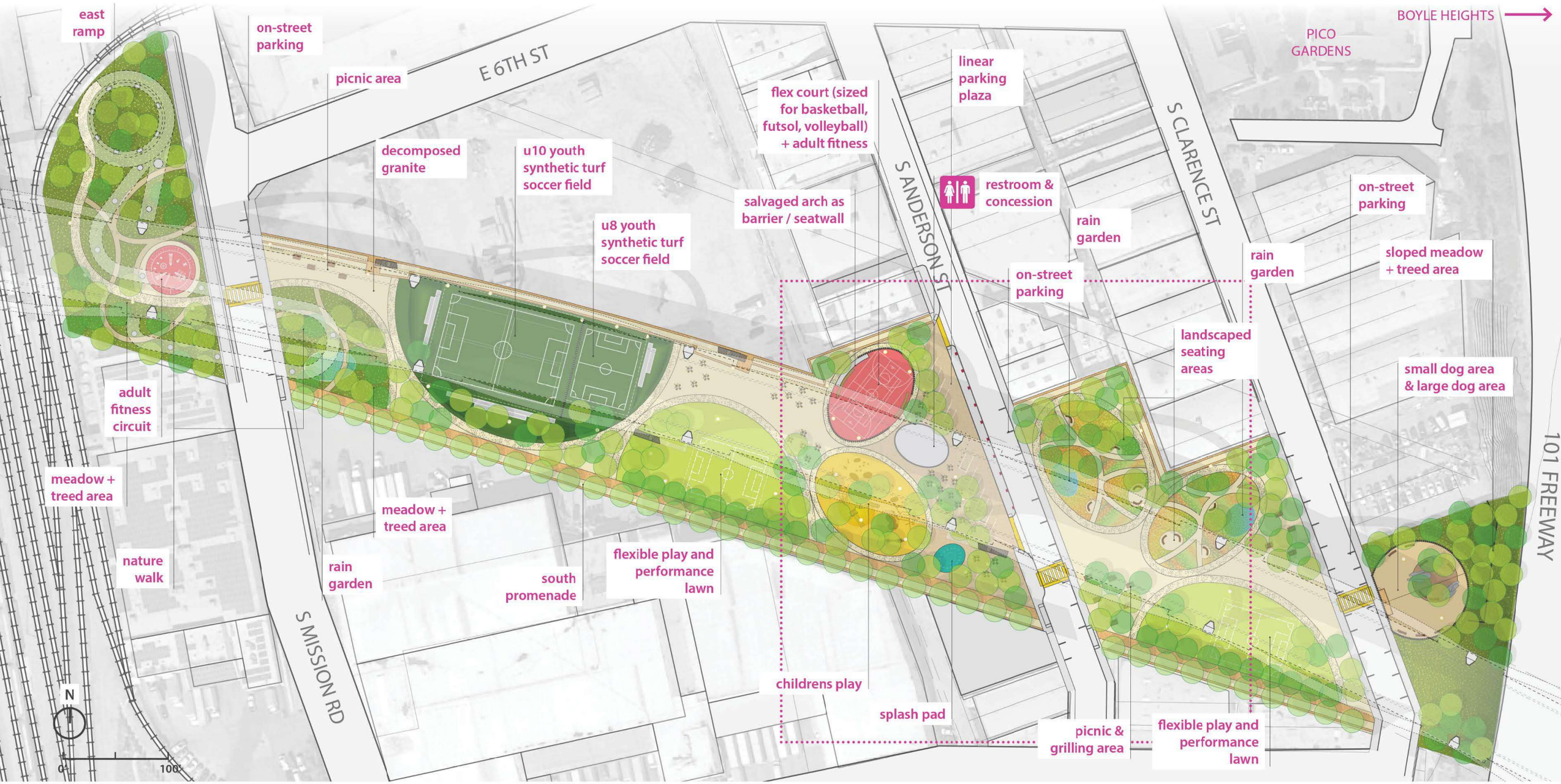
CONCEPTUAL DESIGN

OVERALL CONCEPT



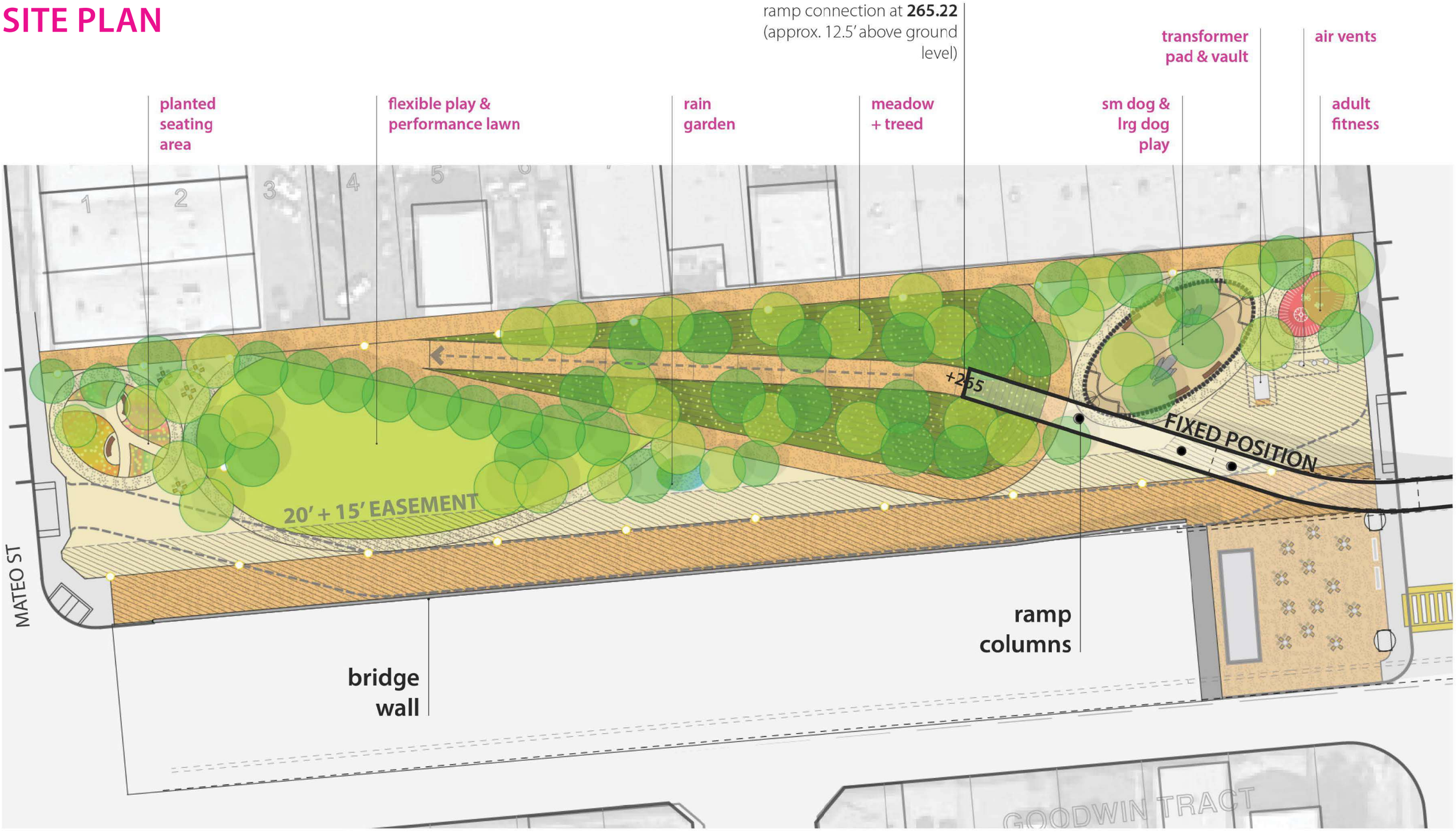
EAST PARK

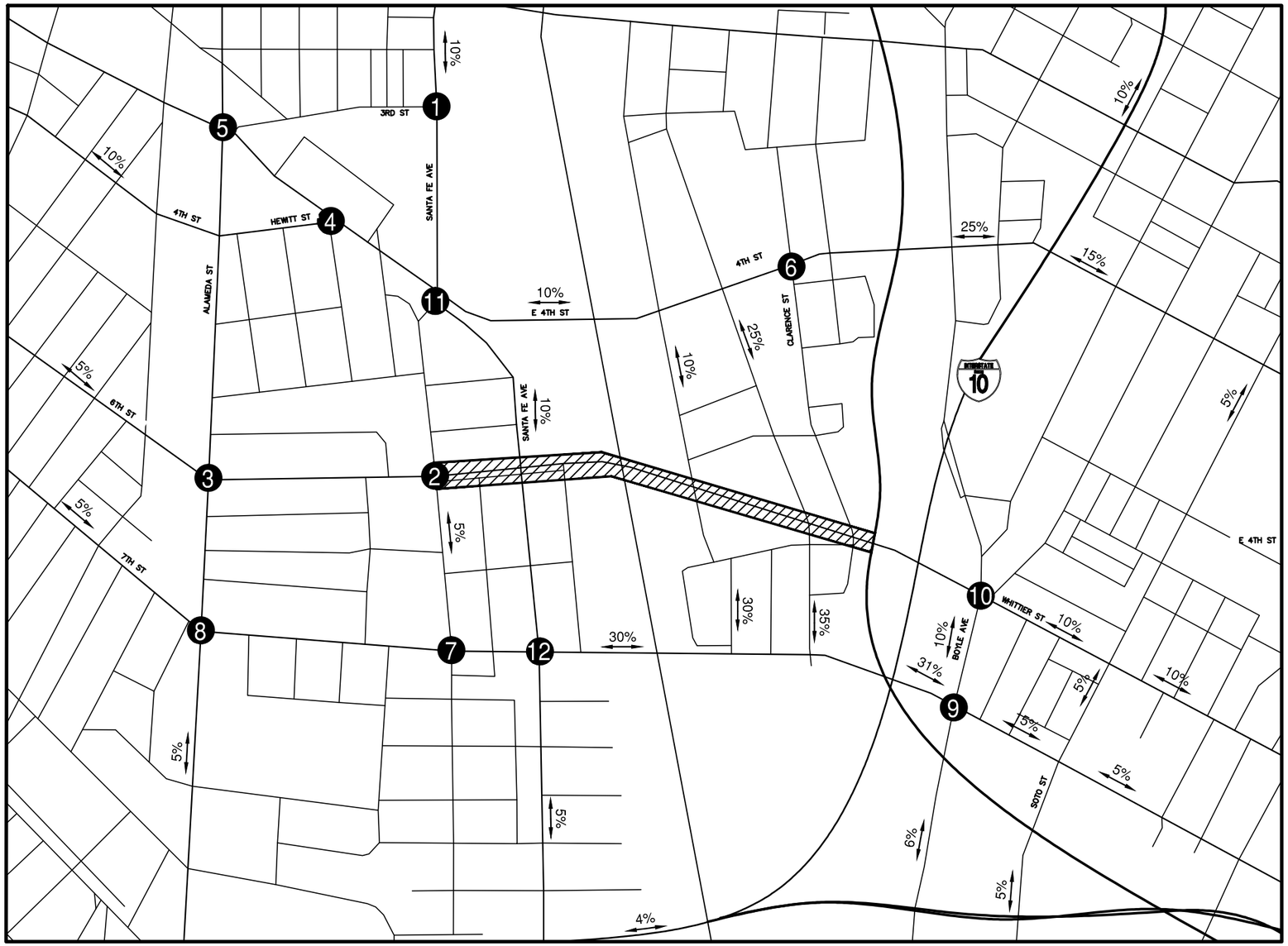
OPTION 03: BALANCED

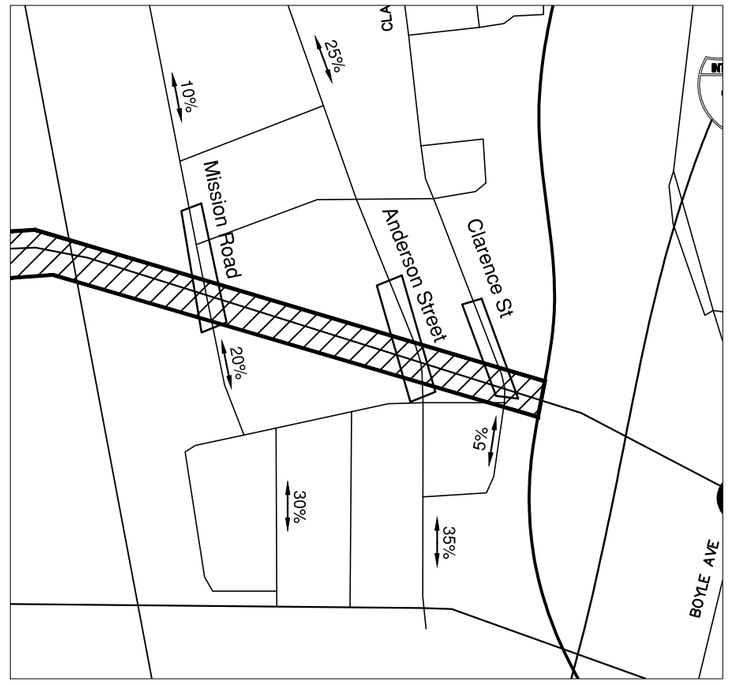


WEST PARK

SITE PLAN







East Park Parking Areas Trip Distribution

LEGEND

- # Intersection ID
- Project Site
- Project Parking
- XX% % Project Traffic

6th Street PARC
Project Trip Distribution Percentages

Kimley»Horn

Trip Generation (no special event)

ITE Code	Land Use Description	Location	Unit	No. of Units	Daily Weekday Rate	AM Rate	PM Rate	Daily Saturday Rate	Saturday Peak Hour Rate	Daily Weekday Trips	AM Trips			PM Trips			Daily Saturday Trips	Saturday Peak Hour Trips		
											Total	In	Out	Total	In	Out		Total	In	Out
488	Soccer Complex	East Park	Field(s)	2	71.33	1.40	17.70		30.34	143	3	2	1	36	24	12		61	29	32
417	Regional Park	East Park	Acre(s)	5.71	4.57	0.15	0.20	5.65	0.34	27	1	1	0	2	1	1	33	2	1	1
417	Regional Park	West Park	Acre(s)	1.45	4.57	0.15	0.20	5.65	0.34	7	1	1	0	1	0	1	9	1	0	1
936	Coffee/Donut Shop	West Park	1,000 SF	0.7		108.38	40.75		65.96		76	39	37	29	15	14		47	23	24
Trip Generation Subtotal										177	81	43	38	68	40	28	42	111	53	58

Trip Credits

Existing Use																				
120	General Heavy Industrial		1,000 SF	-223.9	1.50	0.51	0.68			-336	-115	-58	-57	-153	-77	-76				
Net Trip Generation										-159	-34	-15	-19	-85	-37	-48	42	111	53	58

Trip Generation for Special Events

The park will be used to host special events at the West Park and the East Park. These events are not included in the typical trip generation due to their infrequency, but they are included here to account for peak trip generation.

West Park

Concerts and performances will take place at the Arts Plaza stage area. The capacity is 1,000 people and the events are expected to be attended at the following frequency:

Attendance	Occurrences per Year	Time of Day/Week
1,000	2	Evenings/Weekends
200	10	Evenings/Weekends
50	2	Evenings/Weekends

East Park

Concerts, performances, events, and festivals will take place at the two Flexible Play and Performance Lawns. Each lawn has the capacity to hold up to 1,000 people and events are expected to be attended at the following frequency:

Attendance	Occurrences per Year	Time of Day/Week
5,000	1	Weekend
3,250	1-2	Weekend
1,000	2	Evenings/Weekends
500	4	Evenings/Weekends
100	20	Evenings/Weekends

Trip Generation

For weekday evening events, it is assumed that attendees would start to arrive during the PM peak period. Weekday evening events are assumed to start around 7 PM and 25% of attendees are expected to arrive by 6 PM. An average vehicle occupancy of 2 persons per vehicle is assumed for a conservative estimate. Under these assumptions, we would expect an additional 125 cars to arrive during the PM peak period for a 1,000 person event.

For trip generation during special events, please see the trip generation tables on the two following pages.

Trip Generation (1 x 1,000 person special event)

ITE Code	Land Use Description	Location	Unit	No. of Units	Daily Weekday Rate	AM Rate	PM Rate	Daily Saturday Rate	Saturday Peak Hour Rate	Daily Weekday Trips	AM Trips			PM Trips			Daily Saturday Trips	Saturday Peak Hour Trips		
											Total	In	Out	Total	In	Out		Total	In	Out
488	Soccer Complex	East Park	Field(s)	2	71.33	1.40	17.70		30.34	143	3	2	1	36	24	12		61	29	32
417	Regional Park	East Park	Acre(s)	5.71	4.57	0.15	0.20	5.65	0.34	27	1	1	0	2	1	1	33	2	1	1
417	Regional Park	West Park	Acre(s)	1.45	4.57	0.15	0.20	5.65	0.34	7	1	1	0	1	0	1	9	1	0	1
936	Coffee/Donut Shop	West Park	1,000 SF	0.7		108.38	40.75		65.96		76	39	37	29	15	14		47	23	24
	Special Event	West/East Park	Attendees	1,000			0.13							125	125	0				
Trip Generation Subtotal										177	81	43	38	193	165	28	42	111	53	58

Trip Credits

Existing Use																				
120	General Heavy Industrial		1,000 SF	-223.9	1.50	0.51	0.68			-336	-115	-58	-57	-153	-77	-76				
Net Trip Generation										-159	-34	-15	-19	40	88	-48	42	111	53	58

Trip Generation (2 x 1,000 person special event)

ITE Code	Land Use Description	Location	Unit	No. of Units	Daily Weekday Rate	AM Rate	PM Rate	Daily Saturday Rate	Saturday Peak Hour Rate	Daily Weekday Trips	AM Trips			PM Trips			Daily Saturday Trips	Saturday Peak Hour Trips		
											Total	In	Out	Total	In	Out		Total	In	Out
488	Soccer Complex	East Park	Field(s)	2	71.33	1.40	17.70		30.34	143	3	2	1	36	24	12		61	29	32
417	Regional Park	East Park	Acre(s)	5.71	4.57	0.15	0.20	5.65	0.34	27	1	1	0	2	1	1	33	2	1	1
417	Regional Park	West Park	Acre(s)	1.45	4.57	0.15	0.20	5.65	0.34	7	1	1	0	1	0	1	9	1	0	1
936	Coffee/Donut Shop	West Park	1,000 SF	0.7		108.38	40.75		65.96		76	39	37	29	15	14		47	23	24
	Special Event	West/East Park	Attendees	2,000			0.13							250	250	0				
Trip Generation Subtotal										177	81	43	38	318	290	28	42	111	53	58

Trip Credits

Existing Use																				
120	General Heavy Industrial		1,000 SF	-223.9	1.50	0.51	0.68			-336	-115	-58	-57	-153	-77	-76				
Net Trip Generation										-159	-34	-15	-19	165	213	-48	42	111	53	58

CLATS

Case Logging and Tracking System

Welcome **eduardo**! | Log Out | Profile | Admin

RELATED PROJECTS

Centroid Info:
PROJ ID: 45713
Address: 0 6TH ST BRIDGE , CA
Lat/Long: 34.0386, -118.228

Buffer Radius: 1.0 mile

Search

Column

Include NULL "Trip info":
Include NULL "FirstStudySubmittalDate" (latest)
Include "Inactive" projects:
Include "Do not show in Related Project":

Net_AM_Trips - Select -
Net_PM_Trips - Select -
Net_Daily_Trips - Select -

Record Count: 50 | Record Per Page: All Records

Results generated since: (1/9/2018 2:36:50 PM)

Proj ID	Office	Area	CD	Year	Project Title	Project Desc	Address	First Study Submittal Date	Distance (mile)	Trip Info

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
School	Other	532								SciArc
Retail	S.F. Gross Area	30062								market, restaurant, retail
Apartments	Total Units	635	339	458	6372	162	177	245	213	Total net project trips
			339	**458**	**6372**		**162**	**177**	**245**	**213**

41295	Metro	MTR	14	2013	950 E. 3rd St	Santa Fe Freight Yard Redevelopment	950 E 3rd St	07/03/2013	0.6

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	78600								
Retail	S.F. Gross Area	25000								
Other	S.F. Gross Area	20000	128	251	2512	106	22	113	138	Land Use=Restaurant. Total includes credits and existing uses.
			128	**251**	**2512**		**106**	**22**	**113**	**138**

41918	Metro	MTR	14	2014	Mixed-Use (Coca Cola)	75 KSF Office,25KSF Retail, 20 KSF Restaurant	963 E 4TH ST	07/02/2014	0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	320								
Other	S.F. Gross Area	5000								Restaurant
Retail	S.F. Gross Area	15000	144	208	2310	17	127	145	64	Total includes pass-by credits.
			144	**208**	**2310**		**17**	**127**	**145**	**64**

42440	Metro	MTR	14	2014	Mixed-Use	320 Apartments, 15 KSF Retail, 5 KSF Restaurant	2051 E 7th St	08/28/2014	0.3

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Condominiums	Total Units	90								live/work
Retail	S.F. Gross Area	11000								
Other	Total Units	5600	45	101	1267	11	34	62	39	Land Use=Restaurant total includes internal and transit credit.
			45	**101**	**1267**		**11**	**34**	**62**	**39**

42500	Metro	MTR	14	2014	Mixed-Use	90 Live/Work, 11 KSF Retail, 5.6 KSF Restaurant	826 S MATEO ST	11/05/2014	0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Retail	S.F. Gross Area	153000	35	425	4300	5	30	220	205	TOTAL NET TRIPS
			35	**425**	**4300**		**5**	**30**	**220**	**205**

42563	Metro	MTR	14	2014	Retail (Palmetto & Mateo)	153000 SF Retail	555 S Mateo st	12/10/2014	0.3

42026	Metro	MTR	14	2014	Mixed-Use (Old Ford Factory)	243 KSF Office, 40 KSF Retail	2030 E 7th st	01/05/2015	0.4	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	243583								
Retail	S.F. Gross Area	40000	308	318	2306	274	34	69	249	Credit for existing, transit and passby applied.
			308	**318**	**2306**		**274**	**34**	**69**	**249**

40927	Metro	MTR	14	2013	Office	89825 SF Office	540 S Santa Fe av	03/03/2015	0.2	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	89825	102	98	726	90	12	17	81	
			102	**98**	**726**		**90**	**12**	**17**	**81**

43026	Metro	MTR	14	2015	Mixed-Use	52 Apts, 2400 SF Restaurant, 6900 SF Creative office	360 S Alameda St	03/03/2015	0.7	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	52	57	61	648	24	33	33	28	Totals include credits for transit/walk and pass-by
Other	S.F. Gross Area	2400								Restaurant
Office	S.F. Gross Area	6900								Creative Office
			57	**61**	**648**		**24**	**33**	**33**	**28**

43538	Metro	MTR	14	2015	Camden Arts Mixed-Use	328 Apts, 27.3lsf office, 6.4ksf retail, & 5.7ksf restaurant	1525 E INDUSTRIAL ST	08/05/2015	0.6	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	328	131	155	2288	58	73	86	69	Total includes credits for existing use, transit, internal, and pass-by
Office	S.F. Gross Area	27300								
Retail	S.F. Gross Area	6400								
Other	S.F. Gross Area	5700								Restaurant
			131	**155**	**2288**		**58**	**73**	**86**	**69**

42151	Metro	MTR	14	2014	Metro Emergency Security Operations Center	110.0 ksf MESOC (Office Bldg)	410 N CENTER ST	09/01/2015	0.9	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Net Area	110000	87	79	1165	87	0	0	79	Total net project trips
			87	**79**	**1165**		**87**	**0**	**0**	**79**

43417	Metro	MTR	14	2015	Restaurant	12682 SF Hi-Turnover Restaurant	500 S Mateo st	09/02/2015	0.3	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Other	S.F. Gross Area	12882	89	81	1052	48	41	50	31	Land use=hi-turnover restaurant. credit for existing & transit
			89	**81**	**1052**		**48**	**41**	**50**	**31**

43378	Metro	MTR	14	2015	400 S Alameda Hotel	66-room hotel, 2130 sf restaurant, 840sf retail	400 S ALAMEDA ST	12/01/2015	0.6	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Other	Rooms	66								HOTEL
Other	S.F. Net Area	2130								RESTAURANT
Retail	S.F. Gross Area	840	38	37	512	20	19	23	14	TOTAL NET PROJECT TRIPS
			38	**37**	**512**		**20**	**19**	**23**	**14**

43627	Metro	MTR	14	2015	Mixed-Use	84200 SF Office, 7450 SF Retail	2130 E Violet St	04/06/2016	0.4	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	94000	167	161	1351	137	30	39	122	Total includes credit for internal, transit, pass-by & existing.
Retail	S.F. Gross Area	3500								
Other	S.F. Gross Area	4000								land use=restaurant

												167	161	1351		137	30	39	122		

44072	Metro	MTR	14	2016	Challenge Cream & Butter Bldg - Exclusive Club	36955SF Retail, 1024SF Retail, 8157SF Event Space...see comments	929 E 2ND ST	05/05/2016	0.7

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Retail	S.F. Gross Area	36955	80	201	2153	68	12	105	96	Total net project trips
Retail	S.F. Gross Area	1024								Private Retail
Other	S.F. Gross Area	8157								Event Space (private)
Other	S.F. Gross Area	10784								Drinking Place (private)
Office	S.F. Gross Area	45759								Private Offices
Other	S.F. Gross Area	6378								Private Health Club
Other	Seats	49								private movie theater
			80	201	2153		68	12	105	96

44454	Metro	MTR	14	2016	Mixed-Use (Revised)	122 Apts, 3245sf Retail, 4605sf Office	1800 E 7th St	05/23/2016	0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	122	77	87	992	25	52	54	34	Trips from City Planning 10/11/17
Retail	S.F. Gross Area	3245								specialty retail
Other	S.F. Gross Area	4605								Restaurant
Office	S.F. Gross Area	2700								general office
			77	87	992		25	52	54	34

44400	Metro	MTR	14	2016	520 Mateo St MU	600 apts,120ksf office, 15ksf retail, & 15ksf restaurant	520 S Mateo St	01/18/2017	0.3

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Mixed Use	Total Units	600	377	497	4995	157	220	274	223	Apts; total net project trips
Office	S.F. Gross Area	110000								
Retail	S.F. Gross Area	15000								
Other	S.F. Gross Area	15000								Restaurant
Other	S.F. Gross Area	10000								Museum
			377	497	4995		157	220	274	223

45463	Metro	MTR	14	2017	ROW DTLA Mixed-Use	117,375 SF Restaurant, 66155 Sf Retail, 850444 SF Office...see below	777 S Alameda st	02/06/2017	0.7

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	850400	-306	-122	916	-134	-172	-157	35	Total net project trips
Other	S.F. Gross Area	117400								Restaurant
Retail	S.F. Gross Area	66200								
Other	Rooms	125								Hotel rooms
			-306	-122	916		-134	-172	-157	35

44914	Metro	MTR	14	2016	Mixed-Use	475 Live/Work, 34 KSF Office, 9 KSF Retail, 9 KSF Office, see below	668 S alameda st	04/06/2017	0.6

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	475	289	361	4002	107	182	216	145	Total net project trips
Office	S.F. Gross Area	25200								Live/Work
Retail	S.F. Gross Area	17500								
Office	S.F. Gross Area	7900								
Other	S.F. Gross Area	16300								Restaurant
Other	S.F. Gross Area	15300								Supermarket
			289	361	4002		107	182	216	145

43414	Metro	MTR	14	2015	Arts District Center (Mixed-Use)		1129 E 5th st	05/02/2017	0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Retail	S.F. Gross Area	26979	270	226	4674	130	140	157	69	Credits for transit, internal, pass-by and existing uses applied.
Other	S.F. Gross Area	31719								Land Use = restaurant
Other	Rooms	113								land use = hotel
Apartments	Total Units	129								
Other	S.F. Gross Area	2430								land use = art school
Other	S.F. Gross Area	10341								land use = art gallery
			270	226	4674		130	140	157	69

44881	Metro	MTR	14	2016	Mixed-Use	186 Apartments, 10415 SF Creative office, 11925 SF Retail	330 S alameda st	05/02/2017	0.7	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	186	112	156	1662	36	76	91	65	Credits applied for transit & internal capture.
Office	S.F. Gross Area	10415								Creative Office
Retail	S.F. Gross Area	11925								
			112	**156**	**1662**		**36**	**76**	**91**	**65**

45105	Metro	MTR	14	2016	MU (Little Tokyo Galleria)	258 dwelling units & 40ksf commercial	333 S ALAMEDA ST	05/02/2017	0.7	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	994	394	719	8445	134	260	390	329	Total net project trips
Retail	S.F. Gross Area	99000								
			394	**719**	**8445**		**134**	**260**	**390**	**329**

45337	Metro	MTR	14	2017	4th & Hewitt MU	255514 SF Office, 14906 SF Retail	401 S Hewitt st	05/02/2017	0.5	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	255514	441	424	3493	365	76	100	324	Credit for transit, pass-by, internal and existing uses applied.
Retail	S.F. Gross Area	4970								
			441	**424**	**3493**		**365**	**76**	**100**	**324**

45544	Metro	MTR	14	2017	6AM (6TH & ALAMEDA MU)	1736 Apts., 316632 SF Warehouse, 253514 SF Office, 82332 SF Retail...	1206 E 6th st	05/02/2017	0.6	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	1736	1022	1352	14258	437	585	710	642	Total includes credit for existing, internal, transit, and pass-by.
Other	S.F. Gross Area	316632								land use=warehouse
Office	S.F. Gross Area	253514								
Other	S.F. Gross Area	22639								land use=quality restaurant
Other	S.F. Gross Area	22639								land use=high-turnover restaurant
Retail	S.F. Gross Area	82332								
Other	S.F. Gross Area	22429								land use=art museum
Other	Rooms	514								land use=hotel
School	Enrollment	300								
			1022	**1352**	**14258**		**437**	**585**	**710**	**642**

45849	Metro	MTR	14	2017	MIXED-USE	310 DU (INC. 35 AFFORDABLE), 11,375 SF Retail, 11375 SF Artist Prod	527 S COLYTON ST	05/02/2017	0.5	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	275								Includes 35 affordable Housing
Retail	S.F. Gross Area	11375								
Other	S.F. Gross Area	11375								Artist Production
			0	**0**	**0**		**0**	**0**	**0**	**0**

45850	Metro	MTR	14	2017	MIXED-USE	151 DWELLING UNITS	609 E 5TH ST	05/02/2017	0.9	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	151	77	94	1004	15	62	61	33	
			77	**94**	**1004**		**15**	**62**	**61**	**33**

45851	Metro	MTR	14	2017	RESIDENTIAL	51 DWELLING UNITS	713 E 5TH ST	05/02/2017	0.8	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	51	25	17	208	15	10	9	8	Using LADOT affordable housing rate
			25	**17**	**208**		**15**	**10**	**9**	**8**

45514	Metro	MTR	14	2017	Mixed-Use	236 Apartments, 12000 SF Retail	930 E 6th ST	05/25/2017	0.7	

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	236	96	102	1074	17	79	70	32	Credits for internal, transit, pass-by and existing use applied.
Retail	Total Units	12000								
			96	**102**	**1074**		**17**	**79**	**70**	**32**

45418 | Metro | MTR | 14 | 2017 | Hewitt & 4th MU | 93 live/work units & 20,248 sf commercial | 940 E 4TH ST | 06/06/2017 | 0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	93	51	75	788	14	37	44	31	Total net project trips
Office	S.F. Gross Area	6000								
Retail	S.F. Gross Area	14248								
			51	75	788		14	37	44	31

45631 | Metro | MTR | 14 | 2017 | Apartments | 82 Apartment Units | 656 S Stanford av | 07/07/2017 | 0.9

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	82	42	51	1463	8	34	33	18	Est. trips by Mobility Group
			42	51	1463		8	34	33	18

45655 | Metro | MTR | 13 | 2017 | Weingart Towers (Affordable Housing) | 407 affordable housing units & 12.3ksf commercial space | 554 S SAN PEDRO ST | 07/07/2017 | 1.0

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Other	Total Units	378	57	60	588	33	23	29	31	Affordable Housing
Retail	S.F. Gross Area	1758								
Apartments	Total Units	4								
Office	S.F. Gross Area	4410								
Other	S.F. Gross Area	5932								Dining Room/Flex Space
			57	60	588		33	23	29	31

45656 | Metro | MTR | 14 | 2017 | San Pedro Tower (Affordable Housing) | 303 res units (inc. 298 affordable & 19.909ksf commercial | 600 S SAN PEDRO ST | 07/07/2017 | 1.0

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Other	Total Units	298	63	67	636	38	25	30	37	Affordable Housing
Apartments	Total Units	5								
Office	S.F. Gross Area	16773								
Other	S.F. Gross Area	3136								
			63	67	636		38	25	30	37

46076 | Metro | MTR | 14 | 2017 | 508 4th st - affordable apts | 41 apts | 508 E 4TH ST | 07/07/2017 | 0.8

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	41	20	14	167	8	12	8	6	Est. trips by Mobility Group
			20	14	167		8	12	8	6

46046 | Metro | MTR | 14 | 2017 | Mixed-Use | 91185 SF Office, 9430 SF Retail, 6550 SF Restaurant | 640 S Santa fe av | 08/17/2017 | 0.2

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Office	S.F. Gross Area	91185	98	157	1330	90	8	43	114	Trip total include credits for internal, existing, transit and pass-by trips.
Retail	S.F. Gross Area	9430								
Other	S.F. Gross Area	6550								land use=restaurant
			98	157	1330		90	8	43	114

46176 | Metro | MTR | 14 | 2017 | Charter School | 625 Elementary Students | 443 S Soto St | 09/14/2017 | 0.9

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
School	Enrollment	625	243	57	277	131	112	32	25	land use=elementary Totals include credit existing uses.
			243	57	277		131	112	32	25

44566 | Metro | MTR | 14 | 2016 | 2110 Bay Street Mixed-Use Project | 110 live/work apt, 113,350 sf office space, 43,657 sf comm shop center | 2110 Bay st | 09/27/2017 | 0.5

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Rooms	99	243	281	2394	180	63	89	192	Total Net Trips. Credit applied for transit, pass-by, and internal capture.
Office	S.F. Gross Area	113350								
Retail	S.F. Gross Area	43657								
Other	Total Units	11								Affordable Housing
			243	281	2394		180	63	89	192

45186 | Metro | MTR | 14 | 2016 | 1024 Mateo St MU | 104 apts, 101983sf off, 16279sf restaurant, | 1024 S Mateo st | 09/27/2017 | 0.6

