Appendix I
Traffic Study

ESA

LINSCOTT
LAW &
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engineers

REVISED TRAFFIC IMPACT ANALYSIS

W. 3RD AND PACIFIC APARTMENTS

Long Beach, California
April 2, 2019
(Original August 3, 2018)

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EXECUTIVE SUMMARY

Project Description

- The Project site is located east of Pacific Avenue and west of Solano Court (existing alleyway), between 4th Street and 3rd Street, within the Downtown Planned Development district of the *Long Beach Downtown Community Plan*, in the City of Long Beach, California. The subject property is a rectangular-shaped 1.22± acre parcel of land that is currently improved with a public parking lot and surface parking lot for City vehicles. Access to the site is currently provided via a right-turn only driveway on 3rd Street and a full access driveway on 4th Street, whereas access from Pacific Avenue is provided by Roble Way, an existing alleyway that bisects the subject property's northern half from the southern half.

- The proposed Project includes the development of up to 345 apartment units and 14,481 SF of ground floor retail within two buildings. A total of 564 parking spaces will be provided within the two buildings.

  The North Building is proposed as an eight-level apartment podium with up to 142 apartment homes and approximately 6,802 SF of ground floor retail/commercial space. Parking is provided via a four-level parking structure of which two-levels are subterranean.

  The South Building is proposed as a 23-level apartment podium with up to 203 apartment homes and 7,679 SF of ground floor retail. Parking is provided via a six-level parking structure of which two-levels are subterranean.

- Vehicular access to the proposed Project's parking garages, inclusive of service delivery/trash truck vehicles, will be provided via two (2) full access driveways on the east side of the North and South Buildings off of Solano Court. As part of the Project, Solano Court will be designed to allow two-way flow within a 20-foot paved width per City requirements; no vehicular access is proposed from W. 3rd Street, W. 4th Street, or Pacific Avenue.

- The proposed Project is forecast to generate approximately 2,574 "net" daily trips, with 256 "net" trips (119 inbound, 137 outbound) produced in the AM peak hour and 206 "net" trips (115 inbound, 91 outbound) produced in the PM peak hour on a "typical" weekday.

Study Area

- The fourteen (14) key study intersections selected for evaluation in this report provide local access within the Project study area.

They consist of the following:

1. Magnolia Avenue at 3rd Street (Signalized)
2. Magnolia Avenue at Broadway (Signalized)
3. Pacific Avenue at 7th Street (Signalized)
4. Pacific Avenue at 6th Street (Signalized)
5. Pacific Avenue at 4th Street (Signalized)
6. Pacific Avenue at 3rd Street (Signalized)
7. Pacific Avenue at Broadway (Signalized)
8. Pacific Avenue at Ocean Boulevard (Signalized)
9. Solano Court (alleyway) at 4th Street (Unsignalized)
10. Solano Court (alleyway) at 3rd Street (Unsignalized)
11. Pine Avenue at 4th Street (Signalized)
12. Pine Avenue at 3rd Street (Signalized)
13. Long Beach Boulevard at 4th Street (Signalized)
14. Long Beach Boulevard at 3rd Street (Signalized)

Related Projects Description

- The seventy-four (74) cumulative projects are expected to generate a combined total of 136,631 daily trips, 10,392 AM peak hour trips (4,688 inbound and 5,704 outbound) and 12,982 PM peak hour trips (7,387 inbound and 5,595 outbound) on a typical weekday. Please note that of the seventy-four (74) cumulative projects, twenty-two (22) of those projects do not contribute to traffic within the study area.

Traffic Impact Analysis

Existing Traffic Conditions

- All fourteen (14) key study intersections currently operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours.

Existing With Project Traffic Conditions

- The traffic associated with the proposed Project will not directly impact any of the fourteen (14) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersection of Solano Court/3rd Street is forecast to operate at unacceptable LOS E during the AM peak hour, a traffic signal is not warranted at this location and therefore it is not considered a significant impact.
- Per the request of City Staff, a pedestrian scramble phase at the intersection of Pacific Avenue/4th Street was also analyzed and results in acceptable service levels.

Year 2021 Cumulative Traffic Conditions

- The addition of ambient traffic growth and cumulative project traffic will cumulatively impact five (5) of the fourteen key study intersections. The remaining key study intersections will continue to operate at acceptable LOS D or better during the AM and PM peak hours with the addition of Project generated traffic to existing traffic. The intersections operating adversely are the following:

Key Intersection		AM Peak Hour ICU/HCM	AM Peak Hour LOS	PM Peak Hour ICU/HCM	PM Peak Hour LOS
1.	Magnolia Avenue at 3rd Street	1.118	F	--	--
2.	Magnolia Avenue at Broadway	--	--	1.078	F
7.	Pacific Avenue at Broadway	--	--	0.927	E
10.	Solano Court at 3rd Street	--	F	--	--
14.	Long Beach Boulevard at 3rd Street	1.032	F	--	--

Year 2021 Cumulative Plus Project Traffic Conditions

- The traffic associated with the proposed Project will not directly impact any of the fourteen (14) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. Although the intersections of Magnolia Avenue/3rd Street, Magnolia Avenue/Broadway, Pacific Avenue/Broadway and Long Beach Boulevard/3rd Street are forecast to operate adversely in the AM or PM peak hours with the addition of the proposed Project, the Project adds less than 0.020 to the ICU value and hence the Project's impact is considered insignificant and no improvements are recommended. Additionally, although the intersection of Solano Court/3rd Street is forecast to operate at unacceptable LOS F during the AM peak hour and LOS E during the PM peak hour, a traffic signal is not warranted at this location and therefore it is not considered a significant impact.
- Per the request of City Staff, a pedestrian scramble phase at the intersection of Pacific Avenue/4th Street was also analyzed and results in acceptable service levels.

Traffic Signal Warrant Analysis

Existing Plus Project Traffic Conditions

- The results of the peak-hour traffic signal warrant analysis (Warrant #3) for Existing and Existing Plus Project traffic indicate that the key unsignalized intersection of Solano Court at 3rd Street does not meet the warrants for a traffic signal under existing traffic conditions.

Year 2021 Cumulative Plus Project Traffic Conditions

- The results of the peak-hour traffic signal warrant analysis (Warrant #3) for Year 2021 and Year 2021 Plus Project traffic indicate that the key unsignalized intersection of Solano Court at 3rd Street does not meet the warrants for a traffic signal under future traffic conditions.

Recommended Improvements

Existing Plus Project Traffic Conditions

- The proposed Project will not significantly impact any of the fourteen (14) key study intersections under the "Existing Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

Year 2021 Cumulative Plus Project Traffic Conditions

- The proposed Project will not significantly impact any of the fourteen (14) key study intersections under the "Year 2021 Cumulative Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

Project Specific Improvements

- *Intersection No. 5 – Pacific Avenue at 4th Street:* Due to the curb relocation along Pacific Avenue, the existing traffic signal and corresponding equipment may need to be modified or relocated to accommodate the new curb modifications in the southeast corner of the intersection.

- *Intersection No. 6 – Pacific Avenue at 3rd Street:* Due to the curb relocation along Pacific Avenue, the existing traffic signal and corresponding equipment may need to be modified or relocated to accommodate the new curb modifications in the northeast corner of the intersection.

Transportation Improvement Fee

- Based on a total Project development of 345 DU of residential and 14,481 SF of retail/restaurant space, the proposed Project can be expected to pay up to **$453,289.50** in Transportation Improvement Fees. The precise fee will be determined by the City upon issuance of Project building permits.

Site Access Evaluation

- The two (2) proposed driveways are forecast to operate at acceptable LOS A during both the AM and PM peak hours. Therefore, Project site access is considered adequate.
- The on-site circulation layout of the proposed Project on an overall basis is generally adequate, with potential turning conflicts for small trucks (SU-30) noted in Section 11.2. Solano Court will provide access for small service/delivery trucks (i.e. UPS, FedEx, and trash trucks) and passenger vehicles for the Project site.
- A rideshare loading zone is proposed to be included as part of the Project. The potential rideshare location along Pacific Avenue is proposed to be located north of Roble Way. The placement of the loading zone would occur in public right-of-way along Pacific Avenue and is anticipated to impede vehicles traveling in the northbound through lane. This would result in creating undue congestion along the Pacific Avenue which is not recommended. In an effort to minimize congestion, an alternative location is recommended along 4th Street. The placement of the loading zone on 4th Street is more feasible to achieve with the conversion of existing on-street parking spaces to rideshare loading spaces. Based on the two potential

options, it is recommended that the 4th Street option be pursued, to help minimize conflicts and congestion.

Congestion Management Program Compliance Assessment

- Based on the proposed Project's trip generation potential, trip distribution and trip assignment, the Project will not add more than 50 at the identified CMP intersections during the weekday AM peak hour or PM peak hour. Therefore a CMP intersection traffic impact analysis is not required and impacts would be less than significant.
- Based on the Project's trip generation potential and distribution pattern, the proposed Project will not add more than 150 trips during the AM or PM peak hour at this CMP mainline freeway-monitoring location. Therefore, a CMP freeway traffic impact analysis is not required and impacts would be less than significant.

Transit Impact Review

- The proposed Project is forecast to generate 25 transit trips (12 inbound and 13 outbound) during the AM peak hour and 20 transit trips (11 inbound and 9 outbound) during the PM peak hour. Over a 24-hour period the proposed Project is forecasted to generate 252 daily weekday transit trips. It is anticipated that the existing transit service in the project area would be able to accommodate the Project generated transit trips. Therefore, impacts would be less than significant.

Construction Traffic Impacts

- An evaluation of the 14 key study intersections indicates that the traffic-related construction impacts associated with the proposed Project will be insignificant, as well as study locations are forecast to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours.

  Nevertheless, to ensure impacts to the surrounding street system are kept a minimum, it is recommended that a Construction Management Plan for the proposed Project be developed. The Construction Management Plan should be developed in coordination with the City of Long Beach and at a minimum, address the following:

  - Traffic control for any street closure, detour, or other disruption to traffic circulation.
  - Identify the routes that construction vehicles will utilize for the delivery of construction materials (i.e. lumber, tiles, piping, windows, etc.), to access the site, traffic controls and detours, and proposed construction phasing plan for the project.
  - Specify the hours during which transport activities can occur and to minimize temporary construction-related impacts to adjacent streets.
  - Require the Applicant to keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Applicant shall clean adjacent streets, as directed by the City Traffic Engineer (or representative of the City Traffic

Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.

- Confirm when hauling or transport of oversize loads will be allowed during the weekdays, Monday through Friday, with the City Traffic Engineer.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.
- Construction-related parking and staging of vehicles shall occur on-site to the extent possible, but may occur on nearby public parking lots, as approved by the City Traffic Engineer.
- This Construction Manangement Plan shall meet standards established in the current *California Manual on Uniform Traffic Control Device (MUTCD)* as well as City of Long Beach requirements.

REVISED TRAFFIC IMPACT ANALYSIS

W. 3RD AND PACIFIC APARTMENTS

Long Beach, California
April 2, 2019 (Original August 3, 2018)

1.0 INTRODUCTION

This Traffic Impact Analysis report addresses the potential traffic impacts and circulation needs associated with the proposed W. 3rd and Pacific Apartments Project (hereinafter referred to as Project). It is to our understanding that this traffic impact analysis is required as part of the entitlement process for the proposed Project.

The Project site is located east of Pacific Avenue and west of Solano Court, between 4th Street and 3rd Street within the Downtown Planned Development district of the *Long Beach Downtown Community Plan* in the City of Long Beach, California. The Project is proposing to develop up to 345 apartment units and 14,481 square-feet (SF) of ground floor retail.

It is to our understanding that this traffic impact analysis is required as part of the entitlement process for the proposed Project, although the subject property was assessed in the *Downtown Plan Program Environmental Impact Report (Downtown Plan PEIR).* The *Downtown Plan PEIR* analyzes the potential environmental impacts associated with development of the entire Downtown Specific Plan area, in which the Project is located.

1.1 Scope of Work

This report documents the findings and recommendations of a traffic impact analysis, conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts associated with the proposed Project. The traffic analysis evaluates the existing operating conditions at fourteen (14) key study intersections within the Project vicinity, estimates the trip generation potential of the proposed Project, and forecasts future operating conditions without and with the Project. Where necessary, intersection improvements/mitigation measures are identified to offset the impact of the proposed Project. ***Appendix A*** contains the traffic impact analysis Scope of Work.

This traffic report satisfies the traffic impact study requirements of the *City of Long Beach Traffic Impact Analysis (TIA) Guidelines* and is consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Los Angeles County.*

The Project site has been visited by LLG and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at the fourteen (14) key study locations on a "typical" weekday for use in the preparation of intersection level of service calculations. Information concerning cumulative projects (planned and/or approved) in the vicinity of the Project has been researched at the City of Long Beach. Based on our research, seventy-four (74) cumulative projects were considered in the cumulative traffic analysis for this

Project. However, of the seventy-four (74) cumulative projects, twenty-two (22) cumulative projects are located outside the study area and do not contribute to traffic to the project study intersections.

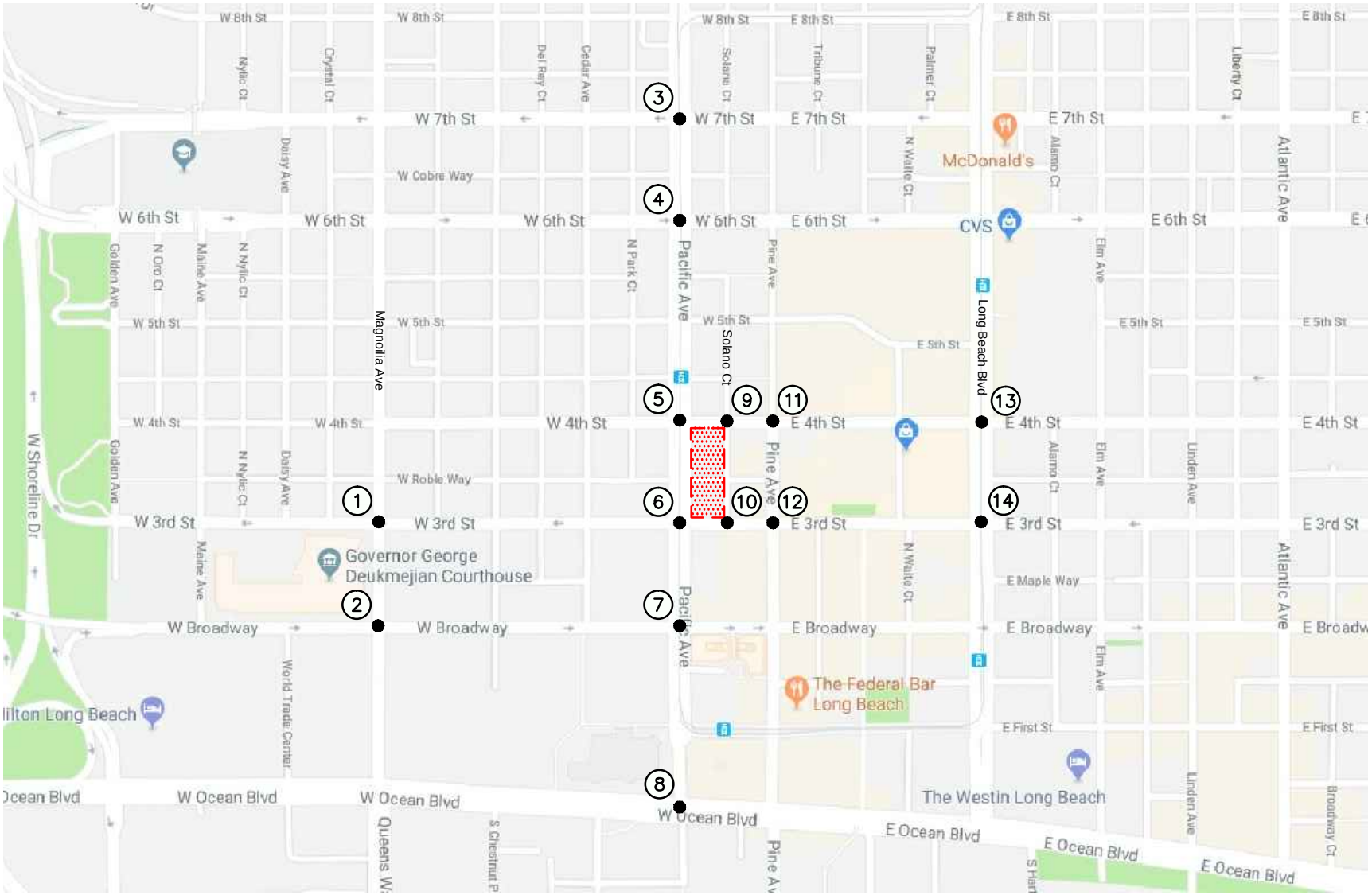
Based on City of Long Beach requirements, this traffic report analyzes existing and future (near-term) weekday AM and PM peak hour traffic conditions for existing and Year 2021 traffic conditions without and with the proposed Project. Peak hour traffic forecasts for the Year 2021 horizon year have been projected by increasing existing traffic volumes by an annual growth rate of one percent (1.0%) per year and adding traffic volumes generated by seventy-four (74) cumulative projects.

1.2 Study Area

The fourteen (14) key study intersections selected for evaluation in this report provide local access within the Project study area. They consist of the following:

1. Magnolia Avenue at 3rd Street (Signalized)
2. Magnolia Avenue at Broadway (Signalized)
3. Pacific Avenue at 7th Street (Signalized)
4. Pacific Avenue at 6th Street (Signalized)
5. Pacific Avenue at 4th Street (Signalized)
6. Pacific Avenue at 3rd Street (Signalized)
7. Pacific Avenue at Broadway (Signalized)
8. Pacific Avenue at Ocean Boulevard (Signalized)
9. Solano Court (alleyway) at 4th Street (Unsignalized)
10. Solano Court (alleyway) at 3rd Street (Unsignalized)
11. Pine Avenue at 4th Street (Signalized)
12. Pine Avenue at 3rd Street (Signalized)
13. Long Beach Boulevard at 4th Street (Signalized)
14. Long Beach Boulevard at 3rd Street (Signalized)

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the Project and depicts the study locations and surrounding street system. The Volume-Capacity (V/C) and Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with the proposed Project.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = STUDY INTERSECITON

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

Included in this traffic study report are:

- Existing traffic counts;
- Estimated Project traffic generation/distribution/assignment;
- Estimated cumulative Project traffic generation/distribution/assignment;
- AM and PM peak hour capacity analyses for existing conditions;
- AM and PM peak hour capacity analyses for existing plus Project conditions;
- AM and PM peak hour capacity analyses for future (Year 2021) conditions without and with Project traffic;
- Traffic Signal Warrant Analysis;
- Recommended Improvements;
- Site Access and Internal Circulation Evaluation; and
- Congestion Management Program Compliance Assessment

2.0 PROJECT DESCRIPTION

The Project site is located east of Pacific Avenue and west of Solano Court (existing alleyway), between 4th Street and 3rd Street, within the Downtown Planned Development district of the *Long Beach Downtown Community Plan*, in the City of Long Beach, California. The subject property is a rectangular-shaped 1.22± acre parcel of land that is currently improved with a public parking lot and surface parking lot for City vehicles. Access to the site is currently provided via a right-turn only driveway on 3rd Street and a full access driveway on 4th Street, whereas access from Pacific Avenue is provided by Roble Way, an existing alleyway that bisects the subject property's northern half from the southern half. ***Figure 2-1*** displays the existing site aerial.

The proposed Project includes the development of up to 345 apartment units and 14,481 SF of ground floor retail and restaurant/café uses within two building over a three-level subterranean garage. A total of 564 parking spaces will be provided for the Project.

The North Building is proposed as an eight-level apartment podium with up to 142 apartment homes and approximately 6,802 SF of ground floor retail/commercial space. Parking is provided via a four-level parking structure of which two-levels are subterranean. The South Building is proposed as a 23-level apartment podium with up to 203 apartment homes and 7,679 SF of ground floor retail/commercial. Parking is provided via a six-level parking structure of which two-levels are subterranean. ***Figure 2-2*** presents the conceptual site plan, prepared by Ankrom Moisan Architects, Inc.

Please note that the Project uses are consistent with the Downtown Plan documents (i.e. Draft PEIR and Traffic Impact Analysis), which analyzed traffic impacts (i.e. trip generation) associated with an assumed development of up to 340 residential units and 110,000 SF of office/commercial floor area in the Downtown Community Plan for the zone (Land Use Zone 12) in which the Project site is located.

2.1 Site Access

Vehicular access to the proposed Project's parking garages, inclusive of service delivery/trash truck vehicles, will be provided via two (2) full access driveways on the east side of the North and South Buildings off of Solano Court. As part of the Project, Solano Court will be designed to allow two-way flow within a 20-foot paved width per City requirements; no vehicular access is proposed from W. 3rd Street, W. 4th Street, or Pacific Avenue. Pedestrian access to both the residential and retail components of the Project will be provided via building entries/exits located on the streets bordering the site, but also on Roble Way, which bisects the two buildings and is planned as a pedestrian promenade.