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments
Apartments	Total Units	104	223	205	2095	144	79	82	123	Total net project trips
Office	S.F. Gross Area	101983								includes 2100 sf live/work office
Other	S.F. Gross	16279								Restaurant

						5830sf ret, & 5519sf other																	
												Area											
											Retail	S.F. Gross Area	5830									
											Other	S.F. Gross Area	5519									Light Industrial (Arts & Production)
														223	205	2095		144	79	82	123	
45273	Metro	MTR	14	2016	Mixed-Use	Office, Apts, Hotel, Retail, Restaurant, studio, museum, gym	670 S MESQUIT ST	09/27/2017	0.2	Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments		
										Office	S.F. Gross Area	944055	1579	1835	22845	1258	321	640	1195	Total net project trips		
										Apartments	Total Units	308										
										Other	Rooms	236								Hotel		
										Retail	S.F. Gross Area	79240										
										Other	S.F. Gross Area	89576								Restaurant		
										Other	S.F. Gross Area	62148								Gym		
										Other	S.F. Gross Area	93617								Studio/Event/Gallery/Museum		
										Other	S.F. Gross Area	56912								Grocery		
													1579	1835	22845		1258	321	640	1195		
45364	Metro	MTR	14	2017	Mixed-Use	320 Apartments, 46.67 KSF Retail, 224292 SF Office	2143 E Violet st	09/27/2017	0.4	Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments		
										Apartments	Total Units	320	451	460	4477	329	122	130	330	Credits applied for internal, and pass-by.		
										Retail	S.F. Gross Area	46670										
										Office	S.F. Gross Area	224292										
													451	460	4477		329	122	130	330		
45973	Metro	MTR	14	2017	Mixed-Use	220 Live/Work Units, 4.35 KSF live/work office, 15671 SF Office,	1100 E 5th st	09/27/2017	0.5	Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments		
										Other	Total Units	220	198	207	2583	79	119	133	74	land use=live/work Credits applied for transit, internal, pass-by and existing use.		
										Other	S.F. Gross Area	4350								land use=live/work office		
										Office	S.F. Gross Area	15671										
										Other	S.F. Gross Area	19609								land use=restaurant		
										Retail	S.F. Gross Area	9250										
													198	207	2583		79	119	133	74		
45974	Metro	MTR	14	2017	Mixed-Use	185 live/work units,3.9ksf live/work off, 15005sf Rest, & 8375sf ret	676 S MATEO ST	09/27/2017	0.3	Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments		
										Other	Total Units	185	145	157	1990	50	95	106	51	land use=live/work Total includes credits for transit, internal, existing and pass-by.		
										Other	S.F. Gross Area	3900								land use=live/work office		
										Other	S.F. Gross Area	15005								land use=restaurant		
										Retail	S.F. Gross Area	8375										
													145	157	1990		50	95	106	51		
34582	Metro	MTR	14	2007	SPR-Industrial Park	94,849 SF Industrial Park	1005 S MATEO ST	09/28/2017	0.6	Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut	Comments		

											Industrial	S.F. Gross Area	94849	49	49	426	40	9	10	39	Credit applied for existing uses.
														49	**49**	**426**		**40**	**9**	**10**	**39**
43682	Metro	MTR	14	2015	Mixed-Use	14193 SF Market, 6793 SF Health Club, 10065 SF Restaurant...	1000 S Santa fe st	09/28/2017	0.5		Other	S.F. Gross Area	14193	74	69	966	36	38	49	20	land use=market
											Other	S.F. Gross Area	6793								land use=health club
											Other	S.F. Gross Area	10065								land use=restaurant
											Other										also music performance and film screening - no trips for these.
														74	**69**	**966**		**36**	**38**	**49**	**20**
43808	Metro	MTR	14	2015	Hillcrest MU - In Construction/Open 2018	From City Planning; former CA Walnut Grower's Assoc	1745 E 7TH ST	10/04/2017	0.5		Apartments	Total Units	57	35	57	635	10	25	34	23	From City Planning
											Retail	S.F. Gross Area	6000								
														35	**57**	**635**		**10**	**25**	**34**	**23**
46411	Metro	MTR	14	2017	Hyperloop One HQ	From City Planning; 222ksf creative office space & retail/restaurant	2159 E BAY ST	10/04/2017	0.5		Office	S.F. Gross Area	203670	224	249	2029	194	30	57	192	From City Planning
											Retail	S.F. Gross Area	18330								
														224	**249**	**2029**		**194**	**30**	**57**	**192**

6th STREET PARC FREEWAY IMPACT ANALYSIS (Typical)

Freeway Location	Direction	Trip Orientation	Project Trips			Number of Lanes	Total Capacity*	Percent of Capacity		Freeway Analysis Required?
			% Distribution	AM	PM			AM	PM	
Mailine Segment										
I-10 north of 4th Street	Northbound	Out-bound	10%	-2	-5	5	10000	0.0%	-0.1%	No
	Southbound	In-bound	10%	-2	-4	5	10000	0.0%	0.0%	No
I-10 southwest of 7th Street	Northbound	Out-bound	4%	-1	-2	5	10000	0.0%	0.0%	No
	Southbound	In-bound	4%	-1	-1	5	10000	0.0%	0.0%	No
On/Off Ramp										
I-10 On-Ramp at 4th Street	Northbound	Out-bound	10%	-2	-5	2	850	0.0%	0.0%	No
I-10 Off-Ramp at 4th Street	Southbound	In-bound	10%	-2	-4	2	1700	0.3%	0.5%	No
I-10 On-Ramp at 8th Street	Westbound	Out-bound	4%	-1	-2	2	1700	0.0%	0.0%	No
I-10 Off-Ramp at Boyle Ave	Northbound	In-bound	4%	-1	-1	2	3400	0.0%	0.0%	No

*Total Capacity derived from the following assumed free-flow capacities:

Mainline Segment: 2,000 vphpl
On/Off Ramp: 850 vphpl

6th STREET PARC FREEWAY IMPACT ANALYSIS (2 x 1,000 person special event)

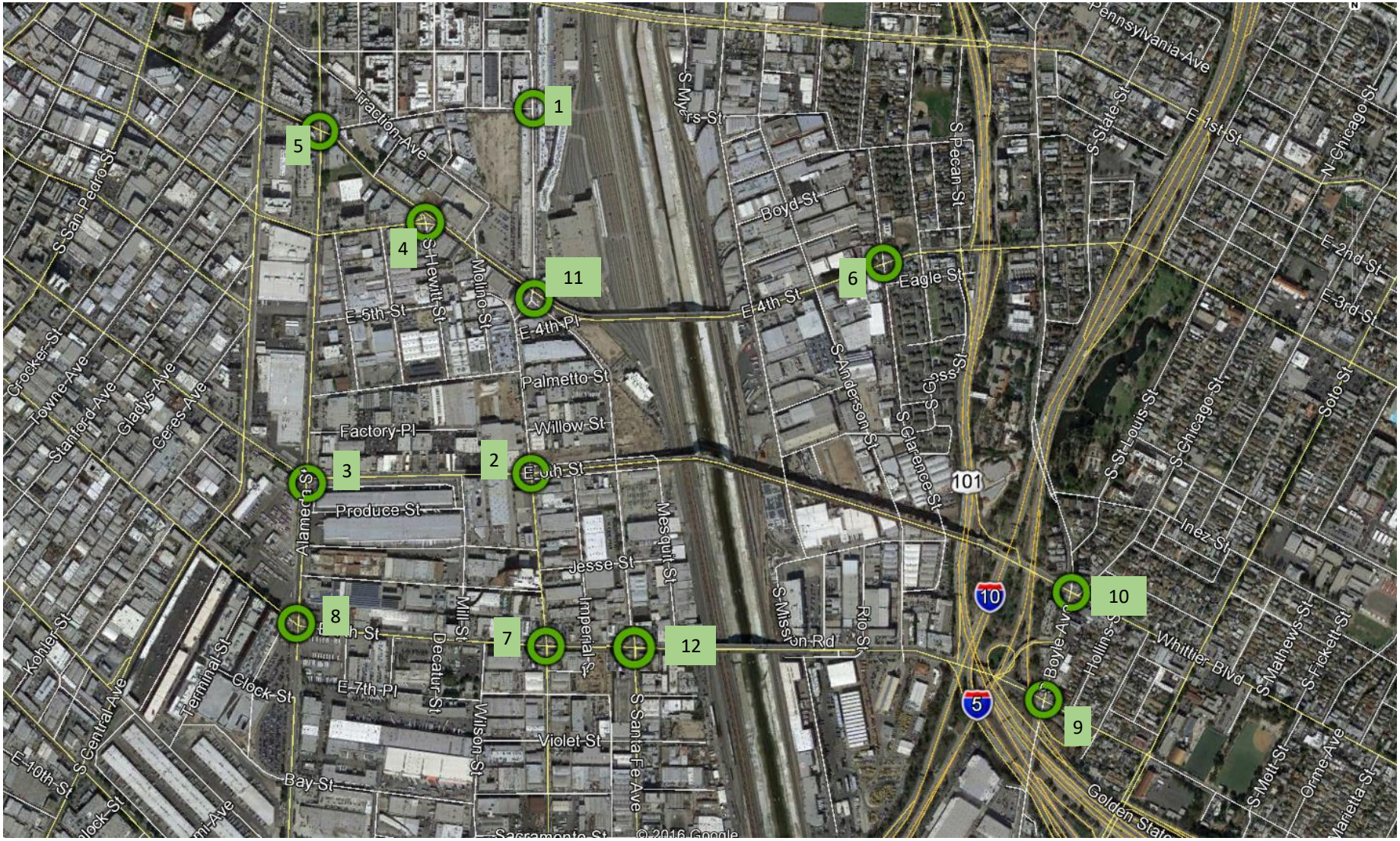
Freeway Location	Direction	Trip Orientation	Project Trips			Number of Lanes	Total Capacity*	Percent of Capacity		Freeway Analysis Required?
			% Distribution	AM	PM			AM	PM	
Mailine Segment										
I-10 north of 4th Street	Northbound	Out-bound	10%	-2	-5	5	10000	0.0%	-0.1%	No
	Southbound	In-bound	10%	-2	21	5	10000	0.0%	0.2%	No
I-10 southwest of 7th Street	Northbound	Out-bound	4%	-1	-2	5	10000	0.0%	0.0%	No
	Southbound	In-bound	4%	-1	9	5	10000	0.0%	0.1%	No
On/Off Ramp										
I-10 On-Ramp at 4th Street	Northbound	Out-bound	10%	-2	-5	2	850	0.0%	0.0%	No
I-10 Off-Ramp at 4th Street	Southbound	In-bound	10%	-2	21	2	1700	0.3%	0.5%	No
I-10 On-Ramp at 8th Street	Westbound	Out-bound	4%	-1	-2	2	1700	0.0%	0.0%	No
I-10 Off-Ramp at Boyle Ave	Northbound	In-bound	4%	-1	9	2	3400	0.0%	0.0%	No

*Total Capacity derived from the following assumed free-flow capacities:

Mainline Segment: 2,000 vphpl
On/Off Ramp: 850 vphpl

1/3/2018

Proposed Analysis Intersections



1. . 3rd St & Santa Fe Ave
2. · 6th St & Mateo St
3. · 6th St & Alameda St
4. · 4th St & Hewitt St
5. · 4th St & Alameda St
6. · 4th St & Clarence St
7. · 7th St & Mateo St
8. · 7th St & Alameda St
9. · 7th St & Boyle Ave
10. · Whittier Blvd & Boyle Ave
11. · Santa Fe Ave & Mateo St
12. . Santa Fe Ave & 7th St

APPENDIX B

TRAFFIC COUNT WORKSHEETS

Manual Traffic Count Summary

Street:

North/South Alameda Street

East/West 4th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	268	204	199	0
Bikes:	10	3	2	5
Buses:	40	38	48	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	195	7:30	206	7:30	121	8:15	0	7:00
PM PK 15 MIN	274	5:45	210	4:45	399	5:45	0	3:00
AM PK HOUR	745	8:00	802	7:30	442	9:00	0	7:00
PM PK HOUR	1014	5:00	812	4:30	1539	5:00	0	3:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	35	685	0	720
8-9	47	698	0	745
9-10	42	596	0	638
3-4	80	763	0	843
4-5	52	849	0	901
5-6	106	908	0	1014
Total	362	4499	0	4861

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	0	698	47	745
8-9	0	709	79	788
9-10	0	597	94	691
3-4	0	549	120	669
4-5	0	693	106	799
5-6	0	650	98	748
Total	0	3896	544	4440

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
1465	9	0	16	0
1533	19	0	25	0
1329	28	0	12	0
1512	24	0	13	0
1700	15	0	20	0
1762	21	0	8	0
9301	116	0	94	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	109	153	62	324
8-9	111	239	69	419
9-10	100	260	82	442
3-4	102	673	114	889
4-5	141	949	165	1255
5-6	148	1227	164	1539
Total	711	3501	656	4868

WESTBOUND Approach

Hours	Rt	Th	Lt	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 W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
324	12	0	16	0
419	6	0	11	0
442	8	0	16	0
889	11	0	10	0
1255	19	0	16	0
1539	9	0	24	0
4868	65	0	93	0

Manual Traffic Count Summary

Street:

North/South Alameda Street

East/West 6th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	358	315	155	150
Bikes:	20	19	17	34
Buses:	29	34	109	115

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	158	8:15	233	7:45	116	8:00	269	7:30
PM PK 15 MIN	269	5:45	336	4:30	222	5:30	118	5:30
AM PK HOUR	583	7:30	855	7:30	376	8:00	1027	7:15
PM PK HOUR	1000	5:00	1221	4:00	840	4:45	405	5:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	58	404	53	515
8-9	51	419	84	554
9-10	31	453	68	552
3-4	73	596	74	743
4-5	82	756	92	930
5-6	93	799	108	1000
Total	388	3427	479	4294

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	53	687	52	792
8-9	64	685	52	801
9-10	85	647	49	781
3-4	100	827	69	996
4-5	94	1022	105	1221
5-6	99	830	109	1038
Total	495	4698	436	5629

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
1307	19	0	20	0
1355	15	0	26	0
1333	16	0	31	0
1739	24	0	47	0
2151	33	0	43	0
2038	34	0	39	0
9923	141	0	206	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	87	177	31	295
8-9	102	198	76	376
9-10	75	163	67	305
3-4	94	438	92	624
4-5	101	530	85	716
5-6	82	651	98	831
Total	541	2157	449	3147

WESTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	138	713	126	977
8-9	127	674	121	922
9-10	108	363	49	520
3-4	65	218	49	332
4-5	57	192	58	307
5-6	58	292	55	405
Total	553	2452	458	3463

Total	**XING W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
1272	11	0	40	0
1298	14	0	30	0
825	13	0	29	0
956	25	0	27	0
1023	30	0	46	0
1236	16	0	31	0
6610	109	0	203	0

Manual Traffic Count Summary

Street:

North/South Mateo Street

East/West 6th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	72	85	109	72
Bikes:	8	3	6	5
Buses:	9	19	83	112

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	32	9:45	52	9:45	92	8:15	333	7:45
PM PK 15 MIN	76	5:45	59	3:45	279	5:15	113	5:30
AM PK HOUR	110	8:15	176	9:00	337	7:45	1261	7:30
PM PK HOUR	284	5:00	224	3:45	1009	5:00	354	5:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	5	41	28	74
8-9	8	65	32	105
9-10	10	60	39	109
3-4	36	91	28	155
4-5	35	92	28	155
5-6	57	154	73	284
Total	151	503	228	882

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	24	81	14	119
8-9	31	118	10	159
9-10	53	113	10	176
3-4	35	130	31	196
4-5	49	104	47	200
5-6	48	97	30	175
Total	240	643	142	1025

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
193	18	0	14	0
264	10	0	12	0
285	4	0	14	0
351	13	0	13	0
355	10	0	17	0
459	8	0	11	0
1907	63	0	81	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	51	171	37	259
8-9	83	189	44	316
9-10	52	146	50	248
3-4	78	431	63	572
4-5	77	617	53	747
5-6	77	860	72	1009
Total	418	2414	319	3151

WESTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	104	1046	76	1226
8-9	97	947	70	1114
9-10	89	503	36	628
3-4	25	217	22	264
4-5	36	214	18	268
5-6	35	300	19	354
Total	386	3227	241	3854

Total	**XING W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
1485	37	0	14	0
1430	28	0	14	0
876	17	0	14	0
836	29	0	16	0
1015	35	0	11	0
1363	40	0	9	0
7005	186	0	78	0

Manual Traffic Count Summary

Street:

North/South Alameda Street

East/West 7th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	403	321	295	322
Bikes:	6	16	17	22
Buses:	31	144	107	134

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	165	9:45	263	7:45	125	8:15	230	9:15
PM PK 15 MIN	266	5:45	316	4:30	203	5:45	168	5:15
AM PK HOUR	611	7:30	991	7:45	442	8:15	880	8:30
PM PK HOUR	939	5:00	1157	4:00	758	5:00	643	5:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	86	424	63	573
8-9	112	382	66	560
9-10	93	443	75	611
3-4	98	571	78	747
4-5	98	699	92	889
5-6	102	727	110	939
Total	589	3246	484	4319

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	129	651	77	857
8-9	164	673	91	928
9-10	140	549	86	775
3-4	69	767	91	927
4-5	82	988	87	1157
5-6	71	796	116	983
Total	655	4424	548	5627

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
1430	134	0	13	0
1488	81	0	17	0
1386	47	0	3	0
1674	142	0	21	0
2046	115	0	15	0
1922	58	0	16	0
9946	577	0	85	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	86	196	46	328
8-9	113	255	55	423
9-10	132	222	60	414
3-4	130	375	72	577
4-5	181	449	83	713
5-6	112	561	85	758
Total	754	2058	401	3213

WESTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	75	608	87	770
8-9	96	668	102	866
9-10	89	596	114	799
3-4	82	366	98	546
4-5	97	344	98	539
5-6	115	438	90	643
Total	554	3020	589	4163

Total	**XING W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
1098	105	0	90	0
1289	57	0	65	0
1213	29	0	31	0
1123	145	0	99	0
1252	182	0	121	0
1401	81	0	45	0
7376	599	0	451	0

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Boyle Ave

East/West 7th St

Day: Wednesday Date: January 15, 2014 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	184	152	278	30
BIKES	41	28	3	1
BUSES	45	12	46	5

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	239	7.45	216	7.30	97	9.45	91	7.45
PM PK 15 MIN	228	17.30	150	15.00	253	17.30	56	17.45
AM PK HOUR	786	7.30	818	7.30	348	9.00	341	7.15
PM PK HOUR	808	17.00	525	15.00	869	17.00	187	15.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	169	427	116	712
8-9	200	359	76	635
9-10	131	203	40	374
15-16	114	255	138	507
16-17	114	463	131	708
17-18	139	525	144	808
TOTAL	867	2232	645	3744

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	51	438	271	760
8-9	29	423	229	681
9-10	15	242	142	399
15-16	38	381	106	525
16-17	36	345	78	459
17-18	44	365	82	491
TOTAL	213	2194	908	3315

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1472	3	0	11	0
1316	2	0	0	0
773	1	0	0	0
1032	1	0	2	0
1167	1	0	4	0
1299	2	0	6	0
7059	10	0	23	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	65	104	119	288
8-9	55	77	192	324
9-10	76	104	168	348
15-16	149	228	235	612
16-17	193	194	286	673
17-18	255	303	311	869
TOTAL	793	1010	1311	3114

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	38	234	56	328
8-9	41	206	42	289
9-10	18	178	34	230
15-16	12	119	50	181
16-17	17	104	55	176
17-18	11	98	75	184
TOTAL	137	939	312	1388

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
616	9	0	9	2
613	7	0	6	0
578	2	0	2	0
793	2	0	11	0
849	3	0	1	0
1053	7	0	4	0
4502	30	0	33	2

Manual Traffic Count Summary

Street:

North/South Mateo Street

East/West 7th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	166	161	279	307
Bikes:	14	6	13	15
Buses:	8	9	149	117

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	58	9:00	75	8:15	106	9:45	181	7:30
PM PK 15 MIN	103	5:45	58	3:45	196	5:45	100	5:00
AM PK HOUR	199	8:45	266	7:45	364	8:00	687	7:30
PM PK HOUR	350	5:00	217	3:15	714	5:00	373	5:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	20	71	84	175
8-9	32	82	68	182
9-10	26	85	73	184
3-4	41	102	52	195
4-5	50	103	83	236
5-6	49	172	129	350
Total	218	615	489	1322

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	51	111	19	181
8-9	49	162	40	251
9-10	43	115	31	189
3-4	50	123	42	215
4-5	39	114	38	191
5-6	27	107	33	167
Total	259	732	203	1194

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
356	30	0	21	0
433	21	0	19	0
373	13	0	16	0
410	26	0	16	0
427	24	0	17	0
517	40	0	32	0
2516	154	0	121	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	35	233	22	290
8-9	37	295	32	364
9-10	34	290	34	358
3-4	76	459	47	582
4-5	72	493	38	603
5-6	77	564	73	714
Total	331	2334	246	2911

WESTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	22	545	96	663
8-9	38	513	111	662
9-10	34	482	87	603
3-4	15	248	52	315
4-5	31	277	37	345
5-6	29	292	52	373
Total	169	2357	435	2961

Total	**XING W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
953	22	0	24	0
1026	23	0	13	0
961	12	0	15	0
897	16	0	17	0
948	16	0	15	0
1087	40	0	23	0
5872	129	0	107	0

Manual Traffic Count Summary

Street:

North/South Santa Fe Street

East/West 7th Street

Day: Tuesday Date: 10/14/2014 Weather: Sunny

Hours: 7-10AM 3-6PM

School Day: Yes

	N/B	S/B	E/B	W/B
Dual-Wheel:	282	149	305	365
Bikes:	0	15	0	15
Buses:	97	3	143	47

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	130	7:30	61	7:45	108	9:45	272	7:30
PM PK 15 MIN	185	5:45	96	5:15	185	5:45	174	5:15
AM PK HOUR	466	7:00	197	7:00	382	8:00	1027	7:30
PM PK HOUR	611	5:00	350	4:00	674	5:00	596	5:00

NORTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	80	274	112	466
8-9	104	246	91	441
9-10	86	197	102	385
3-4	141	212	86	439
4-5	107	253	70	430
5-6	157	350	104	611
Total	675	1532	565	2772

SOUTHBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	18	155	24	197
8-9	19	128	30	177
9-10	14	148	30	192
3-4	29	222	51	302
4-5	24	280	46	350
5-6	12	252	36	300
Total	116	1185	217	1518

Total	**XING S/L**		**XING N/L**	
N/S	Ped	Sch	Ped	Sch
663	0	0	17	0
618	0	0	11	0
577	0	0	4	0
741	0	0	14	0
780	0	0	28	0
911	0	0	13	0
4290	0	0	87	0

EASTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	59	188	11	258
8-9	71	297	14	382
9-10	80	255	12	347
3-4	131	427	20	578
4-5	117	453	29	599
5-6	124	531	19	674
Total	582	2151	105	2838

WESTBOUND Approach

Hours	Rt	Th	Lt	Total
7-8	150	562	286	998
8-9	104	620	277	1001
9-10	93	523	239	855
3-4	31	237	204	472
4-5	36	276	211	523
5-6	64	284	248	596
Total	478	2502	1465	4445

Total	**XING W/L**		**XING E/L**	
E/W	Ped	Sch	Ped	Sch
1256	33	0	0	0
1383	33	0	2	0
1202	40	0	0	0
1050	29	0	0	0
1122	46	0	1	0
1270	45	0	0	0
7283	226	0	3	0

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Boyle Ave

East/West Whittier Blvd

Day: Thursday Date: November 6, 2014 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	163	60	44	80
BIKES	7	6	22	23
BUSES	14	11	70	113

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	223	7.15	178	7.45	61	9.00	351	7.30
PM PK 15 MIN	334	17.30	153	17.15	253	17.15	147	17.45
AM PK HOUR	860	7.00	586	7.15	210	7.45	1348	7.15
PM PK HOUR	1239	17.00	540	16.45	894	17.00	549	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	232	497	131	860
8-9	201	345	65	611
9-10	124	237	77	438
15-16	117	424	168	709
16-17	158	616	185	959
17-18	168	871	200	1239
TOTAL	1000	2990	826	4816

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	86	367	116	569
8-9	46	263	75	384
9-10	47	204	53	304
15-16	114	295	29	438
16-17	101	333	29	463
17-18	122	374	38	534
TOTAL	516	1836	340	2692

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1429	18	2	33	0
995	9	0	29	0
742	11	1	10	0
1147	12	0	24	0
1422	11	0	26	0
1773	15	0	40	0
7508	76	3	162	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	20	98	54	172
8-9	25	103	62	190
9-10	27	116	34	177
15-16	62	325	72	459
16-17	93	476	95	664
17-18	190	600	104	894
TOTAL	417	1718	421	2556

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	188	967	170	1325
8-9	133	906	96	1135
9-10	70	485	100	655
15-16	57	244	90	391
16-17	57	243	111	411
17-18	51	352	146	549
TOTAL	556	3197	713	4466

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1497	22	2	36	0
1325	18	0	15	0
832	6	0	22	0
850	18	0	21	0
1075	21	0	26	0
1443	23	0	44	0
7022	108	2	164	0

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: E 4th Place/S Hewitt Street
E/W: E 4th Street
Weather: Clear

File Name : LACHE4tAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	E 4th Place Southbound				E 4th Street Westbound				S Hewitt Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	637	637	0	6	5	11	8	71	6	85	733
07:15 AM	0	0	0	0	0	0	649	649	0	9	4	13	5	60	8	73	735
07:30 AM	0	0	0	0	0	0	634	634	0	9	5	14	9	46	6	61	709
07:45 AM	0	0	0	0	0	0	659	659	0	11	5	16	11	68	8	87	762
Total	0	0	0	0	0	0	2579	2579	0	35	19	54	33	245	28	306	2939
08:00 AM	0	0	0	0	0	0	639	639	0	13	2	15	12	87	5	104	758
08:15 AM	0	0	0	0	0	0	606	606	0	8	6	14	7	95	6	108	728
08:30 AM	0	0	0	0	0	0	640	640	0	5	8	13	20	91	5	116	769
08:45 AM	0	0	0	0	0	0	579	579	0	15	3	18	15	91	24	130	727
Total	0	0	0	0	0	0	2464	2464	0	41	19	60	54	364	40	458	2982
Grand Total	0	0	0	0	0	0	5043	5043	0	76	38	114	87	609	68	764	5921
Apprch %	0	0	0		0	0	100		0	66.7	33.3		11.4	79.7	8.9		
Total %	0	0	0	0	0	0	85.2	85.2	0	1.3	0.6	1.9	1.5	10.3	1.1	12.9	

	E 4th Place Southbound				E 4th Street Westbound				S Hewitt Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	**659**	**659**	0	11	5	**16**	11	68	**8**	87	762
08:00 AM	0	0	0	0	0	0	639	639	0	**13**	2	15	12	87	5	104	758
08:15 AM	0	0	0	0	0	0	606	606	0	8	6	14	7	**95**	6	108	728
08:30 AM	0	0	0	0	0	0	640	640	0	5	**8**	13	**20**	91	5	**116**	**769**
Total Volume	0	0	0	0	0	0	2544	2544	0	37	21	58	50	341	24	415	3017
% App. Total	0	0	0		0	0	100		0	63.8	36.2		12	82.2	5.8		
PHF	.000	.000	.000	.000	.000	.000	.965	.965	.000	.712	.656	.906	.625	.897	.750	.894	.981

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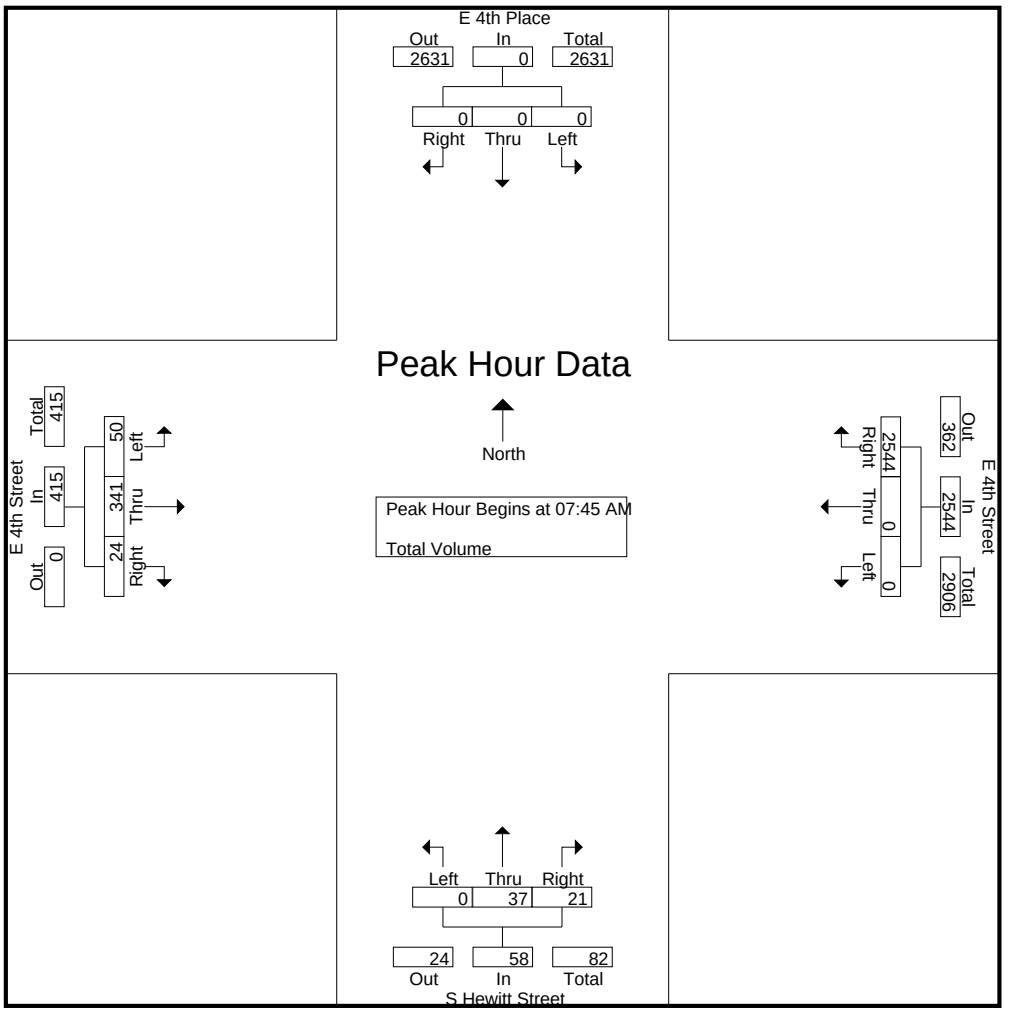
City of Los Angeles
N/S: E 4th Place/S Hewitt Street
E/W: E 4th Street
Weather: Clear

File Name : LACHE4tAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				08:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	0	649	649	0	13	2	15	12	87	5	104
+15 mins.	0	0	0	0	0	0	634	634	0	8	6	14	7	**95**	6	108
+30 mins.	0	0	0	0	0	0	**659**	**659**	0	5	**8**	13	**20**	91	5	116
+45 mins.	0	0	0	0	0	0	639	639	0	**15**	3	**18**	15	91	**24**	**130**
Total Volume	0	0	0	0	0	0	2581	2581	0	41	19	60	54	364	40	458
% App. Total	0	0	0		0	0	100		0	68.3	31.7		11.8	79.5	8.7	
PHF	.000	.000	.000	.000	.000	.000	.979	.979	.000	.683	.594	.833	.675	.958	.417	.881

Counts Unlimited
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City of Los Angeles
N/S: E 4th Place/S Hewitt Street
E/W: E 4th Street
Weather: Clear

File Name : LACHE4tPM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	E 4th Place Southbound				E 4th Street Westbound				S Hewitt Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	165	165	0	10	10	20	20	281	6	307	492
04:15 PM	0	0	0	0	0	0	192	192	0	13	8	21	25	337	10	372	585
04:30 PM	0	0	0	0	0	0	213	213	0	12	7	19	28	373	9	410	642
04:45 PM	0	0	0	0	0	0	270	270	0	8	10	18	26	389	9	424	712
Total	0	0	0	0	0	0	840	840	0	43	35	78	99	1380	34	1513	2431
05:00 PM	0	0	0	0	0	0	252	252	0	12	10	22	33	428	8	469	743
05:15 PM	0	0	0	0	0	0	271	271	0	7	7	14	40	454	8	502	787
05:30 PM	0	0	0	0	0	0	250	250	0	8	9	17	39	491	15	545	812
05:45 PM	0	0	0	0	0	0	278	278	0	6	9	15	44	403	18	465	758
Total	0	0	0	0	0	0	1051	1051	0	33	35	68	156	1776	49	1981	3100
Grand Total	0	0	0	0	0	0	1891	1891	0	76	70	146	255	3156	83	3494	5531
Apprch %	0	0	0		0	0	100		0	52.1	47.9		7.3	90.3	2.4		
Total %	0	0	0	0	0	0	34.2	34.2	0	1.4	1.3	2.6	4.6	57.1	1.5	63.2	

	E 4th Place Southbound				E 4th Street Westbound				S Hewitt Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	252	252	0	**12**	**10**	**22**	33	428	8	469	743
05:15 PM	0	0	0	0	0	0	271	271	0	7	7	14	40	454	8	502	787
05:30 PM	0	0	0	0	0	0	250	250	0	8	9	17	39	**491**	15	**545**	**812**
05:45 PM	0	0	0	0	0	0	**278**	**278**	0	6	9	15	**44**	403	**18**	465	758
Total Volume	0	0	0	0	0	0	1051	1051	0	33	35	68	156	1776	49	1981	3100
% App. Total	0	0	0		0	0	100		0	48.5	51.5		7.9	89.7	2.5		
PHF	.000	.000	.000	.000	.000	.000	.945	.945	.000	.688	.875	.773	.886	.904	.681	.909	.954

Counts Unlimited
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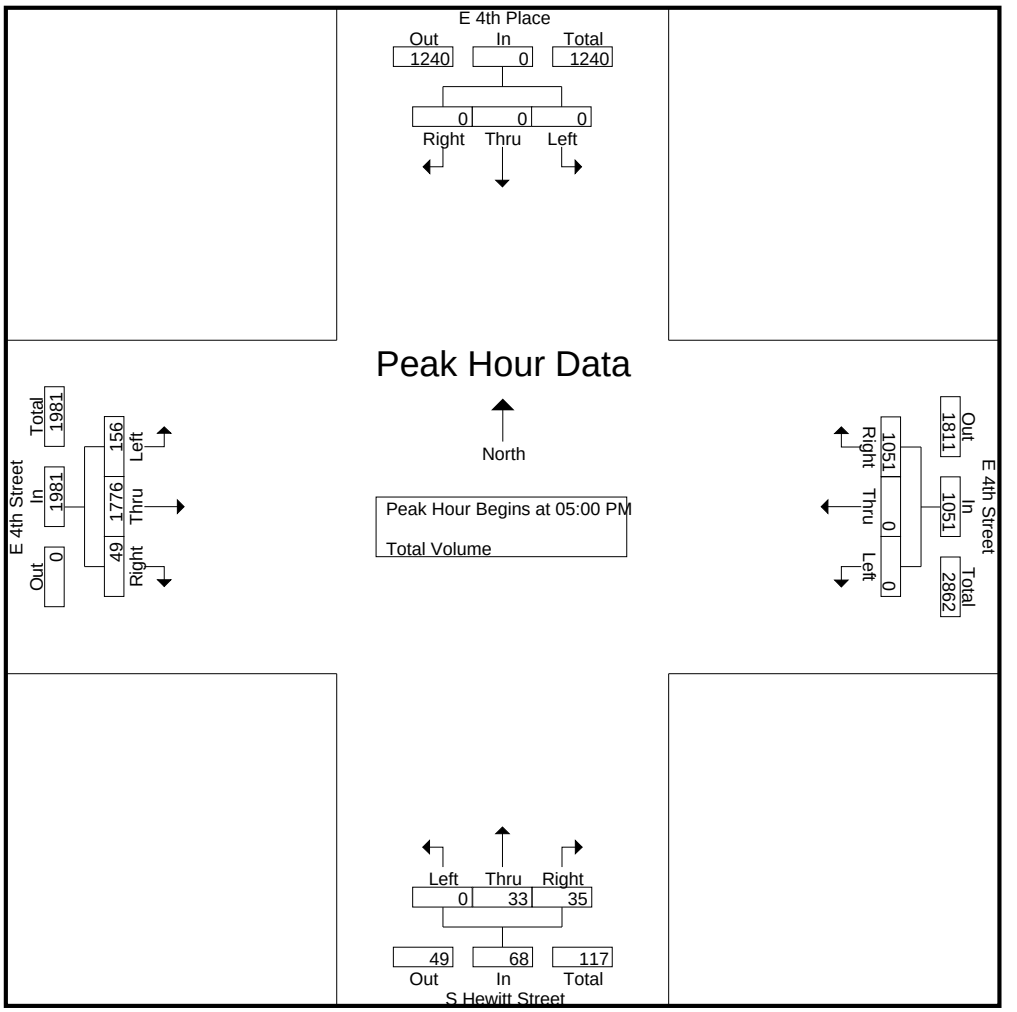
City of Los Angeles
N/S: E 4th Place/S Hewitt Street
E/W: E 4th Street
Weather: Clear

File Name : LACHE4tPM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				05:00 PM			
+0 mins.	0	0	0	0	0	0	252	252	0	**13**	8	21	33	428	8	469
+15 mins.	0	0	0	0	0	0	271	271	0	12	7	19	40	454	8	502
+30 mins.	0	0	0	0	0	0	250	250	0	8	**10**	18	39	**491**	15	**545**
+45 mins.	0	0	0	0	0	0	**278**	**278**	0	12	10	**22**	**44**	403	**18**	465
Total Volume	0	0	0	0	0	0	1051	1051	0	45	35	80	156	1776	49	1981
% App. Total	0	0	0		0	0	100		0	56.2	43.8		7.9	89.7	2.5	
PHF	.000	.000	.000	.000	.000	.000	.945	.945	.000	.865	.875	.909	.886	.904	.681	.909

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: S Clarence Street
E/W: E 4th Street
Weather: Clear

File Name : LACCL4tAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	S Clarence Street Southbound				E 4th Street Westbound				S Clarence Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	2	3	5	657	5	667	1	0	2	3	0	78	7	85	758
07:15 AM	1	1	2	4	2	689	8	699	5	1	5	11	0	80	5	85	799
07:30 AM	1	0	9	10	1	669	12	682	12	1	4	17	0	63	3	66	775
07:45 AM	2	0	11	13	3	664	13	680	6	1	3	10	0	81	2	83	786
Total	5	1	24	30	11	2679	38	2728	24	3	14	41	0	302	17	319	3118
08:00 AM	2	0	6	8	2	646	13	661	9	1	2	12	0	96	2	98	779
08:15 AM	0	1	4	5	1	643	5	649	4	0	2	6	0	86	0	86	746
08:30 AM	3	2	4	9	1	653	7	661	2	0	9	11	0	89	5	94	775
08:45 AM	1	1	6	8	5	640	3	648	3	0	6	9	0	110	4	114	779
Total	6	4	20	30	9	2582	28	2619	18	1	19	38	0	381	11	392	3079
Grand Total	11	5	44	60	20	5261	66	5347	42	4	33	79	0	683	28	711	6197
Apprch %	18.3	8.3	73.3		0.4	98.4	1.2		53.2	5.1	41.8		0	96.1	3.9		
Total %	0.2	0.1	0.7	1	0.3	84.9	1.1	86.3	0.7	0.1	0.5	1.3	0	11	0.5	11.5	

	S Clarence Street Southbound				E 4th Street Westbound				S Clarence Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**1**	2	4	2	**689**	8	**699**	5	**1**	**5**	11	0	80	**5**	85	**799**
07:30 AM	1	0	9	10	1	669	12	682	**12**	1	4	**17**	0	63	3	66	775
07:45 AM	**2**	0	**11**	**13**	**3**	664	**13**	680	6	1	3	10	0	81	2	83	786
08:00 AM	2	0	6	8	2	646	13	661	9	1	2	12	0	**96**	2	**98**	779
Total Volume	6	1	28	35	8	2668	46	2722	32	4	14	50	0	320	12	332	3139
% App. Total	17.1	2.9	80		0.3	98	1.7		64	8	28		0	96.4	3.6		
PHF	.750	.250	.636	.673	.667	.968	.885	.974	.667	1.00	.700	.735	.000	.833	.600	.847	.982

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City of Los Angeles
N/S: S Clarence Street
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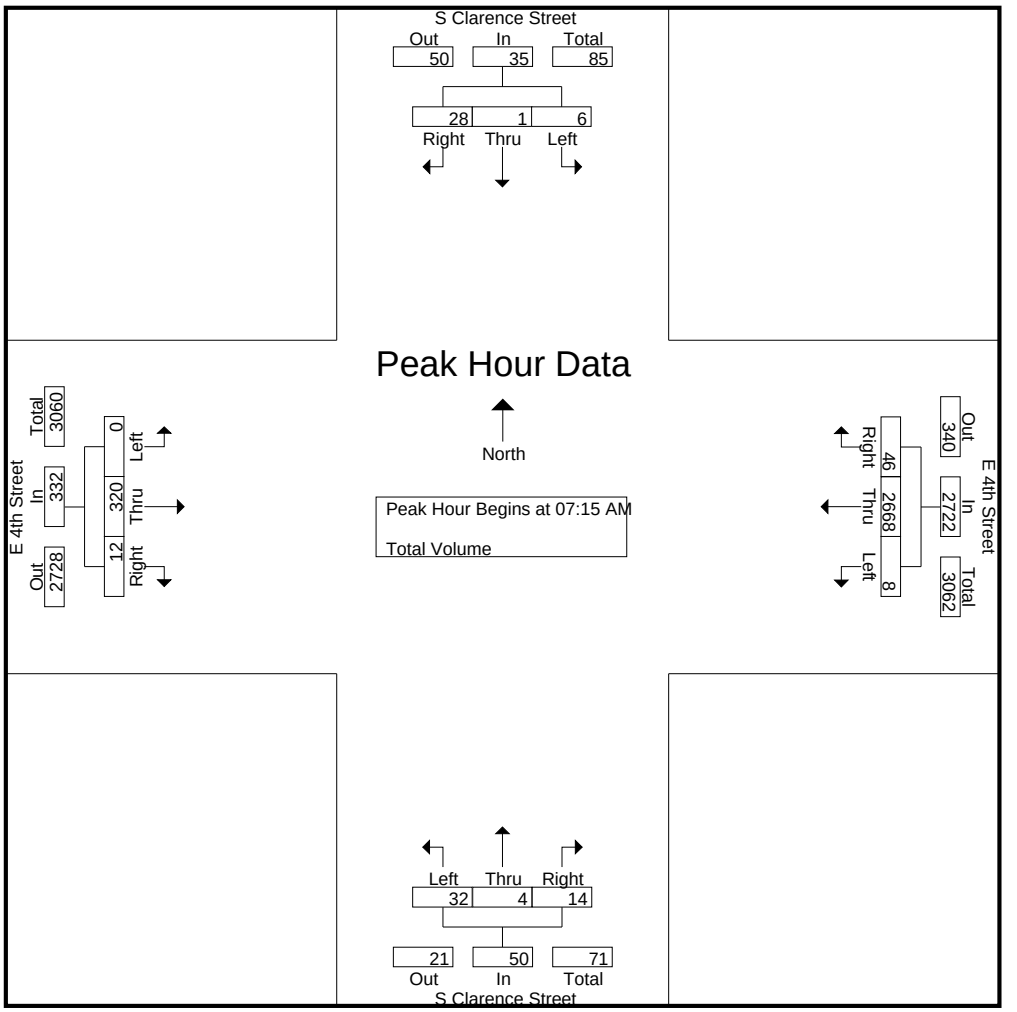
Weather: Clear

File Name : LACCL4tAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:15 AM				08:00 AM			
+0 mins.	1	0	9	10	**5**	657	5	667	5	**1**	**5**	11	0	96	2	98
+15 mins.	**2**	0	**11**	**13**	2	**689**	8	**699**	**12**	1	4	**17**	0	86	0	86
+30 mins.	2	0	6	8	1	669	12	682	6	1	3	10	0	89	**5**	94
+45 mins.	0	**1**	4	5	3	664	**13**	680	9	1	2	12	0	**110**	4	**114**
Total Volume	5	1	30	36	11	2679	38	2728	32	4	14	50	0	381	11	392
% App. Total	13.9	2.8	83.3		0.4	98.2	1.4		64	8	28		0	97.2	2.8	
PHF	.625	.250	.682	.692	.550	.972	.731	.976	.667	1.000	.700	.735	.000	.866	.550	.860

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City of Los Angeles
N/S: S Clarence Street
E/W: E 4th Street
Weather: Clear

File Name : LACCL4tPM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	S Clarence Street Southbound				E 4th Street Westbound				S Clarence Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	0	1	3	3	171	14	188	1	2	5	8	4	355	6	365	564
04:15 PM	2	3	6	11	11	185	12	208	0	0	8	8	0	424	6	430	657
04:30 PM	2	0	3	5	4	234	18	256	0	0	8	8	0	403	3	406	675
04:45 PM	4	1	11	16	0	281	16	297	0	0	4	4	0	479	7	486	803
Total	10	4	21	35	18	871	60	949	1	2	25	28	4	1661	22	1687	2699
05:00 PM	4	1	4	9	5	257	8	270	0	0	7	7	2	525	11	538	824
05:15 PM	1	0	3	4	2	255	4	261	0	1	5	6	1	526	4	531	802
05:30 PM	1	1	3	5	3	239	11	253	1	0	5	6	4	546	6	556	820
05:45 PM	3	1	2	6	1	276	15	292	1	1	8	10	4	518	11	533	841
Total	9	3	12	24	11	1027	38	1076	2	2	25	29	11	2115	32	2158	3287
Grand Total	19	7	33	59	29	1898	98	2025	3	4	50	57	15	3776	54	3845	5986
Apprch %	32.2	11.9	55.9		1.4	93.7	4.8		5.3	7	87.7		0.4	98.2	1.4		
Total %	0.3	0.1	0.6	1	0.5	31.7	1.6	33.8	0.1	0.1	0.8	1	0.3	63.1	0.9	64.2	

	S Clarence Street Southbound				E 4th Street Westbound				S Clarence Street Northbound				E 4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**4**	**1**	**4**	**9**	**5**	257	8	270	0	0	7	7	2	525	**11**	538	824
05:15 PM	1	0	3	4	2	255	4	261	0	**1**	5	6	1	526	4	531	802
05:30 PM	1	1	3	5	3	239	11	253	**1**	0	5	6	**4**	**546**	6	**556**	820
05:45 PM	3	1	2	6	1	**276**	**15**	**292**	1	1	**8**	**10**	4	518	11	533	**841**
Total Volume	9	3	12	24	11	1027	38	1076	2	2	25	29	11	2115	32	2158	3287
% App. Total	37.5	12.5	50		1	95.4	3.5		6.9	6.9	86.2		0.5	98	1.5		
PHF	.563	.750	.750	.667	.550	.930	.633	.921	.500	.500	.781	.725	.688	.968	.727	.970	.977

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City of Los Angeles
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Weather: Clear

File Name : LACCL4tPM
Site Code : 99917000
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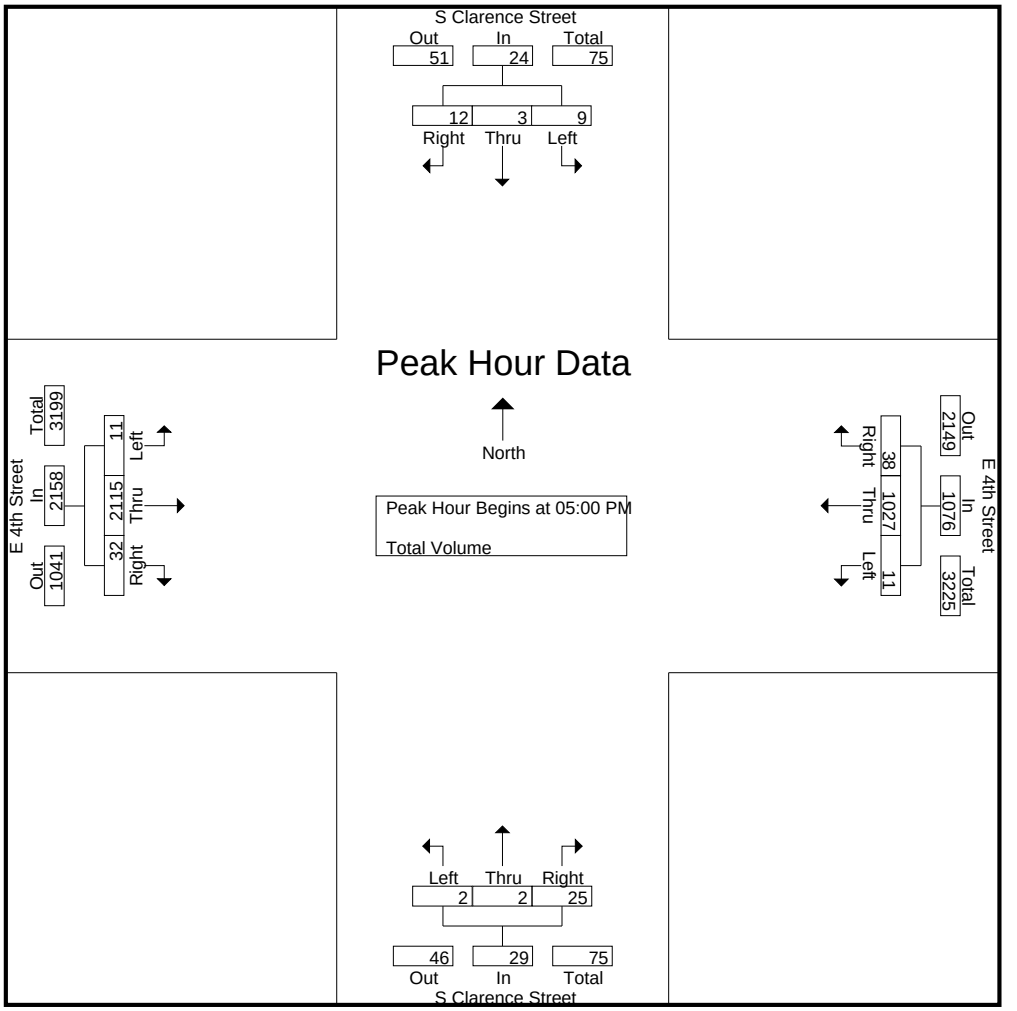

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				05:00 PM				05:00 PM			
+0 mins.	2	**3**	6	11	4	234	**18**	256	0	0	7	7	2	525	**11**	538
+15 mins.	2	0	3	5	0	**281**	16	**297**	0	**1**	5	6	1	526	4	531
+30 mins.	**4**	1	**11**	**16**	**5**	257	8	270	**1**	0	5	6	**4**	**546**	6	**556**
+45 mins.	4	1	4	9	2	255	4	261	1	1	**8**	**10**	4	518	11	533
Total Volume	12	5	24	41	11	1027	46	1084	2	2	25	29	11	2115	32	2158
% App. Total	29.3	12.2	58.5		1	94.7	4.2		6.9	6.9	86.2		0.5	98	1.5	
PHF	.750	.417	.545	.641	.550	.914	.639	.912	.500	.500	.781	.725	.688	.968	.727	.970

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City of Los Angeles
N/S: Santa Fe Avenue
E/W: 3rd Street
Weather: Clear

File Name : LACSA3rAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	Santa Fe Avenue Southbound				One Santa Fe Driveway Westbound				Santa Fe Avenue Northbound				E 3rd Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	84	12	104	0	0	0	0	19	98	0	117	3	0	3	6	227
07:15 AM	3	87	13	103	0	0	0	0	12	130	0	142	4	0	8	12	257
07:30 AM	1	107	6	114	0	0	0	0	11	125	0	136	3	0	5	8	258
07:45 AM	3	98	11	112	0	0	0	0	19	114	0	133	4	0	5	9	254
Total	15	376	42	433	0	0	0	0	61	467	0	528	14	0	21	35	996
08:00 AM	2	126	14	142	0	0	0	0	15	103	0	118	12	0	8	20	280
08:15 AM	4	127	14	145	0	0	0	0	15	105	0	120	8	0	9	17	282
08:30 AM	3	129	11	143	0	0	0	0	12	108	1	121	5	0	12	17	281
08:45 AM	4	139	16	159	0	0	0	0	23	97	0	120	8	0	8	16	295
Total	13	521	55	589	0	0	0	0	65	413	1	479	33	0	37	70	1138
Grand Total	28	897	97	1022	0	0	0	0	126	880	1	1007	47	0	58	105	2134
Apprch %	2.7	87.8	9.5		0	0	0		12.5	87.4	0.1		44.8	0	55.2		
Total %	1.3	42	4.5	47.9	0	0	0	0	5.9	41.2	0	47.2	2.2	0	2.7	4.9	

	Santa Fe Avenue Southbound				One Santa Fe Driveway Westbound				Santa Fe Avenue Northbound				E 3rd Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	126	14	142	0	0	0	0	15	103	0	118	**12**	0	8	**20**	280
08:15 AM	**4**	127	14	145	0	0	0	0	15	105	0	120	8	0	9	17	282
08:30 AM	3	129	11	143	0	0	0	0	12	**108**	**1**	**121**	5	0	**12**	17	281
08:45 AM	4	**139**	**16**	**159**	0	0	0	0	**23**	97	0	120	8	0	8	16	**295**
Total Volume	13	521	55	589	0	0	0	0	65	413	1	479	33	0	37	70	1138
% App. Total	2.2	88.5	9.3		0	0	0		13.6	86.2	0.2		47.1	0	52.9		
PHF	.813	.937	.859	.926	.000	.000	.000	.000	.707	.956	.250	.990	.688	.000	.771	.875	.964

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City of Los Angeles
N/S: Santa Fe Avenue
E/W: 3rd Street
Weather: Clear

File Name : LACSA3rAM
Site Code : 99917000
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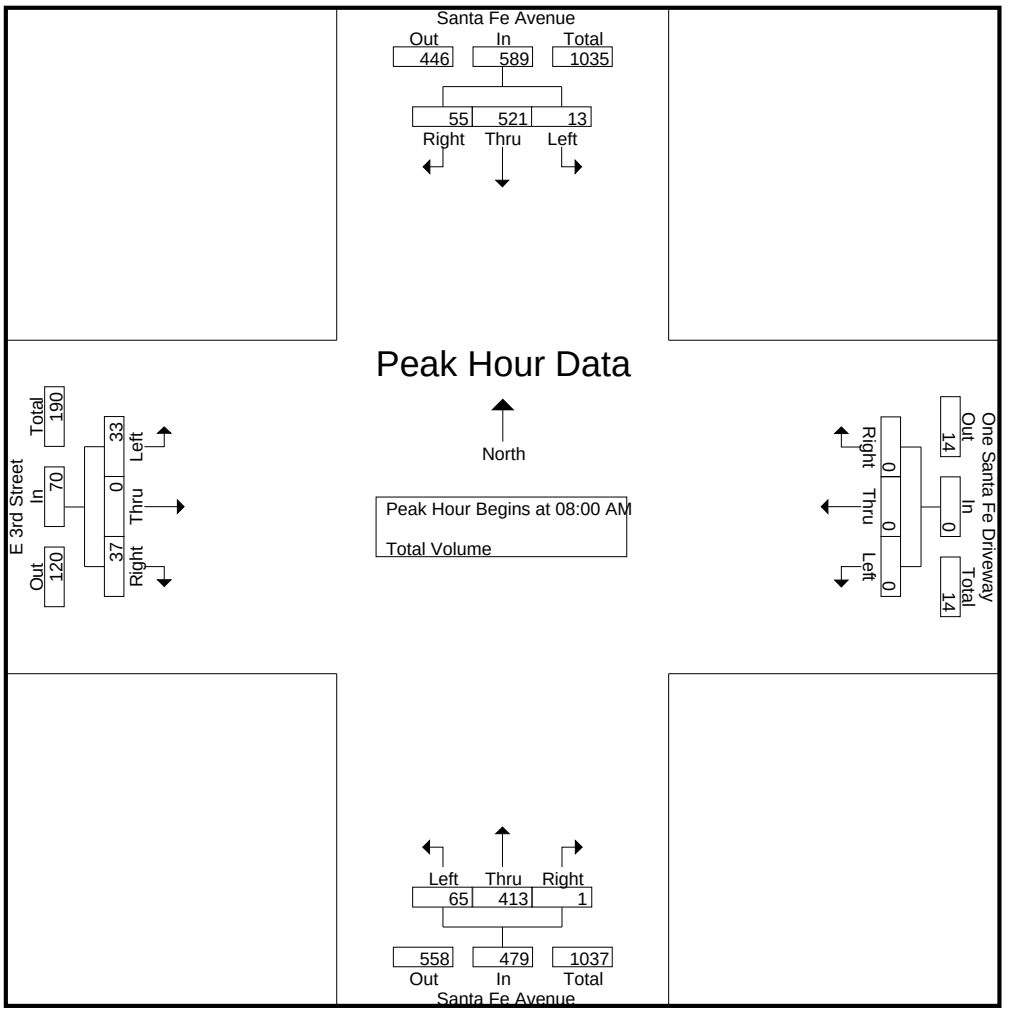

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:15 AM				08:00 AM			
+0 mins.	2	126	14	142	0	0	0	0	12	**130**	0	**142**	**12**	0	8	**20**
+15 mins.	**4**	127	14	145	0	0	0	0	11	125	0	136	8	0	9	17
+30 mins.	3	129	11	143	0	0	0	0	**19**	114	0	133	5	0	**12**	17
+45 mins.	4	**139**	**16**	**159**	0	0	0	0	15	103	0	118	8	0	8	16
Total Volume	13	521	55	589	0	0	0	0	57	472	0	529	33	0	37	70
% App. Total	2.2	88.5	9.3		0	0	0		10.8	89.2	0		47.1	0	52.9	
PHF	.813	.937	.859	.926	.000	.000	.000	.000	.750	.908	.000	.931	.688	.000	.771	.875

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City of Los Angeles
N/S: Santa Fe Avenue
E/W: 3rd Street
Weather: Clear

File Name : LACSA3rPM
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Groups Printed- Total Volume

	Santa Fe Avenue Southbound				One Santa Fe Driveway Westbound				Santa Fe Avenue Northbound				E 3rd Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	113	13	128	0	0	0	0	15	118	0	133	13	1	12	26	287
04:15 PM	2	94	10	106	0	0	0	0	16	124	1	141	18	0	11	29	276
04:30 PM	2	114	9	125	0	0	0	0	20	130	1	151	16	1	12	29	305
04:45 PM	1	95	6	102	0	0	0	0	18	121	2	141	19	0	19	38	281
Total	7	416	38	461	0	0	0	0	69	493	4	566	66	2	54	122	1149
05:00 PM	2	89	18	109	0	0	0	0	9	125	0	134	33	0	18	51	294
05:15 PM	4	101	14	119	0	0	0	0	12	127	1	140	35	2	13	50	309
05:30 PM	4	83	15	102	0	0	0	0	12	122	1	135	25	0	11	36	273
05:45 PM	3	83	13	99	0	0	0	0	13	124	0	137	20	0	10	30	266
Total	13	356	60	429	0	0	0	0	46	498	2	546	113	2	52	167	1142
Grand Total	20	772	98	890	0	0	0	0	115	991	6	1112	179	4	106	289	2291
Apprch %	2.2	86.7	11		0	0	0		10.3	89.1	0.5		61.9	1.4	36.7		
Total %	0.9	33.7	4.3	38.8	0	0	0	0	5	43.3	0.3	48.5	7.8	0.2	4.6	12.6	

	Santa Fe Avenue Southbound				One Santa Fe Driveway Westbound				Santa Fe Avenue Northbound				E 3rd Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	**114**	9	**125**	0	0	0	0	**20**	**130**	1	**151**	16	1	12	29	305
04:45 PM	1	95	6	102	0	0	0	0	18	121	**2**	141	19	0	**19**	38	281
05:00 PM	2	89	**18**	109	0	0	0	0	9	125	0	134	33	0	18	**51**	294
05:15 PM	**4**	101	14	119	0	0	0	0	12	127	1	140	**35**	**2**	13	50	**309**
Total Volume	9	399	47	455	0	0	0	0	59	503	4	566	103	3	62	168	1189
% App. Total	2	87.7	10.3		0	0	0		10.4	88.9	0.7		61.3	1.8	36.9		
PHF	.563	.875	.653	.910	.000	.000	.000	.000	.738	.967	.500	.937	.736	.375	.816	.824	.962

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City of Los Angeles
N/S: Santa Fe Avenue
E/W: 3rd Street
Weather: Clear

File Name : LACSA3rPM
Site Code : 99917000
Start Date : 3/1/2017
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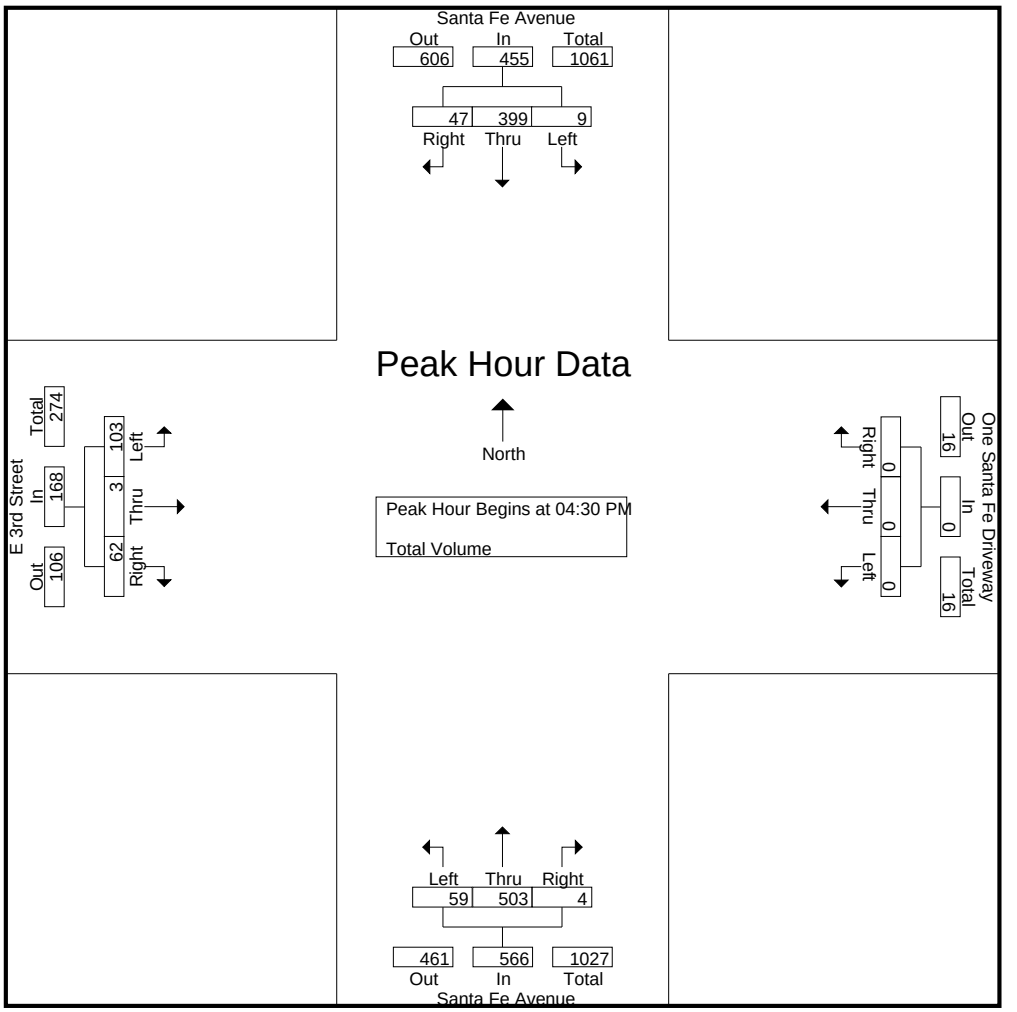

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:45 PM			
+0 mins.	**2**	113	**13**	**128**	0	0	0	0	16	124	1	141	19	0	**19**	38
+15 mins.	2	94	10	106	0	0	0	0	**20**	**130**	1	**151**	33	0	18	**51**
+30 mins.	2	**114**	9	125	0	0	0	0	18	121	**2**	141	**35**	**2**	13	50
+45 mins.	1	95	6	102	0	0	0	0	9	125	0	134	25	0	11	36
Total Volume	7	416	38	461	0	0	0	0	63	500	4	567	112	2	61	175
% App. Total	1.5	90.2	8.2		0	0	0		11.1	88.2	0.7		64	1.1	34.9	
PHF	.875	.912	.731	.900	.000	.000	.000	.000	.788	.962	.500	.939	.800	.250	.803	.858

Counts Unlimited
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City of Los Angeles
N/S: Santa Fe Avenue
E/W: Mateo Street
Weather: Clear

File Name : LACSAMAAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

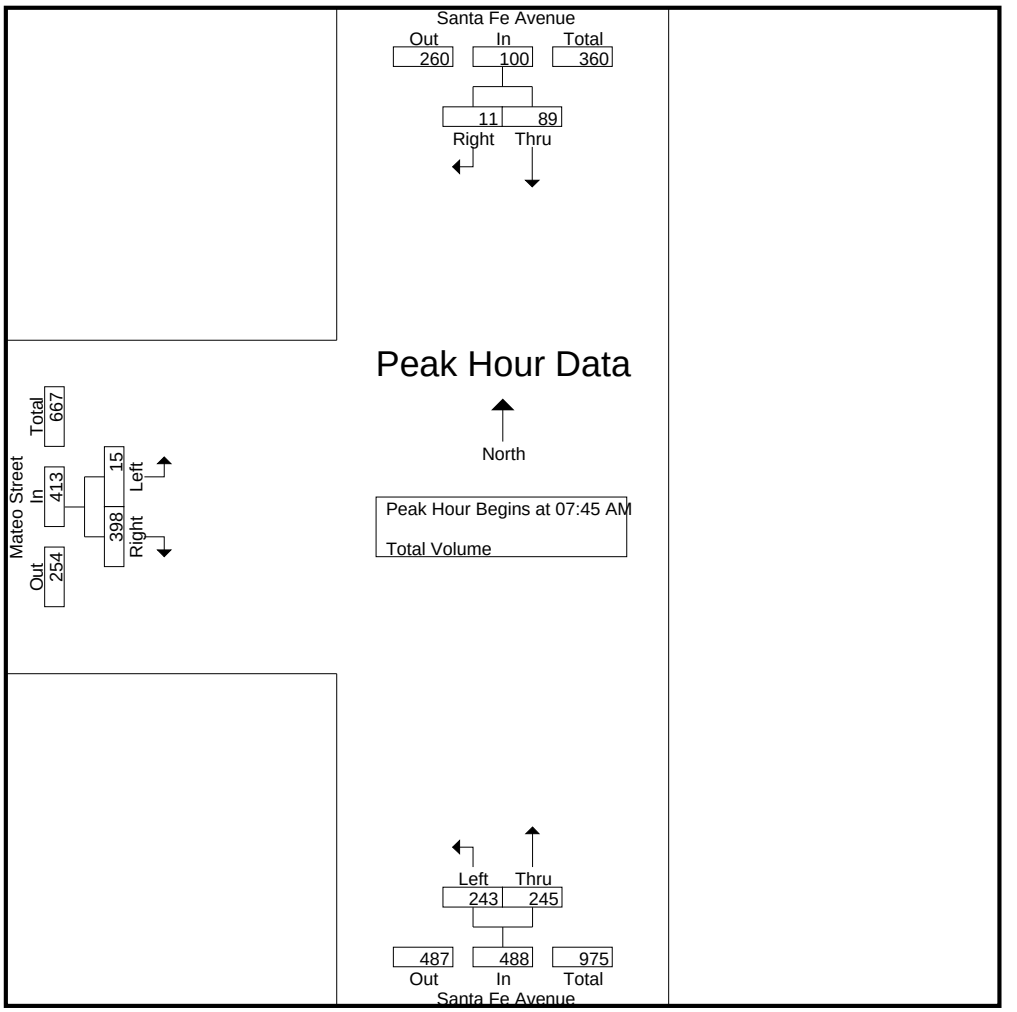
	Santa Fe Avenue Southbound			Santa Fe Avenue Northbound			Mateo Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	16	4	20	44	30	74	2	94	96	190
07:15 AM	11	4	15	57	36	93	2	107	109	217
07:30 AM	30	1	31	56	38	94	3	111	114	239
07:45 AM	15	3	18	59	63	122	4	115	119	259
Total	72	12	84	216	167	383	11	427	438	905
08:00 AM	24	3	27	70	56	126	6	106	112	265
08:15 AM	20	3	23	59	70	129	2	76	78	230
08:30 AM	30	2	32	55	56	111	3	101	104	247
08:45 AM	25	5	30	64	56	120	3	80	83	233
Total	99	13	112	248	238	486	14	363	377	975
Grand Total	171	25	196	464	405	869	25	790	815	1880
Apprch %	87.2	12.8		53.4	46.6		3.1	96.9		
Total %	9.1	1.3	10.4	24.7	21.5	46.2	1.3	42	43.4	