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

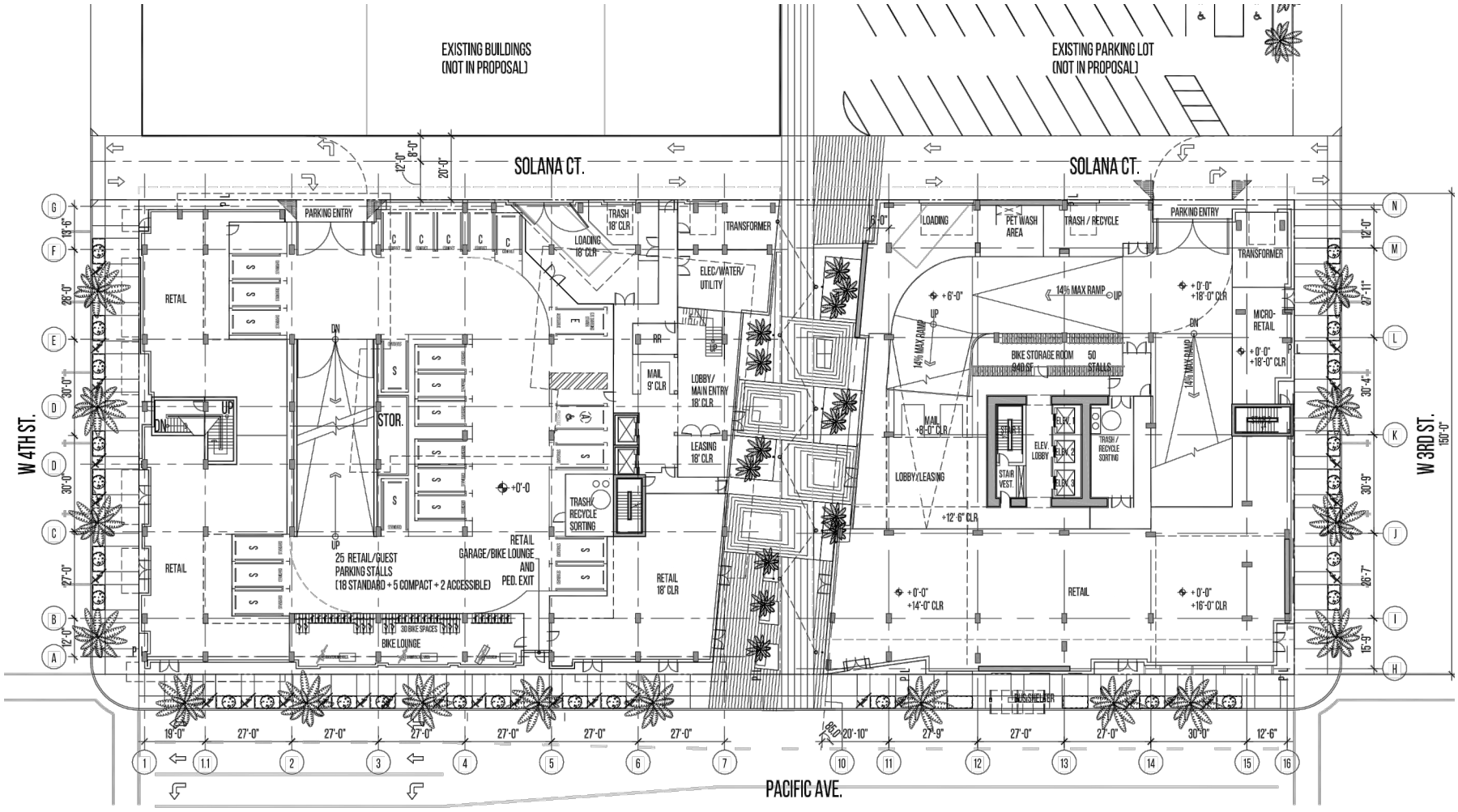
KEY

= PROJECT SITE

FIGURE 2-1

EXISTING SITE AERIAL

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



SOURCE: ANKROM MOISAN ARCHITECTS

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NO SCALE

FIGURE 2-2

PROPOSED SITE PLAN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

3.0 EXISTING CONDITIONS

3.1 Existing Street System

The principal local network of streets serving the Project site includes 7th Street, 3rd Street, Broadway, Ocean Boulevard, Magnolia Avenue, Pacific Avenue, and Long Beach Boulevard. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions.

7th Street is a three-lane, one-way roadway (westbound travel only) oriented in the east-west direction. Parking is generally permitted on both sides of the roadway. The posted speed limit is 25 mph. The intersection of 7th Street at Pacific Avenue is controlled by a traffic signal.

6th Street is a three-lane, one-way roadway (eastbound travel only) oriented in the east-west direction. Parking is generally permitted on both sides of the roadway. The posted speed limit is 25 mph. The intersection of 6th Street at Pacific Avenue is controlled by a traffic signal.

4th Street is generally a two-lane, undivided roadway oriented in the east-west direction. Parking is generally permitted on both sides of the roadway. The posted speed limit is 25 mph. The intersections of 4th Street at Pacific Avenue, Pine Avenue and Long Beach Boulevard are controlled by a traffic signal.

3rd Street is a two-lane, one-way roadway (westbound travel only) oriented in the east-west direction. Parking is generally permitted on both sides of the roadway. The posted speed limit is 25 mph. The intersections of 3rd Street at Magnolia Avenue, Pacific Avenue, Pine Avenue and Long Beach Boulevard are controlled by a traffic signal.

Broadway is a generally a three-lane, one-way roadway (eastbound travel only) west of Magnolia Avenue, and a two-lane, one-way roadway east of Magnolia Avenue oriented in the east-west direction. West of Magnolia Avenue, parking is restricted on both the north and south side of the roadway. East of Magnolia, parking is generally permitted on both sides of the roadway. The posted speed limit on Broadway is 30 mph. The intersections of Broadway at Magnolia Avenue and Pacific Avenue are controlled by traffic signals.

Ocean Boulevard is a primarily a six-lane, divided roadway oriented in the east-west direction. West of Magnolia Avenue, Ocean Boulevard is a seven-lane, divided roadway, with three travel lanes in the eastbound direction and four travel lanes in the westbound direction. Parking is generally permitted on both sides of the roadway. The posted speed limit on Ocean Boulevard is 30 mph. The intersection of Ocean Boulevard at Pacific Avenue is controlled by a traffic signal.

Magnolia Avenue is primarily a four-lane, divided roadway oriented in the north-south direction. South of Ocean Boulevard, Magnolia Avenue is a six-lane, divided roadway. North of 3rd Street, Magnolia Avenue is a two-lane, divided roadway. Parking is permitted on both sides of the roadway north of Broadway. South of Broadway, parking is generally not permitted on both sides of the roadway, except for a segment between Broadway and Ocean Avenue where parking is permitted on

the west side of the roadway. North of Ocean Boulevard, the posted speed limit is 25 mph; south of Ocean Boulevard, the posted speed limit is 45 mph.

Pacific Avenue is primarily a four-lane, divided roadway oriented in the north-south direction. South of Ocean Boulevard, Pacific Avenue is a two-lane, undivided roadway. Parking is not permitted on either side of the roadway within the vicinity of the Project site. The posted speed limit on Pacific Avenue is 25 mph.

Pine Avenue is primarily a two-lane, divided roadway oriented in the north-south direction. Parking is generally permitted on both sides of the roadway within the vicinity of the Project site. The posted speed limit on Pacific Avenue is 30 mph.

Solano Court is primarily a two-lane alleyway oriented in the north-south direction. Parking is not permitted on either side of the alley within the vicinity of the Project site. The prima facie speed limit on Solano Court is 25 mph.

Long Beach Boulevard is primarily a four-lane, divided roadway oriented in the north-south direction. Parking is generally permitted on the east side of the roadway north of 3rd Street, but is not permitted on either side of the roadway south of 3rd Street. The posted speed limit on Long Beach Boulevard is 30 mph.

Figure 3-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. The number of travel lanes and intersection controls for the key area intersections are identified.

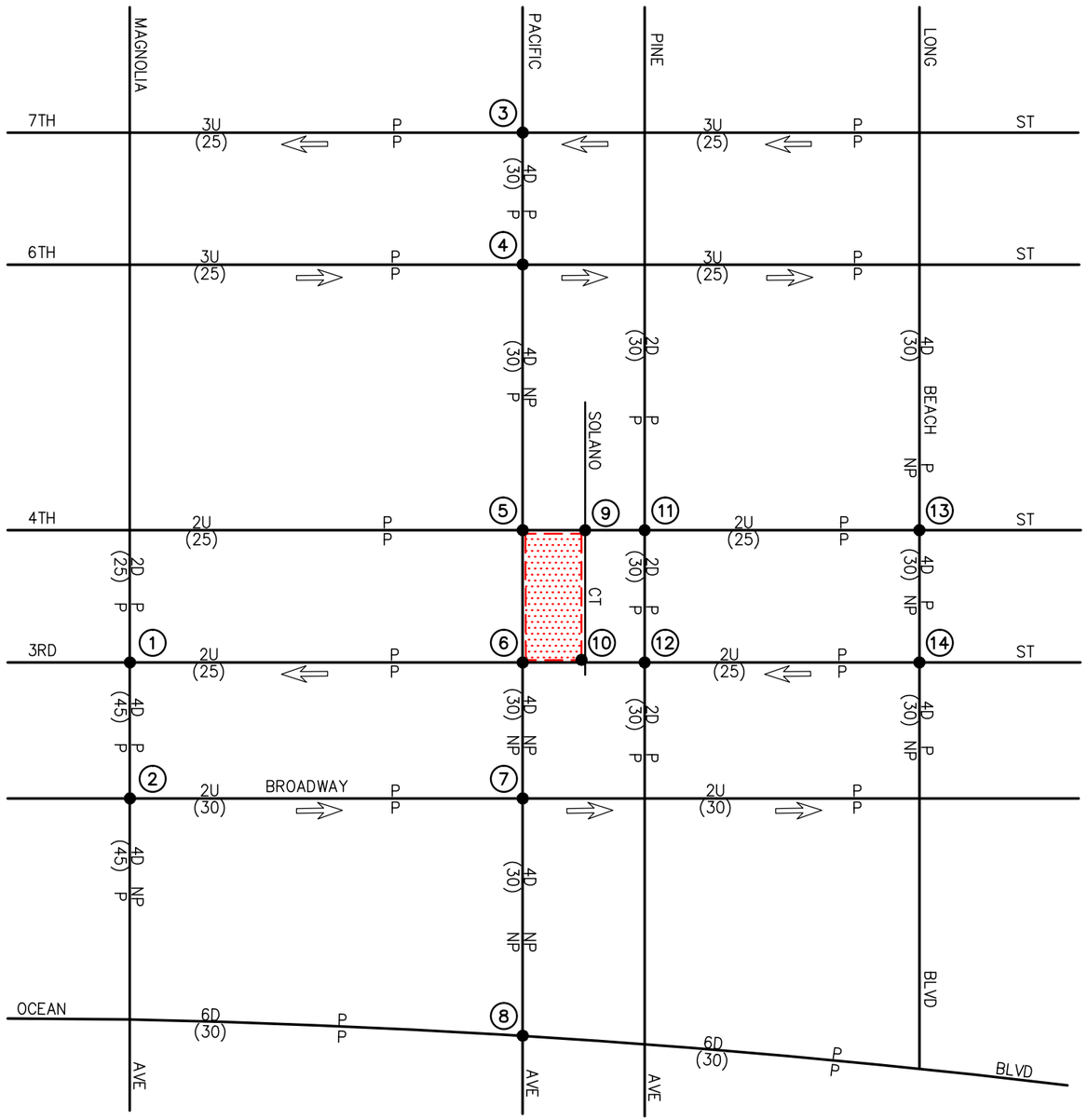
3.2 Existing Traffic Volumes

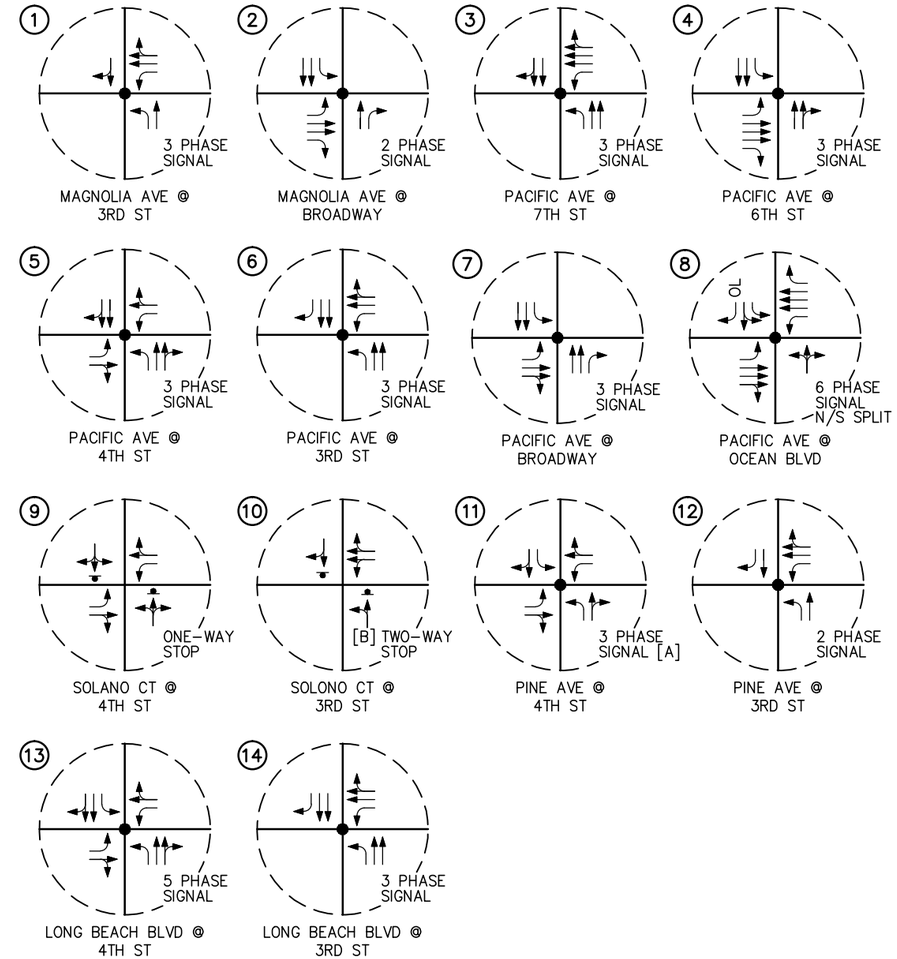
Fourteen (14) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential Project-related traffic will pass through each of these intersections, and their analysis will reveal the expected impact associated with the proposed Project.

Existing weekday peak hour traffic volumes for the fourteen (14) key study intersections evaluated in this report were obtained from manual turning movement counts conducted by National Data and Surveying Services in January 2018. ***Figures 3-2*** and ***3-3*** illustrate the existing weekday AM and PM peak hour traffic volumes at the fourteen (14) key study intersections evaluated in this report, respectively. ***Appendix B*** contains the detailed peak hour count sheets for the key intersections evaluated in this report.

3.3 Existing Public Transit

The Los Angeles County Metropolitan Transportation Authority, Torrance Transit, and Long Beach Transit (LBT) provide public transit services in the vicinity of the proposed Project. In the vicinity of the Project, the Metro Blue Line currently serves Pacific Avenue. The Los Angeles Department of Transportation (LADOT) Commuter Express 142 currently serves Ocean Boulevard and Pacific Avenue. Torrance Transit Line R3 currently serves Pacific Avenue. In addition, LBT Route 121





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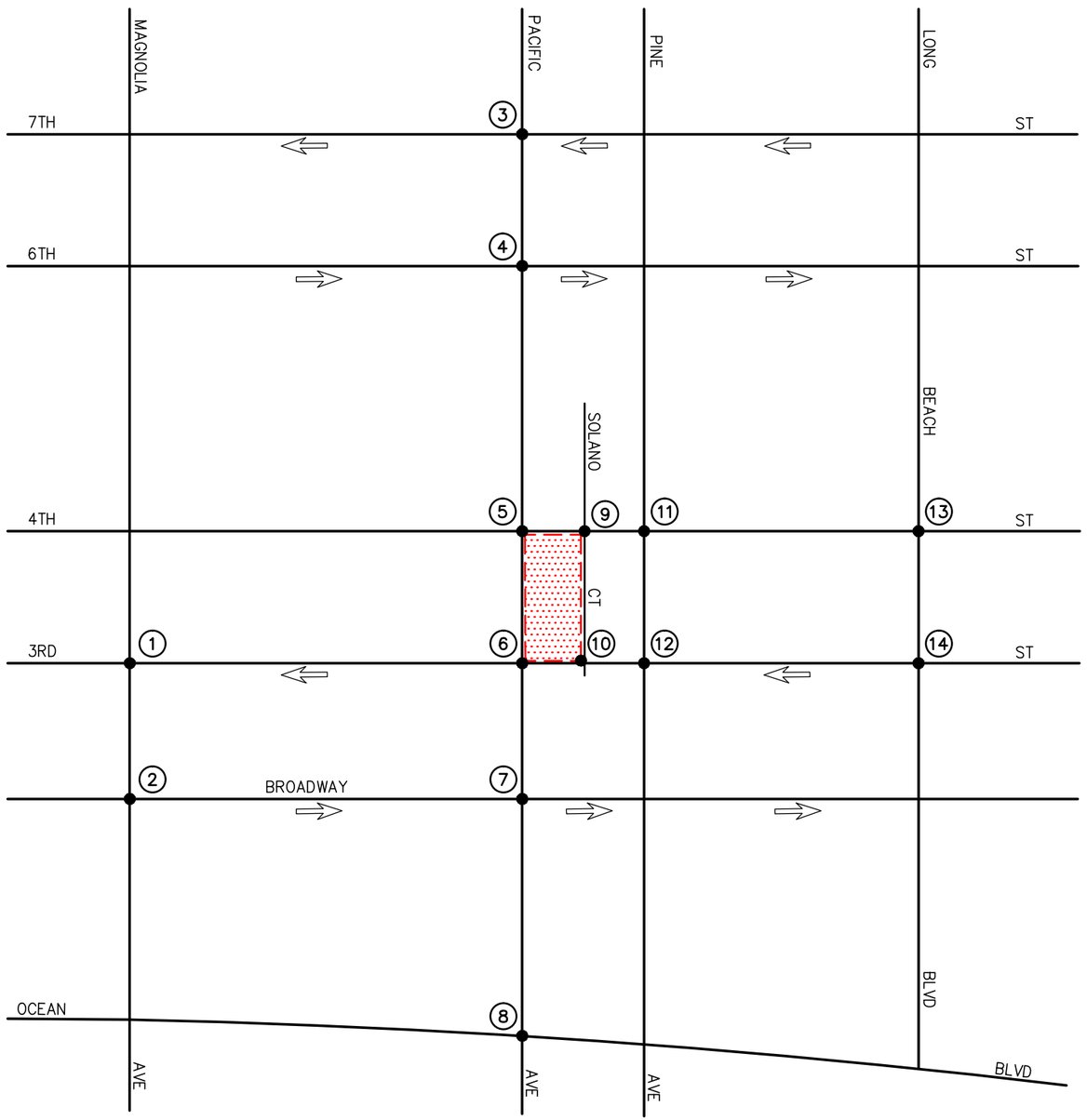
KEY

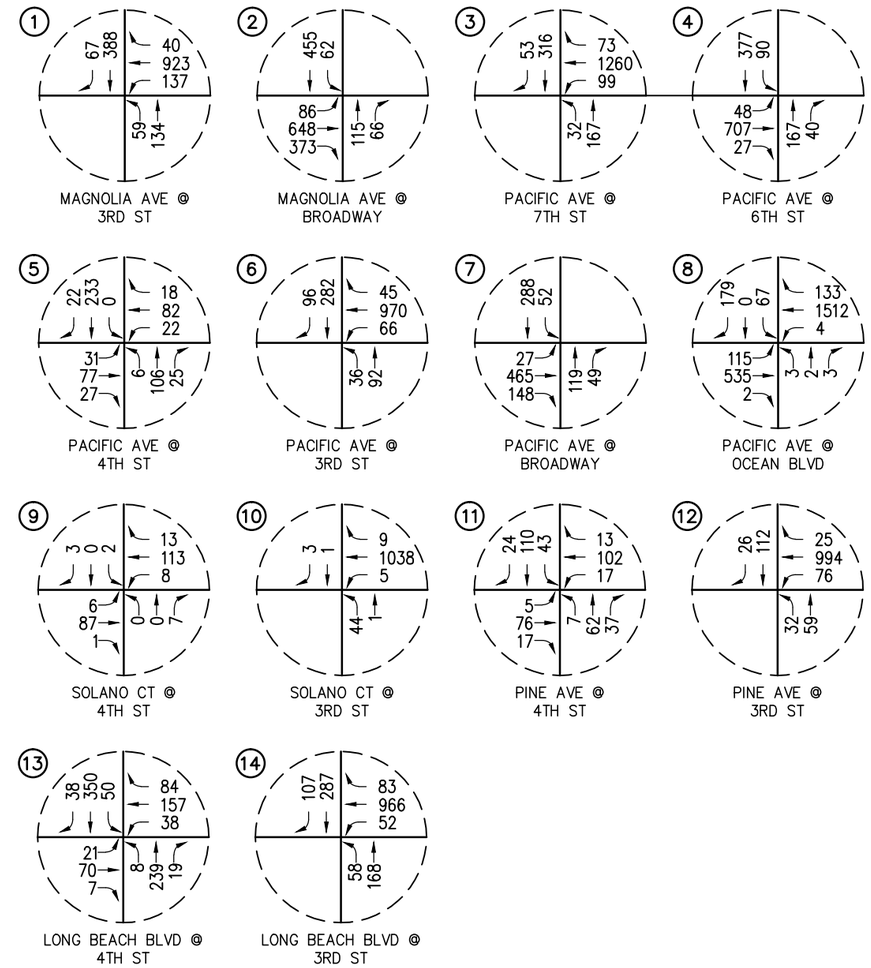
- ← = APPROACH LANE ASSIGNMENT
- ● = TRAFFIC SIGNAL, ☛ = STOP SIGN
- P = PARKING, NP = NO PARKING
- U = UNDIVIDED, D = DIVIDED
- 2 = NUMBER OF TRAVEL LANES
- OL = OVERLAP
- = PROJECT SITE
- [A] = INCLUDES A PEDESTRIAN PHASE
- (XX) = POSTED SPEED LIMIT (MPH)
- [B] = NORTHBOUND MOVEMENTS ARE ASSOCIATED WITH THE PARKING GARAGE OF AN EXISTING APARTMENT BUILDING

FIGURE 3–1

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

W. 3RD & PACIFIC APARTMENTS, LONG BEACH





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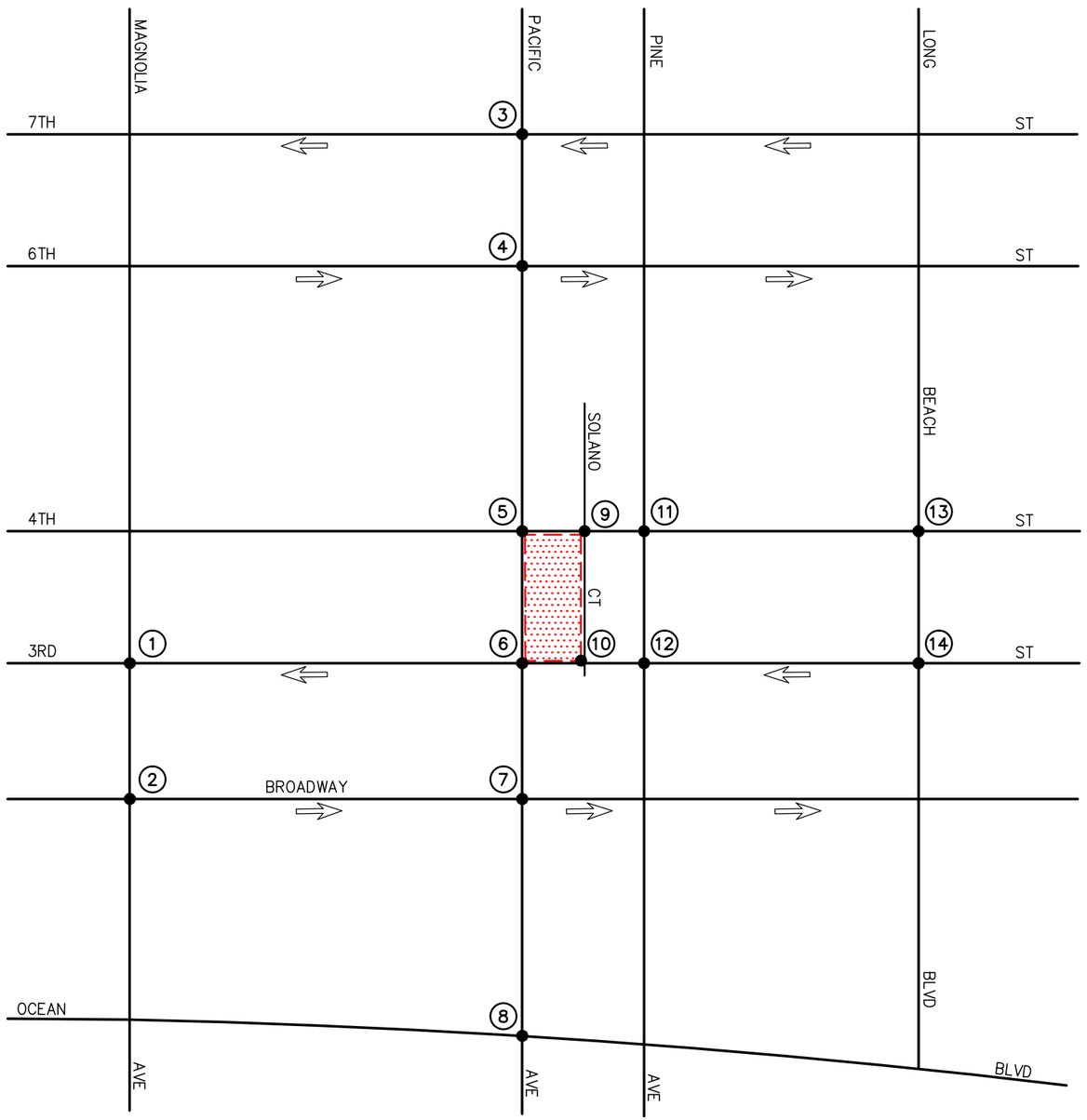
N NO SCALE

FIGURE 3-2

EXISTING AM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



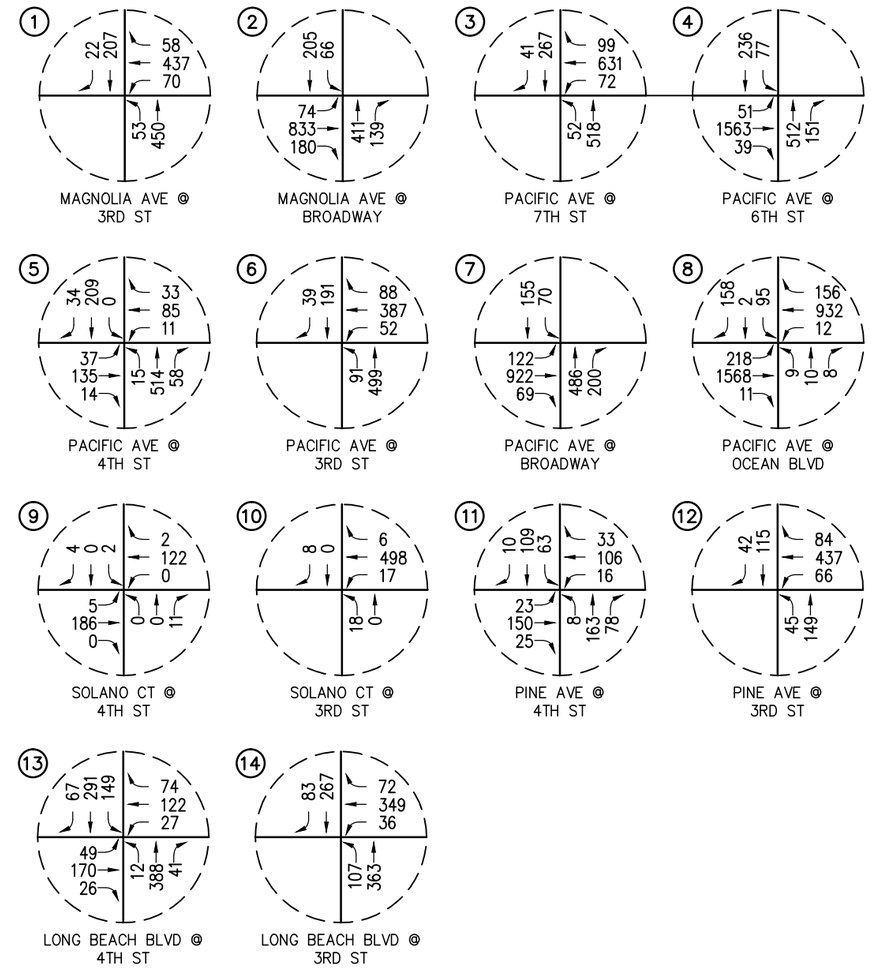


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FIGURE 3-3

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

serves Pacific Avenue and Ocean Boulevard. LBT Passport Route serves Pacific Avenue, Long Beach Boulevard, and Ocean Boulevard. LBT Routes 91, 92, 93, and 94 serve Pacific Avenue, Long Beach Boulevard, 7th Street and 6th Street. LBT Routes 81, 172, 173 and 174 serve Pacific Avenue, Long Beach Boulevard, and 7th Street. LBT Routes 181, 191, and 192 serve Magnolia Avenue, Broadway, and 3rd Street. LBT Routes 51 and 52 serve Pacific Avenue, Long Beach Boulevard, and 3rd Street. LBT Route 151 serves Pacific Avenue, 3rd Street, Broadway, and Ocean Boulevard. Routes 21, 22 and 61 serve Pacific Avenue and Ocean Boulevard. LBT Route 1 serves Pacific Avenue, Long Beach Boulevard and 6th Street. LBT Route 232 serves Broadway and Long Beach Boulevard. LBT Routes 111 and 112 serve Broadway. LBT Routes 71 and 72 serve Ocean Boulevard. LBT Route 3 serves Long Beach Boulevard and Pacific Avenue. LBT Route 182 serves Pacific Avenue. LBT Routes 46 and 60 serve Long Beach Boulevard. ***Figures 3-4, 3-5*** and ***3-6*** graphically illustrates the transit routes of Long Beach Transit, Torrance Transit, and LADOT within the vicinity of the Project site. ***Figure 3-7*** identifies the location of the existing bus stops in proximity to the Project site.

3.4 Existing Bicycle Master Plan

The City of Long Beach promotes bicycling as a means of mobility and a way in which to improve the quality of life within its community. The Bicycle Master Plan recognizes the needs of bicycle users and aims to create a complete and safe bicycle network throughout the City. The City of Long Beach Bicycle Facilities in the vicinity of the Project site (existing and proposed) is shown on ***Figure 3-8***.

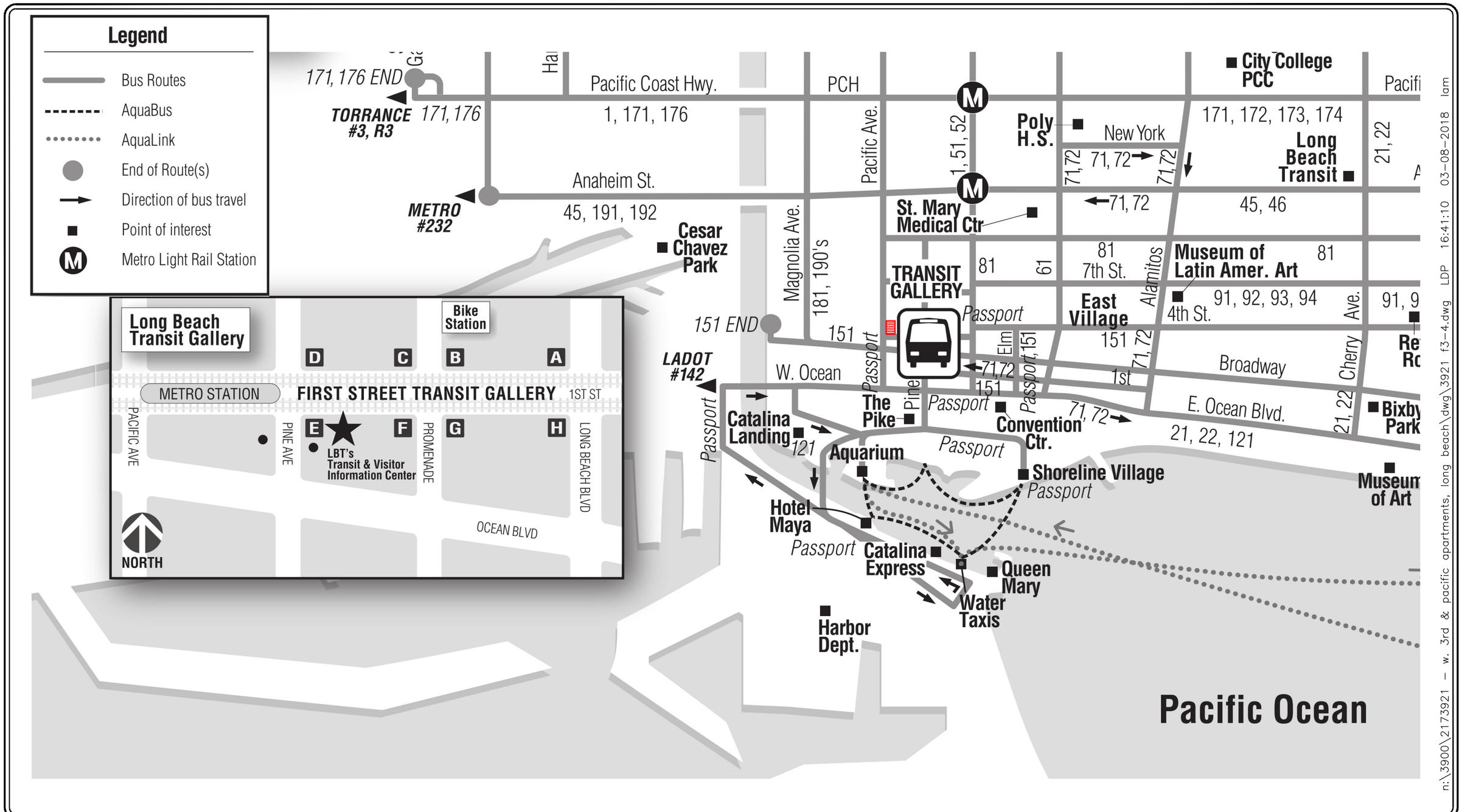
Review of *Figure 3-8* indicates that within the vicinity of the Project, 3rd Street and Broadway have existing protected bike lanes and Pacific Avenue has an existing Class III bikeway. 6th Street and 7th Street have existing Class II bike lanes between I-710 ramps and Chestnut Avenue. Under future traffic conditions, Pacific Avenue is proposed to be converted to a Class II bikeway, Long Beach Boulevard, Pine Avenue and Ocean Boulevard are proposed to have Class III bikeways, 5th Street and 4th Street are proposed to have Bike Boulevards, and 6th Street and 7th Street are proposed to have Class II bike lanes.

3.5 Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) methodology for signalized intersections and the *Highway Capacity Manual* (HCM) methodology for unsignalized intersections. These analyses are consistent with the methodologies included in the *Downtown Plan PEIR.*

3.5.1 *Intersection Capacity Utilization (ICU) Method of Analysis*

In conformance with City of Long Beach and LA County CMP requirements, existing weekday peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future



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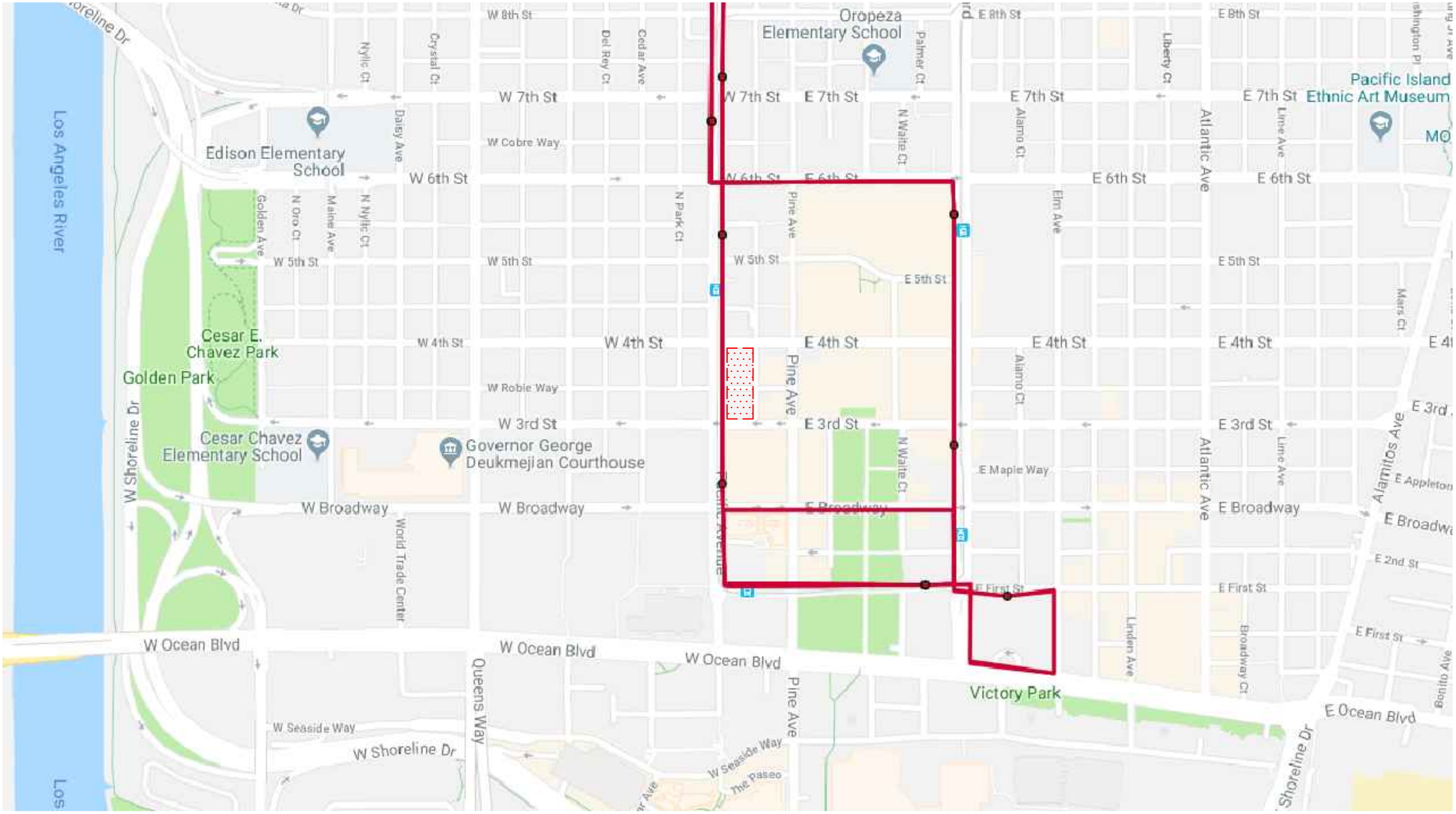
KEY
= PROJECT SITE