	Santa Fe Avenue Southbound			Santa Fe Avenue Northbound			Mateo Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	15	**3**	18	59	63	122	4	**115**	**119**	259
08:00 AM	24	3	27	**70**	56	126	**6**	106	112	**265**
08:15 AM	20	3	23	59	**70**	**129**	2	76	78	230
08:30 AM	**30**	2	**32**	55	56	111	3	101	104	247
Total Volume	89	11	100	243	245	488	15	398	413	1001
% App. Total	89	11		49.8	50.2		3.6	96.4		
PHF	.742	.917	.781	.868	.875	.946	.625	.865	.868	.944

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: Santa Fe Avenue
E/W: Mateo Street
Weather: Clear

File Name : LACSAMAAM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:45 AM			07:15 AM		
+0 mins.	24	3	27	59	63	122	2	107	109
+15 mins.	20	3	23	**70**	56	126	3	111	114
+30 mins.	**30**	2	**32**	59	**70**	**129**	4	**115**	**119**
+45 mins.	25	**5**	30	55	56	111	**6**	106	112
Total Volume	99	13	112	243	245	488	15	439	454
% App. Total	88.4	11.6		49.8	50.2		3.3	96.7	
PHF	.825	.650	.875	.868	.875	.946	.625	.954	.954

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Los Angeles
N/S: Santa Fe Avenue
E/W: Mateo Street
Weather: Clear

File Name : LACSAMAPM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 1

Groups Printed- Total Volume

	Santa Fe Avenue Southbound			Santa Fe Avenue Northbound			Mateo Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	53	5	58	61	49	110	4	86	90	258
04:15 PM	39	4	43	62	52	114	2	78	80	237
04:30 PM	41	3	44	60	37	97	4	97	101	242
04:45 PM	42	3	45	64	52	116	3	98	101	262
Total	175	15	190	247	190	437	13	359	372	999
05:00 PM	37	2	39	66	52	118	7	97	104	261
05:15 PM	52	2	54	60	53	113	10	103	113	280
05:30 PM	35	2	37	61	51	112	12	90	102	251
05:45 PM	44	6	50	43	44	87	6	112	118	255
Total	168	12	180	230	200	430	35	402	437	1047
Grand Total	343	27	370	477	390	867	48	761	809	2046
Apprch %	92.7	7.3		55	45		5.9	94.1		
Total %	16.8	1.3	18.1	23.3	19.1	42.4	2.3	37.2	39.5	

	Santa Fe Avenue Southbound			Santa Fe Avenue Northbound			Mateo Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	42	**3**	45	64	52	116	3	98	101	262
05:00 PM	37	2	39	**66**	52	**118**	7	97	104	261
05:15 PM	**52**	2	**54**	60	**53**	113	10	**103**	**113**	**280**
05:30 PM	35	2	37	61	51	112	**12**	90	102	251
Total Volume	166	9	175	251	208	459	32	388	420	1054
% App. Total	94.9	5.1		54.7	45.3		7.6	92.4		
PHF	.798	.750	.810	.951	.981	.972	.667	.942	.929	.941

Counts Unlimited
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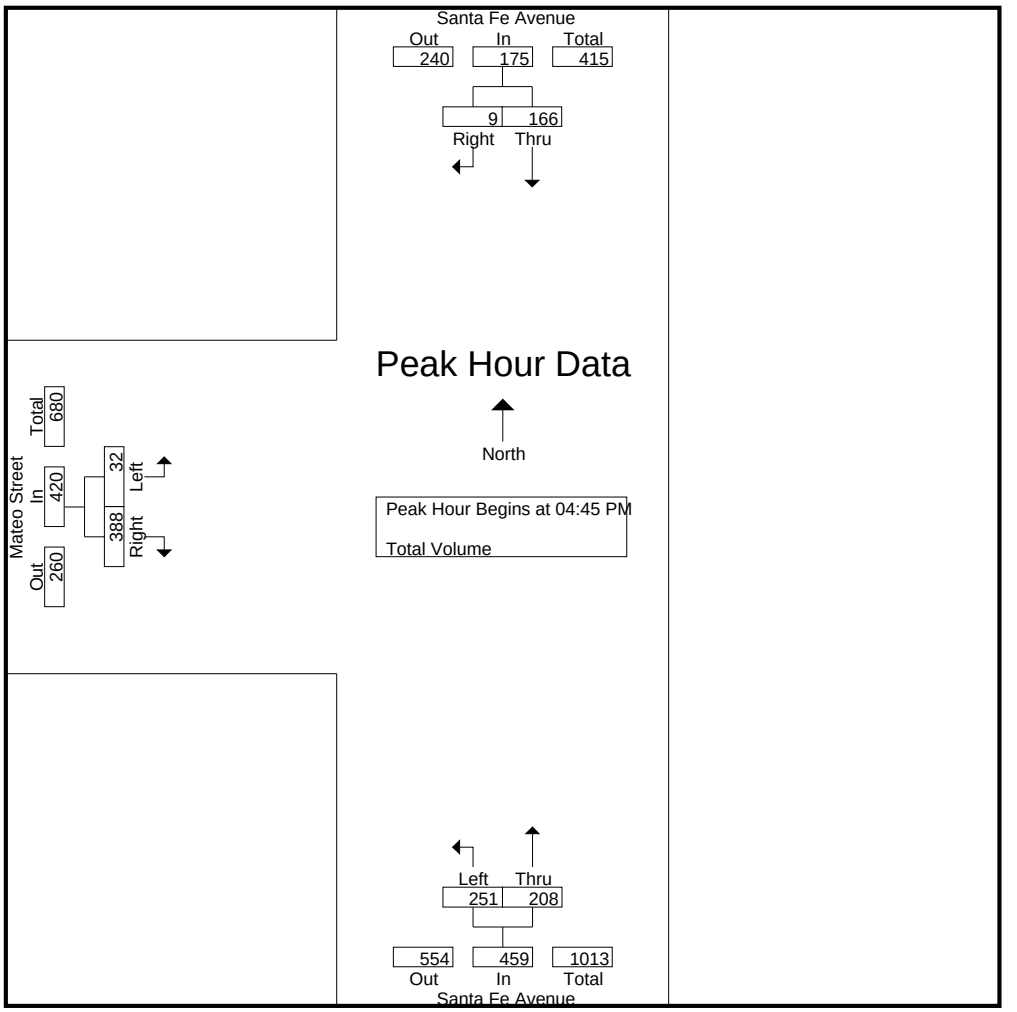
City of Los Angeles
N/S: Santa Fe Avenue
E/W: Mateo Street
Weather: Clear

File Name : LACSAMAPM
Site Code : 99917000
Start Date : 3/1/2017
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			05:00 PM		
+0 mins.	**53**	**5**	**58**	64	52	116	7	97	104
+15 mins.	39	4	43	**66**	52	**118**	10	103	113
+30 mins.	41	3	44	60	**53**	113	**12**	90	102
+45 mins.	42	3	45	61	51	112	6	**112**	**118**
Total Volume	175	15	190	251	208	459	35	402	437
% App. Total	92.1	7.9		54.7	45.3		8	92	
PHF	.825	.750	.819	.951	.981	.972	.729	.897	.926

APPENDIX C

CRITICAL MOVEMENT ANALYSIS (CMA) WORKSHEETS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
1	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases			3			3				3				3				3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
NORTHBOUND	Left	87	1	**87**	0	87	**87**	29	117	1	**117**	0	117	1	**117**		117	1	**117**
	Left-Through		0							0				0				0	
	Through	436	1	245	0	436	245	583	1024	1	539	0	1024	1	539		1024	1	539
	Through-Right		1							1				1				1	
	Right	53	0	53	0	53	53	0	54	0	54	0	54	0	54		54	0	54
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	54	1	54	0	54	54	0	55	1	55	0	55	1	55		55	1	55
	Left-Through		0							0				0				0	
	Through	713	1	**390**	0	713	**390**	725	1446	1	**757**	0	1446	1	**757**		1446	1	**757**
	Through-Right		1							1				1				1	
	Right	67	0	67	0	67	67	0	68	0	68	0	68	0	68		68	0	68
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	79	1	**79**	0	79	**79**	0	80	1	**80**	0	80	1	**80**		80	1	**80**
	Left-Through		0							0				0				0	
	Through	206	1	156	-1	205	156	0	208	1	185	-1	207	1	184		207	1	184
	Through-Right		1							1				1				1	
	Right	106	0	106	0	106	106	54	161	0	161	0	161	0	161		161	0	161
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	126	1	126	0	126	126	0	127	1	127	0	127	1	127		127	1	127
	Left-Through		0							0				0				0	
	Through	701	1	**417**	-1	700	**416**	0	708	1	**421**	-1	707	1	**420**		707	1	**420**
	Through-Right		1							1				1				1	
	Right	132	0	132	0	132	132	0	133	0	133	0	133	0	133		133	0	133
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		477	*North-South:*		477	*North-South:*			874	*North-South:*			874		*North-South:*		874
		East-West:		496	*East-West:*		495	*East-West:*			501	*East-West:*			500		*East-West:*		500
		SUM:		973	*SUM:*		972	*SUM:*			1375	*SUM:*			1374		*SUM:*		1374
	VOLUME/CAPACITY *(V/C)* RATIO:			0.683			0.682				0.965				0.964				0.964
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.613**			**0.612**				**0.895**				**0.894**				**0.894**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.001	Δ*v/c* after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
1	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases			3			3				3				3				3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- SB-- EB-- WB--			0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
NORTHBOUND	Left	112	1	**112**	0	112	**112**	69	182	1	**182**	0	182	1	**182**		182	1	**182**
	Left-Through		0							0				0				0	
	Through	831	1	464	0	831	464	863	1703	1	901	0	1703	1	901		1703	1	901
	Through-Right		1							1				1				1	
	Right	97	0	97	0	97	97	0	98	0	98	0	98	0	98		98	0	98
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	113	1	113	0	113	113	0	114	1	114	0	114	1	114		114	1	114
	Left-Through		0							0				0				0	
	Through	864	1	**484**	0	864	**484**	790	1663	1	**884**	0	1663	1	**884**		1663	1	**884**
	Through-Right		1							1				1				1	
	Right	103	0	103	0	103	103	0	104	0	104	0	104	0	104		104	0	104
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	102	1	102	0	102	102	0	103	1	103	0	103	1	103		103	1	103
	Left-Through		0							0				0				0	
	Through	677	1	**381**	-2	675	**380**	0	684	1	**413**	-2	682	1	**412**		682	1	**412**
	Through-Right		1							1				1				1	
	Right	85	0	85	0	85	85	56	142	0	142	0	142	0	142		142	0	142
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	57	1	**57**	0	57	**57**	0	58	1	**58**	0	58	1	**58**		58	1	**58**
	Left-Through		0							0				0				0	
	Through	304	1	182	-2	302	181	0	307	1	184	-2	305	1	183		305	1	183
	Through-Right		1							1				1				1	
	Right	60	0	60	0	60	60	0	61	0	61	0	61	0	61		61	0	61
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		596	*North-South:*		596	*North-South:*			1066	*North-South:*			1066	*North-South:*			1066
		East-West:		438	*East-West:*		437	*East-West:*			471	*East-West:*			470	*East-West:*			470
		SUM:		1034	*SUM:*		1033	*SUM:*			1537	*SUM:*			1536	*SUM:*			1536
	VOLUME/CAPACITY *(V/C)* RATIO:			0.726			0.725				1.079				1.078				1.078
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.656**			**0.655**				**1.009**				**1.008**				**1.008**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.001	Δ*v/c* after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
1	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		3				3				3				3				3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-2?		0				0				0				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0
	ATSAC-1 or ATSAC+ATCS-2?		1				1				1				1				1
	Override Capacity		0				0				0				0				0
NORTHBOUND	Left	112	1	**112**	0	112	**112**	69	182	1	**182**	0	182	1	**182**		182	1	**182**
	Left-Through		0							0				0				0	
	Through	831	1	464	0	831	464	863	1703	1	901	0	1703	1	901		1703	1	901
	Through-Right		1							1				1				1	
	Right	97	0	97	0	97	97	0	98	0	98	0	98	0	98		98	0	98
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	113	1	113	0	113	113	0	114	1	114	0	114	1	114		114	1	114
	Left-Through		0							0				0				0	
	Through	864	1	**484**	0	864	**484**	790	1663	1	**884**	0	1663	1	**884**		1663	1	**884**
	Through-Right		1							1				1				1	
	Right	103	0	103	0	103	103	0	104	0	104	0	104	0	104		104	0	104
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	102	1	102	0	102	102	0	103	1	103	0	103	1	103		103	1	103
	Left-Through		0							0				0				0	
	Through	677	1	**381**	10	687	**386**	0	684	1	**413**	10	694	1	**418**		694	1	**418**
	Through-Right		1							1				1				1	
	Right	85	0	85	0	85	85	56	142	0	142	0	142	0	142		142	0	142
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	57	1	**57**	0	57	**57**	0	58	1	**58**	0	58	1	**58**		58	1	**58**
	Left-Through		0							0				0				0	
	Through	304	1	182	-2	302	181	0	307	1	184	-2	305	1	183		305	1	183
	Through-Right		1							1				1				1	
	Right	60	0	60	0	60	60	0	61	0	61	0	61	0	61		61	0	61
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	596		*North-South:*		596	*North-South:*			1066	*North-South:*			1066	*North-South:*			1066
		East-West:	438		*East-West:*		443	*East-West:*			471	*East-West:*			476	*East-West:*			476
		SUM:	1034		*SUM:*		1039	*SUM:*			1537	*SUM:*			1542	*SUM:*			1542
	VOLUME/CAPACITY *(V/C)* RATIO:		0.726				0.729				1.079				1.082				1.082
	V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.656**				**0.659**				**1.009**				**1.012**				**1.012**
	LEVEL OF SERVICE (LOS):		**B**				**B**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
2	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-2?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			1			1			1				1				1	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	33	0	**33**	-1	32	**32**	0	33	0	**33**	-1	32	0	**32**		32	0	**32**
	Left-Through		1							1				1				1	
	Through	68	0	101	0	68	100	453	522	0	555	0	522	0	554		522	0	554
	Through-Right		0							0				0				0	
	Right	8	1	0	0	8	0	0	8	1	0	0	8	1	0		8	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	10	0	10	0	10	10	0	10	0	10	0	10	0	10		10	0	10
	Left-Through		1							1				1				1	
	Through	123	0	**133**	0	123	**133**	685	809	0	**819**	0	809	0	**819**		809	0	**819**
	Through-Right		0							0				0				0	
	Right	32	1	9	0	32	9	0	32	1	9	0	32	1	9		32	1	9
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	46	1	**46**	0	46	**46**	0	46	1	**46**	0	46	1	**46**		46	1	**46**
	Left-Through		0							0				0				0	
	Through	197	1	197	0	197	197	0	199	1	199	0	199	1	199		199	1	199
	Through-Right		0							0				0				0	
	Right	86	1	86	-1	85	85	0	87	1	87	-1	86	1	86		86	1	86
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	73	1	73	0	73	73	0	74	1	74	0	74	1	74		74	1	74
	Left-Through		0							0				0				0	
	Through	985	1	**543**	0	985	**543**	0	995	1	**549**	0	995	1	**549**		995	1	**549**
	Through-Right		1							1				1				1	
	Right	101	0	101	0	101	101	0	102	0	102	0	102	0	102		102	0	102
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		166	*North-South:*		165	*North-South:*			852	*North-South:*			851		*North-South:*		851
		East-West:		589	*East-West:*		589	*East-West:*			595	*East-West:*			595		*East-West:*		595
		SUM:		755	*SUM:*		754	*SUM:*			1447	*SUM:*			1446		*SUM:*		1446
	VOLUME/CAPACITY *(V/C)* RATIO:			0.530			0.529				1.015				1.015				1.015
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.460			0.459				0.945				0.945				0.945
	LEVEL OF SERVICE (LOS):			A			A				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.000 — Δ*v/c* after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
2	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases		3			3			3				3				3		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		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		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	76	0	76	-2	74	74	0	77	0	77	-2	75	0	75		75	0	75
	Left-Through		1							1				1				1	
	Through	160	0	**236**	0	160	**234**	805	967	0	**1044**	0	967	0	**1042**		967	0	**1042**
	Through-Right		0							0				0				0	
	Right	59	1	49	0	59	49	0	60	1	50	0	60	1	50		60	1	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	31	0	**31**	0	31	**31**	0	31	0	**31**	0	31	0	**31**		31	0	**31**
	Left-Through		1							1				1				1	
	Through	101	0	132	0	101	132	682	784	0	815	0	784	0	815		784	0	815
	Through-Right		0							0				0				0	
	Right	50	1	13	0	50	13	0	51	1	13	0	51	1	13		51	1	13
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	75	1	75	0	75	75	0	76	1	76	0	76	1	76		76	1	76
	Left-Through		0							0				0				0	
	Through	895	1	**895**	0	895	**895**	0	904	1	**904**	0	904	1	**904**		904	1	**904**
	Through-Right		0							0				0				0	
	Right	80	1	80	-2	78	78	0	81	1	81	-2	79	1	79		79	1	79
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	20	1	**20**	0	20	**20**	0	20	1	**20**	0	20	1	**20**		20	1	**20**
	Left-Through		0							0				0				0	
	Through	312	1	174	0	312	174	0	315	1	176	0	315	1	176		315	1	176
	Through-Right		1							1				1				1	
	Right	36	0	36	0	36	36	0	36	0	36	0	36	0	36		36	0	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	267		*North-South:*	265		*North-South:*	1075			*North-South:*	1073			*North-South:*	1073		
		East-West:	915		*East-West:*	915		*East-West:*	924			*East-West:*	924			*East-West:*	924		
		SUM:	1182		*SUM:*	1180		*SUM:*	1999			*SUM:*	1997			*SUM:*	1997		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.829			0.828			1.403				1.401				1.401		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		0.759			0.758			1.333				1.331				1.331		
	LEVEL OF SERVICE (LOS):		C			C			F				F				F		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | *Δv/c* after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
2	East-West Street:	6th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		3								3				3				3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0								0				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		NB-- 0 SB--			NB-- 0 SB--			0	NB-- 0 SB--			0	NB-- 0 SB--			0
		EB-- 0 WB--	0		EB-- 0 WB--			EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
	ATSAC-1 or ATSAC+ATCS-2?		1								1				1				1
	Override Capacity		0								0				0				0
NORTHBOUND	Left	76	0	76	-2	74	74	0	77	0	77	-2	75	0	75		75	0	75
	Left-Through		1							1				1				1	
	Through	160	0	236	0	160	234	805	967	0	1044	0	967	0	1042		967	0	1042
	Through-Right		0							0				0				0	
	Right	59	1	49	0	59	49	0	60	1	50	0	60	1	50		60	1	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	31	0	31	0	31	31	0	31	0	31	0	31	0	31		31	0	31
	Left-Through		1							1				1				1	
	Through	101	0	132	0	101	132	682	784	0	815	0	784	0	815		784	0	815
	Through-Right		0							0				0				0	
	Right	50	1	13	0	50	13	0	51	1	13	0	51	1	13		51	1	13
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	75	1	75	0	75	75	0	76	1	76	0	76	1	76		76	1	76
	Left-Through		0							0				0				0	
	Through	895	1	895	0	895	895	0	904	1	904	0	904	1	904		904	1	904
	Through-Right		0							0				0				0	
	Right	80	1	80	10	90	90	0	81	1	81	10	91	1	91		91	1	91
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	20	1	20	0	20	20	0	20	1	20	0	20	1	20		20	1	20
	Left-Through		0							0				0				0	
	Through	312	1	174	0	312	174	0	315	1	176	0	315	1	176		315	1	176
	Through-Right		1							1				1				1	
	Right	36	0	36	0	36	36	0	36	0	36	0	36	0	36		36	0	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:	267		North-South:	265			North-South:	1075			North-South:	1073			North-South:	1073	
		East-West:	915		East-West:	915			East-West:	924			East-West:	924			East-West:	924	
		SUM:	1182		SUM:	1180			SUM:	1999			SUM:	1997			SUM:	1997	
	VOLUME/CAPACITY (V/C) RATIO:		0.829			0.828				1.403				1.401				1.401	
	V/C LESS ATSAC/ATCS ADJUSTMENT:		0.759			0.758				1.333				1.331				1.331	
	LEVEL OF SERVICE (LOS):		C			C				F				F				F	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 — Δ*v/c* after mitigation: -0.002

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
3	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases			3			3				3				3				3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
NORTHBOUND	Left	69	1	**69**	0	69	**69**	272	342	1	342	0	342	1	342		342	1	342
	Left-Through		0							0				0				0	
	Through	398	1	258	0	398	257	106	508	1	**367**	0	508	1	**367**		508	1	**367**
	Through-Right		1							1				1				1	
	Right	117	0	117	-1	116	116	108	226	0	226	-1	225	0	225		225	0	225
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	95	1	95	0	95	95	497	593	1	**593**	0	593	1	**593**		593	1	**593**
	Left-Through		0							0				0				0	
	Through	700	1	**436**	0	700	**436**	110	817	1	581	0	817	1	581		817	1	581
	Through-Right		1							1				1				1	
	Right	171	0	171	0	171	171	172	345	0	345	0	345	0	345		345	0	345
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	57	1	**57**	0	57	**57**	236	294	1	**294**	0	294	1	**294**		294	1	**294**
	Left-Through		0							0				0				0	
	Through	265	1	192	-1	264	191	22	290	1	290	-1	289	1	289		289	1	289
	Through-Right		1							1				1				1	
	Right	118	0	118	0	118	118	498	617	0	446	0	617	0	446		617	0	446
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	106	1	106	-1	105	105	59	166	1	166	-1	165	1	165		165	1	165
	Left-Through		0							0				0				0	
	Through	695	1	**398**	-1	694	**397**	19	721	1	**546**	-1	720	1	**546**		720	1	**546**
	Through-Right		1							1				1				1	
	Right	100	0	100	0	100	100	270	371	0	371	0	371	0	371		371	0	371
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		505	North-South:		505	North-South:			960	North-South:			960	North-South:			960
		East-West:		455	East-West:		454	East-West:			840	East-West:			840	East-West:			840
		SUM:		960	SUM:		959	SUM:			1800	SUM:			1800	SUM:			1800
	VOLUME/CAPACITY (V/C) RATIO:			0.674			0.673				1.263				1.263				1.263
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.604**			**0.603**				**1.193**				**1.193**				**1.193**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**F**				**F**				**F**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
3	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases		3			3			3				3				3		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	114	1	**114**	0	114	**114**	396	511	1	**511**	0	511	1	**511**		511	1	**511**
	Left-Through		0							0				0				0	
	Through	757	1	432	0	757	431	157	922	1	558	0	922	1	557		922	1	557
	Through-Right		1							1				1				1	
	Right	106	0	106	-2	104	104	86	193	0	193	-2	191	0	191		191	0	191
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	121	1	121	0	121	121	414	536	1	536	0	536	1	536		536	1	536
	Left-Through		0							0				0				0	
	Through	828	1	**451**	0	828	**451**	148	985	1	**672**	0	985	1	**672**		985	1	**672**
	Through-Right		1							1				1				1	
	Right	74	0	74	0	74	74	284	359	0	359	0	359	0	359		359	0	359
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	88	1	88	0	88	88	273	362	1	**362**	0	362	1	**362**		362	1	**362**
	Left-Through		0							0				0				0	
	Through	584	1	**351**	-2	582	**350**	5	595	1	555	-2	593	1	554		593	1	554
	Through-Right		1							1				1				1	
	Right	117	0	117	0	117	117	396	514	0	514	0	514	0	514		514	0	514
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	94	1	**94**	-2	92	**92**	123	218	1	218	-2	216	1	216		216	1	216
	Left-Through		0							0				0				0	
	Through	456	1	288	-2	454	287	4	465	1	**465**	-2	463	1	**463**		463	1	**463**
	Through-Right		1							1				1				1	
	Right	120	0	120	0	120	120	578	699	0	431	0	699	0	431		699	0	431
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	565		*North-South:*	565		*North-South:*	1183			*North-South:*	1183			*North-South:*	1183		
		East-West:	445		*East-West:*	442		*East-West:*	827			*East-West:*	825			*East-West:*	825		
		SUM:	1010		*SUM:*	1007		*SUM:*	2010			*SUM:*	2008			*SUM:*	2008		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.709			0.707			1.411				1.409				1.409		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.639**			**0.637**			**1.341**				**1.339**				**1.339**		
	LEVEL OF SERVICE (LOS):		**B**			**B**			**F**				**F**				**F**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | *Δv/c* after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
3	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		3			3			3				3				3		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		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		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	114	1	**114**	0	114	**114**	396	511	1	**511**	0	511	1	**511**		511	1	**511**
	Left-Through		0							0				0				0	
	Through	757	1	432	0	757	437	157	922	1	558	0	922	1	563		922	1	563
	Through-Right		1							1				1				1	
	Right	106	0	106	10	116	116	86	193	0	193	10	203	0	203		203	0	203
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	121	1	121	0	121	121	414	536	1	536	0	536	1	536		536	1	536
	Left-Through		0							0				0				0	
	Through	828	1	**451**	0	828	**451**	148	985	1	**672**	0	985	1	**672**		985	1	**672**
	Through-Right		1							1				1				1	
	Right	74	0	74	0	74	74	284	359	0	359	0	359	0	359		359	0	359
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	88	1	88	0	88	88	273	362	1	**362**	0	362	1	**362**		362	1	**362**
	Left-Through		0							0				0				0	
	Through	584	1	**351**	10	594	**356**	5	595	1	555	10	605	1	560		605	1	560
	Through-Right		1							1				1				1	
	Right	117	0	117	0	117	117	396	514	0	514	0	514	0	514		514	0	514
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	94	1	**94**	-2	92	**92**	123	218	1	218	-2	216	1	216		216	1	216
	Left-Through		0							0				0				0	
	Through	456	1	288	-2	454	287	4	465	1	**465**	-2	463	1	**463**		463	1	**463**
	Through-Right		1							1				1				1	
	Right	120	0	120	0	120	120	578	699	0	431	0	699	0	431		699	0	431
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	565		*North-South:*	565		*North-South:*	1183			*North-South:*	1183			*North-South:*	1183		
		East-West:	445		*East-West:*	448		*East-West:*	827			*East-West:*	825			*East-West:*	825		
		SUM:	1010		*SUM:*	1013		*SUM:*	2010			*SUM:*	2008			*SUM:*	2008		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.709			0.711			1.411				1.409				1.409		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.639**			**0.641**			**1.341**				**1.339**				**1.339**		
	LEVEL OF SERVICE (LOS):		**B**			**B**			**F**				**F**				**F**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | *Δv/c* after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
4	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases			2			2			2				2					2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0
	ATSAC-1 or ATSAC+ATCS-2?			1			1			1				1					1
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	71	0	**71**	0	71	**71**	275	347	0	**347**	0	347	0	**347**		347	0	**347**
	Left-Through		1							1				1				1	
	Through	85	0	156	0	85	156	317	403	0	750	0	403	0	750		403	0	750
	Through-Right		0							0				0				0	
	Right	33	1	0	0	33	0	0	33	1	0	0	33	1	0		33	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	42	0	42	0	42	42	0	42	0	42	0	42	0	42		42	0	42
	Left-Through		1							1				1				1	
	Through	169	0	**211**	0	169	**211**	349	520	0	**562**	0	520	0	**562**		520	0	**562**
	Through-Right		0							0				0				0	
	Right	51	1	35	0	51	35	0	52	1	36	0	52	1	36		52	1	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	33	1	**33**	0	33	**33**	0	33	1	33	0	33	1	33		33	1	33
	Left-Through		0							0				0				0	
	Through	307	1	173	-2	305	172	76	386	1	386	-2	384	1	384		384	1	384
	Through-Right		1							1				1				1	
	Right	39	0	39	0	39	39	504	543	0	**543**	0	543	0	**543**		543	0	**543**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	116	1	116	0	116	116	0	117	1	**117**	0	117	1	**117**		117	1	**117**
	Left-Through		0							0				0				0	
	Through	534	1	**287**	-2	532	**286**	120	660	1	350	-2	658	1	349		658	1	349
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40		40	0	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		282	*North-South:*		282	*North-South:*			909	*North-South:*			909		*North-South:*		909
		East-West:		320	*East-West:*		319	*East-West:*			660	*East-West:*			660		*East-West:*		660
		SUM:		602	*SUM:*		601	*SUM:*			1569	*SUM:*			1569		*SUM:*		1569
	VOLUME/CAPACITY *(V/C)* RATIO:			0.401			0.401				1.046				1.046				1.046
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.331**			**0.331**				**0.976**				**0.976**				**0.976**
	LEVEL OF SERVICE (LOS):			**A**			**A**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
4	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases		2			2			2				2				2		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		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		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	134	0	134	0	134	134	575	710	0	710	0	710	0	710		710	0	710
	Left-Through		1							1				1				1	
	Through	179	0	**313**	0	179	**313**	590	771	0	**1481**	0	771	0	**1481**		771	0	**1481**
	Through-Right		0							0				0				0	
	Right	51	1	24	0	51	24	0	52	1	25	0	52	1	25		52	1	25
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	34	0	**34**	0	34	**34**	0	34	0	**34**	0	34	0	**34**		34	0	**34**
	Left-Through		1							1				1				1	
	Through	111	0	145	0	111	145	427	539	0	573	0	539	0	573		539	0	573
	Through-Right		0							0				0				0	
	Right	28	1	0	0	28	0	0	28	1	0	0	28	1	0		28	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	1	76	0	76	76	0	77	1	77	0	77	1	77		77	1	77
	Left-Through		0							0				0				0	
	Through	587	1	**334**	-4	583	**332**	131	724	1	**603**	-4	720	1	**601**		720	1	**601**
	Through-Right		1							1				1				1	
	Right	80	0	80	0	80	80	401	482	0	482	0	482	0	482		482	0	482
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	54	1	**54**	0	54	**54**	0	55	1	**55**	0	55	1	**55**		55	1	**55**
	Left-Through		0							0				0				0	
	Through	304	1	167	-4	300	165	103	410	1	220	-4	406	1	218		406	1	218
	Through-Right		1							1				1				1	
	Right	30	0	30	0	30	30	0	30	0	30	0	30	0	30		30	0	30
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		347	North-South:		347	North-South:			1515	North-South:			1515	North-South:			1515
		East-West:		388	East-West:		386	East-West:			658	East-West:			656	East-West:			656
		SUM:		735	SUM:		733	SUM:			2173	SUM:			2171	SUM:			2171
	VOLUME/CAPACITY (V/C) RATIO:			0.490			0.489				1.449				1.447				1.447
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.420			0.419				1.379				1.377				1.377
	LEVEL OF SERVICE (LOS):			A			A				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | Δ*v/c* after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mateo St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
4	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		2			2			2				2				2		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		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		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	134	0	134	0	134	134	575	710	0	710	0	710	0	710		710	0	710
	Left-Through		1							1				1				1	
	Through	179	0	**313**	0	179	**313**	590	771	0	**1481**	0	771	0	**1481**		771	0	**1481**
	Through-Right		0							0				0				0	
	Right	51	1	24	0	51	24	0	52	1	25	0	52	1	25		52	1	25
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	34	0	**34**	0	34	**34**	0	34	0	**34**	0	34	0	**34**		34	0	**34**
	Left-Through		1							1				1				1	
	Through	111	0	145	0	111	145	427	539	0	573	0	539	0	573		539	0	573
	Through-Right		0							0				0				0	
	Right	28	1	0	0	28	0	0	28	1	0	0	28	1	0		28	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	1	76	0	76	76	0	77	1	77	0	77	1	77		77	1	77
	Left-Through		0							0				0				0	
	Through	587	1	**334**	20	607	**344**	131	724	1	**603**	20	744	1	**613**		744	1	**613**
	Through-Right		1							1				1				1	
	Right	80	0	80	0	80	80	401	482	0	482	0	482	0	482		482	0	482
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	54	1	**54**	0	54	**54**	0	55	1	**55**	0	55	1	**55**		55	1	**55**
	Left-Through		0							0				0				0	
	Through	304	1	167	-4	300	165	103	410	1	220	-4	406	1	218		406	1	218
	Through-Right		1							1				1				1	
	Right	30	0	30	0	30	30	0	30	0	30	0	30	0	30		30	0	30
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	347		*North-South:*	347		*North-South:*	1515			*North-South:*	1515			*North-South:*	1515		
		East-West:	388		*East-West:*	398		*East-West:*	658			*East-West:*	668			*East-West:*	668		
		SUM:	735		*SUM:*	745		*SUM:*	2173			*SUM:*	2183			*SUM:*	2183		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.490			0.497			1.449				1.455				1.455		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		0.420			0.427			1.379				1.385				1.385		
	LEVEL OF SERVICE (LOS):		A			A			F				F				F		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.006 — Δ*v/c* after mitigation: 0.006

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Santa Fe	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
5	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