FIGURE 3–4

LONG BEACH TRANSIT MAP
W. 3RD & PACIFIC APARTMENTS, LONG BEACH



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SOURCE: TORRANCE TRANSIT

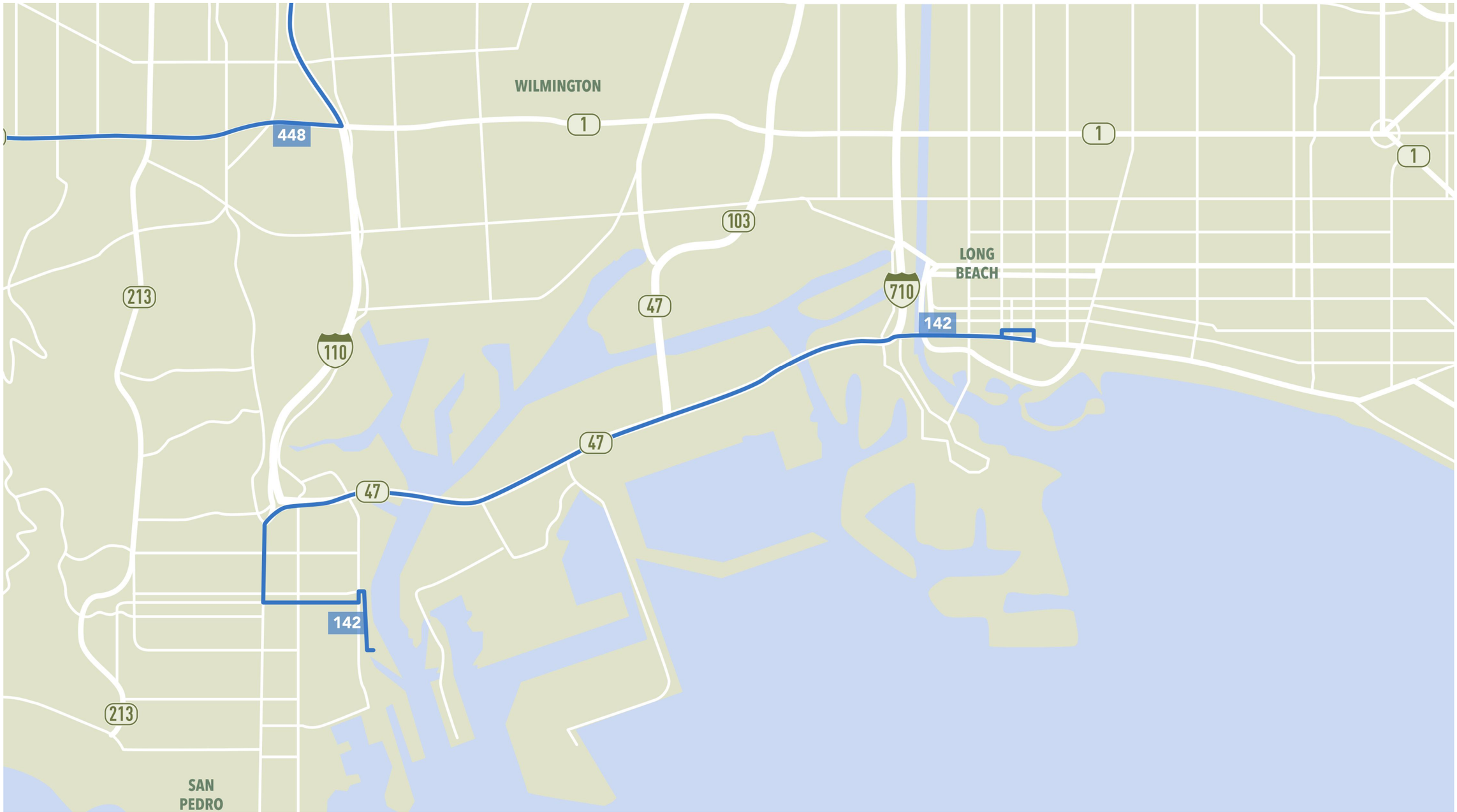
KEY

= TORRANCE TRANSIT LINE R3

FIGURE 3–5

TORRANCE TRANSIT MAP

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



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SOURCE: LADOT

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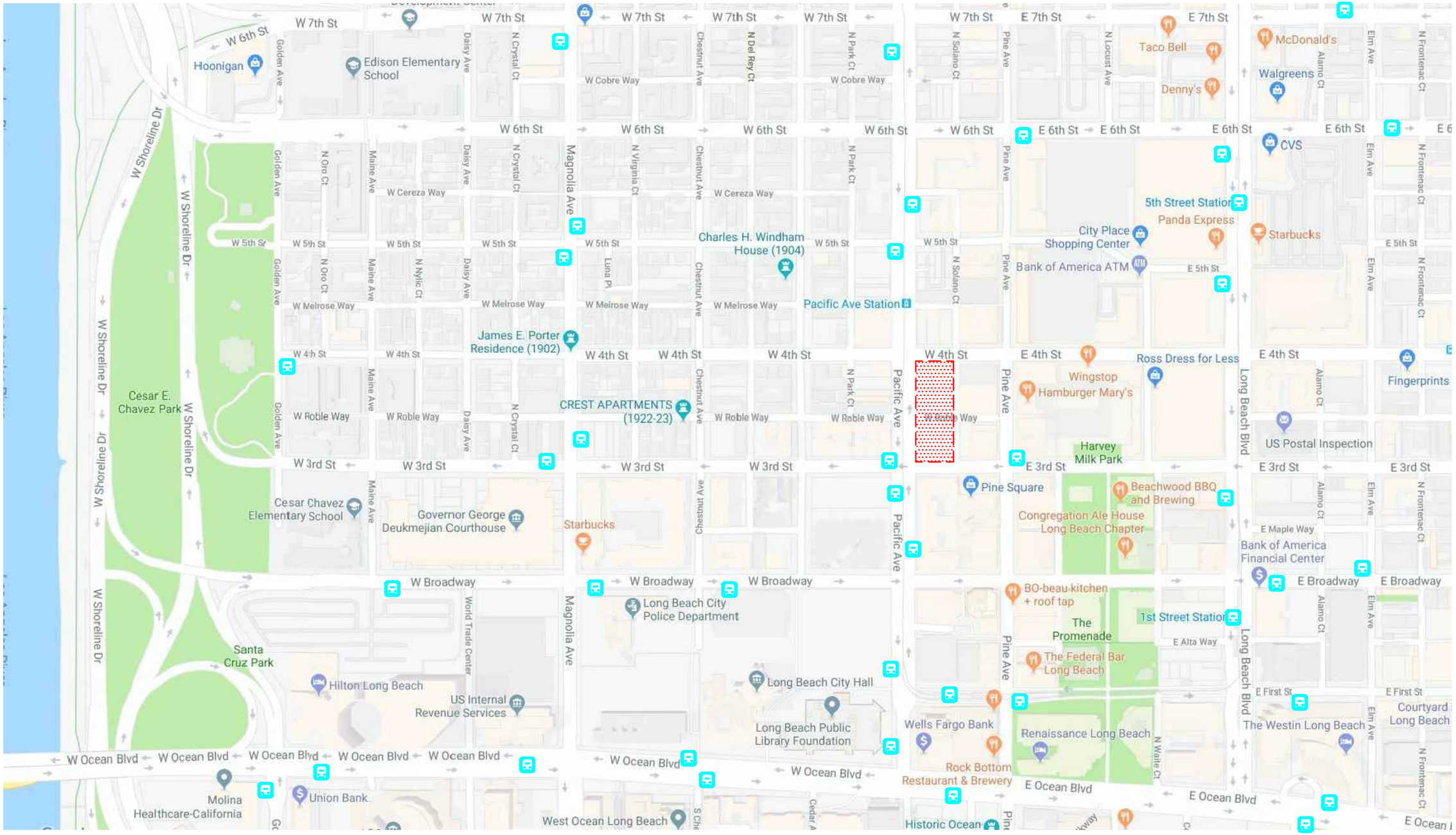
FIGURE 3-6

LADOT TRANSIT MAP

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



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SOURCE: GOOGLE

KEY

(#) = STUDY INTERSECTION

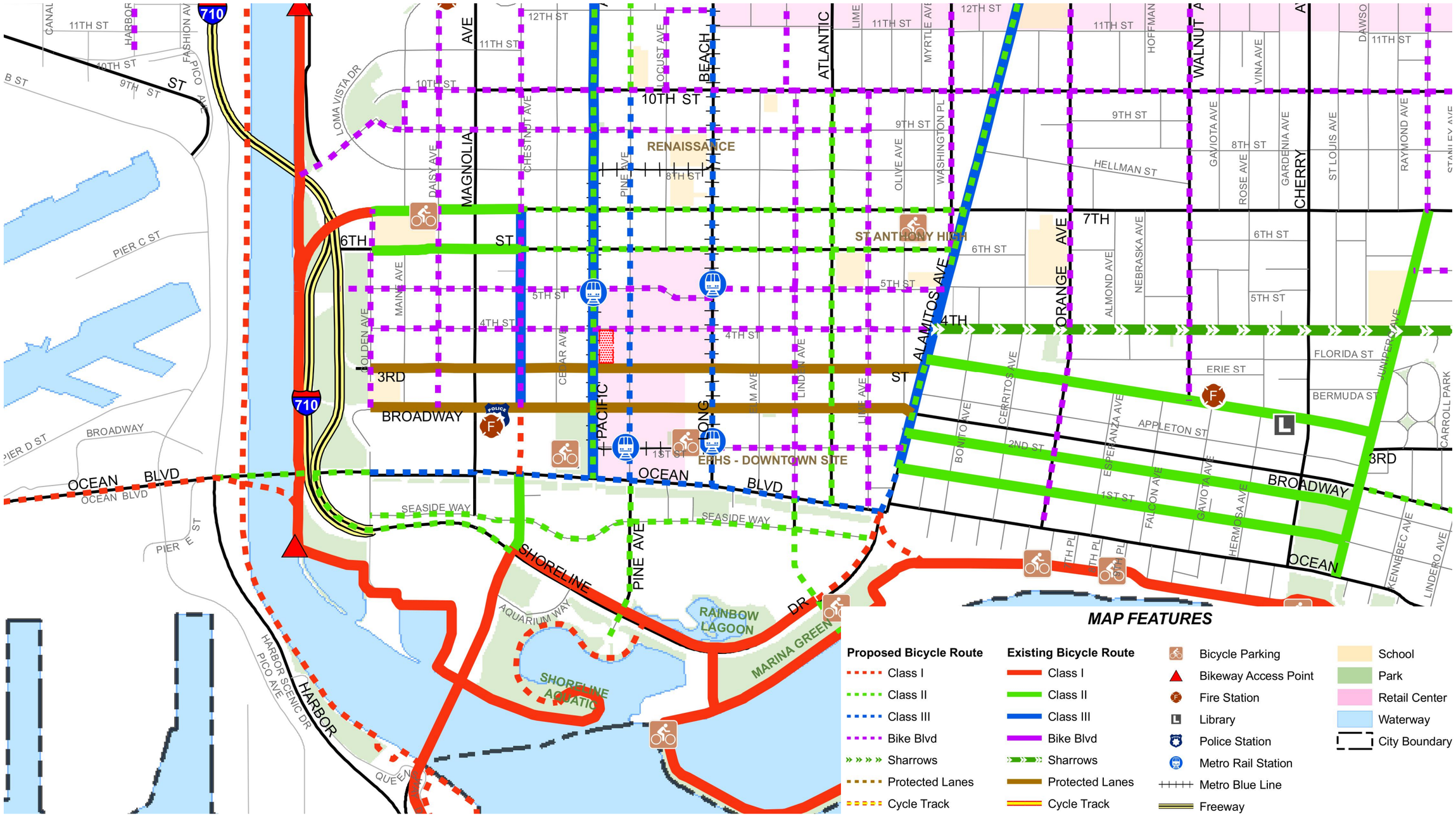
= TRANSIT STOP

= PROJECT SITE

FIGURE 3-7

TRANSIT STOP LOCATIONS

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



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KEY
= PROJECT SITE

FIGURE 3–8

LONG BEACH BIKEWAY FACILITIES
W. 3RD & PACIFIC APARTMENTS, LONG BEACH

traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per LA County CMP requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. A clearance interval is also added to each Level of Service calculation. Per City of Long Beach requirements, a clearance interval of 0.10 is also added to each Level of Service calculation.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in ***Table 3-1***. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.

3.5.1 *Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)*

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3-2***.

3.5.2 *Level of Service Criteria*

According to the City of Long Beach, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E of F).

3.6 Existing Level of Service Results

Table 3-3 summarizes the existing peak hour service level calculations for the fourteen (14) key study intersections based on existing traffic volumes and current street geometrics. Review of *Table 3-3* indicates that all fourteen (14) key study intersections currently operate at LOS D or better during the weekday AM and PM peak hours.

Appendix C contains the detailed peak hour level of service worksheets for the key intersections evaluated in this report.

TABLE 3-1
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (ICU) [1]

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

[1] Source: *Transportation Research Board Circular 212 - Interim Materials on Highway Capacity.*

TABLE 3-2

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM)[2]

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

[2] Source: *Highway Capacity Manual 6th Edition*, Chapter 20 (Two-Way Stop Control).

TABLE 3-3
EXISTING (YEAR 2018) PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersection		Time Period	Control Type	ICU/HCM	LOS
1.	Magnolia Avenue at 3rd Street	AM	3∅ Traffic Signal	0.722	C
		PM		0.536	A
2.	Magnolia Avenue at Broadway	AM	2∅ Traffic Signal	0.475	A
		PM		0.658	B
3.	Pacific Avenue at 7th Street	AM	3∅ Traffic Signal	0.513	A
		PM		0.414	A
4.	Pacific Avenue at 6th Street	AM	3∅ Traffic Signal	0.368	A
		PM		0.681	B
5.	Pacific Avenue at 4th Street	AM	3∅ Traffic Signal	0.265	A
		PM		0.379	A
6.	Pacific Avenue at 3rd Street	AM	3∅ Traffic Signal	0.528	A
		PM		0.404	A
7.	Pacific Avenue at Broadway	AM	3∅ Traffic Signal	0.382	A
		PM		0.605	B
8.	Pacific Avenue at Ocean Boulevard	AM	6∅ Traffic Signal	0.604	B
		PM		0.552	A
9.	Solano Court at 4th Street[3]	AM	One-Way Stop	9.4 s/v	A
		PM		9.5 s/v	A
10.	Solano Court at 3rd Street[3]	AM	Two-Way Stop	32.1 s/v	D
		PM		14.4 s/v	B
11.	Pine Avenue at 4th Street	AM	3∅ Traffic Signal	0.264	A
		PM		0.409	A
12.	Pine Avenue at 3rd Street	AM	2∅ Traffic Signal	0.508	A
		PM		0.363	A
13.	Long Beach Boulevard at 4th Street	AM	5∅ Traffic Signal	0.390	A
		PM		0.480	A
14.	Long Beach Boulevard at 3rd Street	AM	3∅ Traffic Signal	0.554	A
		PM		0.382	A

Notes:

- ICU = Intersection Capacity Utilization
- LOS = Level of Service, please refer to *Table 3-1* and *3-2* for the LOS definitions
- ∅ = Phase
- s/v = seconds per vehicle (delay)

[3] Unsignalized intersection.

4.0 TRAFFIC FORECASTING METHODOLOGY

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

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

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

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2017].

Table 5-1 presents the trip generation forecast for the proposed Project based on the methodologies used in prior traffic studies that were approved in downtown Long Beach. *Table 5-1* summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and also presents the Project's forecast peak hour and daily traffic volumes.

As shown in the upper portion of *Table 5-1*, ITE Land Use 221: Multifamily Housing (Mid-Rise), ITE Land Use 222: Multifamily Housing (High-Rise), and ITE Land Use 820: Shopping Center trip rates was used to forecast the trip generation potential of the proposed Project.

A review of the lower portion of this table indicates that the proposed Project is forecast to generate approximately 2,574 "net" daily trips, with 256 "net" trips (119 inbound, 137 outbound) produced in the AM peak hour and 206 "net" trips (115 inbound, 91 outbound) produced in the PM peak hour on a "typical" weekday.

Please note that a 5% non-auto trip reduction was applied to the trip generation to account for other modes of transportation within a downtown area (i.e. public transit, walking, biking, etc.). This reduction is considered conservative since the 2010 Downtown Plan trip generation estimates include reductions for pass-by, transit trips (26%), and bike/walk/mixed-use (10%) which results in higher reductions. In addition, this 5% reduction is consistent with those used in approved traffic studies for projects in Downtown Long Beach, inclusive of the *Shoreline Gateway EIR Traffic Impact Study*, prepared by Meyer, Mohaddes Associates, dated June 2006.

TABLE 5-1
PROJECT TRIP GENERATION FORECAST[4]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 221: Multifamily Housing (Mid-Rise[5]) (TE/DU)	5.44	26%	74%	0.36	61%	39%	0.44
▪ 222: Multifamily Housing (High-Rise[6]) (TE/DU)	4.45	24%	76%	0.31	61%	39%	0.36
▪ 820: Shopping Center (TE/1000 SF)	[a]	62%	38%	[a]	48%	52%	[a]
Generation Forecasts:							
▪ 221: Apartments (142 DU)	772	13	38	51	38	24	62
Internal Capture[7]	*-134*	*0*	*0*	*0*	*-8*	*-3*	*-11*
Subtotal	638	13	38	51	30	21	51
▪ 222: Apartments (203 DU)	903	15	48	63	45	28	73
Internal Capture[7]	*-157*	*-1*	*-1*	*-2*	*-10*	*-3*	*-13*
Subtotal	746	14	47	61	35	25	60
▪ 820: Retail/Restaurant (14,481 SF)	1,616	99	60	159	62	68	130
Internal Capture[7]	*-291*	*-1*	*-1*	*-2*	*-6*	*-18*	*-24*
Subtotal	1,325	98	59	157	56	50	106
Project Trip Generation Subtotal	**2,709**	**125**	**144**	**269**	**121**	**96**	**217**
Non-Auto Trip Adjustment (5%)	**-135**	**-6**	**-7**	**-13**	**-6**	**-5**	**-11**
Net Trip Generation Potential	**2,574**	**119**	**137**	**256**	**115**	**91**	**206**

Notes:
TE/DU = Trip end per dwelling unit
TE/1000 SF = Trip end per 1,000 SF
[a] = Shopping Center equations were used:
Daily: $Ln(T) = 0.68Ln(X) + 5.57$
AM Peak Hour: $T = 0.50(X) + 151.78$
PM Peak Hour: $Ln(T) = 0.74Ln(X) + 2.89$

4 Source: *Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).*

5 Mid-Rise Multifamily Housing consists of buildings that range between 3 and 10 levels.

6 High-Rise Multifamily Housing consists of buildings that have more than 10 levels.

7 Consistent with the *Trip Generation Handbook*, published by ITE (2014). Project trip generation was adjusted to account for internal capture between the apartment buildings and the retail components of the Project.

5.2 Project Traffic Distribution and Assignment

Figure 5-1 illustrates the general, directional traffic distribution pattern for the proposed Project. Project traffic volumes both entering and exiting the Project site have been distributed and assigned to the adjacent street system based on the following considerations:

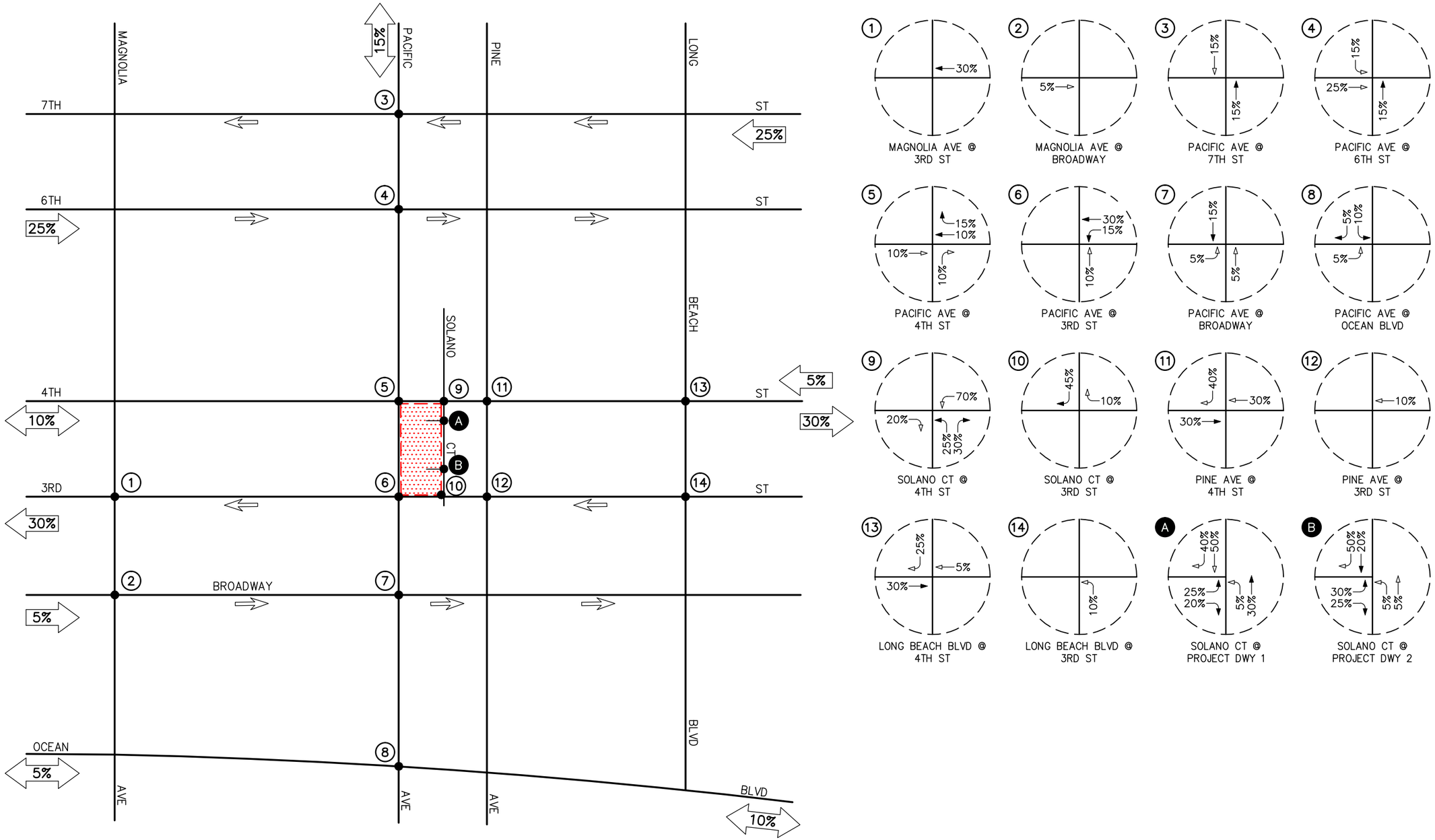
- the site's proximity to major traffic carriers and regional access routes;
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns;
- presence of traffic congestion in the surrounding vicinity; and
- ingress/egress availability at the Project site, plus parking layout and allocation within the subject property

The anticipated AM and PM peak hour traffic volumes associated with the proposed Project are presented in ***Figures 5-2*** and ***5-3***, respectively. The traffic volume assignments presented in *Figures 5-2* and *5-3* reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in *Table 5-1.*

5.3 Existing Plus Project Traffic Conditions

The existing plus Project traffic conditions have been generated based upon existing conditions and the estimated Project traffic. These forecast traffic conditions have been prepared pursuant to the California Environmental Quality Act (CEQA), which require that the potential impacts of a Project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

Figures 5-4 and ***5-5*** present projected AM and PM peak hour traffic volumes at the fourteen (14) key study intersections with the addition of the trips generated by the proposed Project to existing traffic volumes, respectively.