No. of Phases			3				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				1				1				1				1				1				1
Override Capacity				0				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	95	1	95	0	95	95	0	96	1	**96**	0	96	1	**96**		96	1	**96**
	Left-Through		0							0				0				0	
	Through	256	1	**256**	0	256	**256**	216	475	1	475	0	475	1	475		475	1	475
	Through-Right		0							0				0				0	
	Right	108	1	0	-1	107	0	160	269	1	124	-1	268	1	123		268	1	123
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	31	0	**31**	0	31	**31**	0	31	0	31	0	31	0	31		31	0	31
	Left-Through		0							0				0				0	
	Through	133	0	184	0	133	184	396	530	0	**581**	0	530	0	**581**		530	0	**581**
	Through-Right		0							0				0				0	
	Right	20	0	0	0	20	0	0	20	0	0	0	20	0	0		20	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	15	1	15	0	15	15	0	15	1	**15**	0	15	1	**15**		15	1	**15**
	Left-Through		0							0				0				0	
	Through	309	1	**192**	-2	307	**191**	123	435	1	255	-2	433	1	254		433	1	254
	Through-Right		1							1				1				1	
	Right	74	0	74	0	74	74	0	75	0	75	0	75	0	75		75	0	75
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	288	1	**288**	-1	287	**287**	0	291	1	291	-1	290	1	290		290	1	290
	Left-Through		0							0				0				0	
	Through	645	1	377	-2	643	376	73	725	1	**564**	-2	723	1	**563**		723	1	**563**
	Through-Right		1							1				1				1	
	Right	108	0	108	0	108	108	293	402	0	402	0	402	0	402		402	0	402
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		287	North-South:		287	North-South:			677	North-South:			677	North-South:			677
		East-West:		480	East-West:		478	East-West:			579	East-West:			578	East-West:			578
		SUM:		767	SUM:		765	SUM:			1256	SUM:			1255	SUM:			1255
VOLUME/CAPACITY (V/C) RATIO:				0.538			0.537				0.881				0.881				0.881
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.468			0.467				0.811				0.811				0.811
LEVEL OF SERVICE (LOS):				A			A				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.000 — Δ*v/c* after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Santa Fe	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
5	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	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
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0	NB-- 0 SB-- EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
Override Capacity			0			0				0				0				0
NORTHBOUND Left	108	1	**108**	0	108	**108**	0	109	1	109	0	109	1	109		109	1	109
NORTHBOUND Left-Through		0							0				0				0	
NORTHBOUND Through	364	1	364	0	364	364	452	820	1	**820**	0	820	1	**820**		820	1	**820**
NORTHBOUND Through-Right		0							0				0				0	
NORTHBOUND Right	163	1	34	-1	162	35	335	500	1	370	-1	499	1	370		499	1	370
NORTHBOUND Left-Through-Right		0							0				0				0	
NORTHBOUND Left-Right		0							0				0				0	
SOUTHBOUND Left	37	0	37	0	37	37	0	37	0	**37**	0	37	0	**37**		37	0	**37**
SOUTHBOUND Left-Through		0							0				0				0	
SOUTHBOUND Through	262	0	**311**	0	262	**311**	315	580	0	629	0	580	0	629		580	0	629
SOUTHBOUND Through-Right		0							0				0				0	
SOUTHBOUND Right	12	0	0	0	12	0	0	12	0	0	0	12	0	0		12	0	0
SOUTHBOUND Left-Through-Right		1							1				1				1	
SOUTHBOUND Left-Right		0							0				0				0	
EASTBOUND Left	20	1	20	0	20	20	0	20	1	20	0	20	1	20		20	1	20
EASTBOUND Left-Through		0							0				0				0	
EASTBOUND Through	553	1	**341**	-4	549	**339**	104	663	1	**397**	-4	659	1	**395**		659	1	**395**
EASTBOUND Through-Right		1							1				1				1	
EASTBOUND Right	129	0	129	0	129	129	0	130	0	130	0	130	0	130		130	0	130
EASTBOUND Left-Through-Right		0							0				0				0	
EASTBOUND Left-Right		0							0				0				0	
WESTBOUND Left	258	1	**258**	-3	255	**255**	0	261	1	**261**	-3	258	1	**258**		258	1	**258**
WESTBOUND Left-Through		0							0				0				0	
WESTBOUND Through	296	1	182	-4	292	180	130	429	1	416	-4	425	1	414		425	1	414
WESTBOUND Through-Right		1							1				1				1	
WESTBOUND Right	67	0	67	0	67	67	335	403	0	403	0	403	0	403		403	0	403
WESTBOUND Left-Through-Right		0							0				0				0	
WESTBOUND Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		419	*North-South:*		419	*North-South:*			857	*North-South:*			857		*North-South:*		857
	East-West:		599	*East-West:*		594	*East-West:*			658	*East-West:*			653		*East-West:*		653
	SUM:		1018	*SUM:*		1013	*SUM:*			1515	*SUM:*			1510		*SUM:*		1510
VOLUME/CAPACITY *(V/C)* RATIO:			0.714			0.711				1.063				1.060				1.060
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.644**			**0.641**				**0.993**				**0.990**				**0.990**
LEVEL OF SERVICE (LOS):			**B**			**B**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.003 | *Δv/c* after mitigation: -0.003

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Santa Fe	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
5	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	108	1	**108**	0	108	**108**	0	109	1	109	0	109	1	109		109	1	109
Left-Through		0							0				0				0	
Through	364	1	364	0	364	364	452	820	1	**820**	0	820	1	**820**		820	1	**820**
Through-Right		0							0				0				0	
Right	163	1	34	10	173	46	335	500	1	370	10	510	1	381		510	1	381
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	37	0	37	0	37	37	0	37	0	**37**	0	37	0	**37**		37	0	**37**
Left-Through		0							0				0				0	
Through	262	0	**311**	0	262	**311**	315	580	0	629	0	580	0	629		580	0	629
Through-Right		0							0				0				0	
Right	12	0	0	0	12	0	0	12	0	0	0	12	0	0		12	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	20	1	20	0	20	20	0	20	1	20	0	20	1	20		20	1	20
Left-Through		0							0				0				0	
Through	553	1	**341**	20	573	**351**	104	663	1	**397**	20	683	1	**407**		683	1	**407**
Through-Right		1							1				1				1	
Right	129	0	129	0	129	129	0	130	0	130	0	130	0	130		130	0	130
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	258	1	**258**	-3	255	**255**	0	261	1	**261**	-3	258	1	**258**		258	1	**258**
Left-Through		0							0				0				0	
Through	296	1	182	-4	292	180	130	429	1	416	-4	425	1	414		425	1	414
Through-Right		1							1				1				1	
Right	67	0	67	0	67	67	335	403	0	403	0	403	0	403		403	0	403
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		419	*North-South:*		419	*North-South:*			857	*North-South:*			857	*North-South:*			857
	East-West:		599	*East-West:*		606	*East-West:*			658	*East-West:*			665	*East-West:*			665
	SUM:		1018	*SUM:*		1025	*SUM:*			1515	*SUM:*			1522	*SUM:*			1522
VOLUME/CAPACITY *(V/C)* RATIO:			0.714			0.719				1.063				1.068				1.068
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.644			0.649				0.993				0.998				0.998
LEVEL OF SERVICE (LOS):			B			B				E				E				E

	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--
No. of Phases				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?				1				1				1				1				1
Override Capacity				0				0				0				0				0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	$\Delta v/c$ after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
6	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	1	NB-- 0	SB--	1	NB-- 0	SB--	1	NB-- 0	SB--	1	NB-- 0	SB--	1	NB-- 0	SB--	1	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			1			1			1			1			1			1	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	176	1	**176**	-1	175	**175**	0	178	1	**178**	-1	177	1	**177**		177	1	**177**
	Left-Through		0							0				0				0	
	Through	444	1	283	0	444	283	0	449	1	286	0	449	1	286		449	1	286
	Through-Right		1							1				1				1	
	Right	121	0	121	0	121	121	0	122	0	122	0	122	0	122		122	0	122
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	53	1	53	0	53	53	0	54	1	54	0	54	1	54		54	1	54
	Left-Through		0							0				0				0	
	Through	456	2	**228**	0	456	**228**	0	461	2	**231**	0	461	2	**231**		461	2	**231**
	Through-Right		0							0				0				0	
	Right	282	1	0	-2	280	0	36	321	1	0	-2	319	1	0		319	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	68	1	**68**	-2	66	**66**	30	99	1	**99**	-2	97	1	**97**		97	1	**97**
	Left-Through		0							0				0				0	
	Through	108	1	108	-4	104	104	225	334	1	334	-4	330	1	330		330	1	330
	Through-Right		0							0				0				0	
	Right	124	1	36	-1	123	36	28	153	1	64	-1	152	1	64		152	1	64
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	40	1	40	0	40	40	0	40	1	40	0	40	1	40		40	1	40
	Left-Through		0							0				0				0	
	Through	244	0	**302**	-3	241	**299**	330	577	0	**636**	-3	574	0	**633**		574	0	**633**
	Through-Right		1							1				1				1	
	Right	58	0	0	0	58	0	0	59	0	0	0	59	0	0		59	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		404	*North-South:*		403	*North-South:*			409	*North-South:*			408	*North-South:*			408
		East-West:		370	*East-West:*		365	*East-West:*			735	*East-West:*			730	*East-West:*			730
		SUM:		774	*SUM:*		768	*SUM:*			1144	*SUM:*			1138	*SUM:*			1138
VOLUME/CAPACITY *(V/C)* RATIO:				0.563			0.559				0.832				0.828				0.828
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.493**			**0.489**				**0.762**				**0.758**				**0.758**
LEVEL OF SERVICE (LOS):				**A**			**A**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.004	Δ*v/c* after mitigation:	-0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
6	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	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
	No. of Phases		4			4			4				4				4		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1			NB-- 0 SB-- EB-- 0 WB--	1			NB-- 0 SB-- EB-- 0 WB--	1		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	Left	145	1	145	-3	142	142	0	147	1	147	-3	144	1	144		144	1	144
	Left-Through		0							0				0				0	
	Through	546	1	**348**	0	546	**348**	0	552	1	**352**	0	552	1	**352**		552	1	**352**
	Through-Right		1							1				1				1	
	Right	150	0	150	0	150	150	0	152	0	152	0	152	0	152		152	0	152
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	46	1	**46**	0	46	**46**	0	46	1	**46**	0	46	1	**46**		46	1	**46**
	Left-Through		0							0				0				0	
	Through	380	2	190	0	380	190	0	384	2	192	0	384	2	192		384	2	192
	Through-Right		0							0				0				0	
	Right	85	1	0	-4	81	0	46	132	1	0	-4	128	1	0		128	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	265	1	**265**	-6	259	**259**	45	313	1	**313**	-6	307	1	**307**		307	1	**307**
	Left-Through		0							0				0				0	
	Through	315	1	315	-8	307	307	351	669	1	669	-8	661	1	661		661	1	661
	Through-Right		0							0				0				0	
	Right	324	1	252	-3	321	250	43	370	1	297	-3	367	1	295		367	1	295
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	11	1	11	0	11	11	0	11	1	11	0	11	1	11		11	1	11
	Left-Through		0							0				0				0	
	Through	102	0	**180**	-6	96	**174**	419	522	0	**601**	-6	516	0	**595**		516	0	**595**
	Through-Right		1							1				1				1	
	Right	78	0	0	0	78	0	0	79	0	0	0	79	0	0		79	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	394		*North-South:*	394		*North-South:*	398			*North-South:*	398			*North-South:*	398		
		East-West:	445		*East-West:*	433		*East-West:*	914			*East-West:*	902			*East-West:*	902		
		SUM:	839		*SUM:*	827		*SUM:*	1312			*SUM:*	1300			*SUM:*	1300		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.610			0.601			0.954				0.945				0.945		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.540**			**0.531**			**0.884**				**0.875**				**0.875**		
	LEVEL OF SERVICE (LOS):		**A**			**A**			**D**				**D**				**D**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.009	Δ*v/c* after mitigation:	-0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
6	East-West Street:	7th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		4			4			4		4		4		4		4		4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0		0		0		0		0		0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1		NB-- 0 SB-- EB-- 0 WB--	1	
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1		1		1		1		1		1
	Override Capacity		0			0			0		0		0		0		0		0
NORTHBOUND	Left	145	1	145	14	159	159	0	147	1	147	14	161	1	161		161	1	161
	Left-Through		0							0				0				0	
	Through	546	1	**348**	0	546	**348**	0	552	1	**352**	0	552	1	**352**		552	1	**352**
	Through-Right		1							1				1				1	
	Right	150	0	150	0	150	150	0	152	0	152	0	152	0	152		152	0	152
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	46	1	**46**	0	46	**46**	0	46	1	**46**	0	46	1	**46**		46	1	**46**
	Left-Through		0							0				0				0	
	Through	380	2	190	0	380	190	0	384	2	192	0	384	2	192		384	2	192
	Through-Right		0							0				0				0	
	Right	85	1	0	24	109	0	46	132	1	0	24	156	1	0		156	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	265	1	**265**	-6	259	**259**	45	313	1	**313**	-6	307	1	**307**		307	1	**307**
	Left-Through		0							0				0				0	
	Through	315	1	315	-8	307	307	351	669	1	669	-8	661	1	661		661	1	661
	Through-Right		0							0				0				0	
	Right	324	1	252	-3	321	242	43	370	1	297	-3	367	1	287		367	1	287
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	11	1	11	0	11	11	0	11	1	11	0	11	1	11		11	1	11
	Left-Through		0							0				0				0	
	Through	102	0	**180**	37	139	**217**	419	522	0	**601**	37	559	0	**638**		559	0	**638**
	Through-Right		1							1				1				1	
	Right	78	0	0	0	78	0	0	79	0	0	0	79	0	0		79	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*	394		*North-South:*	394		*North-South:*	398			*North-South:*	398			*North-South:*	398		
		East-West:	445		*East-West:*	476		*East-West:*	914			*East-West:*	945			*East-West:*	945		
		SUM:	839		*SUM:*	870		*SUM:*	1312			*SUM:*	1343			*SUM:*	1343		
	VOLUME/CAPACITY *(V/C)* RATIO:		0.610			0.633			0.954				0.977				0.977		
	V/C LESS ATSAC/ATCS ADJUSTMENT:		**0.540**			**0.563**			**0.884**				**0.907**				**0.907**		
	LEVEL OF SERVICE (LOS):		**A**			**A**			**D**				**E**				**E**		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: **0.023** $\Delta v/c$ after mitigation: **0.023**

Significant impacted? **YES** Fully mitigated? **NO**

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
7	East-West Street:	Whittier Blvd	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	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	241	1	241	0	241	241	0	244	1	244	0	244	1	244		244	1	244
Left-Through		0							0				0				0	
Through	517	1	**327**	0	517	**326**	20	542	1	**345**	0	542	1	**344**		542	1	**344**
Through-Right		1							1				1				1	
Right	136	0	136	-2	134	134	10	147	0	147	-2	145	0	145		145	0	145
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	89	1	89	0	89	89	0	90	1	90	0	90	1	90		90	1	90
Left-Through		0							0				0				0	
Through	382	1	**252**	0	382	**252**	28	414	1	**268**	0	414	1	**268**		414	1	**268**
Through-Right		1							1				1				1	
Right	121	0	121	0	121	121	0	122	0	122	0	122	0	122		122	0	122
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	21	1	**21**	0	21	**21**	0	21	1	**21**	0	21	1	**21**		21	1	**21**
Left-Through		0							0				0				0	
Through	102	1	79	0	102	79	0	103	1	80	0	103	1	80		103	1	80
Through-Right		1							1				1				1	
Right	56	0	56	0	56	56	0	57	0	57	0	57	0	57		57	0	57
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	196	1	196	0	196	196	8	206	1	206	0	206	1	206		206	1	206
Left-Through		0							0				0				0	
Through	1006	1	**592**	0	1006	**592**	0	1017	1	**598**	0	1017	1	**598**		1017	1	**598**
Through-Right		1							1				1				1	
Right	177	0	177	0	177	177	0	179	0	179	0	179	0	179		179	0	179
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		579	*North-South:*		578	*North-South:*			613	*North-South:*			612	*North-South:*			612
	East-West:		613	*East-West:*		613	*East-West:*			619	*East-West:*			619	*East-West:*			619
	SUM:		1192	*SUM:*		1191	*SUM:*			1232	*SUM:*			1231	*SUM:*			1231
VOLUME/CAPACITY *(V/C)* RATIO:			0.867			0.866				0.896				0.895				0.895
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.797**			**0.796**				**0.826**				**0.825**				**0.825**
LEVEL OF SERVICE (LOS):			**C**			**C**				**D**				**D**				**D**

	NB--	SB--	EB--	WB--
No. of Phases		4		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		1		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	3	0	0	0
ATSAC-1 or ATSAC+ATCS-2?		1		
Override Capacity		0		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.001	*Δv/c* after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
7	East-West Street:	Whittier Blvd	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	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
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3 SB--		0	NB-- 3 SB--		0	NB-- 3 SB--		0		NB-- 3 SB--		0		NB-- 3 SB--		0	
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
ATSAC-1 or ATSAC+ATCS-2?			1			1			1				1				1	
Override Capacity			0			0			0				0				0	
NORTHBOUND																		
Left	175	1	175	0	175	175	0	177	1	177	0	177	1	177		177	1	177
Left-Through		0							0				0				0	
Through	906	1	**557**	0	906	**554**	30	946	1	**586**	0	946	1	**583**		946	1	**583**
Through-Right		1							1				1				1	
Right	208	0	208	-6	202	202	15	225	0	225	-6	219	0	219		219	0	219
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	127	1	127	0	127	127	0	128	1	128	0	128	1	128		128	1	128
Left-Through		0							0				0				0	
Through	389	1	**215**	0	389	**215**	35	428	1	**234**	0	428	1	**234**		428	1	**234**
Through-Right		1							1				1				1	
Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40		40	0	40
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	198	1	**198**	0	198	**198**	0	200	1	**200**	0	200	1	**200**		200	1	**200**
Left-Through		0							0				0				0	
Through	624	1	366	0	624	366	0	631	1	370	0	631	1	370		631	1	370
Through-Right		1							1				1				1	
Right	108	0	108	0	108	108	0	109	0	109	0	109	0	109		109	0	109
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	53	1	53	0	53	53	11	65	1	65	0	65	1	65		65	1	65
Left-Through		0							0				0				0	
Through	366	1	**259**	0	366	**259**	0	370	1	**262**	0	370	1	**262**		370	1	**262**
Through-Right		1							1				1				1	
Right	152	0	152	0	152	152	0	154	0	154	0	154	0	154		154	0	154
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		772	*North-South:*		769	*North-South:*		820		*North-South:*		817		*North-South:*		817	
	East-West:		457	*East-West:*		457	*East-West:*		462		*East-West:*		462		*East-West:*		462	
	SUM:		1229	*SUM:*		1226	*SUM:*		1282		*SUM:*		1279		*SUM:*		1279	
VOLUME/CAPACITY *(V/C)* RATIO:			0.894			0.892			0.932				0.930				0.930	
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.824			0.822			0.862				0.860				0.860	
LEVEL OF SERVICE (LOS):			D			D			D				D				D	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | $\Delta v/c$ after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Boyle Ave	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
7	East-West Street:	Whittier Blvd	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			4			4			4				4				4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3 SB-- / EB-- 0 WB--		0	NB-- 3 SB-- / EB-- 0 WB--		0	NB-- 3 SB-- / EB-- 0 WB--		0		NB-- 3 SB-- / EB-- 0 WB--		0		NB-- 3 SB-- / EB-- 0 WB--		0	
ATSAC-1 or ATSAC+ATCS-2?			1			1			1				1				1	
Override Capacity			0			0			0				0				0	
NORTHBOUND																		
Left	175	1	175	0	175	175	0	177	1	177	0	177	1	177		177	1	177
Left-Through		0							0				0				0	
Through	906	1	**557**	0	906	**554**	30	946	1	**586**	0	946	1	**583**		946	1	**583**
Through-Right		1							1				1				1	
Right	208	0	208	-6	202	202	15	225	0	225	-6	219	0	219		219	0	219
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	127	1	127	0	127	127	0	128	1	128	0	128	1	128		128	1	128
Left-Through		0							0				0				0	
Through	389	1	**215**	0	389	**215**	35	428	1	**234**	0	428	1	**234**		428	1	**234**
Through-Right		1							1				1				1	
Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40		40	0	40
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	198	1	**198**	0	198	**198**	0	200	1	**200**	0	200	1	**200**		200	1	**200**
Left-Through		0							0				0				0	
Through	624	1	366	0	624	366	0	631	1	370	0	631	1	370		631	1	370
Through-Right		1							1				1				1	
Right	108	0	108	0	108	108	0	109	0	109	0	109	0	109		109	0	109
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	53	1	53	24	77	77	11	65	1	65	24	89	1	89		89	1	89
Left-Through		0							0				0				0	
Through	366	1	**259**	0	366	**259**	0	370	1	**262**	0	370	1	**262**		370	1	**262**
Through-Right		1							1				1				1	
Right	152	0	152	0	152	152	0	154	0	154	0	154	0	154		154	0	154
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		772	*North-South:*		769	*North-South:*			820	*North-South:*			817	*North-South:*			817
	East-West:		457	*East-West:*		457	*East-West:*			462	*East-West:*			462	*East-West:*			462
	SUM:		1229	*SUM:*		1226	*SUM:*			1282	*SUM:*			1279	*SUM:*			1279
VOLUME/CAPACITY *(V/C)* RATIO:			0.894			0.892				0.932				0.930				0.930
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.824			0.822				0.862				0.860				0.860
LEVEL OF SERVICE (LOS):			D			D				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: -0.002 | *Δv/c* after mitigation: -0.002

Significant impacted? NO | Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
8	East-West Street:	4th St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	6th Street GPA

No. of Phases				2				2				2				2				2			
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0			
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	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			
ATSAC-1 or ATSAC+ATCS-2?				1				1				1				1				1			
Override Capacity				0				0				0				0				0			

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	726	1	**388**	0	726	**388**	216	950	1	**500**	0	950	1	**500**		950	1	**500**
	Through-Right		1							1				1				1	
	Right	49	0	49	0	49	49	0	50	0	50	0	50	0	50		50	0	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	82	1	**82**	0	82	**82**	236	319	1	**319**	0	319	1	**319**		319	1	**319**
	Left-Through		0							0				0				0	
	Through	738	2	369	0	738	369	396	1142	2	571	0	1142	2	571		1142	2	571
	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	
EASTBOUND	Left	72	0	72	0	72	72	0	73	0	73	0	73	0	73		73	0	73
	Left-Through		1							1				1				1	
	Through	249	2	107	-1	248	107	101	353	2	**142**	-1	352	2	**142**		352	2	**142**
	Through-Right		0							0				0				0	
	Right	116	1	**116**	0	116	**116**	0	117	1	117	0	117	1	117		117	1	117
	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**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		470	*North-South:*		470	*North-South:*			819	*North-South:*			819		*North-South:*		819
		East-West:		116	*East-West:*		116	*East-West:*			142	*East-West:*			142		*East-West:*		142
		SUM:		586	*SUM:*		586	*SUM:*			961	*SUM:*			961		*SUM:*		961
VOLUME/CAPACITY *(V/C)* RATIO:				0.391			0.391				0.641				0.641				0.641
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.321**			**0.321**				**0.571**				**0.571**				**0.571**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
8	East-West Street:	4th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	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
No. of Phases		2			2			2				2				2		
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0		NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0			NB-- 0 SB-- EB-- 0 WB--	0		
ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
Override Capacity		0			0			0				0				0		
NORTHBOUND																		
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	883	1	**469**	0	883	**469**	452	1344	1	**700**	0	1344	1	**700**		1344	1	**700**
Through-Right		1							1				1				1	
Right	54	0	54	0	54	54	0	55	0	55	0	55	0	55		55	0	55
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	110	1	**110**	0	110	**110**	273	384	1	**384**	0	384	1	**384**		384	1	**384**
Left-Through		0							0				0				0	
Through	721	2	361	0	721	361	315	1044	2	522	0	1044	2	522		1044	2	522
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	
EASTBOUND																		
Left	172	0	172	0	172	172	0	174	0	174	0	174	0	174		174	0	174
Left-Through		1							1				1				1	
Through	988	2	**387**	-4	984	**385**	99	1097	2	**424**	-4	1093	2	**422**		1093	2	**422**
Through-Right		0							0				0				0	
Right	147	1	147	0	147	147	0	149	1	149	0	149	1	149		149	1	149
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**
Left-Through		0							0				0				0	
Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Through-Right		0							0				0				0	
Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		579	*North-South:*		579	*North-South:*			1084	*North-South:*			1084	*North-South:*			1084
	East-West:		387	*East-West:*		385	*East-West:*			424	*East-West:*			422	*East-West:*			422
	SUM:		966	*SUM:*		964	*SUM:*			1508	*SUM:*			1506	*SUM:*			1506
VOLUME/CAPACITY *(V/C)* RATIO:			0.644			0.643				1.005				1.004				1.004
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.574**			**0.573**				**0.935**				**0.934**				**0.934**
LEVEL OF SERVICE (LOS):			**A**			**A**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.001	Δ*v/c* after mitigation:	-0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Alameda St	Year of Count:	2018	Ambient Growth: (%):	0.21	Conducted by:	KHA	Date:	4/29/2019
8	East-West Street:	4th St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	6th Street GPA

		EXISTING CONDITION			EXISTING PLUS EVENT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ EVENT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Event Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases		2			2			2				2				2		
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0			0			0				0				0		
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--	0		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		
	ATSAC-1 or ATSAC+ATCS-2?		1			1			1				1				1		
	Override Capacity		0			0			0				0				0		
NORTHBOUND	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	883	1	**469**	0	883	**469**	452	1344	1	**700**	0	1344	1	**700**		1344	1	**700**
	Through-Right		1							1				1				1	
	Right	54	0	54	0	54	54	0	55	0	55	0	55	0	55		55	0	55
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	110	1	**110**	0	110	**110**	273	384	1	**384**	0	384	1	**384**		384	1	**384**
	Left-Through		0							0				0				0	
	Through	721	2	361	0	721	361	315	1044	2	522	0	1044	2	522		1044	2	522
	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	
EASTBOUND	Left	172	0	172	0	172	172	0	174	0	174	0	174	0	174		174	0	174
	Left-Through		1							1				1				1	
	Through	988	2	**387**	22	1010	**394**	99	1097	2	**424**	22	1119	2	**431**		1119	2	**431**
	Through-Right		0							0				0				0	
	Right	147	1	147	0	147	147	0	149	1	149	0	149	1	149		149	1	149
	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**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		579	North-South:		579	North-South:			1084	North-South:			1084	North-South:			1084
		East-West:		387	East-West:		394	East-West:			424	East-West:			431	East-West:			431
		SUM:		966	SUM:		973	SUM:			1508	SUM:			1515	SUM:			1515
	VOLUME/CAPACITY (V/C) RATIO:			0.644			0.649				1.005				1.010				1.010
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.574			0.579				0.935				0.940				0.940
	LEVEL OF SERVICE (LOS):			A			A				E				E				E

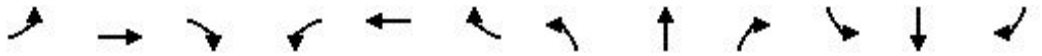
REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.005 — Δ*v/c* after mitigation: 0.005

Significant impacted? NO — Fully mitigated? N/A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	344	24	0	0	0	0	37	21	0	0	0
Future Volume (vph)	0	344	24	0	0	0	0	37	21	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	374	26	0	0	0	0	40	23	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	249	151	40	23
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	26	0	23
Hadj (s)	0.03	-0.09	0.03	-0.67
Departure Headway (s)	4.7	4.6	5.4	4.7
Degree Utilization, x	0.33	0.19	0.06	0.03
Capacity (veh/h)	756	770	622	706
Control Delay (s)	8.8	7.5	7.6	6.7
Approach Delay (s)	8.3		7.3	
Approach LOS	A		A	

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	20.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	23.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	323	12	0	2695	46	32	4	14	6	1	28
Future Vol, veh/h	0	323	12	0	2695	46	32	4	14	6	1	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	351	13	0	2929	50	35	4	15	7	1	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1823	3337	182	3132	3318	1490
Stage 1	-	-	-	-	-	-	358	358	-	2954	2954	-
Stage 2	-	-	-	-	-	-	1465	2979	-	178	364	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	48	8	829	~ 5	8	113
Stage 1	0	-	-	0	-	-	633	626	-	15	33	-
Stage 2	0	-	-	0	-	-	134	32	-	806	622	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	~ 31	8	829	~ 3	8	113
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	8	-	~ 3	8	-
Stage 1	-	-	-	-	-	-	633	626	-	15	33	-
Stage 2	-	-	-	-	-	-	95	32	-	786	622	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	$ 607.3	$ 1217.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	32	-	-	-	-	15
HCM Lane V/C Ratio	1.698	-	-	-	-	2.536
HCM Control Delay (s)	$ 607.3	-	-	-	-	$ 1217.9
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	6.1	-	-	-	-	5.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	402	245	247	90	11
Future Vol, veh/h	15	402	245	247	90	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	437	266	268	98	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	905	104	110	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	307	951	1480	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	242	951	1480	-	-	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	349	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1480	-	860	-	-
HCM Lane V/C Ratio	0.18	-	0.527	-	-
HCM Control Delay (s)	8	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.7	-	3.1	-	-

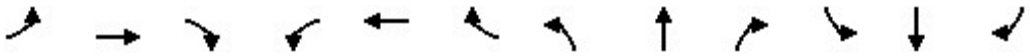
Intersection	
Intersection Delay, s/veh	35.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	0	37	0	0	0	66	417	1	13	526	56
Future Vol, veh/h	33	0	37	0	0	0	66	417	1	13	526	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	0	40	0	0	0	72	453	1	14	572	61
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.3	45.3	29.8
HCM LOS	B	E	D

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	14%	100%	0%	100%	0%	0%
Vol Thru, %	86%	0%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	484	33	37	13	526	56
LT Vol	66	33	0	13	0	0
Through Vol	417	0	0	0	526	0
RT Vol	1	0	37	0	0	56
Lane Flow Rate	526	36	40	14	572	61
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.92	0.084	0.081	0.023	0.862	0.08
Departure Headway (Hd)	6.296	8.438	7.207	5.931	5.425	4.717
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	424	495	605	669	760
Service Time	4.036	6.207	4.974	3.657	3.151	2.443
HCM Lane V/C Ratio	0.908	0.085	0.081	0.023	0.855	0.08
HCM Control Delay	45.3	12	10.6	8.8	32.6	7.9
HCM Lane LOS	E	B	B	A	D	A
HCM 95th-tile Q	11.4	0.3	0.3	0.1	10	0.3

HCM Unsignalized Intersection Capacity Analysis
9: Hewitt St & 4th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	1794	49	0	0	0	0	33	35	0	0	0
Future Volume (vph)	0	1794	49	0	0	0	0	33	35	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1950	53	0	0	0	0	36	38	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1300	703	36	38
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	53	0	38
Hadj (s)	0.03	-0.02	0.03	-0.67
Departure Headway (s)	4.8	4.7	7.1	6.4
Degree Utilization, x	1.73	0.93	0.07	0.07
Capacity (veh/h)	743	756	493	546
Control Delay (s)	346.0	37.2	9.4	8.7
Approach Delay (s)	237.6		9.1	
Approach LOS	F		A	

Intersection Summary			
Delay	229.5		
Level of Service	F		
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2136	32	0	1037	38	2	2	25	9	3	12
Future Vol, veh/h	0	2136	32	0	1037	38	2	2	25	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2322	35	0	1127	41	2	2	27	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2904	3507	1178	2310	3505	584
Stage 1	-	-	-	-	-	-	2339	2339	-	1148	1148	-
Stage 2	-	-	-	-	-	-	565	1168	-	1162	2357	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	7	6	184	20	6	455
Stage 1	0	-	-	0	-	-	37	69	-	211	272	-
Stage 2	0	-	-	0	-	-	477	266	-	207	68	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	4	6	184	12	6	455
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	6	-	12	6	-
Stage 1	-	-	-	-	-	-	37	69	-	211	272	-
Stage 2	-	-	-	-	-	-	458	266	-	171	68	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	$ 374.9	$ 630.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	30	-	-	-	-	19
HCM Lane V/C Ratio	1.051	-	-	-	-	1.373
HCM Control Delay (s)	$ 374.9	-	-	-	-	$ 630.7
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	3.5	-	-	-	-	3.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	392	254	210	168	9
Future Vol, veh/h	32	392	254	210	168	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	426	276	228	183	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	968	188	192	0	-	0
Stage 1	188	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	282	854	1381	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	217	854	1381	-	-	-
Mov Cap-2 Maneuver	217	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	4.5	0
HCM LOS	C		

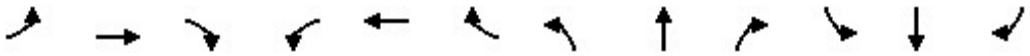
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1381	-	699	-	-
HCM Lane V/C Ratio	0.2	-	0.659	-	-
HCM Control Delay (s)	8.3	0	19.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.7	-	5	-	-

Intersection	
Intersection Delay, s/veh	59.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	104	0	63	0	0	0	60	508	4	9	403	47
Future Vol, veh/h	104	0	63	0	0	0	60	508	4	9	403	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	113	0	68	0	0	0	65	552	4	10	438	51
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	13.1	104.7	21.1
HCM LOS	B	F	C

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	10%	100%	0%	100%	0%	0%
Vol Thru, %	89%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	572	104	63	9	403	47
LT Vol	60	104	0	9	0	0
Through Vol	508	0	0	0	403	0
RT Vol	4	0	63	0	0	47
Lane Flow Rate	622	113	68	10	438	51
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.134	0.257	0.134	0.017	0.715	0.073
Departure Headway (Hd)	6.564	8.64	7.406	6.663	6.154	5.44
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	418	487	540	591	663
Service Time	4.266	6.34	5.106	4.363	3.854	3.14
HCM Lane V/C Ratio	1.111	0.27	0.14	0.019	0.741	0.077
HCM Control Delay	104.7	14.3	11.2	9.5	22.8	8.6
HCM Lane LOS	F	B	B	A	C	A
HCM 95th-tile Q	20.5	1	0.5	0.1	5.9	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	343	24	0	0	0	0	37	21	0	0	0
Future Volume (vph)	0	343	24	0	0	0	0	37	21	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	373	26	0	0	0	0	40	23	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	249	150	40	23
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	26	0	23
Hadj (s)	0.03	-0.09	0.03	-0.67
Departure Headway (s)	4.7	4.6	5.4	4.7
Degree Utilization, x	0.32	0.19	0.06	0.03
Capacity (veh/h)	756	770	622	707
Control Delay (s)	8.7	7.5	7.6	6.7
Approach Delay (s)	8.3		7.3	
Approach LOS	A		A	

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	20.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	22.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	318	12	0	2691	46	32	4	14	6	1	28
Future Vol, veh/h	0	318	12	0	2691	46	32	4	14	6	1	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	346	13	0	2925	50	35	4	15	7	1	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	1815	3327	179	3125	3309	1488
Stage 1	-	-	-	-	-	-	352	352	-	2950	2950	-
Stage 2	-	-	-	-	-	-	1463	2975	-	175	359	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	49	8	833	~ 5	8	113
Stage 1	0	-	-	0	-	-	638	630	-	15	33	-
Stage 2	0	-	-	0	-	-	135	32	-	810	626	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	~ 32	8	833	~ 3	8	113
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 32	8	-	~ 3	8	-
Stage 1	-	-	-	-	-	-	638	630	-	15	33	-
Stage 2	-	-	-	-	-	-	95	32	-	790	626	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	$ 579.1	$ 1217.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	33	-	-	-	-	15
HCM Lane V/C Ratio	1.647	-	-	-	-	2.536
HCM Control Delay (s)	$ 579.1	-	-	-	-	$ 1217.9
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	6	-	-	-	-	5.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	402	245	245	89	11
Future Vol, veh/h	15	402	245	245	89	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	437	266	266	97	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	902	103	109	0	-	0
Stage 1	103	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	308	952	1481	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	243	952	1481	-	-	-
Mov Cap-2 Maneuver	243	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	350	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	4	0
HCM LOS	B		