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NO SCALE

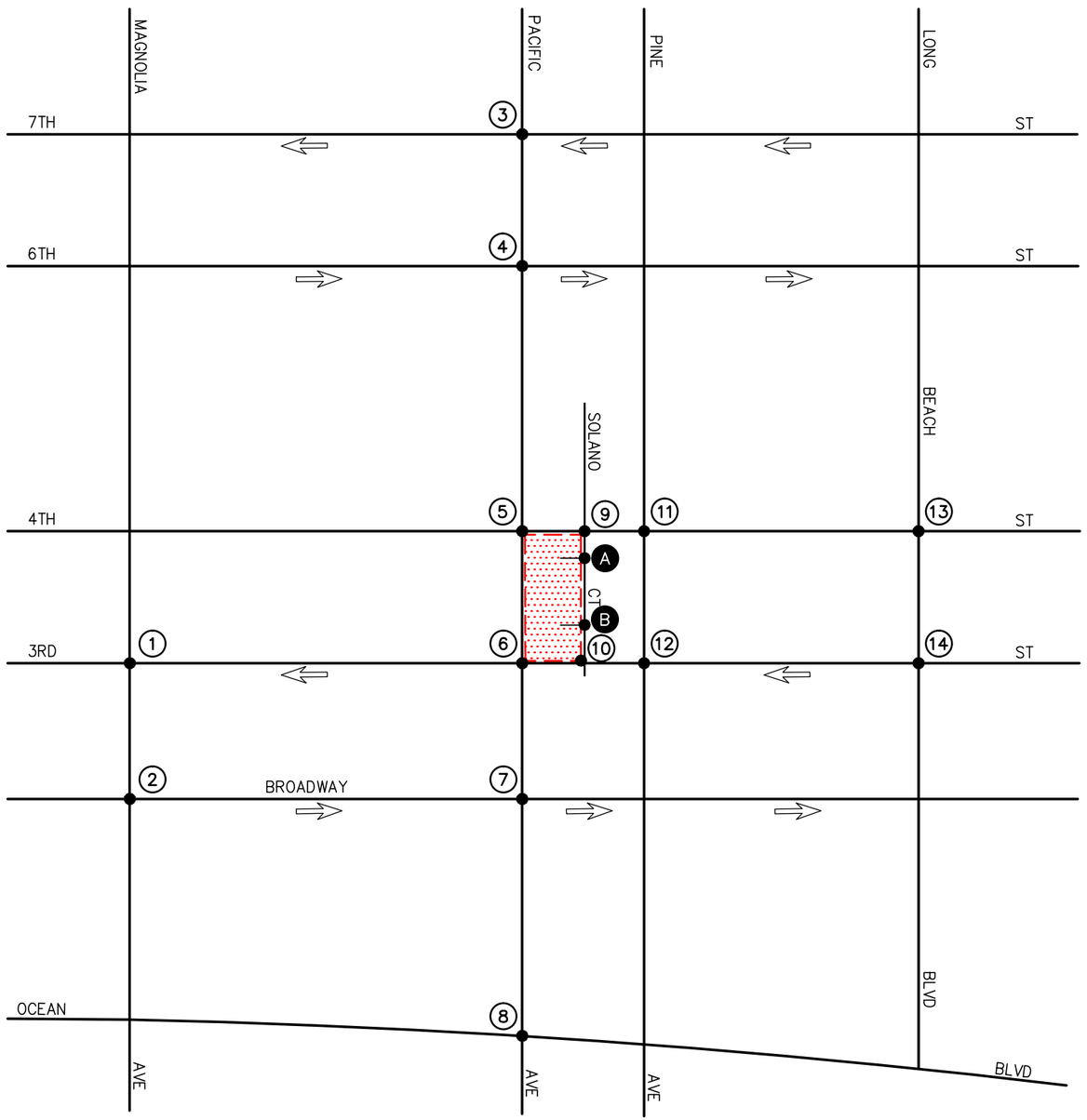
KEY

(#) = STUDY INTERSECTION
= INBOUND PERCENTAGE
= OUTBOUND PERCENTAGE
= PROJECT SITE

FIGURE 5–1

PROJECT TRAFFIC DISTRIBUTION PATTERN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



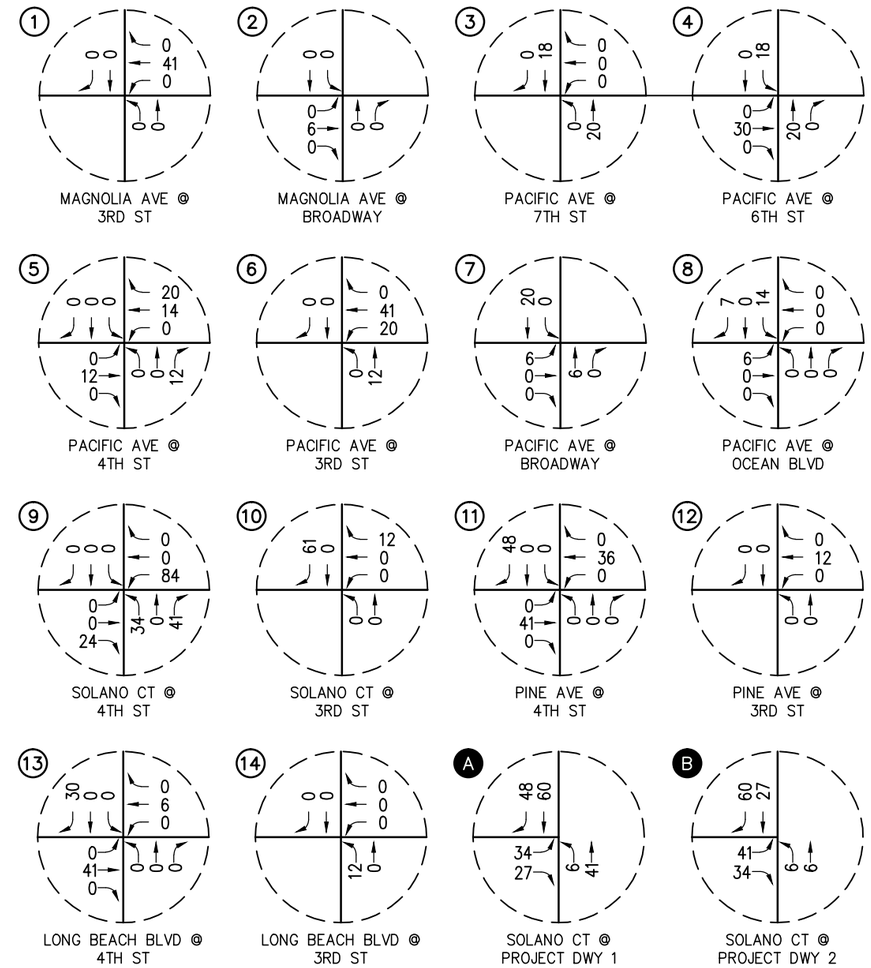


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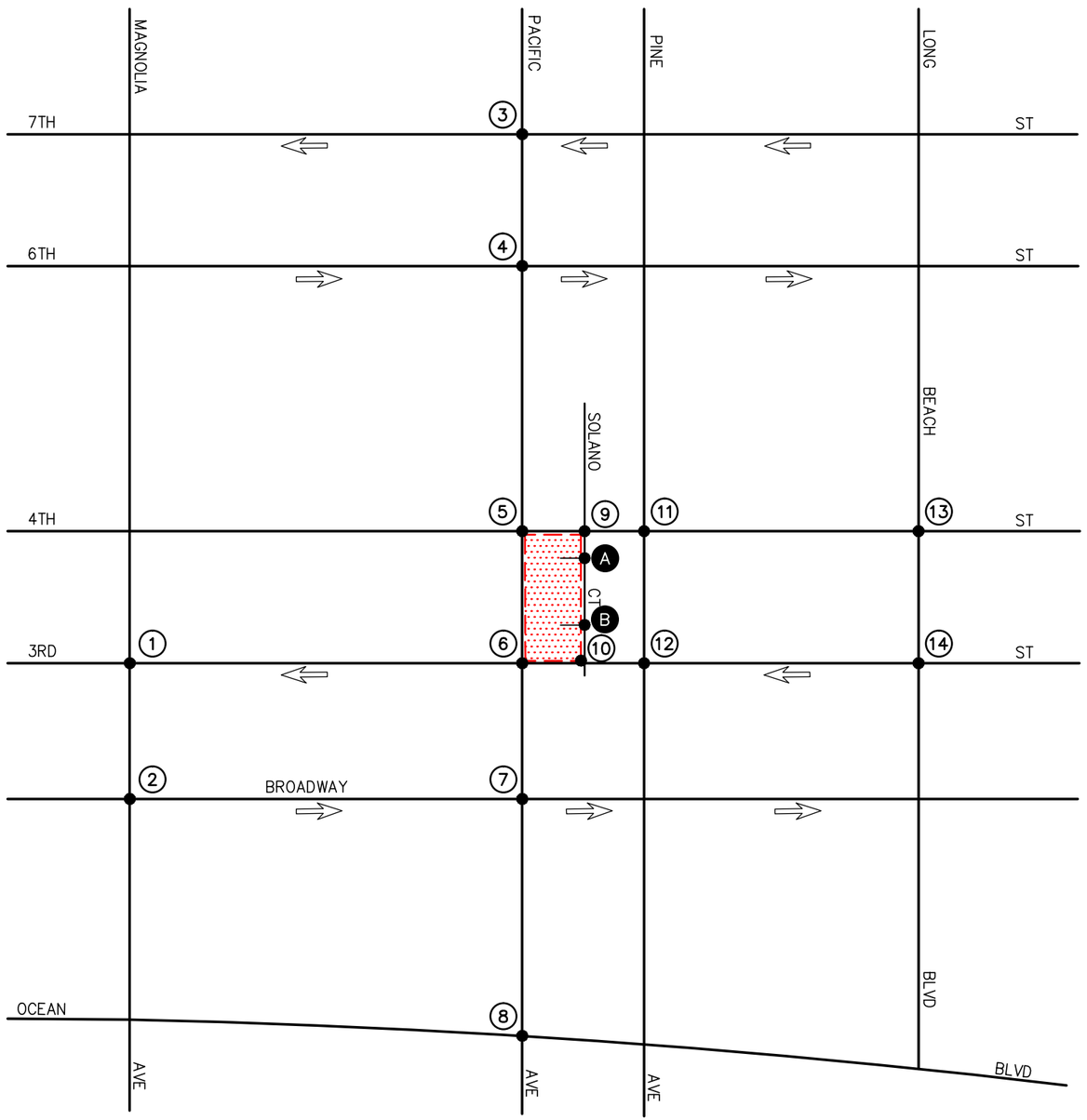
FIGURE 5-2

AM PEAK HOUR PROJECT TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



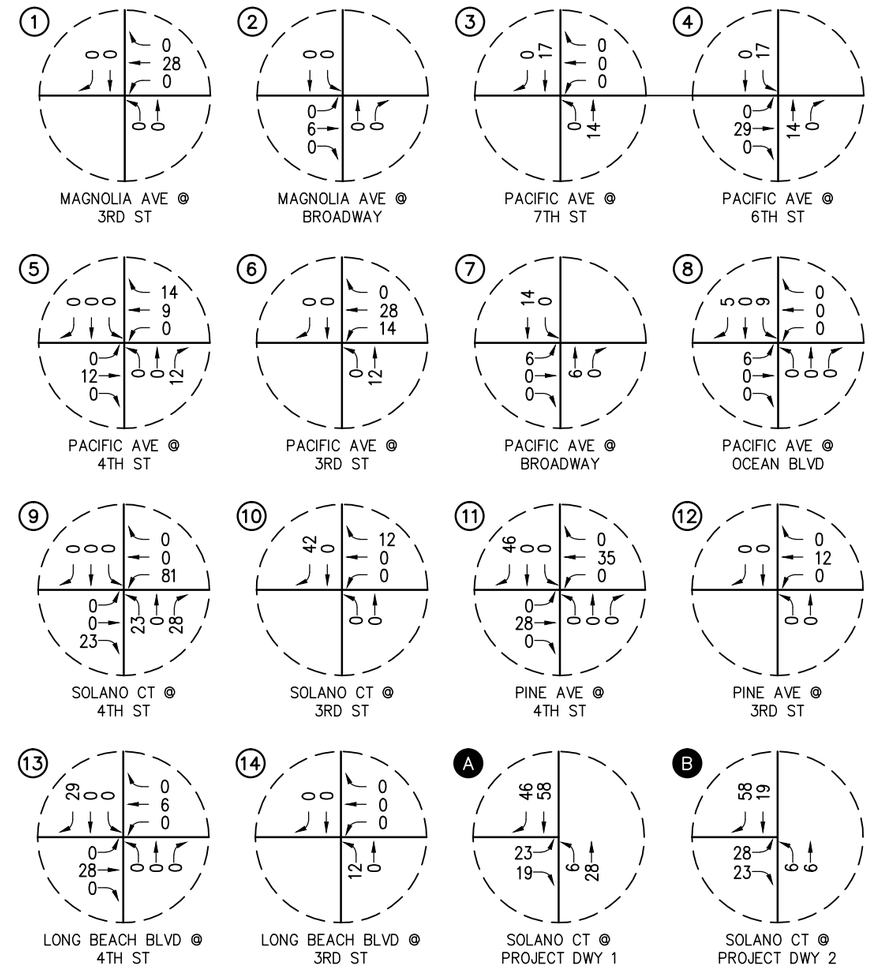


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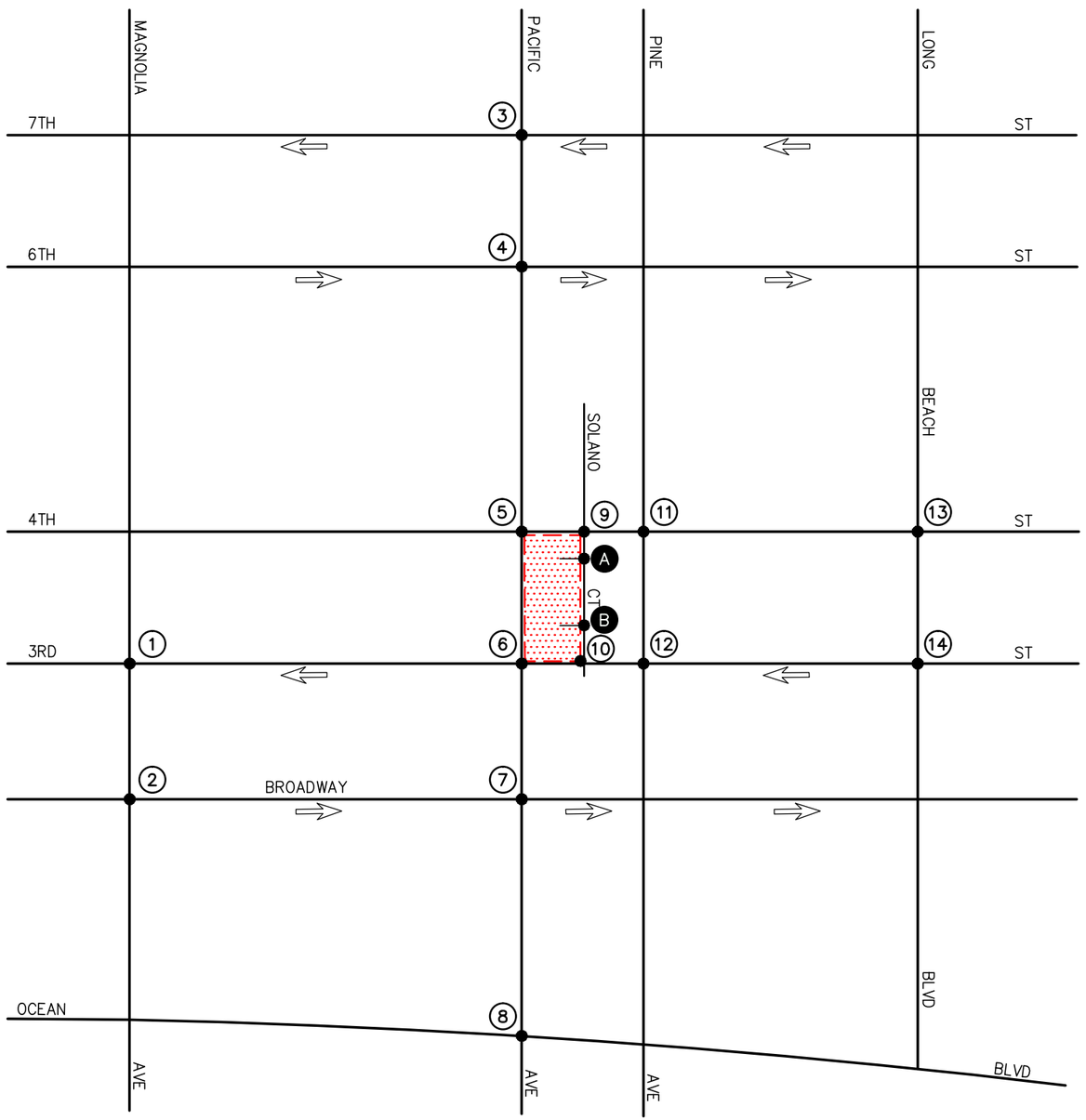
FIGURE 5-3

PM PEAK HOUR PROJECT TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



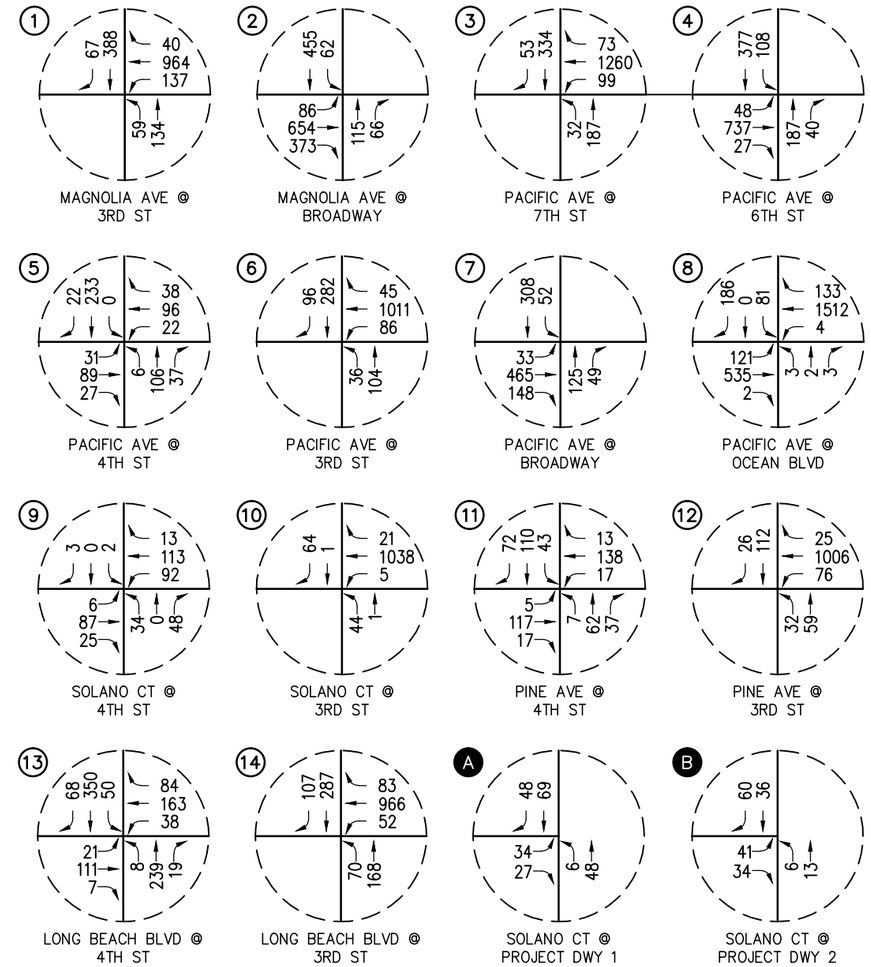


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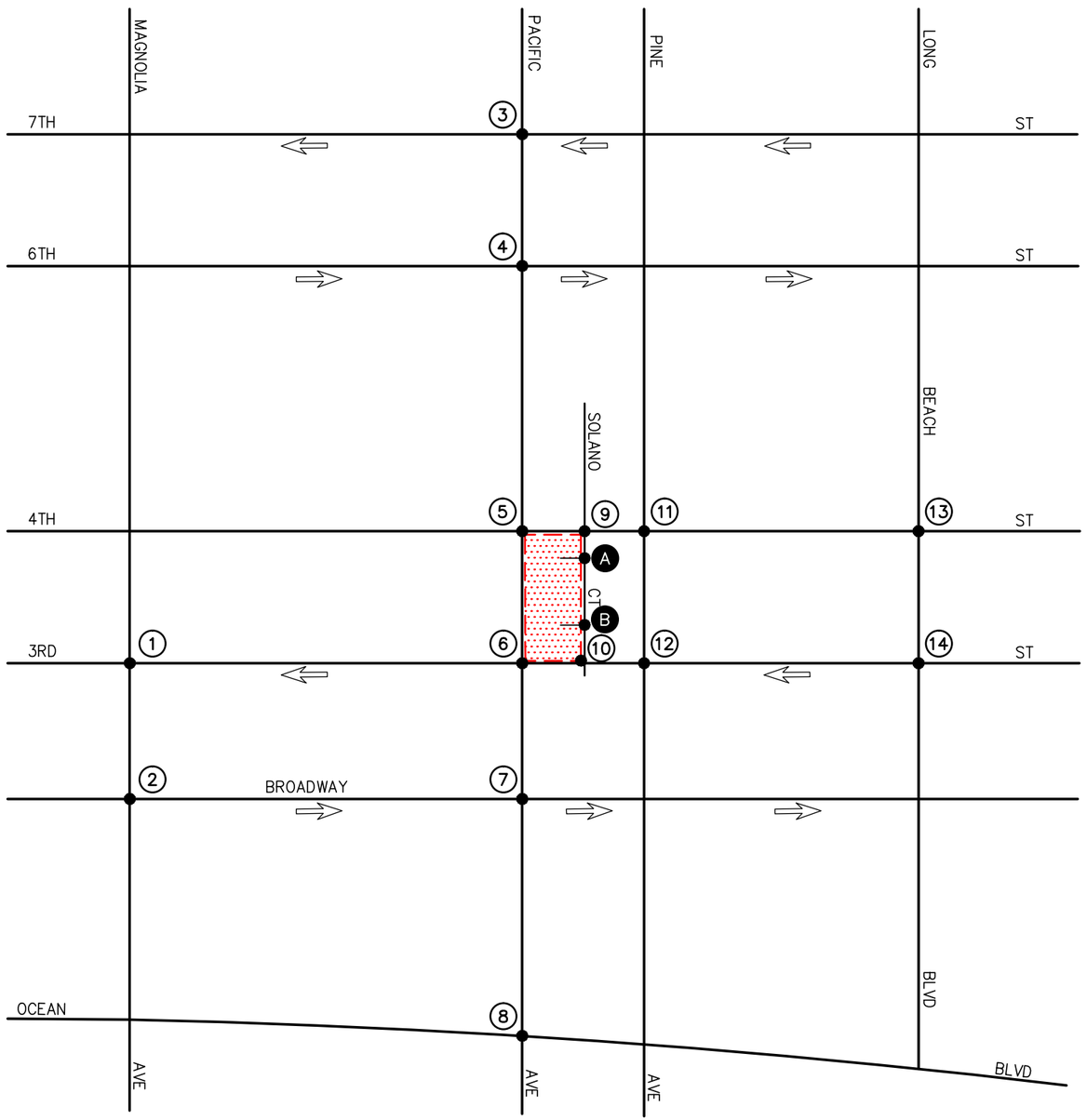
FIGURE 5–4

EXISTING PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



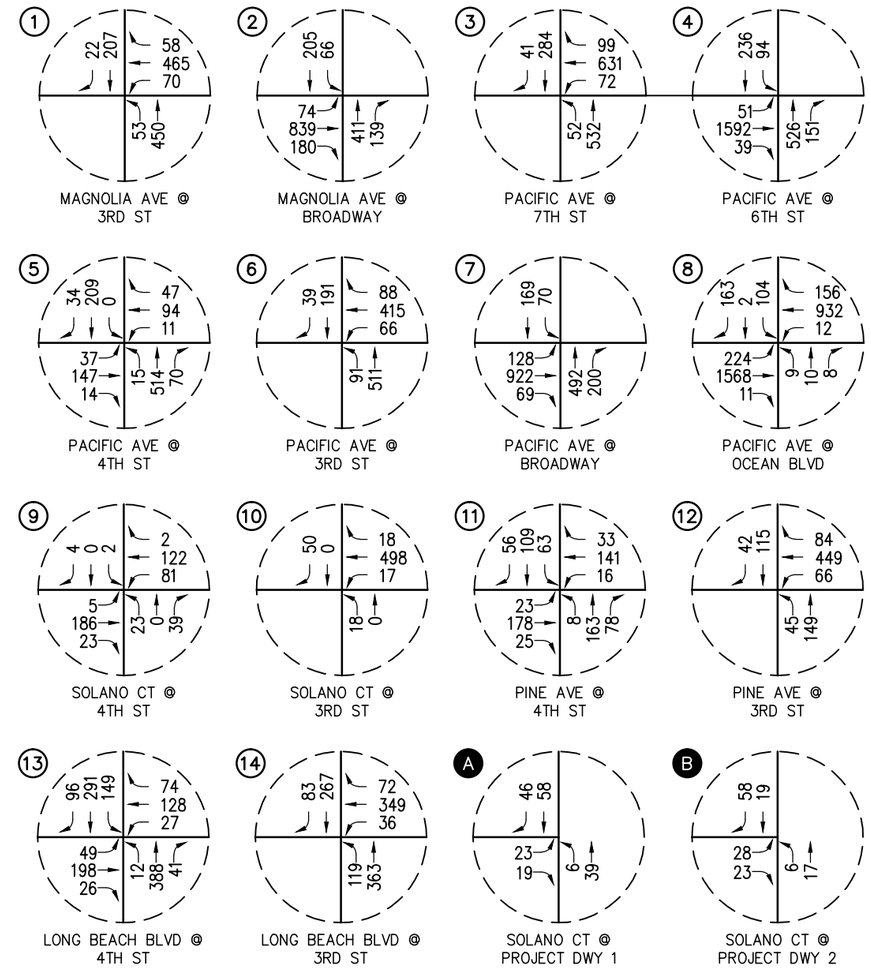


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FIGURE 5–5

EXISTING PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Ambient Traffic Growth

Cumulative traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at one percent (1%) per year. Applied to existing Year 2018 traffic volumes results in a three percent (3%) increase of growth in existing volumes to horizon year 2021.

Please note that the recommended ambient growth factor is generally consistent with the background traffic growth estimates contained in the most current *Congestion Management Program for Los Angeles County*. It should be further noted that the 1.0% per year ambient growth factor was approved by City of Long Beach staff.

6.2 Cumulative Projects Traffic Characteristics

The City of Long Beach identified seventy-four (74) cumulative projects within the Project study area. Cumulative projects, as defined by Section 15355 of the CEQA Guidelines, are "closely related past, present and reasonably foreseeable probable future projects". The Traffic Impact Analysis assumes that all of these cumulative projects will be developed at their proposed size and density and operational when the proposed Project is operational. This is the most conservative, worst-case approach, since the exact timing of each cumulative project is uncertain. In addition, impacts for these cumulative projects would likely be, or have been, subject to mitigation measures and/or reduced in size, which could reduce potential impacts. Under this analysis, however, those mitigation measures and/or reduction are not considered. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. These seventy-four (74) cumulative projects have been included as part of the cumulative background setting.

6.2.1 *Cumulative Projects Traffic Distribution and Assignment*

Cumulative project traffic volumes within the project study area have been distributed and assigned to the adjacent street system based on the following considerations:

- the site's proximity to major traffic carriers and regional access routes;
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns;
- presence of traffic congestion in the surrounding vicinity; and
- prior traffic studies if applicable.

6.2.2 *Cumulative Projects Traffic Volumes*

Table 6-1 provides the location and a brief description for each of the seventy-four (74) cumulative projects. ***Figure 6-1*** graphically illustrates the location of the cumulative projects. These cumulative

projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

Table 6-2 presents the development totals and resultant trip generation for the seventy-four (74) cumulative projects. As shown in *Table 6-2*, the seventy-four (74) cumulative projects are expected to generate a combined total of 136,631 daily trips, 10,392 AM peak hour trips (4,688 inbound and 5,704 outbound) and 12,982 PM peak hour trips (7,387 inbound and 5,595 outbound) on a typical weekday. The AM and PM peak hour traffic volumes associated with the seventy-four (74) cumulative projects are presented in ***Figures 6-2*** and ***6-3*** respectively.

Please note that of the seventy-four (74) cumulative projects, twenty-two (22) of those projects do not contribute to traffic within the study area. However, these projects have been included in this study in order to provide a comprehensive list of cumulative projects within the project vicinity as provided by the City's Planning Department. The projects include the following:

4. Drake Park Soccer Field
22. 622-628 E. Anaheim Street
36. 1570 Long Beach Boulevard
38. 1501 Santa Fe Avenue
42. 1836-1852 Long Beach Boulevard
43. Long Beach Cannabis
51. 100 Aquarium Way
52. 1078, 1080-1090 Atlantic Avenue
54. 1468 14th Street
55. 2136-2144 W. 16th Street
56. 245 W. Pacific Coast Highway
60. 1901 W. Pacific Coast Highway
61. 1675 Santa Fe Avenue
62. 2111 W. 14th Street
65. 1601 San Francisco Avenue
67. 469 Pacific Coast Highway
68. 700 W. 17th Street
69. 201 W. Pacific Coast Highway
71. 602 E. Anaheim Street
72. 1500 E. Anaheim Street/1205-1209 Walnut Avenue
73. 1320 Atlantic Avenue & 739 E. Anaheim Street
74. 231 Windsor Way

TABLE 6-1
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[22]

No.	Cumulative Project	Location/Address	Description
City of Long Beach			
1.	Alamitos Concession Rebuild Project	Located at the western end of Alamitos Beach, adjacent to the waterfront area near the City's downtown	Demolish the existing 2,234 SF concession building and constructing a 4,315 SF concession building with 430 SF recreational equipment rental
2.	Shoreline Gateway East Tower	777 East Ocean Boulevard	315 DU apartments and 6,711 SF retail
3.	New Long Beach Civic Center	Located north of Ocean Boulevard and south of Broadway, in between Magnolia Avenue and Pacific Avenue in downtown Long Beach	3rd & Pacific – 163 condominiums; Civic Center – 270,000 SF City Hall and 240,000 SF Port Administration; Lincoln Park – 92,000 SF Library and 3.17 Acres City Park; Center Block – 580 apartment homes, 200-room hotel, 32,000 SF of retail and 8,000 SF of restaurant uses. Existing 138,000 SF Main Library, 283,000 SF City Hall and 2.60 acre City Park to be replaced.
4.	Drake Park Soccer Field	Bound by Loma Vista Drive and single-family residential uses to the southeast and east, a ceramic factory and industrial uses to the south, De Forest Avenue and the Los Angeles River to the west, and existing industrial and commercial uses to the north	8.75 acre new park facility which includes one soccer field, open space/passive park areas, pedestrian walking trails, restroom facilities, and parking.
5.	Ocean Boulevard Project	1628-1724 Ocean Boulevard	51 DU condominiums
6.	LBCIC Owned Properties	South of 14th Street, between Pacific Avenue and Pine Avenue	11 DU residential
7.	Adaptive Reuse Residential Project	936 Pine Avenue	4 DU apartments
8.	5th & Pacific Apartments	507 N. Pacific Avenue	159 DU apartments, 9,200 SF retail
9.	Adaptive Reuse Residential Beeks Building	944 Pacific Avenue	9 DU apartments
10.	1112 Locust Avenue	1112 Locust Avenue	7-story residential development with 97 DU
11.	425 E. 5th Street	425 E. 5th Street	5-story residential development with 16 DU

Notes:
- SF = Square-feet
- DU = Dwelling units

[22] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[23]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
12.	1101 Long Beach Boulevard	1101 Long Beach Boulevard	8-story mixed-use development with 119 DU and 6,000 SF commercial space
13.	635 Pine Avenue/ 636 Pacific Avenue	635 Pine Avenue/ 636 Pacific Avenue	Two 8-story residential buildings totaling 271 DU and 1,400 SF retail
14.	Silversands	2010 East Ocean Boulevard	72 room hotel and 33 DU condominiums
15.	Broadway Block	Northwest corner of Broadway and Long Beach Boulevard	7-story residential development with 392 DU and 32,000 SF commercial
16.	320 Alamitos Avenue	320 Alamitos Avenue	77 DU residential units
17.	Residences at Linden Mixed-Use Project	135 Linden Avenue	82 DU, seven-story, apartment building with 4,091 SF retail at street level
18.	E. Broadway & Promenade North Apartments	127-135 E. Broadway	189 DU apartments and 10,000 SF ground floor retail/restaurant
19.	125 Broadway	125 Broadway	7-story residential development with 208 DU
20.	1955 and 1965 Long Beach Boulevard	1955 and 1965 Long Beach Boulevard	28,370 SF medical office building
21.	101 Pacific Coast Highway	101 Pacific Coast Highway	26 DU residential units over 5,000 SF commercial space
22.	622-628 E. Anaheim Street	622-628 East Anaheim Street	Modification to an existing commercial building to create three separate tenant units on the ground floor, with two of the units dedicated to restaurant use, and changing the second floor from a hotel to a bar/smoking lounge
23.	207 East Seaside Way Apartments	207 East Seaside Way	117 apartments
24.	Ocean Center Building Reuse	110 West Ocean Boulevard	74 apartments, 7,200 SF restaurant and 5,400 SF retail
25.	Oceanaire Residential Project	150 West Ocean Boulevard	216 apartments
26.	442 West Ocean Boulevard Apartments	442 West Ocean Boulevard	94 DU apartments
27.	200 W. Ocean Boulevard Apartments	200 W. Ocean Boulevard	106 DU apartments

Notes:
- SF = Square-feet
- DU = Dwelling units

[23] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[24]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
28.	City Ventures Development	227 Elm Avenue	40 DU townhomes
29.	Shoreline Gateway West Tower (The Current)	707 E. Ocean Boulevard, north of Ocean Boulevard, east of Broadway Court and west of Alamitos Avenue	223 apartment homes and 9,182 SF of retail/restaurant, consisting of 2,636 SF of retail space and 6,546 SF of café/restaurant uses.[25]
30.	Golden Shore Master Plan	East side and west side of Golden Shore, south of Ocean Boulevard and north of Shoreline Drive	1,110 DU high-rise residential condominiums, 340,000 SF office, 27,000 SF retail, 27,000 SF banquet area, and 400 room hotel
31.	Parc Building (State Building)	245 W. Broadway	219 DU apartments with 6,000 SF retail
32.	Security Pacific National Bank Building	110 Pine Avenue	189 DU condominiums
33.	810 Pine Avenue Residential	810 Pine Avenue	78 DU assisted living
34.	434 E. 4th Street Apartments	434 E. 4th Street	49 DU apartments with 1,580 SF retail
35.	230 W. 3rd Street Apartments	230 W. 3rd Street	163 DU apartments
36.	1570 Long Beach Boulevard	1570 Long Beach Boulevard	36 DU condominiums and 10,000 SF retail space
37.	The Place at City Place	495 The Promenade North	4-story building with 20 DU apartment s and 5,200 SF ground floor retail
38.	1501 Santa Fe Avenue	1501 Santa Fe Avenue	5,850 SF medical marijuana cultivation and dispensary
39.	The Beacon	1235 Long Beach Boulevard	160 DU senior housing
40.	101 Alamitos Avenue	101 Alamitos Avenue	136 DU condominiums and 2,570 SF retail
41.	Boutique Hotel	107 Long Beach Boulevard	5-story 34-room hotel
42.	1836-1852 Long Beach Boulevard	1836-1852 Long Beach Boulevard	60 DU low-income housing

Notes:
- SF = Square-feet
- DU = Dwelling units

[24] Source: City of Long Beach Planning Department.

[25] To provide a conservative assessment the approved retail mix (i.e. 9,182 SF of retail/restaurant space was used in place of what was built (i.e. 6,502 SF of retail/restaurant space), which results in 6 more AM peak hour trips and 24 more PM peak hour trips.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[26]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
43.	Long Beach Cannabis	NEC of the intersection of Harbor Avenue and Pacific Coast Highway	Demolition of the existing building and the construction of a 29,430 SF two-story agricultural building for the purpose of manufacturing, storing and selling cannabis. The two-story agricultural building would include 1,531 SF of dispensary space, 6,371 SF of storage/warehouse space and 21,528 SF of cultivation/manufacturing space
44.	500 W. Broadway Apartments	500 W. Broadway	142 DU apartments and 5,162 SF retail
45.	1795 Long Beach Boulevard Mixed-Use	1795 Long Beach Boulevard	101 DU apartments with 4,051 SF ground floor retail
46.	N. Long Beach Boulevard & E. Broadway Apartments Project	125 N. Long Beach Boulevard to 234 E. Broadway	218 DU apartments and 8,000 SF ground floor retail/restaurant
47.	100 E. Ocean Boulevard Hotel	100 E. Ocean Boulevard	429 room hotel and 23,512 SF restaurant
48.	825 E. 7th Street	825 E. 7th Street	19 DU low-rise apartments
49.	123 W. 1st Street	123 W. 1st Street	280 room hotel
50.	Alexan Long Beach Apartments	South of Broadway, east of Golden Avenue and west of World Trade Center Drive	417 DU mid-rise apartments, 339 DU high-rise apartments, 3,000 SF retail
51.	100 Aquarium Way	100 Aquarium Way	22,642 SF aquarium expansion
52.	1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	11,000 SF medical office building
53.	1126 Queens Highway	1126 Queens Highway	200 room hotel, 150,980 SF restaurant, 38,254 SF retail, 150,000 SF theater, 17,000 bowling alley, 52,120 SF golf venue, 4,000 SF museum, 61,287 SF children's museum
54.	1468 14th Street	1468 14th Street	22,000 SF warehouse
55.	2136-2144 W. 16th Street	2136-2144 W. 16th Street	8,000 SF office/warehouse
56.	245 W. Pacific Coast Highway	245 W. Pacific Coast Highway	135 DU apartments and 25,000 SF commercial
57.	1400 Long Beach Boulevard	1400 Long Beach Boulevard	65 DU condominiums with ground floor commercial

Notes:
- SF = Square-feet
- DU = Dwelling units

[26] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[27]