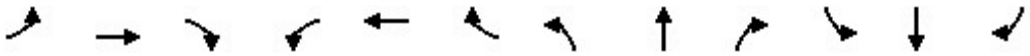
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1481	-	862	-	-
HCM Lane V/C Ratio	0.18	-	0.526	-	-
HCM Control Delay (s)	8	0	13.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.7	-	3.1	-	-

Intersection	
Intersection Delay, s/veh	34.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	0	37	0	0	0	66	415	1	13	525	56
Future Vol, veh/h	33	0	37	0	0	0	66	415	1	13	525	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	0	40	0	0	0	72	451	1	14	571	61
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.3	44.6	29.4
HCM LOS	B	E	D

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	14%	100%	0%	100%	0%	0%
Vol Thru, %	86%	0%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	482	33	37	13	525	56
LT Vol	66	33	0	13	0	0
Through Vol	415	0	0	0	525	0
RT Vol	1	0	37	0	0	56
Lane Flow Rate	524	36	40	14	571	61
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.916	0.084	0.08	0.023	0.859	0.08
Departure Headway (Hd)	6.293	8.428	7.197	5.928	5.422	4.714
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	424	496	605	668	761
Service Time	4.029	6.195	4.963	3.652	3.146	2.438
HCM Lane V/C Ratio	0.91	0.085	0.081	0.023	0.855	0.08
HCM Control Delay	44.6	12	10.6	8.8	32.2	7.8
HCM Lane LOS	E	B	B	A	D	A
HCM 95th-tile Q	11.3	0.3	0.3	0.1	9.9	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	1790	49	0	0	0	0	33	35	0	0	0
Future Volume (vph)	0	1790	49	0	0	0	0	33	35	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1946	53	0	0	0	0	36	38	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1297	702	36	38
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	53	0	38
Hadj (s)	0.03	-0.02	0.03	-0.67
Departure Headway (s)	4.8	4.7	7.1	6.4
Degree Utilization, x	1.73	0.92	0.07	0.07
Capacity (veh/h)	743	756	493	546
Control Delay (s)	344.4	36.9	9.4	8.7
Approach Delay (s)	236.5		9.0	
Approach LOS	F		A	

Intersection Summary			
Delay	228.4		
Level of Service	F		
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2124	32	0	1028	38	2	2	25	9	3	12
Future Vol, veh/h	0	2124	32	0	1028	38	2	2	25	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2309	35	0	1117	41	2	2	27	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2886	3485	1172	2293	3481	579
Stage 1	-	-	-	-	-	-	2326	2326	-	1138	1138	-
Stage 2	-	-	-	-	-	-	560	1159	-	1155	2343	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	7	6	185	21	6	458
Stage 1	0	-	-	0	-	-	38	70	-	214	275	-
Stage 2	0	-	-	0	-	-	480	268	-	209	69	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	4	6	185	13	6	458
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	6	-	13	6	-
Stage 1	-	-	-	-	-	-	38	70	-	214	275	-
Stage 2	-	-	-	-	-	-	461	268	-	173	69	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	$ 374.9	$ 585.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	30	-	-	-	-	20
HCM Lane V/C Ratio	1.051	-	-	-	-	1.304
HCM Control Delay (s)	$ 374.9	-	-	-	-	-$ 585.7
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	3.5	-	-	-	-	3.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	392	254	205	164	9
Future Vol, veh/h	32	392	254	205	164	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	426	276	223	178	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	958	183	188	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	285	859	1386	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	220	859	1386	-	-	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	351	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.2	4.6	0
HCM LOS	C		

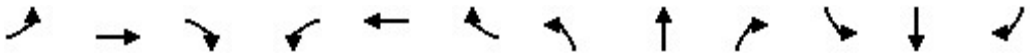
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1386	-	705	-	-
HCM Lane V/C Ratio	0.199	-	0.654	-	-
HCM Control Delay (s)	8.2	0	19.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.7	-	4.9	-	-

Intersection	
Intersection Delay, s/veh	57.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	104	0	63	0	0	0	60	503	4	9	399	47
Future Vol, veh/h	104	0	63	0	0	0	60	503	4	9	399	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	113	0	68	0	0	0	65	547	4	10	434	51
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	13.1	100.1	20.6
HCM LOS	B	F	C

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	11%	100%	0%	100%	0%	0%
Vol Thru, %	89%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	567	104	63	9	399	47
LT Vol	60	104	0	9	0	0
Through Vol	503	0	0	0	399	0
RT Vol	4	0	63	0	0	47
Lane Flow Rate	616	113	68	10	434	51
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.121	0.256	0.134	0.017	0.707	0.075
Departure Headway (Hd)	6.549	8.606	7.373	6.65	6.141	5.428
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	561	421	490	541	594	664
Service Time	4.254	6.306	5.073	4.35	3.841	3.128
HCM Lane V/C Ratio	1.098	0.268	0.139	0.018	0.731	0.077
HCM Control Delay	100.1	14.2	11.2	9.5	22.3	8.6
HCM Lane LOS	F	B	B	A	C	A
HCM 95th-tile Q	19.9	1	0.5	0.1	5.7	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	1816	49	0	0	0	0	33	35	0	0	0
Future Volume (vph)	0	1816	49	0	0	0	0	33	35	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1974	53	0	0	0	0	36	38	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1316	711	36	38
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	53	0	38
Hadj (s)	0.03	-0.02	0.03	-0.57
Departure Headway (s)	4.6	4.6	5.8	3.2
Degree Utilization, x	1.70	0.91	0.06	0.03
Capacity (veh/h)	783	779	611	1121
Control Delay (s)	331.8	33.6	9.1	6.3
Approach Delay (s)	227.2		7.7	
Approach LOS	F		A	

Intersection Summary			
Delay	219.5		
Level of Service	F		
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2124	32	0	1091	38	2	2	25	9	3	12
Future Vol, veh/h	0	2124	32	0	1091	38	2	2	25	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2309	35	0	1186	41	2	2	27	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2921	3553	1172	2362	3550	614
Stage 1	-	-	-	-	-	-	2326	2326	-	1207	1207	-
Stage 2	-	-	-	-	-	-	595	1227	-	1155	2343	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	7	6	185	19	6	435
Stage 1	0	-	-	0	-	-	38	70	-	194	254	-
Stage 2	0	-	-	0	-	-	458	249	-	209	69	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	4	6	185	12	6	435
Mov Cap-2 Maneuver	-	-	-	-	-	-	4	6	-	12	6	-
Stage 1	-	-	-	-	-	-	38	70	-	194	254	-
Stage 2	-	-	-	-	-	-	439	249	-	173	69	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	$ 374.9	$ 630.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	30	-	-	-	-	19
HCM Lane V/C Ratio	1.051	-	-	-	-	1.373
HCM Control Delay (s)	$ 374.9	-	-	-	-	-$ 630.7
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	3.5	-	-	-	-	3.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	392	254	205	190	9
Future Vol, veh/h	32	392	254	205	190	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	426	276	223	207	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	986	211	216	0	-	0
Stage 1	211	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	275	829	1354	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	211	829	1354	-	-	-
Mov Cap-2 Maneuver	211	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	4.6	0
HCM LOS	C		

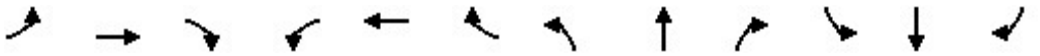
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1354	-	679	-	-
HCM Lane V/C Ratio	0.204	-	0.679	-	-
HCM Control Delay (s)	8.3	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.8	-	5.3	-	-

Intersection	
Intersection Delay, s/veh	60.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	104	0	63	0	0	0	60	503	4	9	425	47
Future Vol, veh/h	104	0	63	0	0	0	60	503	4	9	425	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	113	0	68	0	0	0	65	547	4	10	462	51
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	13.2	105	23.4
HCM LOS	B	F	C

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	11%	100%	0%	100%	0%	0%
Vol Thru, %	89%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	567	104	63	9	425	47
LT Vol	60	104	0	9	0	0
Through Vol	503	0	0	0	425	0
RT Vol	4	0	63	0	0	47
Lane Flow Rate	616	113	68	10	462	51
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.134	0.259	0.135	0.017	0.754	0.075
Departure Headway (Hd)	6.625	8.702	7.467	6.67	6.161	5.447
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	555	415	483	540	591	662
Service Time	4.331	6.402	5.167	4.37	3.861	3.147
HCM Lane V/C Ratio	1.11	0.272	0.141	0.019	0.782	0.077
HCM Control Delay	105	14.4	11.3	9.5	25.3	8.6
HCM Lane LOS	F	B	B	A	D	A
HCM 95th-tile Q	20.4	1	0.5	0.1	6.7	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	867	196	0	0	0	0	174	427	0	0	0
Future Volume (vph)	0	867	196	0	0	0	0	174	427	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	942	213	0	0	0	0	189	464	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	628	527	189	464
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	213	0	464
Hadj (s)	0.03	-0.25	0.03	-0.67
Departure Headway (s)	6.5	6.2	7.1	6.4
Degree Utilization, x	1.13	0.90	0.37	0.82
Capacity (veh/h)	560	569	499	554
Control Delay (s)	100.4	40.8	13.0	31.4
Approach Delay (s)	73.2		26.1	
Approach LOS	F		D	

Intersection Summary				
Delay	56.2			
Level of Service	F			
Intersection Capacity Utilization	63.3%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	960	12	0	3571	47	33	4	14	6	1	29
Future Vol, veh/h	0	960	12	0	3571	47	33	4	14	6	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1043	13	0	3882	51	36	4	15	7	1	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2992	4983	528	4432	4964	1967
Stage 1	-	-	-	-	-	-	1050	1050	-	3908	3908	-
Stage 2	-	-	-	-	-	-	1942	3933	-	524	1056	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	~ 6	~ 1	495	0	~ 1	53
Stage 1	0	-	-	0	-	-	243	302	-	~ 3	10	-
Stage 2	0	-	-	0	-	-	67	9	-	504	300	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	~ 1	495	-	~ 1	53
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 1	-	-	~ 1	-
Stage 1	-	-	-	-	-	-	243	302	-	~ 3	10	-
Stage 2	-	-	-	-	-	-	~ 24	9	-	481	300	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	-	-	-	-
HCM Lane LOS	-	-	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	406	248	330	238	11
Future Vol, veh/h	15	406	248	330	238	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	441	270	359	259	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1164	265	271	0	-	0
Stage 1	265	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	215	774	1292	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	159	774	1292	-	-	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	397	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	3.7	0
HCM LOS	C		

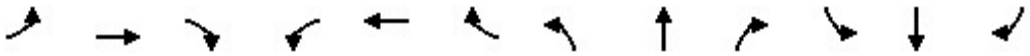
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1292	-	680	-	-
HCM Lane V/C Ratio	0.209	-	0.673	-	-
HCM Control Delay (s)	8.5	0	20.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.8	-	5.2	-	-

Intersection	
Intersection Delay, s/veh	95.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	0	38	0	0	0	66	569	1	13	612	56
Future Vol, veh/h	34	0	38	0	0	0	66	569	1	13	612	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	0	41	0	0	0	72	618	1	14	665	61
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	12.2	149.8	53.4
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	10%	100%	0%	100%	0%	0%
Vol Thru, %	89%	0%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	636	34	38	13	612	56
LT Vol	66	34	0	13	0	0
Through Vol	569	0	0	0	612	0
RT Vol	1	0	38	0	0	56
Lane Flow Rate	691	37	41	14	665	61
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.254	0.089	0.086	0.023	0.998	0.08
Departure Headway (Hd)	6.53	9.29	8.042	6.204	5.696	4.986
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	388	448	580	645	723
Service Time	4.235	6.99	5.742	3.904	3.396	2.686
HCM Lane V/C Ratio	1.234	0.095	0.092	0.024	1.031	0.084
HCM Control Delay	149.8	12.9	11.5	9.1	58.5	8.1
HCM Lane LOS	F	B	B	A	F	A
HCM 95th-tile Q	27.1	0.3	0.3	0.1	15.3	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	2232	334	0	0	0	0	319	704	0	0	0
Future Volume (vph)	0	2232	334	0	0	0	0	319	704	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2426	363	0	0	0	0	347	765	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1617	1172	347	765
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	363	0	765
Hadj (s)	0.03	-0.18	0.03	-0.67
Departure Headway (s)	6.9	6.7	7.2	6.5
Degree Utilization, x	3.11	2.18	0.69	1.38
Capacity (veh/h)	525	547	491	567
Control Delay (s)	967.9	552.8	23.7	201.0
Approach Delay (s)	793.5		145.7	
Approach LOS	F		F	

Intersection Summary				
Delay	608.8			
Level of Service	F			
Intersection Capacity Utilization	122.6%	ICU Level of Service	H	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	39.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3151	33	0	2066	39	2	2	26	9	3	12
Future Vol, veh/h	0	3151	33	0	2066	39	2	2	26	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3425	36	0	2246	42	2	2	28	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	4568	5731	1731	3981	5728	1144
Stage 1	-	-	-	-	-	-	3443	3443	-	2267	2267	-
Stage 2	-	-	-	-	-	-	1125	2288	-	1714	3461	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	77	~ 1	0	193
Stage 1	0	-	-	0	-	-	7	18	-	41	75	-
Stage 2	0	-	-	0	-	-	218	73	-	94	17	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	0	0	77	~ 1	0	193
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-	~ 1	0	-
Stage 1	-	-	-	-	-	-	7	18	-	41	75	-
Stage 2	-	-	-	-	-	-	194	73	-	52	17	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	82.5	$ 8746.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	77	-	-	-	-	2
HCM Lane V/C Ratio	0.423	-	-	-	-	13.043
HCM Control Delay (s)	82.5	-	-	-	-	$ 8746.6
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	1.7	-	-	-	-	5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	14.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	396	256	379	286	9
Future Vol, veh/h	33	396	256	379	286	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	430	278	412	311	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1284	316	321	0	-	0
Stage 1	316	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	182	724	1239	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	724	1239	-	-	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	524	-	-	-	-	-
Stage 2	368	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	42.1	3.5	0
HCM LOS	E		

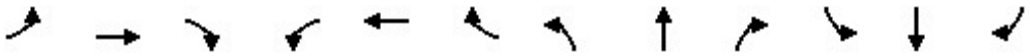
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1239	-	534	-	-
HCM Lane V/C Ratio	0.225	-	0.873	-	-
HCM Control Delay (s)	8.7	0	42.1	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.9	-	9.7	-	-

Intersection	
Intersection Delay, s/veh	139.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	0	63	0	0	0	60	630	4	9	574	48
Future Vol, veh/h	105	0	63	0	0	0	60	630	4	9	574	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	0	68	0	0	0	65	685	4	10	624	52
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.7	234.3	68.3
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	9%	100%	0%	100%	0%	0%
Vol Thru, %	91%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	694	105	63	9	574	48
LT Vol	60	105	0	9	0	0
Through Vol	630	0	0	0	574	0
RT Vol	4	0	63	0	0	48
Lane Flow Rate	754	114	68	10	624	52
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.453	0.275	0.142	0.018	1.041	0.077
Departure Headway (Hd)	7.085	9.683	8.425	6.982	6.471	5.754
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	521	373	428	516	568	627
Service Time	4.785	7.383	6.125	4.682	4.171	3.454
HCM Lane V/C Ratio	1.447	0.306	0.159	0.019	1.099	0.083
HCM Control Delay	234.3	16	12.5	9.8	74.2	8.9
HCM Lane LOS	F	C	B	A	F	A
HCM 95th-tile Q	36.4	1.1	0.5	0.1	16.2	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	866	196	0	0	0	0	173	427	0	0	0
Future Volume (vph)	0	866	196	0	0	0	0	173	427	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	941	213	0	0	0	0	188	464	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	627	527	188	464
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	213	0	464
Hadj (s)	0.03	-0.25	0.03	-0.67
Departure Headway (s)	6.5	6.2	7.1	6.4
Degree Utilization, x	1.12	0.90	0.37	0.82
Capacity (veh/h)	560	569	499	554
Control Delay (s)	99.9	40.7	13.0	31.3
Approach Delay (s)	72.9		26.1	
Approach LOS	F		D	

Intersection Summary				
Delay	56.0			
Level of Service	F			
Intersection Capacity Utilization	63.3%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	954	12	0	3567	46	32	4	14	6	1	28
Future Vol, veh/h	0	954	12	0	3567	46	32	4	14	6	1	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1037	13	0	3877	50	35	4	15	7	1	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	2983	4971	525	4423	4952	1964
Stage 1	-	-	-	-	-	-	1044	1044	-	3902	3902	-
Stage 2	-	-	-	-	-	-	1939	3927	-	521	1050	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	~ 6	~ 1	497	0	~ 1	53
Stage 1	0	-	-	0	-	-	245	304	-	~ 3	10	-
Stage 2	0	-	-	0	-	-	67	9	-	507	302	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	~ 1	497	-	~ 1	53
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 1	-	-	~ 1	-
Stage 1	-	-	-	-	-	-	245	304	-	~ 3	10	-
Stage 2	-	-	-	-	-	-	~ 25	9	-	484	302	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	-	-	-	-
HCM Lane LOS	-	-	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	406	248	328	236	11
Future Vol, veh/h	15	406	248	328	236	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	441	270	357	257	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1160	263	269	0	-	0
Stage 1	263	-	-	-	-	-
Stage 2	897	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	216	776	1295	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	776	1295	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	398	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	3.7	0
HCM LOS	C		

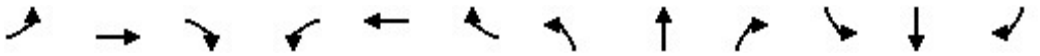
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	682	-	-
HCM Lane V/C Ratio	0.208	-	0.671	-	-
HCM Control Delay (s)	8.5	0	20.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.8	-	5.2	-	-

Intersection	
Intersection Delay, s/veh	92.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	0	37	0	0	0	66	566	1	13	610	56
Future Vol, veh/h	33	0	37	0	0	0	66	566	1	13	610	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	0	40	0	0	0	72	615	1	14	663	61
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	12.1	145.7	52.1
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	10%	100%	0%	100%	0%	0%
Vol Thru, %	89%	0%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	633	33	37	13	610	56
LT Vol	66	33	0	13	0	0
Through Vol	566	0	0	0	610	0
RT Vol	1	0	37	0	0	56
Lane Flow Rate	688	36	40	14	663	61
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.244	0.085	0.082	0.023	0.993	0.079
Departure Headway (Hd)	6.51	9.265	8.017	6.176	5.668	4.958
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	564	389	450	583	643	727
Service Time	4.21	6.965	5.717	3.876	3.368	2.658
HCM Lane V/C Ratio	1.22	0.093	0.089	0.024	1.031	0.084
HCM Control Delay	145.7	12.8	11.4	9	57.1	8.1
HCM Lane LOS	F	B	B	A	F	A
HCM 95th-tile Q	26.6	0.3	0.3	0.1	15.1	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	2228	334	0	0	0	0	319	704	0	0	0
Future Volume (vph)	0	2228	334	0	0	0	0	319	704	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2422	363	0	0	0	0	347	765	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1615	1170	347	765
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	363	0	765
Hadj (s)	0.03	-0.18	0.03	-0.67
Departure Headway (s)	6.9	6.7	7.2	6.5
Degree Utilization, x	3.10	2.18	0.69	1.38
Capacity (veh/h)	525	547	491	567
Control Delay (s)	965.6	551.6	23.7	201.0
Approach Delay (s)	791.7		145.7	
Approach LOS	F		F	

Intersection Summary				
Delay		607.3		
Level of Service		F		
Intersection Capacity Utilization		122.5%	ICU Level of Service	H
Analysis Period (min)		15		

Intersection	
Int Delay, s/veh	39.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↳			↑↑↳			↕↳			↕↳	
Traffic Vol, veh/h	0	3139	33	0	2057	39	2	2	26	9	3	12
Future Vol, veh/h	0	3139	33	0	2057	39	2	2	26	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3412	36	0	2236	42	2	2	28	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	4550	5708	1724	3964	5705	1139
Stage 1	-	-	-	-	-	-	3430	3430	-	2257	2257	-
Stage 2	-	-	-	-	-	-	1120	2278	-	1707	3448	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	78	~ 1	0	195
Stage 1	0	-	-	0	-	-	7	18	-	42	76	-
Stage 2	0	-	-	0	-	-	220	74	-	95	17	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	0	0	78	~ 1	0	195
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-	~ 1	0	-
Stage 1	-	-	-	-	-	-	7	18	-	42	76	-
Stage 2	-	-	-	-	-	-	196	74	-	53	17	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	80.9	$ 8746.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	78	-	-	-	-	2
HCM Lane V/C Ratio	0.418	-	-	-	-	13.043
HCM Control Delay (s)	80.9	-	-	-	-	$ 8746.6
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	1.7	-	-	-	-	5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	14.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	396	256	374	282	9
Future Vol, veh/h	33	396	256	374	282	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	430	278	407	307	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1275	312	317	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	184	728	1243	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	131	728	1243	-	-	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	528	-	-	-	-	-
Stage 2	370	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.7	3.5	0
HCM LOS	E		

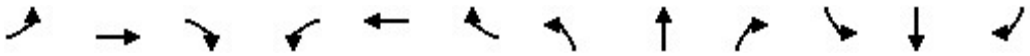
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1243	-	539	-	-
HCM Lane V/C Ratio	0.224	-	0.865	-	-
HCM Control Delay (s)	8.7	0	40.7	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.9	-	9.4	-	-

Intersection	
Intersection Delay, s/veh	136.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	0	63	0	0	0	60	625	4	9	570	48
Future Vol, veh/h	105	0	63	0	0	0	60	625	4	9	570	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	0	68	0	0	0	65	679	4	10	620	52
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.7	230	66.5
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	9%	100%	0%	100%	0%	0%
Vol Thru, %	91%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	689	105	63	9	570	48
LT Vol	60	105	0	9	0	0
Through Vol	625	0	0	0	570	0
RT Vol	4	0	63	0	0	48
Lane Flow Rate	749	114	68	10	620	52
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.443	0.275	0.142	0.018	1.034	0.077
Departure Headway (Hd)	7.075	9.656	8.399	6.974	6.463	5.746
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	374	429	516	564	627
Service Time	4.775	7.356	6.099	4.674	4.163	3.446
HCM Lane V/C Ratio	1.449	0.305	0.159	0.019	1.099	0.083
HCM Control Delay	230	16	12.5	9.8	72.2	8.9
HCM Lane LOS	F	C	B	A	F	A
HCM 95th-tile Q	35.9	1.1	0.5	0.1	15.9	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Stop			Stop	
Traffic Volume (vph)	0	2254	334	0	0	0	0	319	704	0	0	0
Future Volume (vph)	0	2254	334	0	0	0	0	319	704	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2450	363	0	0	0	0	347	765	0	0	0

Direction, Lane #	EB 1	EB 2	NB 1	NB 2
Volume Total (vph)	1633	1180	347	765
Volume Left (vph)	0	0	0	0
Volume Right (vph)	0	363	0	765
Hadj (s)	0.03	-0.18	0.03	-0.67
Departure Headway (s)	6.9	6.7	7.2	6.5
Degree Utilization, x	3.14	2.20	0.69	1.38
Capacity (veh/h)	525	547	491	567
Control Delay (s)	981.7	559.6	23.7	201.0
Approach Delay (s)	804.7		145.7	
Approach LOS	F		F	

Intersection Summary				
Delay	618.0			
Level of Service	F			
Intersection Capacity Utilization	123.2%	ICU Level of Service	H	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	39.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	3139	33	0	2120	39	2	2	26	9	3	12
Future Vol, veh/h	0	3139	33	0	2120	39	2	2	26	9	3	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3412	36	0	2304	42	2	2	28	10	3	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	4584	5776	1724	4032	5773	1173
Stage 1	-	-	-	-	-	-	3430	3430	-	2325	2325	-
Stage 2	-	-	-	-	-	-	1154	2346	-	1707	3448	-
Critical Hdwy	-	-	-	-	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	78	~ 1	0	185
Stage 1	0	-	-	0	-	-	7	18	-	38	70	-
Stage 2	0	-	-	0	-	-	210	68	-	95	17	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	0	0	78	~ 1	0	185
Mov Cap-2 Maneuver	-	-	-	-	-	-	0	0	-	~ 1	0	-
Stage 1	-	-	-	-	-	-	7	18	-	38	70	-
Stage 2	-	-	-	-	-	-	186	68	-	53	17	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	80.9	$ 8746.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	78	-	-	-	-	2
HCM Lane V/C Ratio	0.418	-	-	-	-	13.043
HCM Control Delay (s)	80.9	-	-	-	-	$ 8746.6
HCM Lane LOS	F	-	-	-	-	F
HCM 95th %tile Q(veh)	1.7	-	-	-	-	5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	16.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	396	256	374	308	9
Future Vol, veh/h	33	396	256	374	308	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	430	278	407	335	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1303	340	345	0	-	0
Stage 1	340	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	177	702	1214	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	125	702	1214	-	-	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	370	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.1	3.6	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1214	-	518	-	-
HCM Lane V/C Ratio	0.229	-	0.9	-	-
HCM Control Delay (s)	8.8	0	47.1	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.9	-	10.4	-	-

Intersection	
Intersection Delay, s/veh	141.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	0	63	0	0	0	60	625	4	9	596	48
Future Vol, veh/h	105	0	63	0	0	0	60	625	4	9	596	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	0	68	0	0	0	65	679	4	10	648	52
Number of Lanes	1	0	1	0	0	0	0	1	0	1	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.7	230.6	79.8
HCM LOS	B	F	F

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	9%	100%	0%	100%	0%	0%
Vol Thru, %	91%	0%	0%	0%	100%	0%
Vol Right, %	1%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	689	105	63	9	596	48
LT Vol	60	105	0	9	0	0
Through Vol	625	0	0	0	596	0
RT Vol	4	0	63	0	0	48
Lane Flow Rate	749	114	68	10	648	52
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	1.444	0.272	0.141	0.018	1.082	0.077
Departure Headway (Hd)	7.137	9.727	8.468	6.965	6.453	5.737
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	372	426	517	570	628
Service Time	4.837	7.427	6.168	4.665	4.153	3.437
HCM Lane V/C Ratio	1.449	0.306	0.16	0.019	1.137	0.083
HCM Control Delay	230.6	16	12.6	9.8	86.6	8.9
HCM Lane LOS	F	C	B	A	F	A
HCM 95th-tile Q	35.7	1.1	0.5	0.1	18.2	0.2

APPENDIX D

TRAFFIC SIGNAL WARRANT ANALYSIS

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**368**	**58**

Criteria

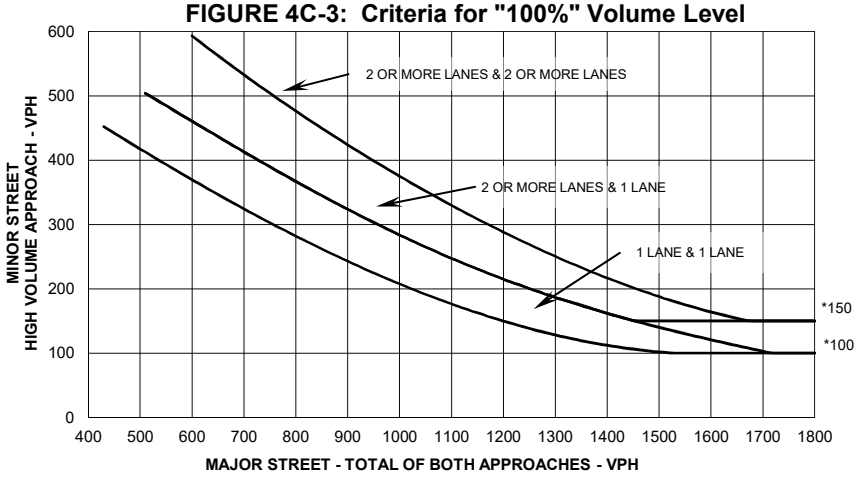
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes	☐ No	

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		58
Fulfilled?: ☐ Yes	☒ No	

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		426
Fulfilled?: ☐ Yes	☒ No	

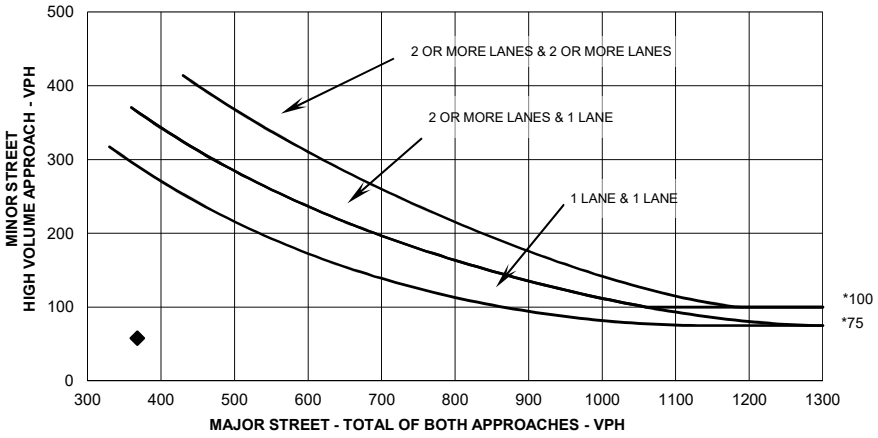
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1843**	**68**

Criteria

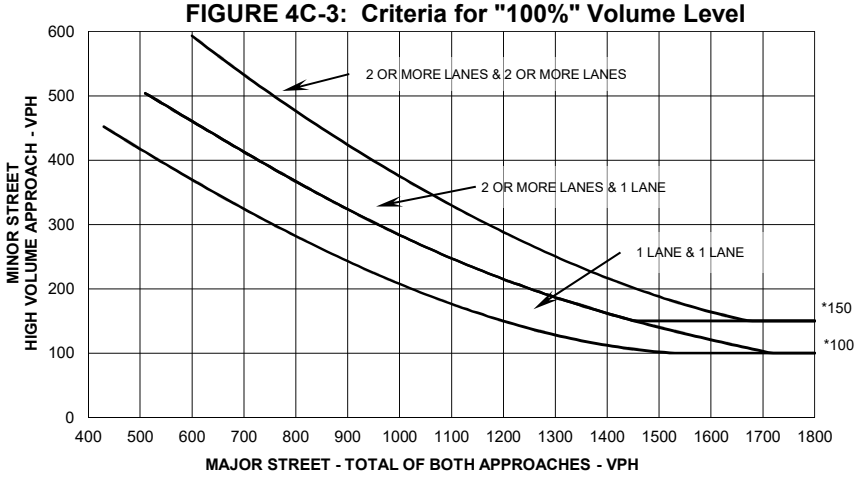
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		68
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,911
Fulfilled?: ☒ Yes ☐ No		

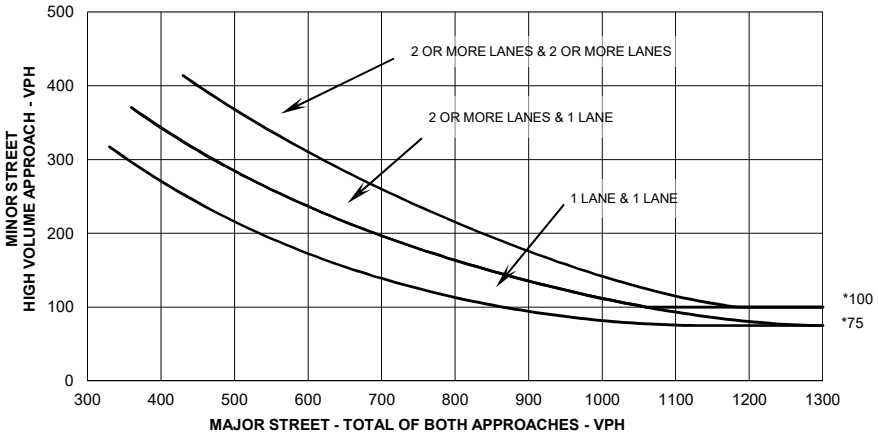
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**367**	**58**

Criteria

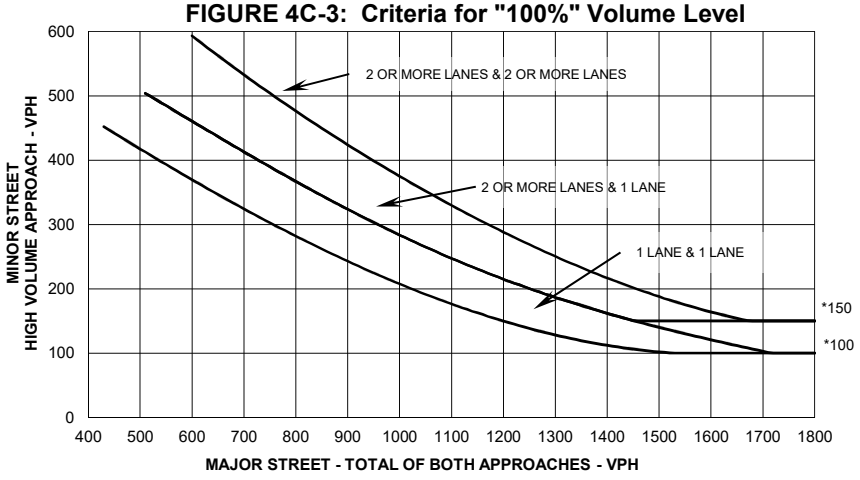
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes	☐ No	

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		58
Fulfilled?: ☐ Yes	☒ No	

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		425
Fulfilled?: ☐ Yes	☒ No	

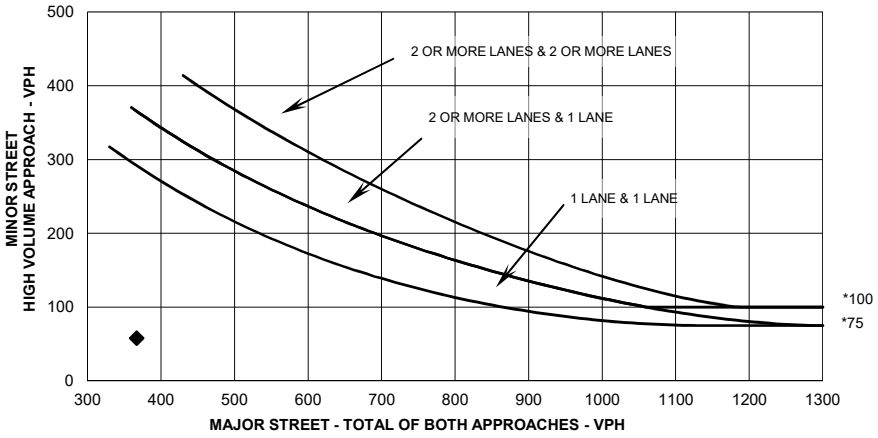
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1839**	**68**