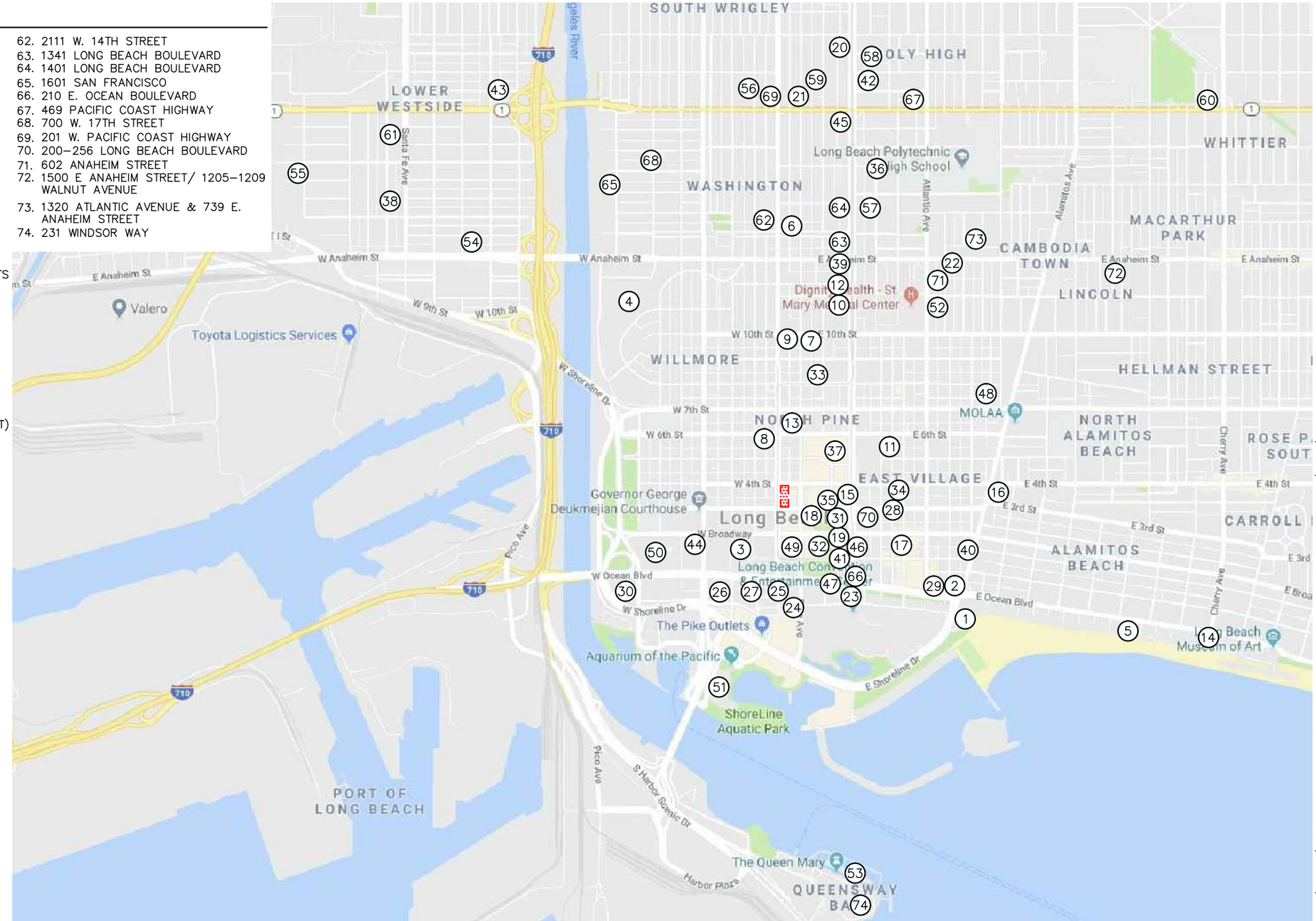
No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
58.	1900-1940 Long Beach Boulevard	1900-1940 Long Beach Boulevard	95 DU, five story apartments and 12,400 SF retail
59.	1836-1852 Locust Avenue	1836-1852 Locust Avenue	47 DU affordable housing, 3,600 SF commercial
60.	1901 W. Pacific Coast Highway	1901 W. Pacific Coast Highway	194,840 SF industrial
61.	1675 Santa Fe Avenue	1675 Santa Fe Avenue	21,377 SF industrial
62.	2111 W. 14th Street	2111 W. 14th Street	38,440 SF industrial
63.	1341 Long Beach Boulevard	1341 Long Beach Boulevard	24 DU, four story apartments
64.	1401 Long Beach Boulevard	1401 Long Beach Boulevard	142 DU apartments
65.	1601 San Francisco Avenue	1601 San Francisco Avenue	94,872 SF industrial
66.	210 E. Ocean Boulevard	210 E. Ocean Boulevard	185 room hotel
67.	469 Pacific Coast Highway	469 Pacific Coast Highway	39 DU affordable housing
68.	700 W. 17th Street	700 W. 17th Street	29,733 SF industrial
69.	201 W. Pacific Coast Highway	201 W. Pacific Coast Highway	147 DU apartments and 189,000 SF retail
70.	200-256 Long Beach Boulevard	200-256 Long Beach Boulevard	392 DU apartments and 32,800 SF commercial
71.	602 E. Anaheim Street	602 E. Anaheim Street	2,940 SF fast food restaurant
72.	1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	87 DU affordable housing and 18000 SF health clinic
73.	1320 Atlantic Avenue & 739 E. Anaheim Street	1320 Atlantic Avenue & 739 E. Anaheim Street	10,070 SF fast food restaurant with drive-thru, 20,120 SF grocery store, 4,020 SF restaurant
74.	231 Windsor Way	231 Windsor Way	321,595 SF parking structure expansion

Notes:
- SF = Square-feet
- DU = Dwelling units

[27] Source: City of Long Beach Planning Department.

KEY

1. ALAMITOS CONCESSION REBUILD PROJECT
2. SHORELINE GATEWAY EAST TOWER
3. NEW LONG BEACH CIVIC CENTER
4. DRAKE PARK SOCCER FIELD
5. OCEAN BOULEVARD PROJECT
6. LBCIC OWNED PROPERTIES
7. ADAPTIVE REUSE RESIDENTIAL PROJECT
8. 5TH & PACIFIC APARTMENTS
9. ADAPTIVE REUSE RESIDENTIAL BEEKS BUILDING
10. 1112 LOCUST AVENUE
11. 425 E. 5TH STREET
12. 1101 LONG BEACH BOULEVARD
13. 635 PINE AVENUE/636 PACIFIC AVENUE
14. SILVERSANDS
15. BROADWAY BLOCK
16. 320 ALAMITOS AVENUE
17. RESIDENCES AT LINDEN MIXED–USE PROJECT
18. E. BROADWAY & PROMENADE NORTH APARTMENTS
19. 125 BROADWAY
20. 1955 AND 1965 LONG BEACH BOULEVARD
21. 101 PACIFIC COAST HIGHWAY
22. 622–628 E. ANAHEIM STREET
23. 207 EAST SEASIDE WAY APARTMENTS
24. OCEAN CENTER BUILDING REUSE
25. OCEANAIRE RESIDENTIAL PROJECT
26. 442 WEST OCEAN BOULEVARD APARTMENTS
27. 200 W. OCEAN BOULEVARD APARTMENTS
28. CITY VENTURES DEVELOPMENT
29. SHORELINE GATEWAY WEST TOWER (THE CURRENT)
30. GOLDEN SHORE MASTER PLAN
31. PARC BUILDING (STATE BUILDING)
32. SECURITY PACIFIC NATIONAL BANK BUILDING
33. 810 PINE AVENUE RESIDENTIAL
34. 434 E. 4TH STREET APARTMENTS
35. 230 W. 3RD STREET APARTMENTS
36. 1570 LONG BEACH BOULEVARD
37. THE PLACE AT CITYPLACE
38. 1501 SANTA FE AVENUE
39. THE BEACON
40. 101 ALAMITOS AVENUE
41. BOUTIQUE HOTEL
42. 1836–1852 LONG BEACH BOULEVARD
43. LONG BEACH CANNABIS
44. 500 W. BROADWAY APARTMENTS
45. 1795 LONG BEACH BOULEVARD MIXED–USE
46. N. LONG BEACH BOULEVARD & E. BROADWAY APARTMENTS PROJECT
47. 100 E. OCEAN BOULEVARD HOTEL
48. 825 E. 7TH STREET
49. 123 W. 1ST STREET
50. ALEXAN LONG BEACH APARTMENTS
51. 100 AQUARIUM WAY
52. 1078, 1080–1090 ATLANTIC AVENUE AND 1085–1095 LIME AVENUE
53. 1126 QUEENS HIGHWAY
54. 1468 14TH STREET
55. 2136–2144 W. 16TH STREET
56. 245 W. PACIFIC COAST HIGHWAY
57. 1400 LONG BEACH BOULEVARD
58. 1900–1940 LONG BEACH BOULEVARD
59. 1836–1852 LOCUST AVENUE
60. 1901 W. PACIFIC COAST HIGHWAY
61. 1675 SANTA FE AVENUE
62. 2111 W. 14TH STREET
63. 1341 LONG BEACH BOULEVARD
64. 1401 LONG BEACH BOULEVARD
65. 1601 SAN FRANCISCO
66. 210 E. OCEAN BOULEVARD
67. 469 PACIFIC COAST HIGHWAY
68. 700 W. 17TH STREET
69. 201 W. PACIFIC COAST HIGHWAY
70. 200–256 LONG BEACH BOULEVARD
71. 602 ANAHEIM STREET
72. 1500 E ANAHEIM STREET/ 1205–1209 WALNUT AVENUE
73. 1320 ATLANTIC AVENUE & 739 E. ANAHEIM STREET
74. 231 WINDSOR WAY



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = CUMULATIVE PROJECT LOCATIONS

= PROJECT SITE

FIGURE 6–1

LOCATION OF CUMULATIVE PROJECTS

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

TABLE 6-2
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[28]

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
1. Alamitos Concession Rebuild Project	656	3	1	4	16	13	29
2. Shoreline Gateway East Tower[29]	3,105	48	133	181	165	113	278
3. New Long Beach Civic Center[30]	10,923	377	294	671	247	305	552
4. Drake Park Soccer Field	7	0	0	0	1	0	1
5. Ocean Boulevard Project	277	5	13	18	13	9	22
6. LBCIC Owned Properties	81	1	4	5	4	2	6
7. Adaptive Reuse Residential Project	29	0	2	2	1	1	2
8. 5th & Pacific Apartments	1,545	106	96	202	67	56	123
9. Adaptive Reuse Residential Beeks Building	66	1	3	4	3	2	5
10. 1112 Locust Avenue	528	9	26	35	26	17	43
11. 425 E. 5th Street	87	2	4	6	4	3	7
12. 1101 Long Beach Boulevard	874	15	34	49	43	32	75
13. 635 Pine Avenue/ 636 Pacific Avenue	1,527	26	73	99	75	49	124
14. Silversands	844	23	26	49	33	28	61
15. Broadway Block	4,516	361	986	1,347	881	589	1,470
16. 320 Alamitos Avenue	419	7	21	28	21	13	34
17. Residences at Linden Mixed-Use Project	600	10	24	34	30	22	52
18. E. Broadway & Promenade North Apartments	1,336	23	50	73	66	49	115
19. 125 Broadway	1,756	182	517	699	437	279	716
20. 1955 and 1965 Long Beach Boulevard	987	62	17	79	27	71	98
21. 101 Pacific Coast Highway	89	2	6	8	6	3	9
22. 622-628 E. Anaheim Street	1,010	49	40	89	35	21	56
23. 207 East Seaside Way Apartments	636	11	31	42	31	20	51
24. Ocean Center Building Reuse	1,476	48	57	105	75	50	125
25. Oceanaire Residential Project[31]	1,436	22	89	111	86	48	134

28 Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

29 Source: *Shoreline Gateway East Tower TIA*, prepared by LLG, dated October 2016.

30 Source: *New Long Beach Civic Center Project TIA*, prepared by LLG, dated July 2015.

31 Source: *Oceanaire Apartments Traffic Impact Analysis*, prepared by Michael Baker International.

TABLE 6-2 (CONTINUED)
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[32]

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
26. 442 West Ocean Boulevard Apartments[33]	625	10	38	48	38	20	58
27. 200 W. Ocean Boulevard	776	11	38	49	37	22	59
28. City Ventures Development[20]	232	3	15	18	14	7	21
29. Shoreline Gateway West Tower (The Current)[20]	1,781	28	89	117	101	62	163
30. Golden Shore Master Plan[20]	11,004	640	432	1,072	444	648	1,092
31. Parc Building (State Building)	1,418	25	60	85	70	49	119
32. Security Pacific National Bank	1,383	20	67	87	67	39	106
33. 810 Pine Avenue Residential	203	9	6	15	8	12	20
34. 434 E. 4th Street Apartments	327	6	13	19	16	12	28
35. 230 W. 3rd Street Apartments[20]	1,084	17	66	83	66	35	101
36. 1570 Long Beach Boulevard[20]	593	8	17	25	25	18	43
37. The Place at City Place	325	5	9	14	16	13	29
38. 1501 Santa Fe Avenue	1,478	34	27	61	64	64	128
39. The Beacon	592	11	21	32	23	19	42
40. 101 Alamitos Avenue	795	13	35	48	40	26	66
41. Boutique Hotel	284	9	7	16	10	10	20
42. 1836-1852 Long Beach Boulevard	439	6	22	28	21	13	34
43. Long Beach Cannabis[34]	483	20	10	30	21	27	48
44. 500 W. Broadway Apartments[35]	1,837	28	65	93	91	71	162
45. 1795 Long Beach Boulevard Mixed-Use[36]	803	11	42	53	46	28	74
46. N. Long Beach Boulevard & E. Broadway Apartments Project	1,414	24	58	82	69	51	120
47. 100 E. Ocean Boulevard Hotel[37]	4,906	184	136	320	203	169	372
48. 825 E. 7th Street	139	2	7	9	7	4	11
49. 123 W. 1st Street	2,341	78	54	132	86	82	168

32 Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

33 Source: *442 West Ocean Boulevard Apartments Project Traffic Impact Analysis*, prepared by LLG.

34 Source: *Long Beach Cannabis TIA*, prepared by LLG, dated October 2017.

35 Source: *500 W. Broadway Apartments TIA*, prepared by LLG, dated July 2017.

36 Source: *1795 Long Beach Boulevard Mixed-Use Development Project TIA*, prepared by LLG, dated June 2017.

37 Source: *100 E. Ocean Boulevard Transportation Impact Analysis*, prepared by Fehr & Peers, dated September 2018.

TABLE 6-2 (CONTINUED)
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[38]

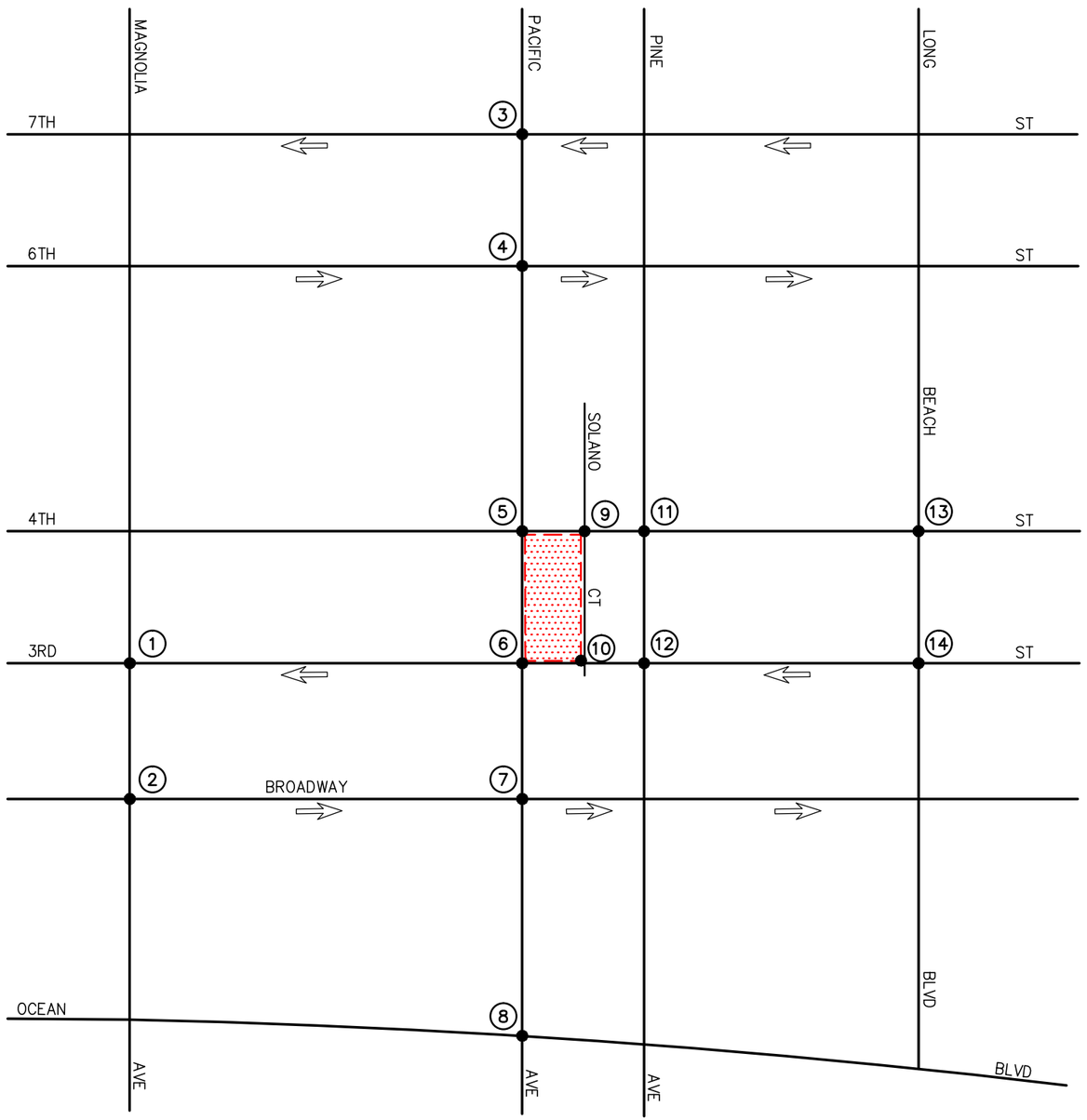
Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
50. Alexan Long Beach Apartments[39]	3,924	148	234	382	189	126	315
51. 100 Aquarium Way	40	5	1	6	1	3	4
52. 1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	383	24	7	31	11	27	38
53. 1126 Queens Highway	32,091	948	748	1,696	1,931	768	2,699
54. 1468 14th Street	38	3	1	4	1	3	4
55. 2136-2144 W. 16th Street	78	8	1	9	1	8	9
56. 245 W. Pacific Coast Highway	1,678	28	45	73	82	72	154
57. 1400 Long Beach Boulevard	476	7	23	30	23	13	36
58. 1900-1940 Long Beach Boulevard	985	16	30	46	49	40	89
59. 1836-1852 Locust Avenue	480	7	18	25	23	17	40
60. 1901 W. Pacific Coast Highway	966	120	16	136	16	107	123
61. 1675 Santa Fe Avenue	106	13	2	15	2	11	13
62. 2111 W. 14th Street	191	24	3	27	3	21	24
63. 1341 Long Beach Boulevard	131	2	7	9	7	4	11
64. 1401 Long Beach Boulevard	1,039	15	50	65	50	30	80
65. 1601 San Francisco Avenue[40]	619	77	10	87	10	69	79
66. 210 E. Ocean Boulevard	1,547	51	36	87	57	54	111
67. 469 Pacific Coast Highway	285	4	14	18	14	8	22
68. 700 W. 17th Street	147	18	3	21	2	17	19
69. 201 W. Pacific Coast Highway	7,935	124	107	231	386	399	785
70. 200-256 Long Beach Boulevard	3,370	56	116	172	165	132	297
71. 602 E. Anaheim Street	1,385	60	58	118	50	46	96
72. 1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	1,324	60	46	106	48	60	108
73. 1320 Atlantic Avenue & 739 E. Anaheim Street	7,341	275	247	522	290	264	554
74. 231 Windsor Way[41]	--	--	--	--	--	--	--
Cumulative Projects Trip Generation Forecast	**136,631**	**4,688**	**5,704**	**10,392**	**7,387**	**5,595**	**12,982**