Criteria

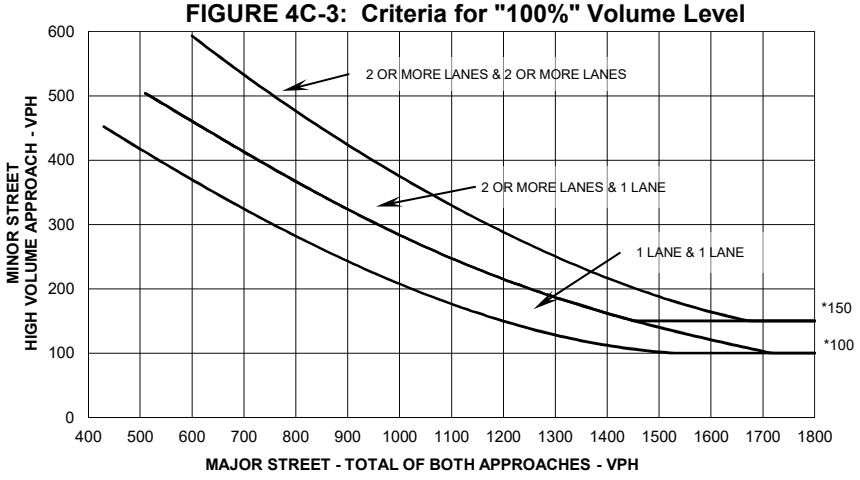
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		68
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,907
Fulfilled?: ☒ Yes ☐ No		

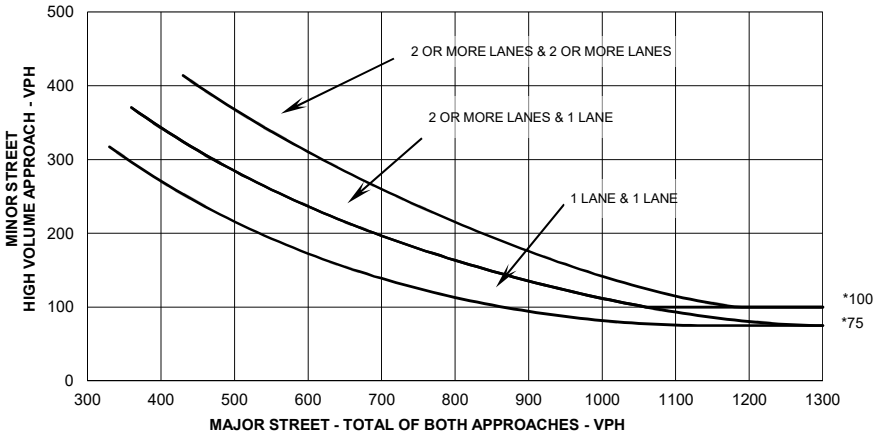
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1865**	**68**

Criteria

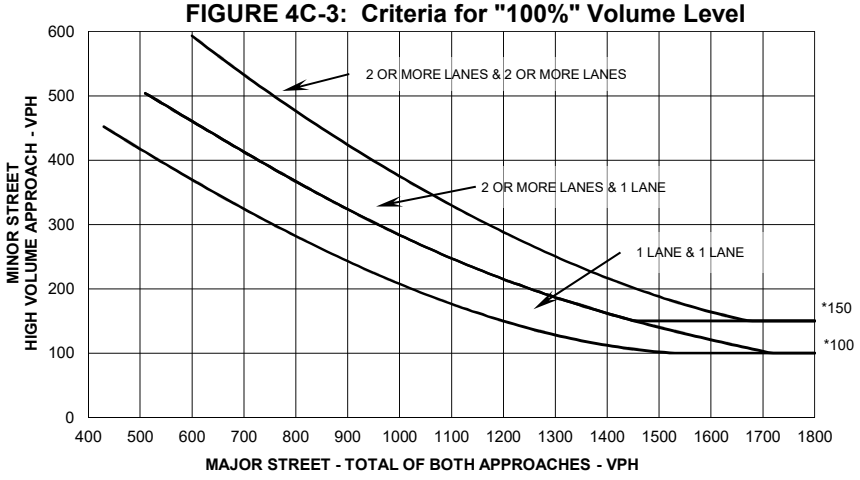
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		68
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,933
Fulfilled?: ☒ Yes ☐ No		

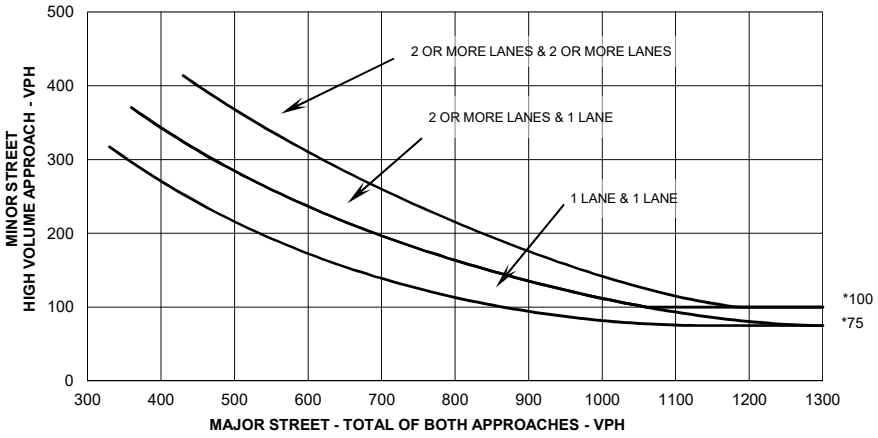
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1063**	**601**

Criteria

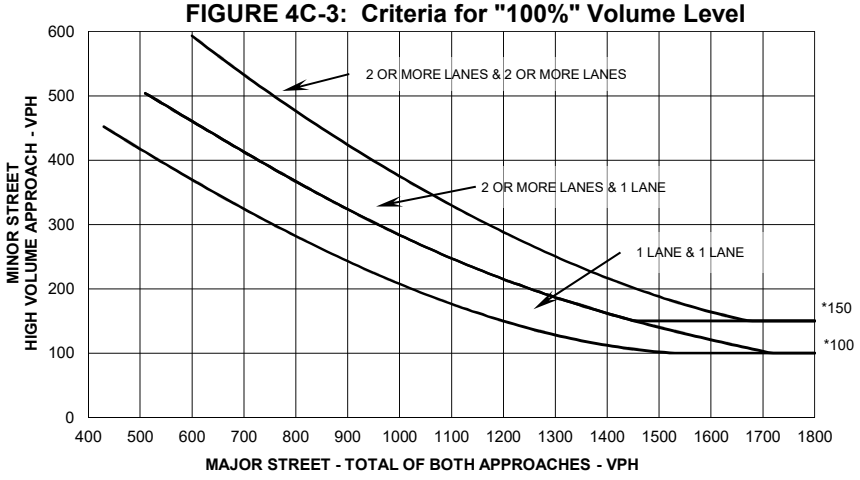
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		601
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,662
Fulfilled?: ☒ Yes ☐ No		

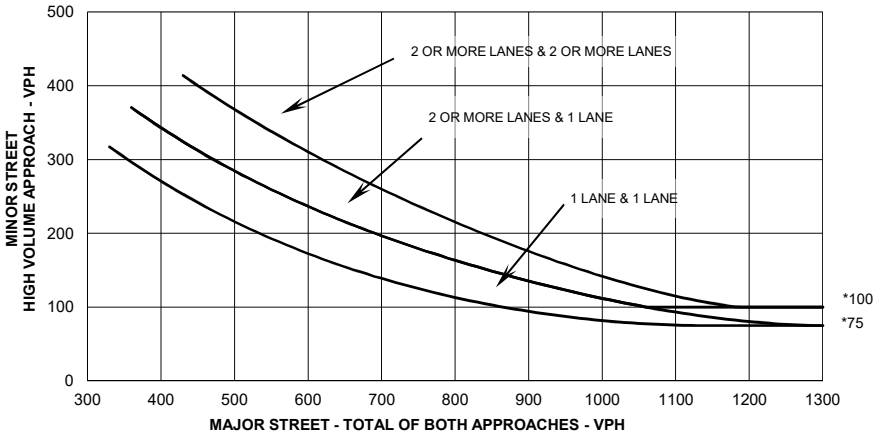
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**2566**	**1023**

Criteria

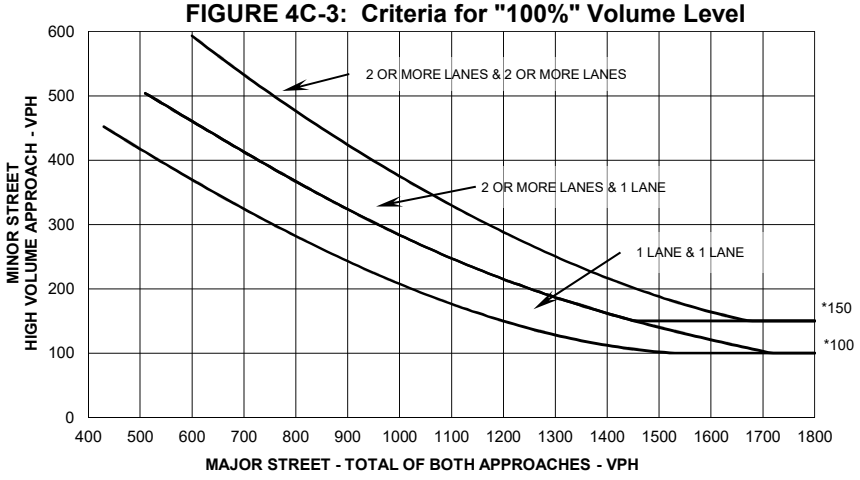
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		1,021
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		2,864
Fulfilled?: ☒ Yes ☐ No		

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1062**	**600**

Criteria

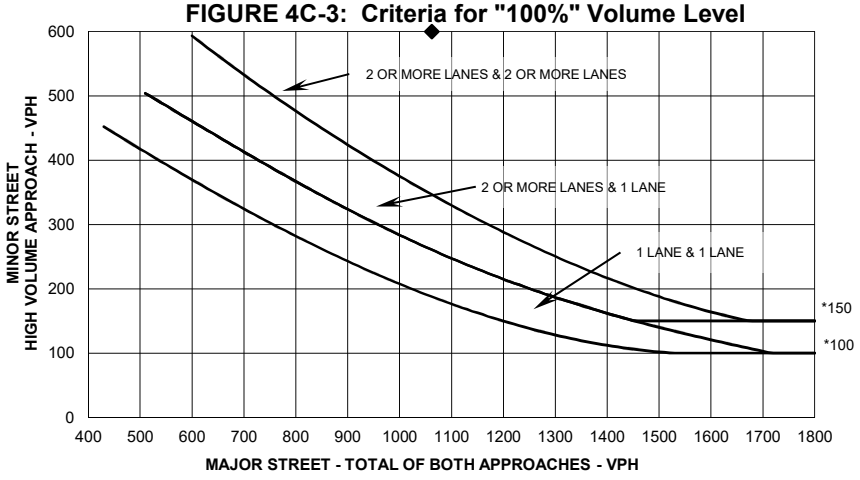
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		601
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,661
Fulfilled?: ☒ Yes ☐ No		

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**2562**	**1023**

Criteria

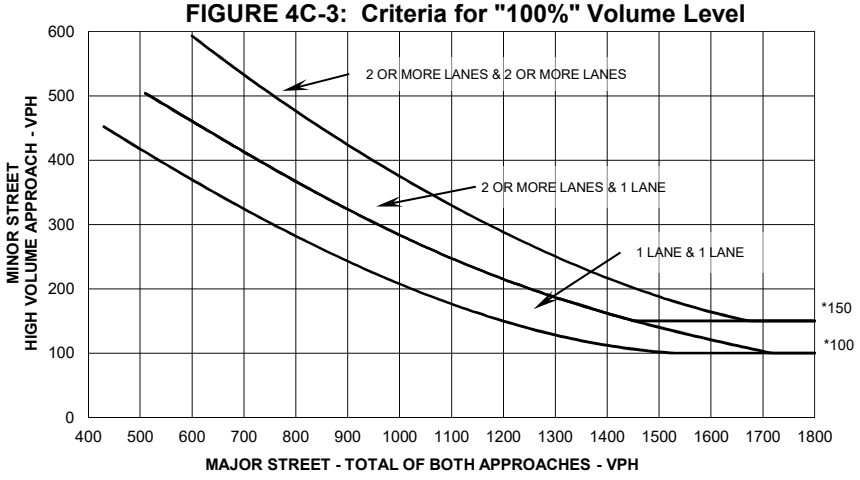
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		1,021
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,570
Fulfilled?: ☒ Yes ☐ No		

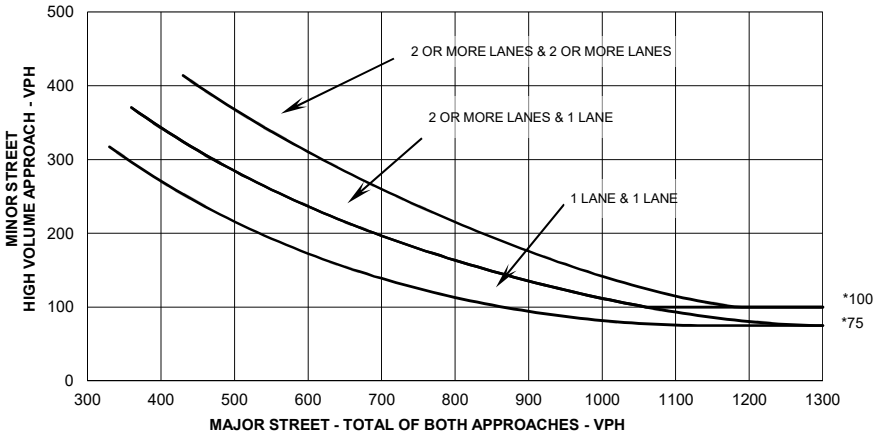
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **3** Critical Approach Speed: **35**
Minor Street: **Hewitt Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**2588**	**1023**

Criteria

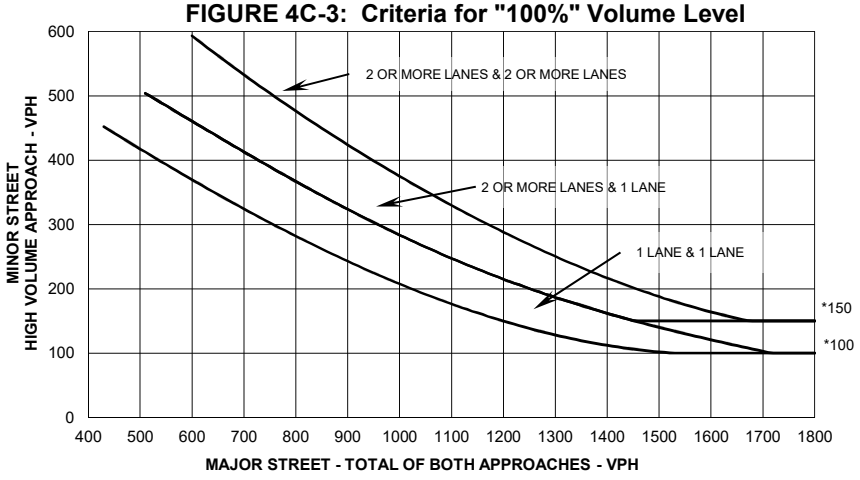
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		1,021
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,596
Fulfilled?: ☒ Yes ☐ No		

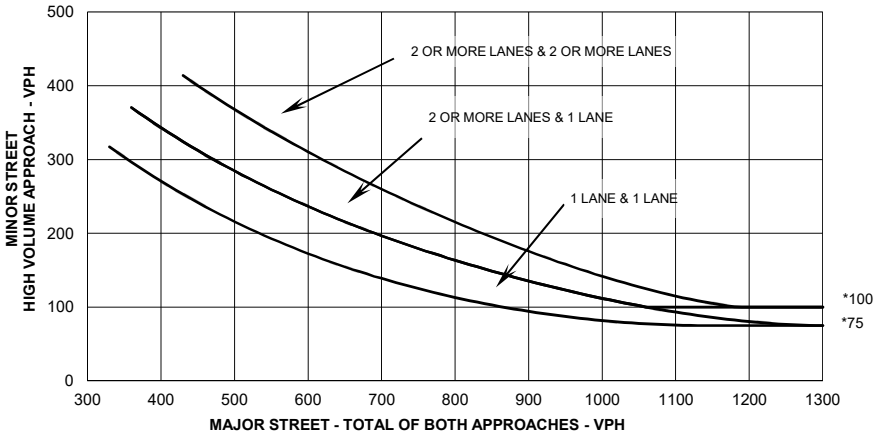
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**3084**	**50**

Criteria

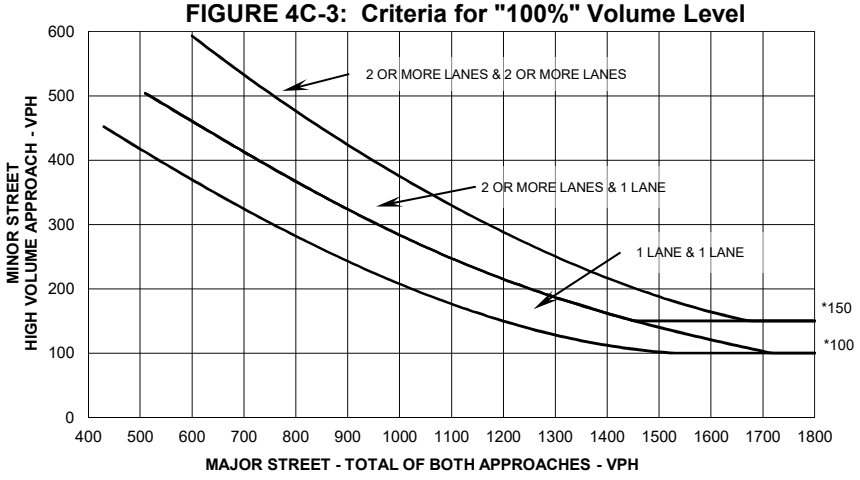
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		50
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,134
Fulfilled?: ☒ Yes ☐ No		

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**3265**	**29**

Criteria

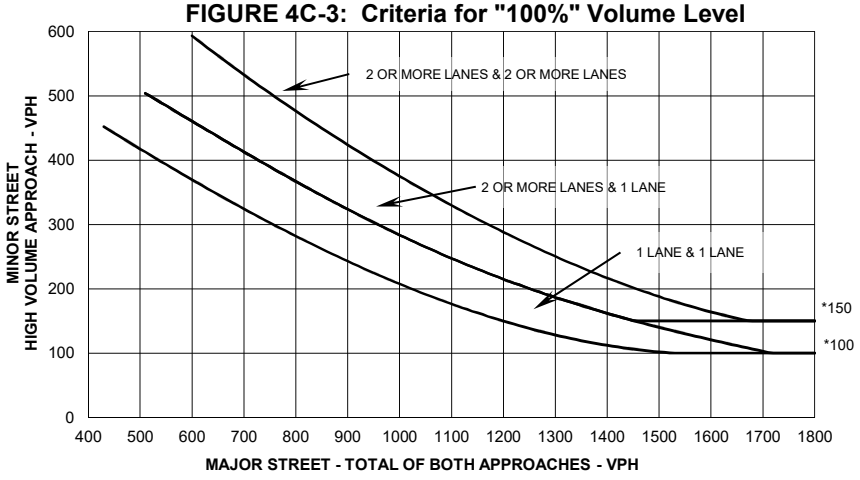
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,294
Fulfilled?: ☒ Yes ☐ No		

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)

** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**3075**	**50**

Criteria

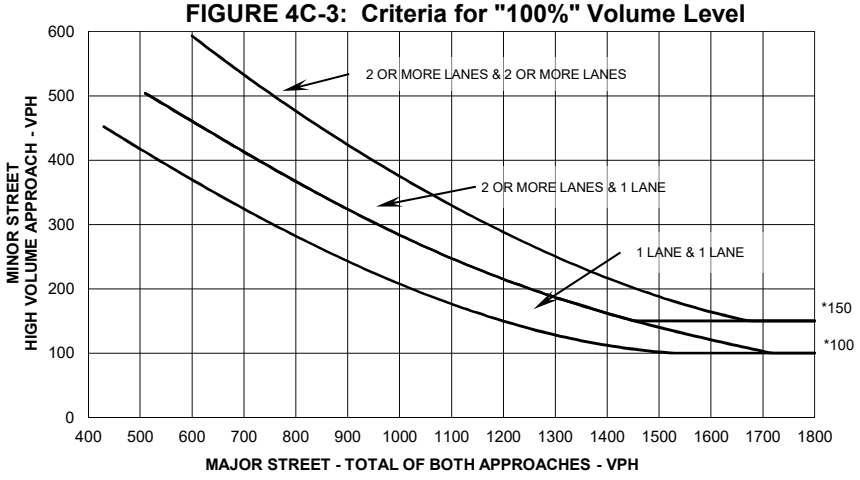
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,125
Fulfilled?: ☐ Yes ☒ No		

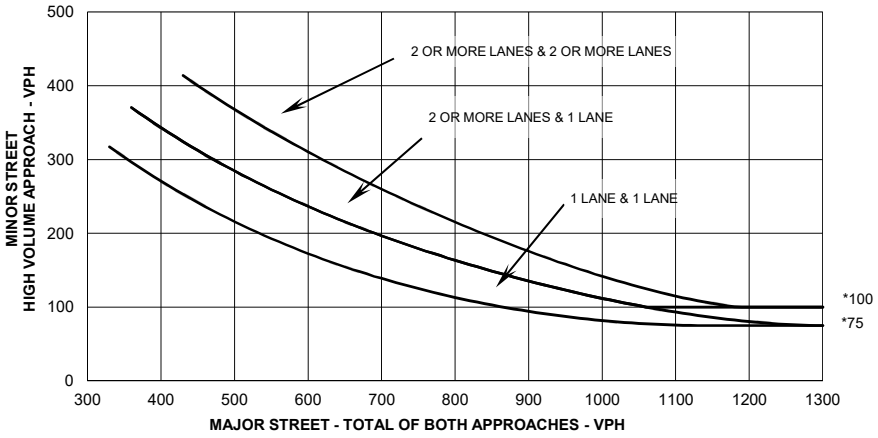
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**3244**	**53**

Criteria

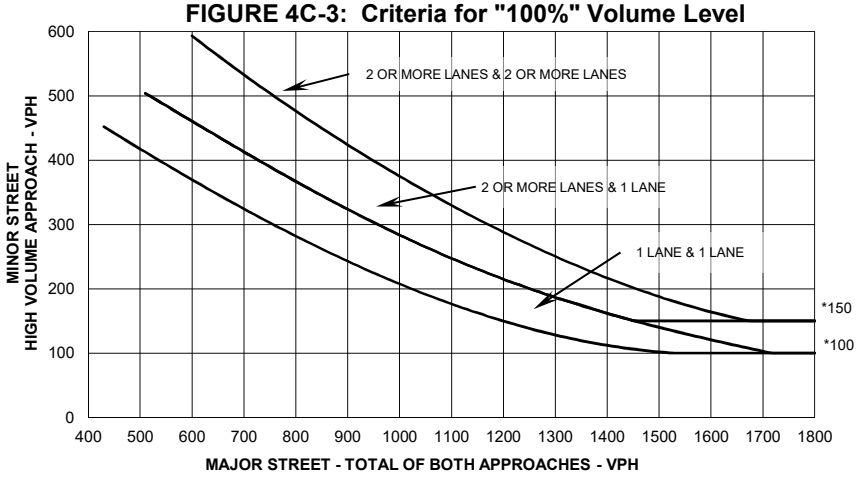
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes	☐ No	

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☐ Yes	☒ No	

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,297
Fulfilled?: ☒ Yes	☐ No	

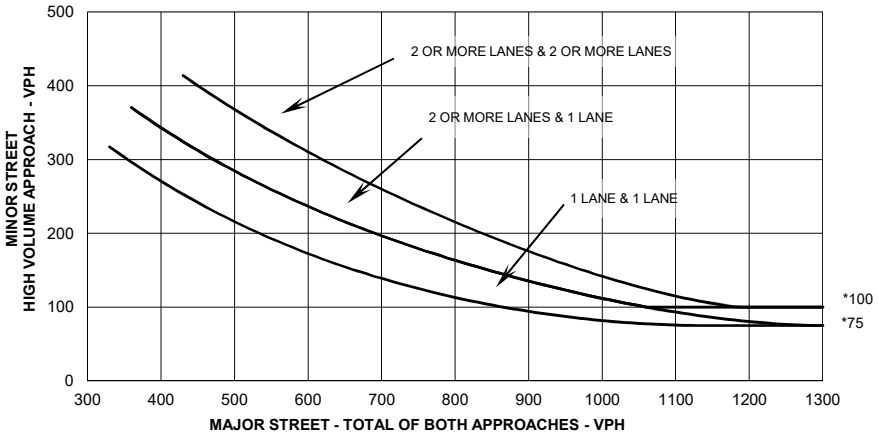
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**3244**	**29**

Criteria

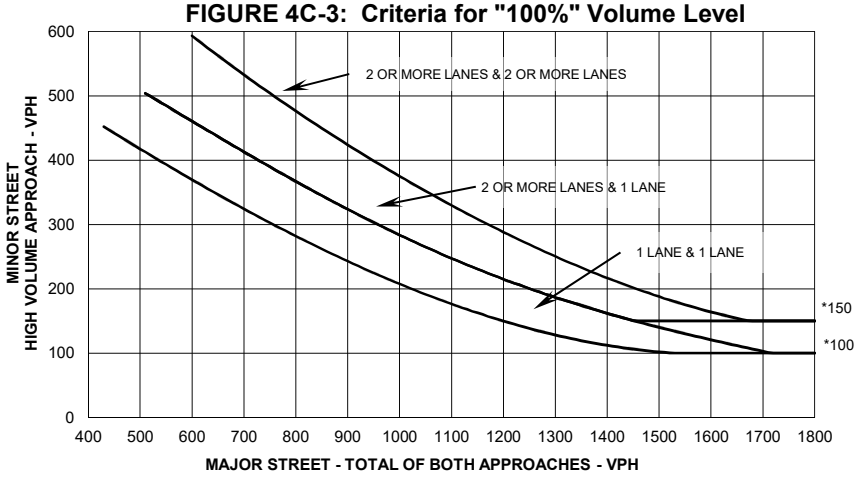
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		3,273
Fulfilled?: ☒ Yes ☐ No		

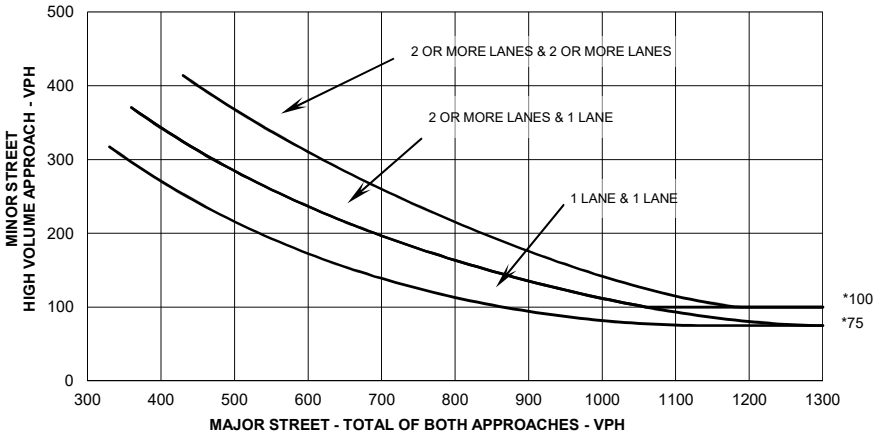
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**4598**	**51**

Criteria

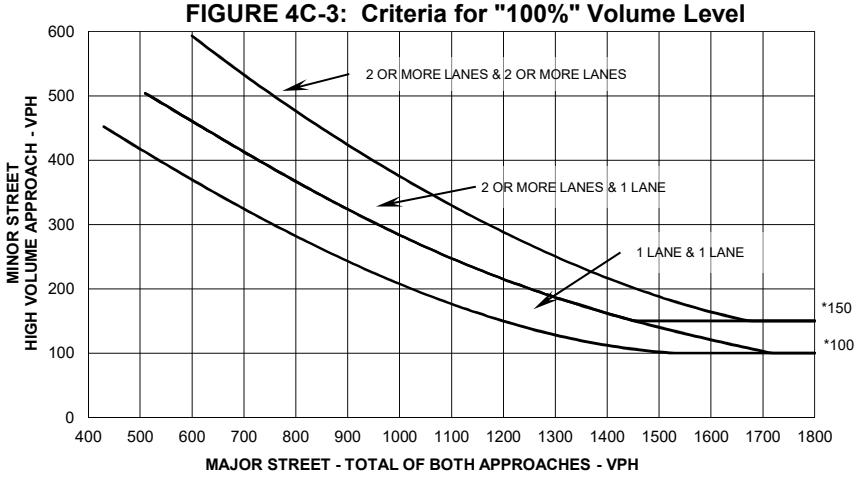
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		50
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		4,649
Fulfilled?: ☒ Yes ☐ No		

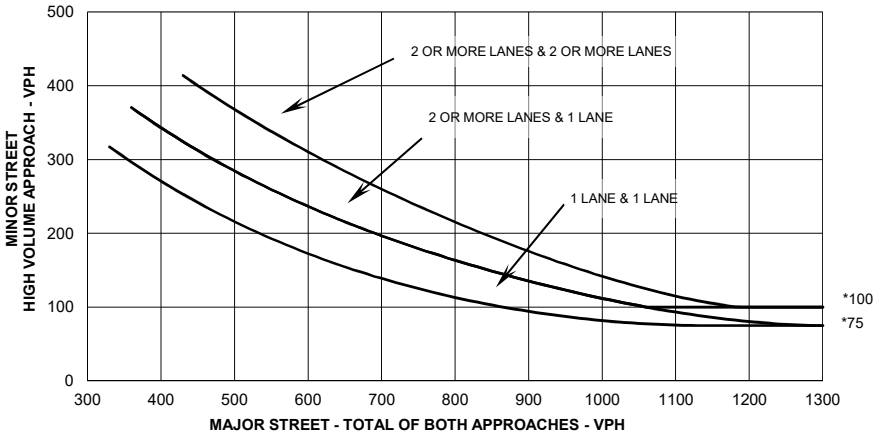
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**5311**	**30**

Criteria

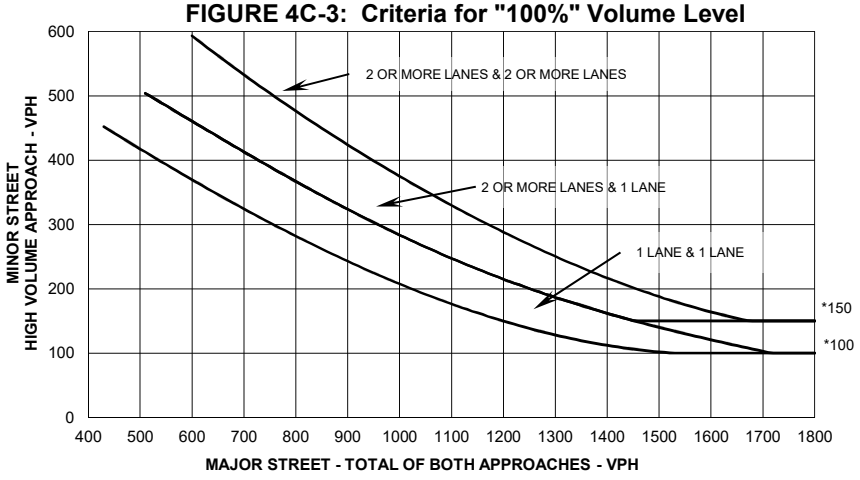
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		5,341
Fulfilled?: ☒ Yes ☐ No		

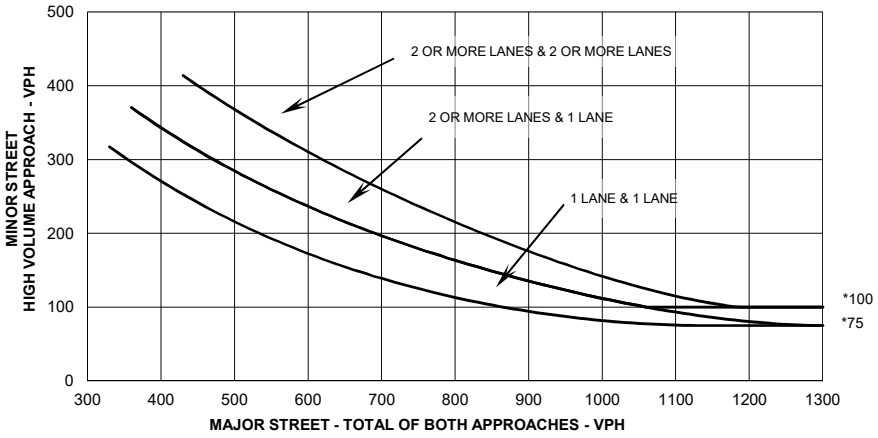
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**4587**	**50**

Criteria

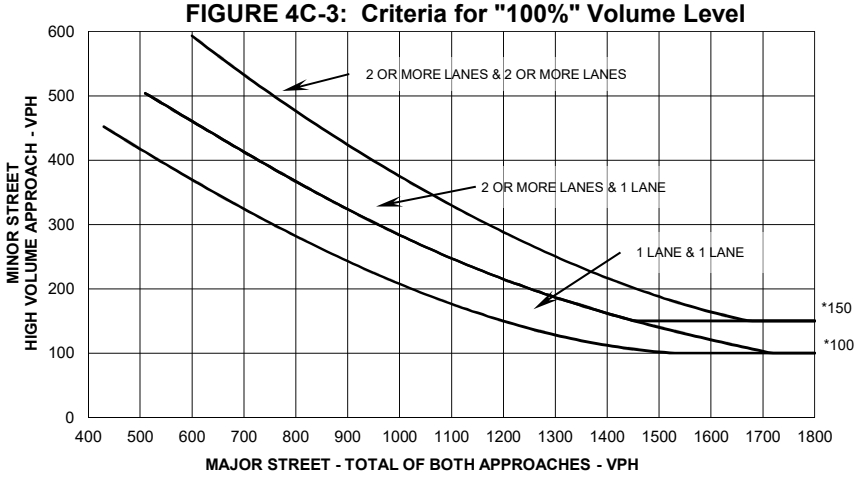
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		53
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		4,637
Fulfilled?: ☒ Yes ☐ No		

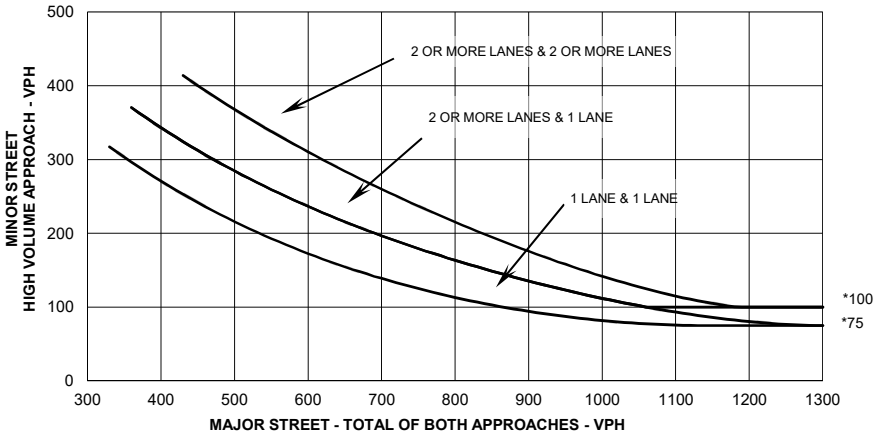
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**5290**	**30**

Criteria

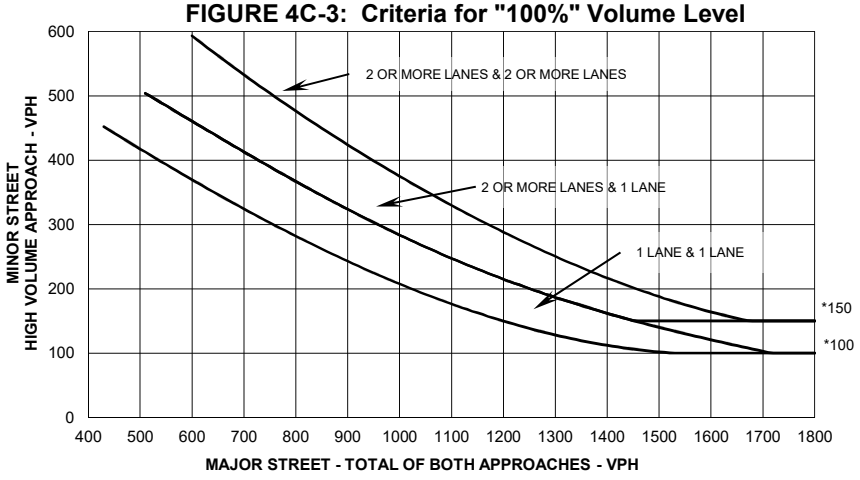
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		5,320
Fulfilled?: ☒ Yes ☐ No		

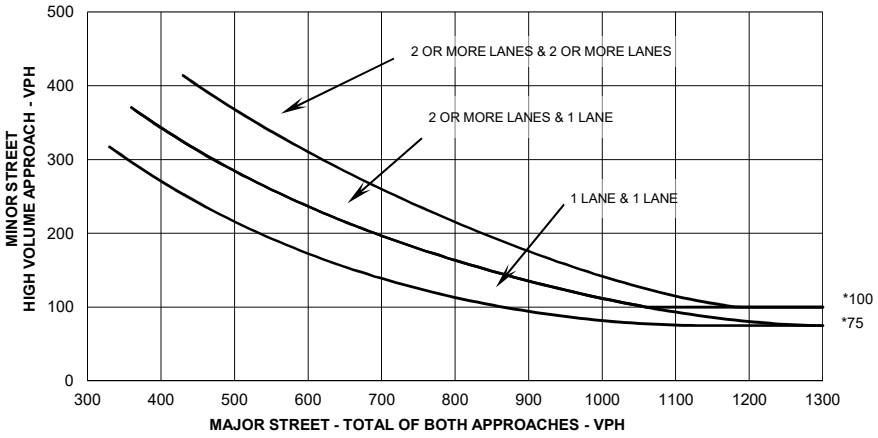
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **4th Street** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **Clarence Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**5353**	**30**

Criteria

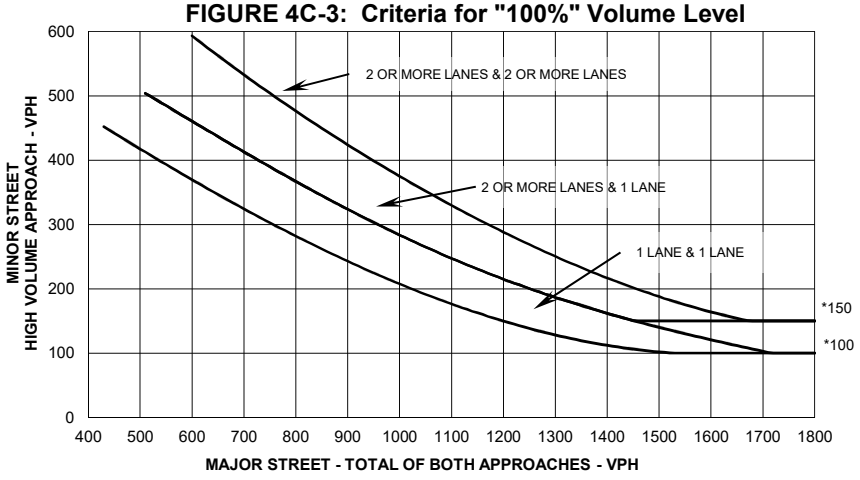
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		29
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		5,383
Fulfilled?: ☒ Yes ☐ No		

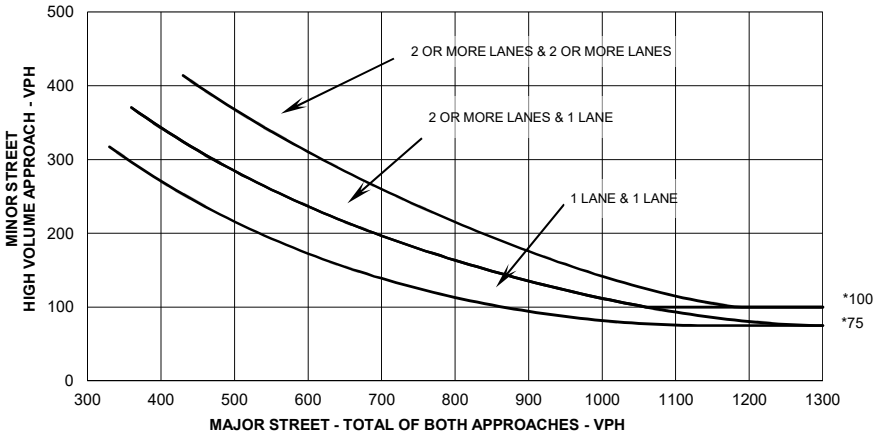
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1079**	**70**

Criteria

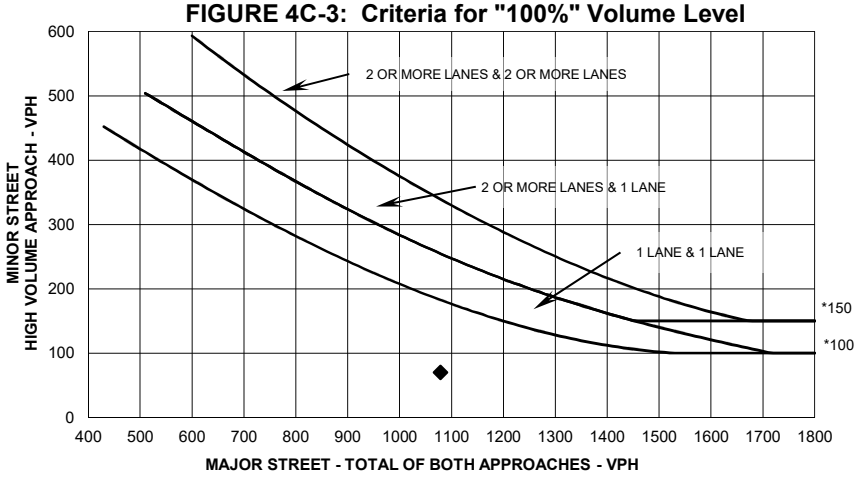
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		70
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,149
Fulfilled?: ☒ Yes ☐ No		

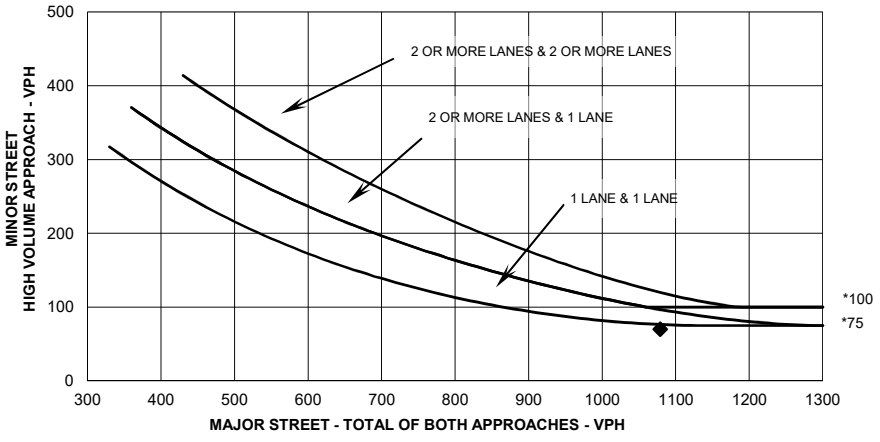
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1031**	**170**

Criteria

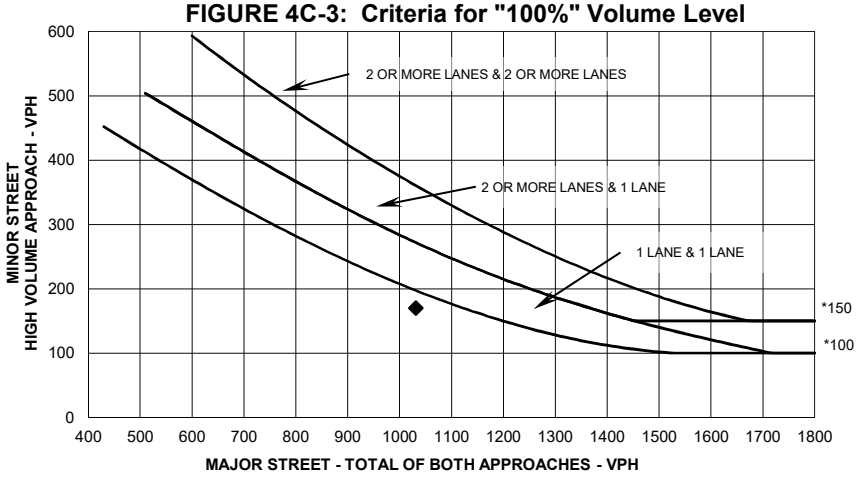
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,201
Fulfilled?: ☒ Yes ☐ No		

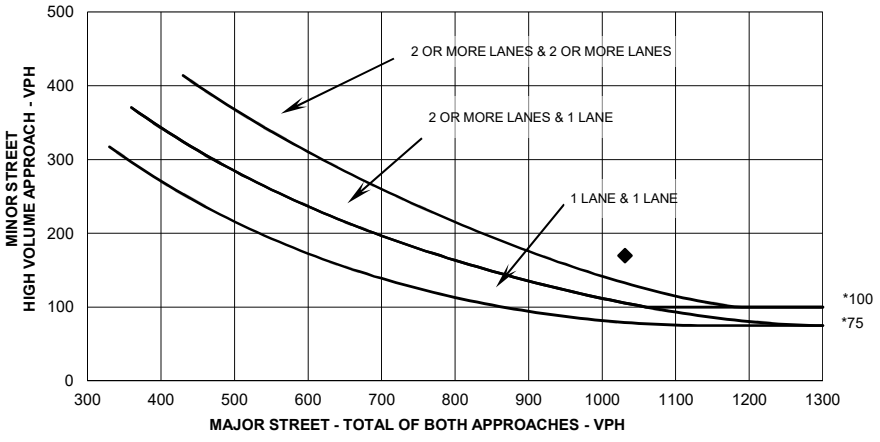
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1076**	**70**

Criteria

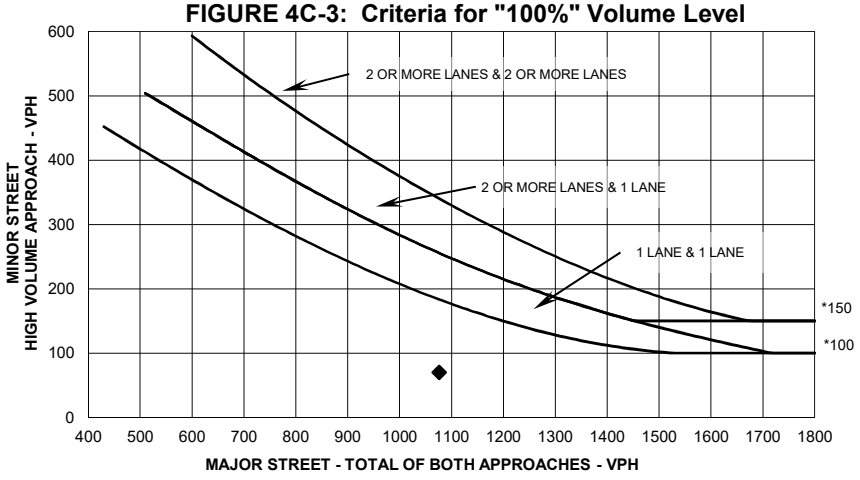
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes	☐ No	

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		70
Fulfilled?: ☐ Yes	☒ No	

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,146
Fulfilled?: ☐ Yes	☒ No	

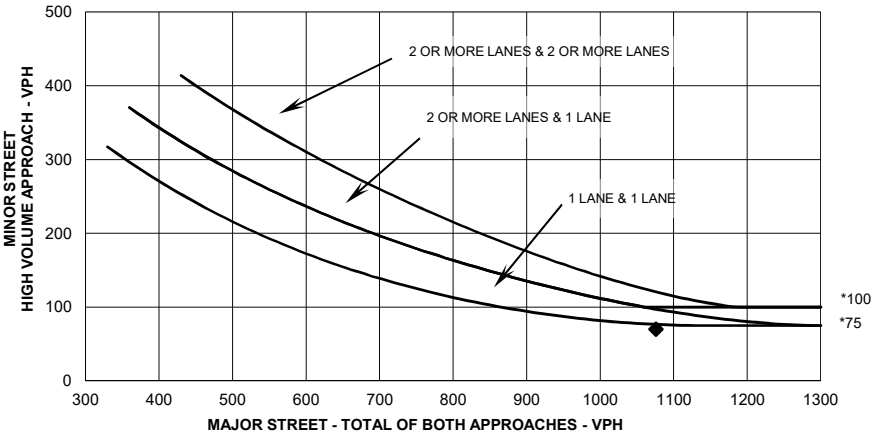
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1022**	**170**

Criteria

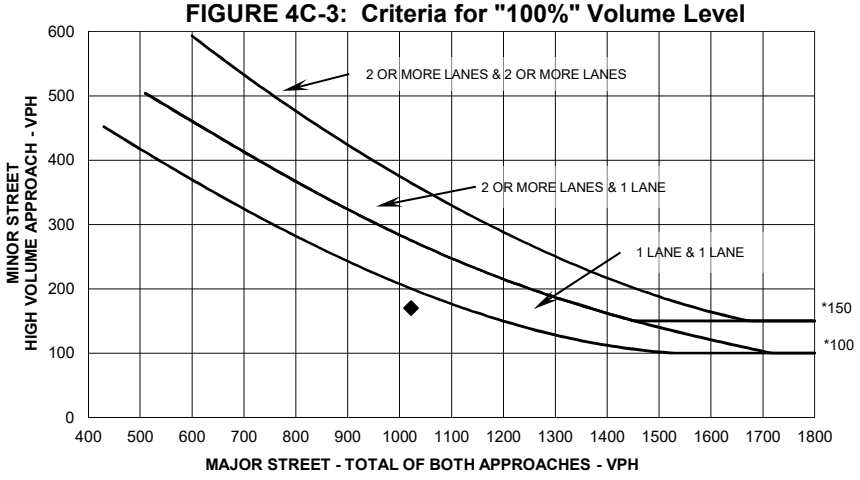
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,192
Fulfilled?: ☒ Yes ☐ No		

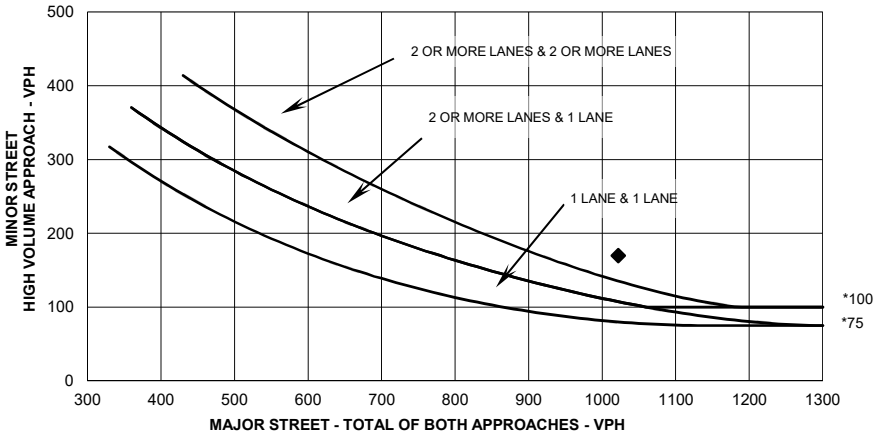
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Existing (2018) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
PM	**1048**	**170**

Criteria

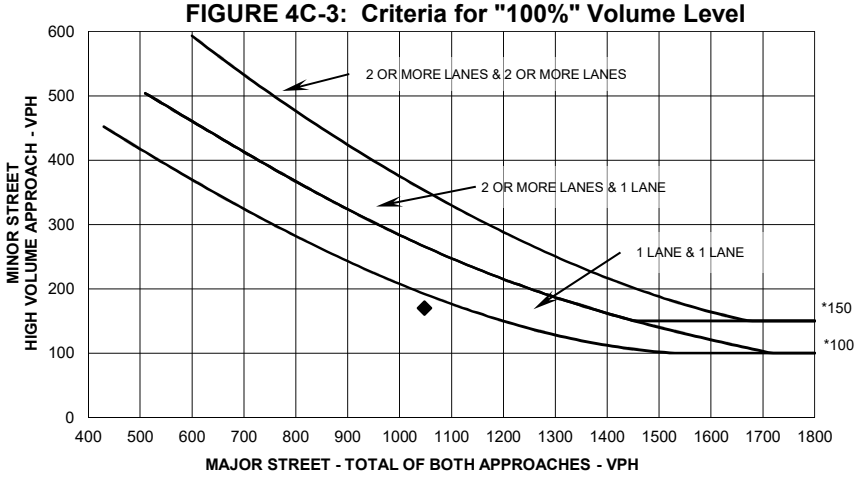
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☐ Yes ☒ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,218
Fulfilled?: ☒ Yes ☐ No		

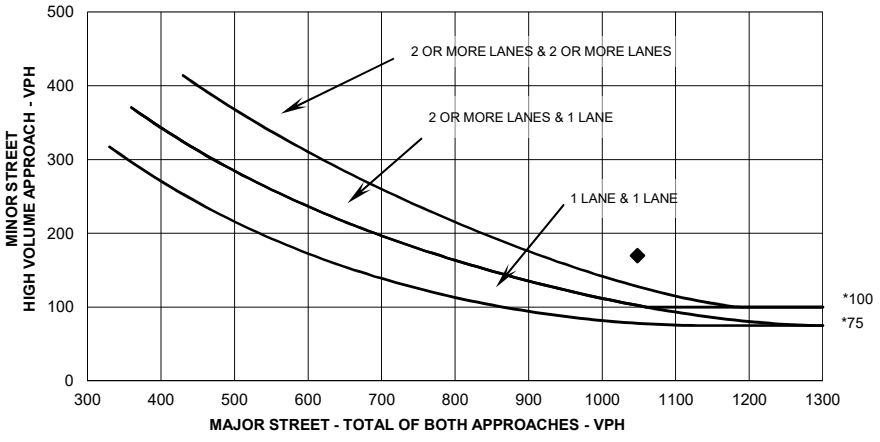
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1317**	**72**

Criteria

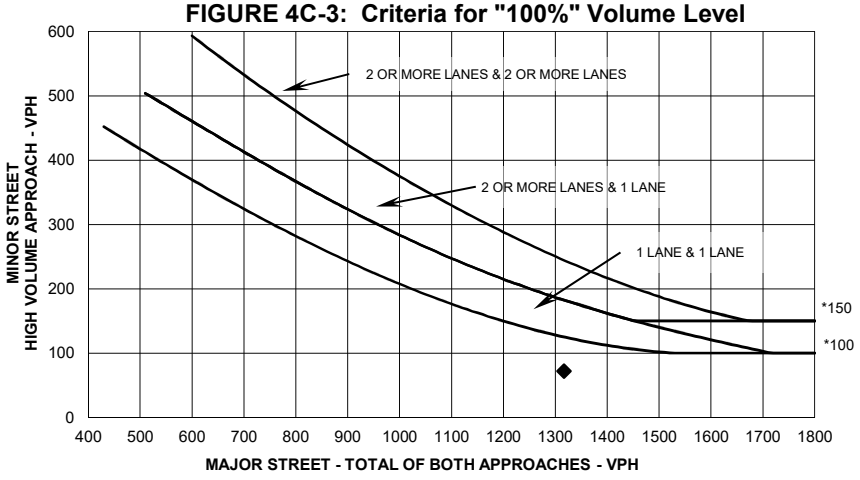
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		71
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,389
Fulfilled?: ☒ Yes ☐ No		

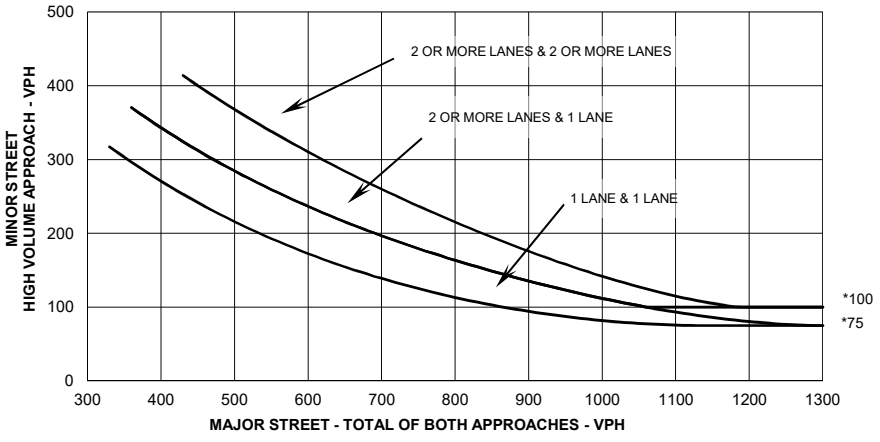
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) without Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1325**	**171**

Criteria

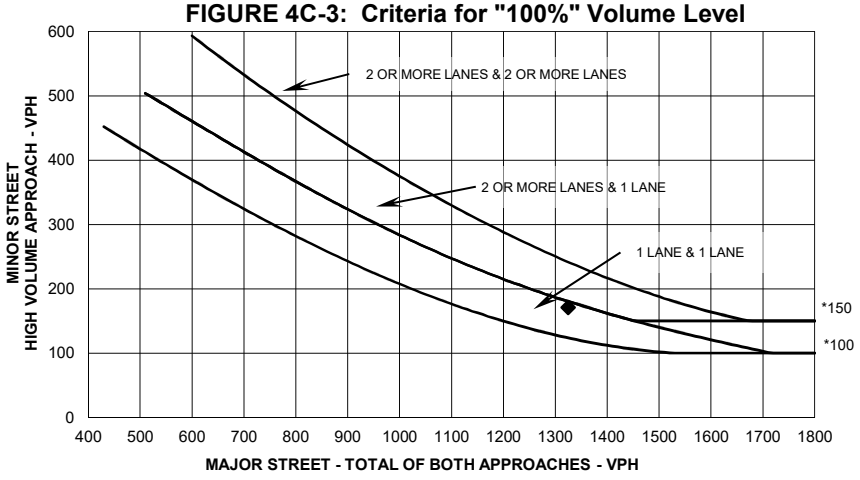
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,496
Fulfilled?: ☒ Yes ☐ No		

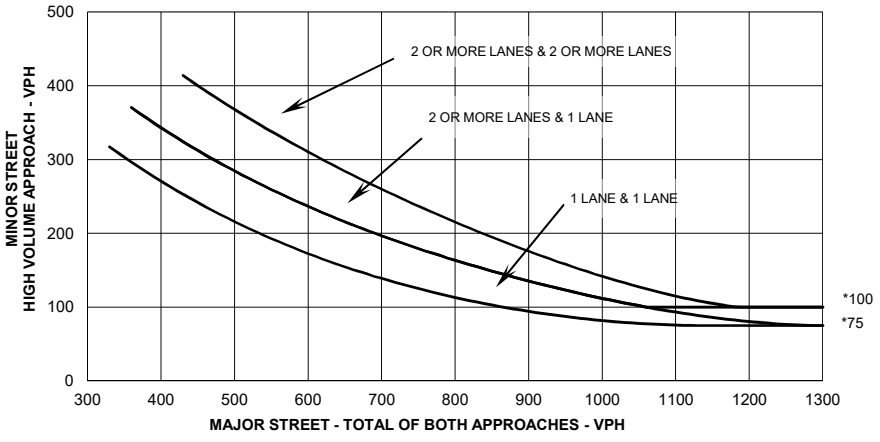
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - AM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1312**	**70**

Criteria

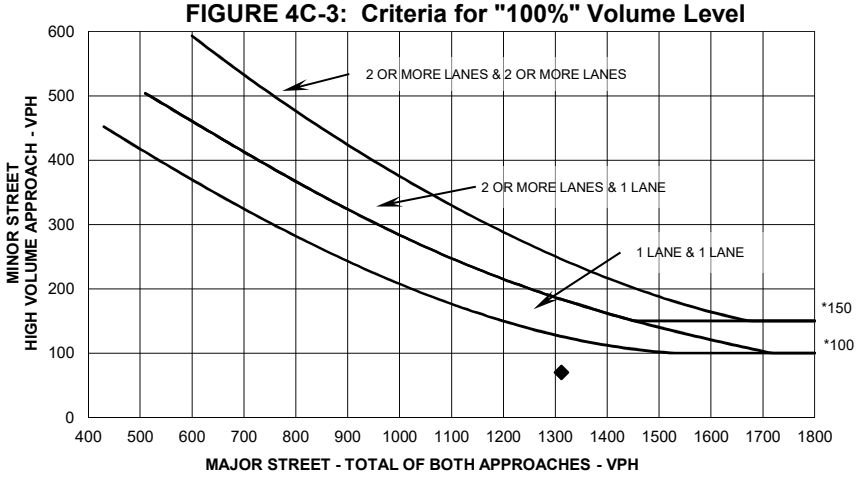
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		71
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,382
Fulfilled?: ☒ Yes ☐ No		

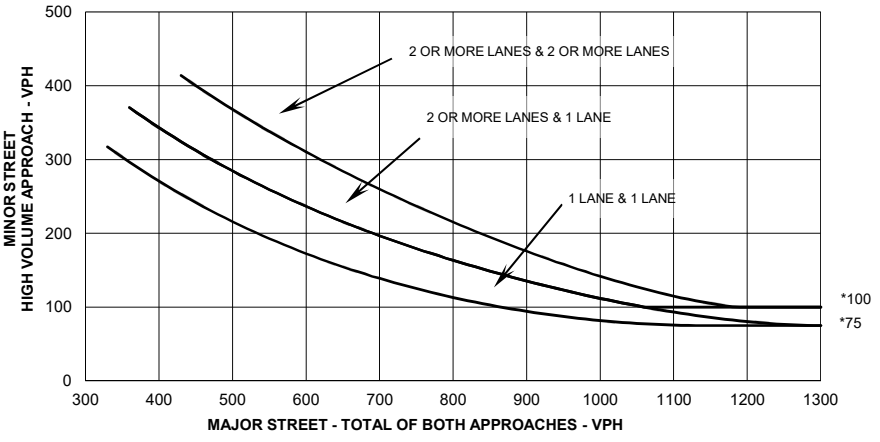
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **1** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1316**	**170**

Criteria

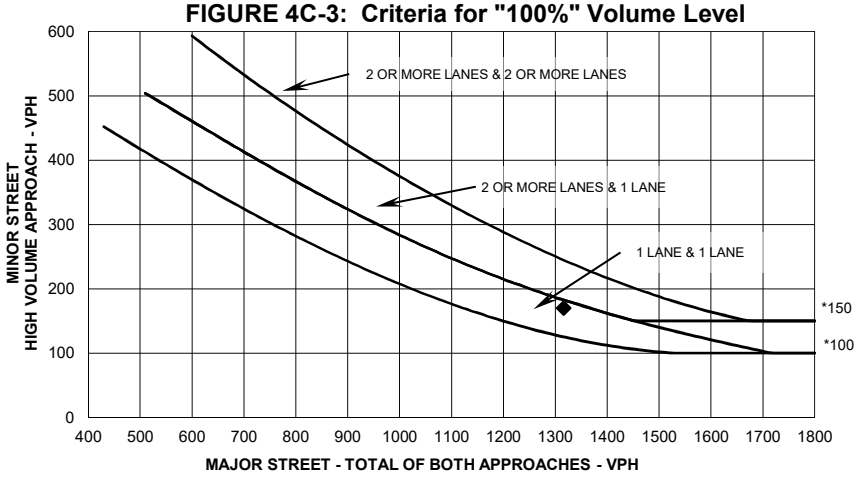
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,486
Fulfilled?: ☒ Yes ☐ .		

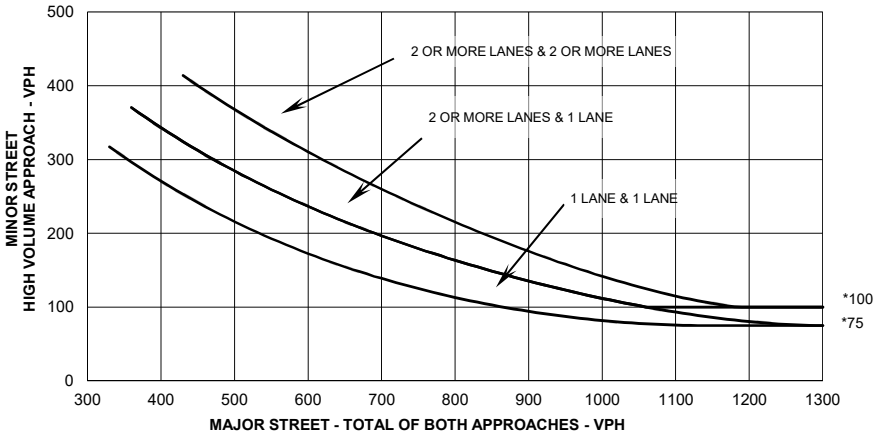
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

Cumulative (2023) with Project Event - PM

City: **Los Angeles** Engineer: **KHA**
County: **Los Angeles** Date: **March 5, 2018**

Major Street: **Santa Fe** Lanes: **2** Critical Approach Speed: **35**
Minor Street: **3rd Street** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☐ Yes ☒ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☐ 70% ☒ 100%

WARRANT 3 - PEAK HOUR

Applicable: ☒ Yes ☐ No
Satisfied: ☒ Yes ☐ No

If all three criteria are fullfilled or the plotted point lies above the appropriate line, then the warrant is satisfed.

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour		
AM	**1342**	**171**

Criteria

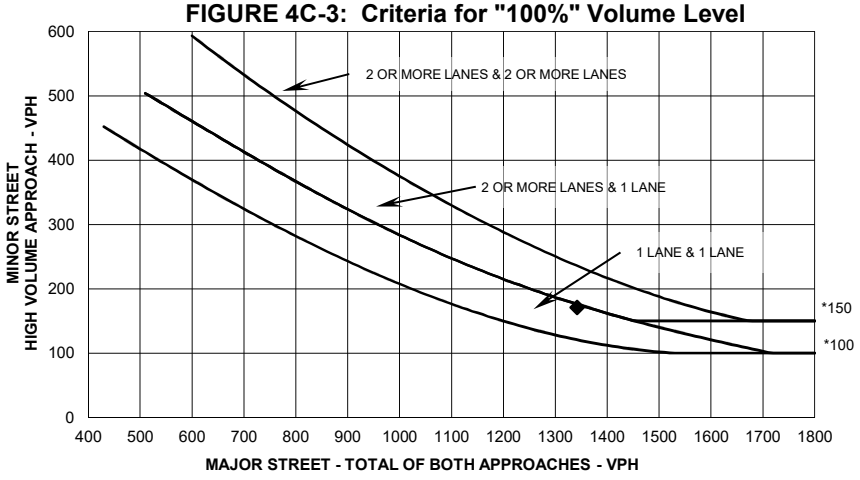
1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?: ☐ Yes ☐ No		

2. Volume on Minor Approach *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*		170
Fulfilled?: ☒ Yes ☐ No		

3. Total Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,513
Fulfilled?: ☒ Yes ☐ No		

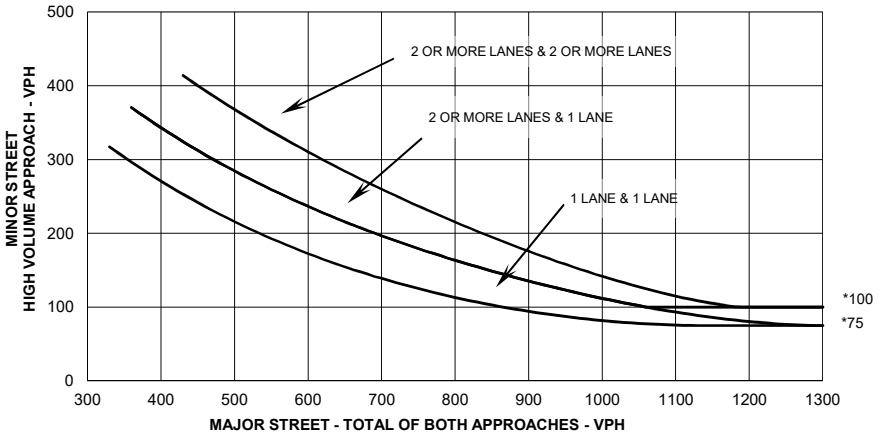
Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level



** Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

FIGURE 4C-4: Criteria for "70%" Volume Level
(Community Less than 10,000 population or above 70 km/hr (40 mph) on Major Street)



** Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.*

Source: Revised from NCHRP Report 457