38 Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

39 Source: *Alexan Long Beach Apartments TIA*, prepared by LLG, dated February 2019.

40 Source: *San Francisco Avenue Warehouse TIA,* prepared by Urban Crossroads, dated October 2018.

41 Project is not anticipated to generate traffic trips.



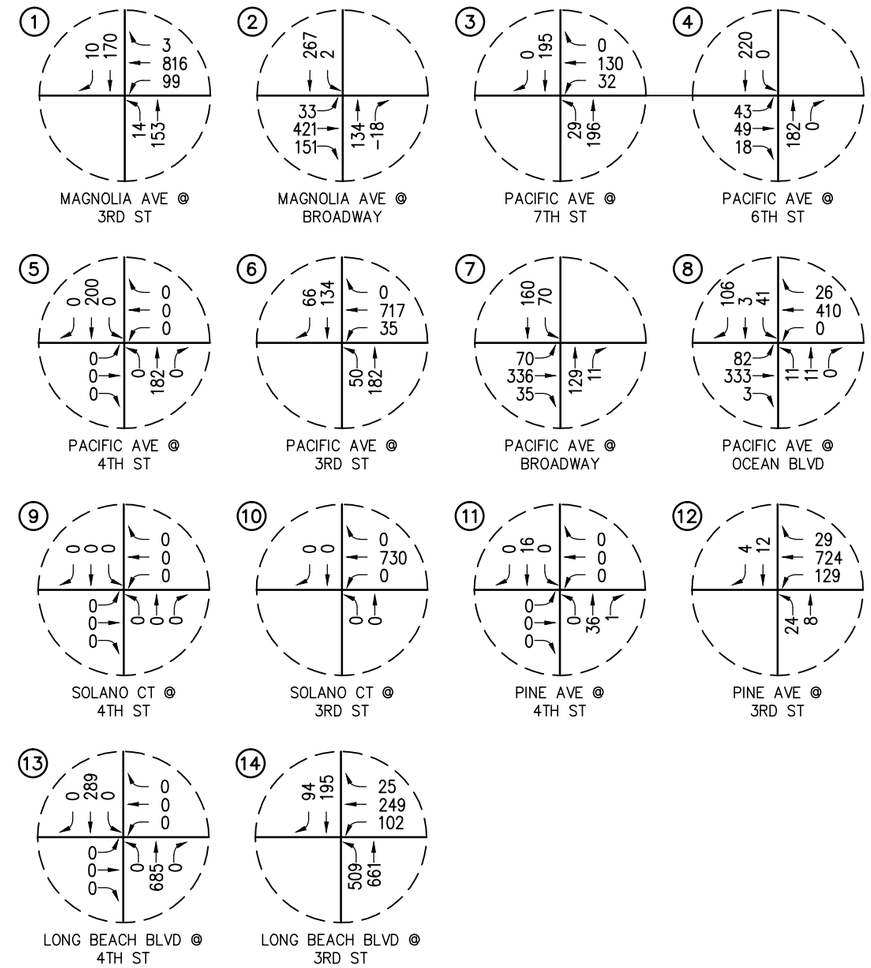


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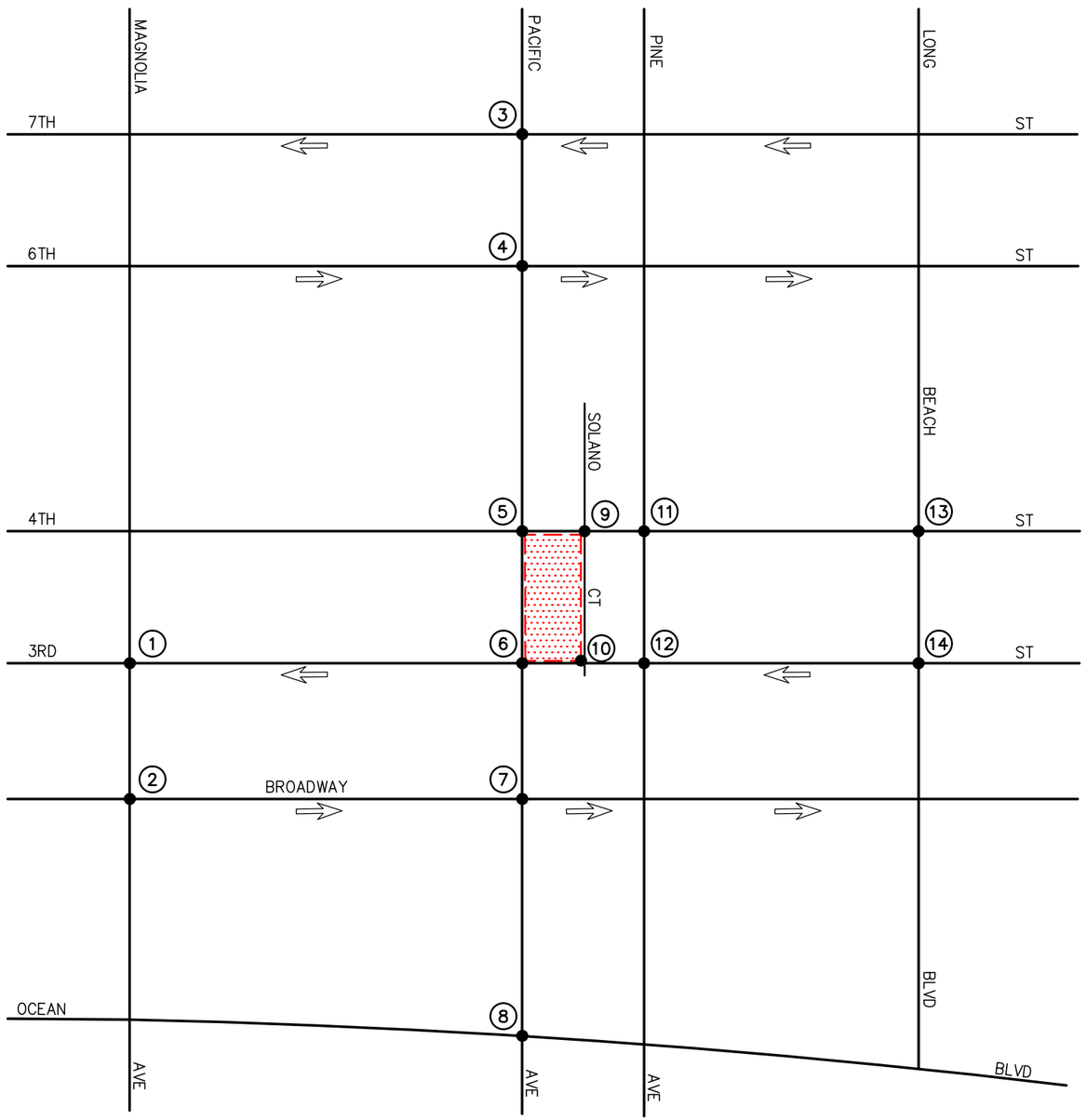
FIGURE 6–2

AM PEAK HOUR CUMULATIVE PROJECT TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



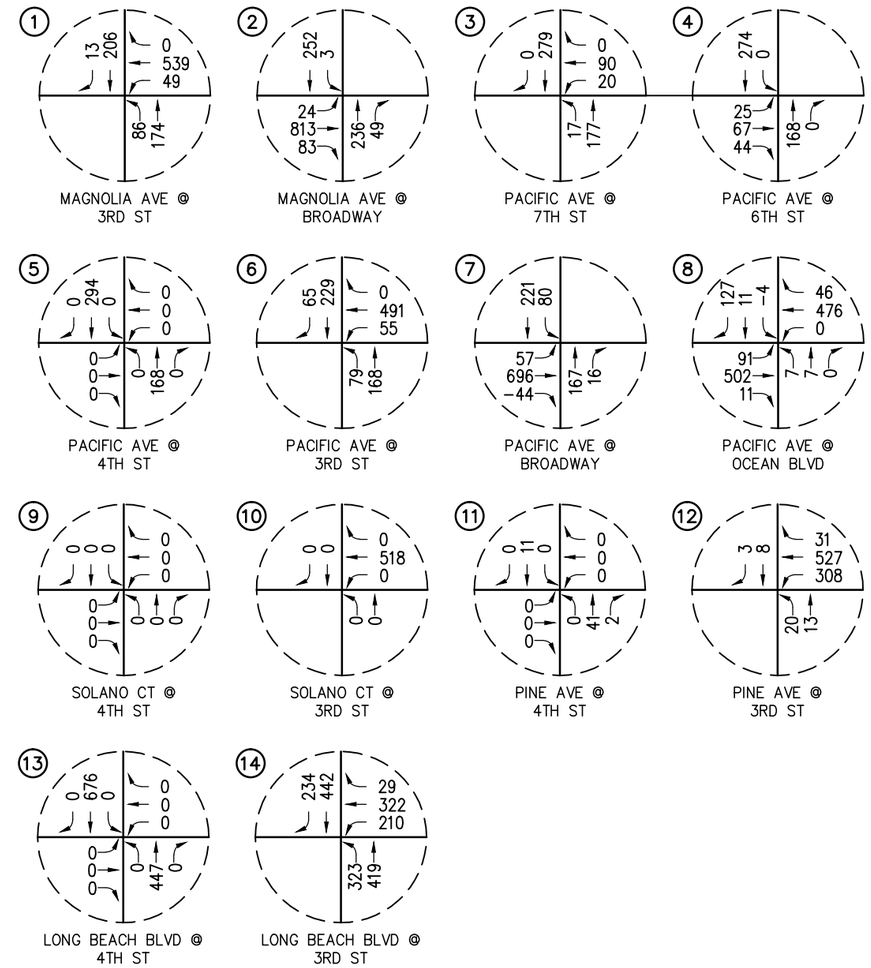


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FIGURE 6–3

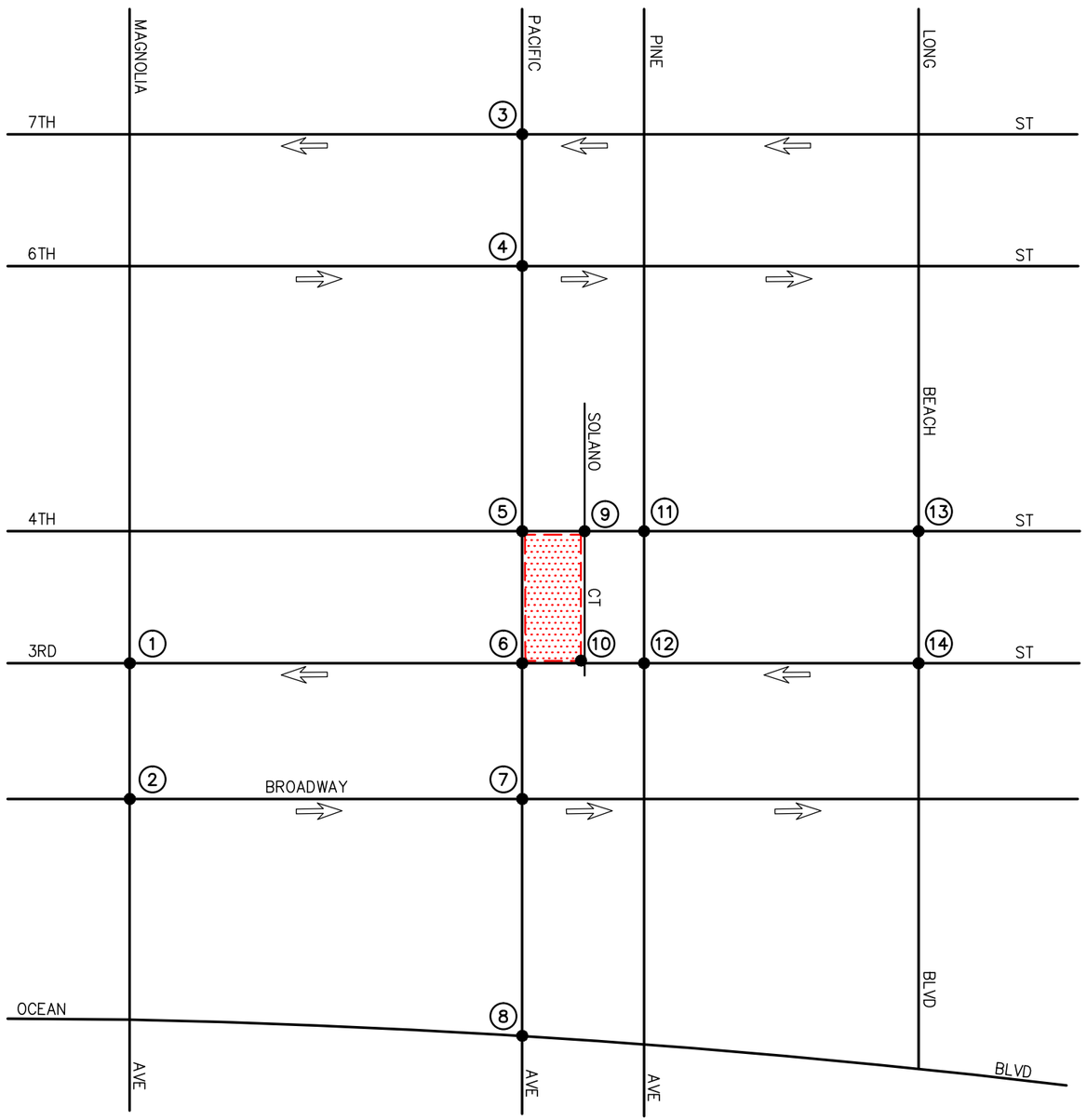
PM PEAK HOUR CUMULATIVE PROJECT TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

6.3 Year 2021 Traffic Volumes

Figures 6-4 and ***6-5*** present future AM and PM peak hour cumulative traffic volumes at the fourteen (14) key study intersections for the Year 2021, respectively. Please note that the cumulative traffic volumes represent the accumulation of existing traffic, ambient growth traffic and cumulative projects traffic.

Figures 6-6 and ***6-7*** illustrate Year 2021 forecast AM and PM peak hour traffic volumes with the inclusion of the trips generated by the proposed Project, respectively.



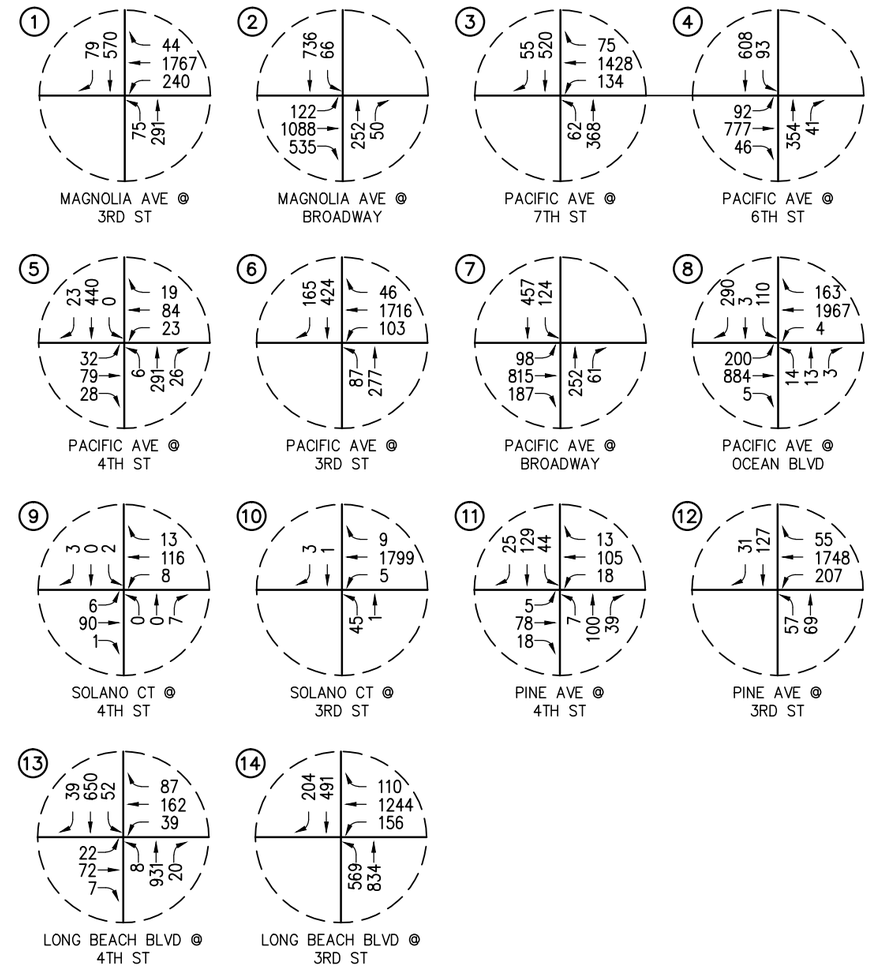


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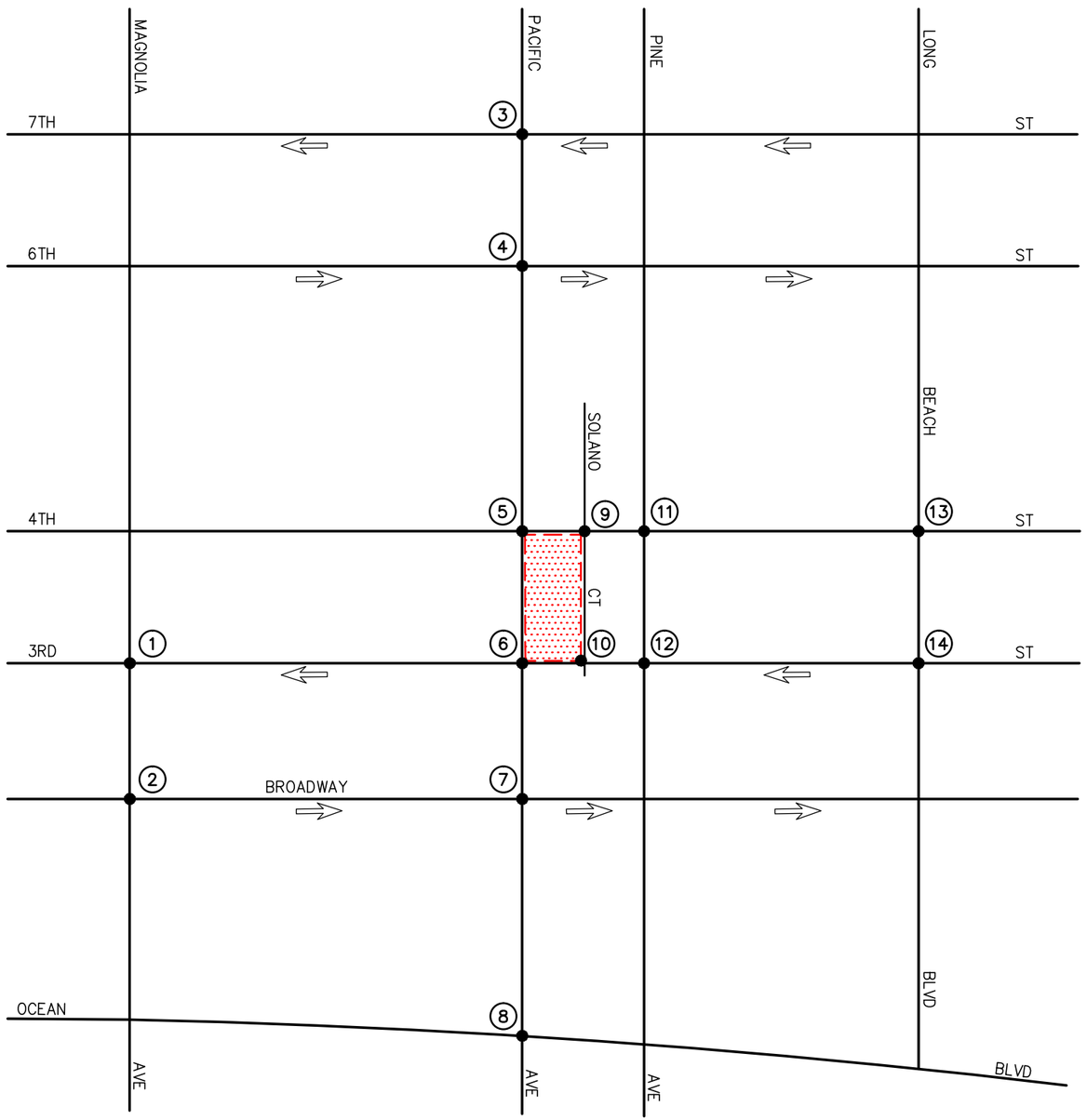
FIGURE 6–4

YEAR 2021 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



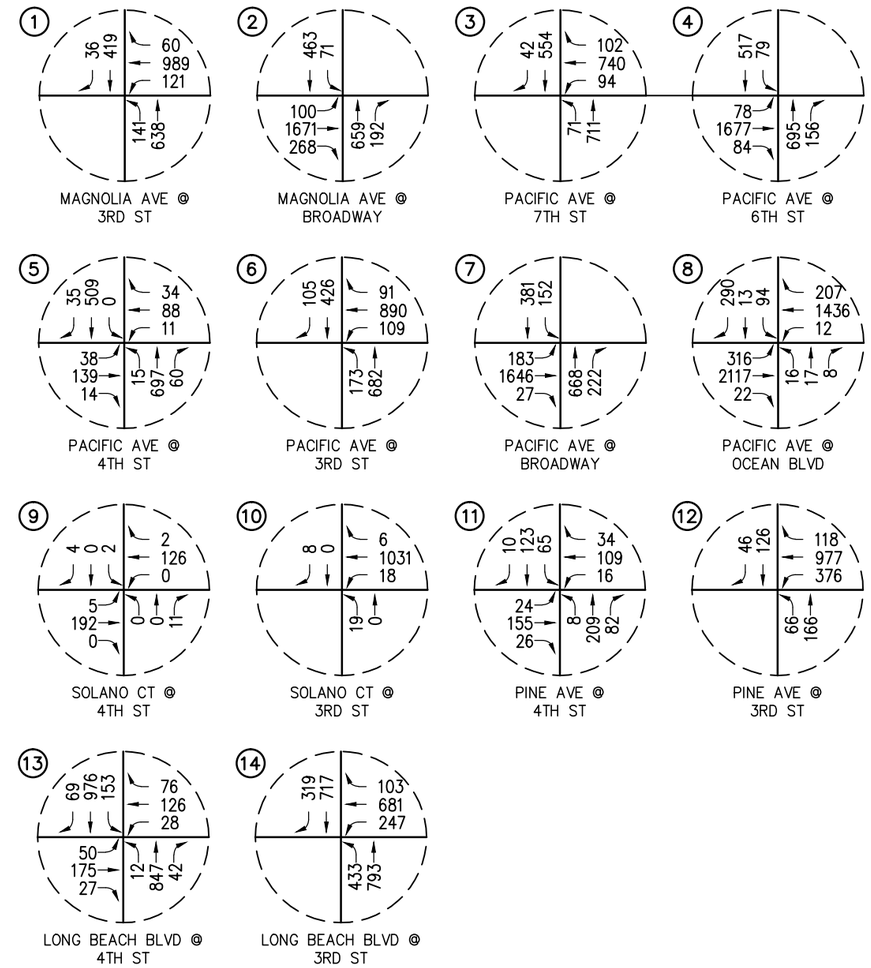


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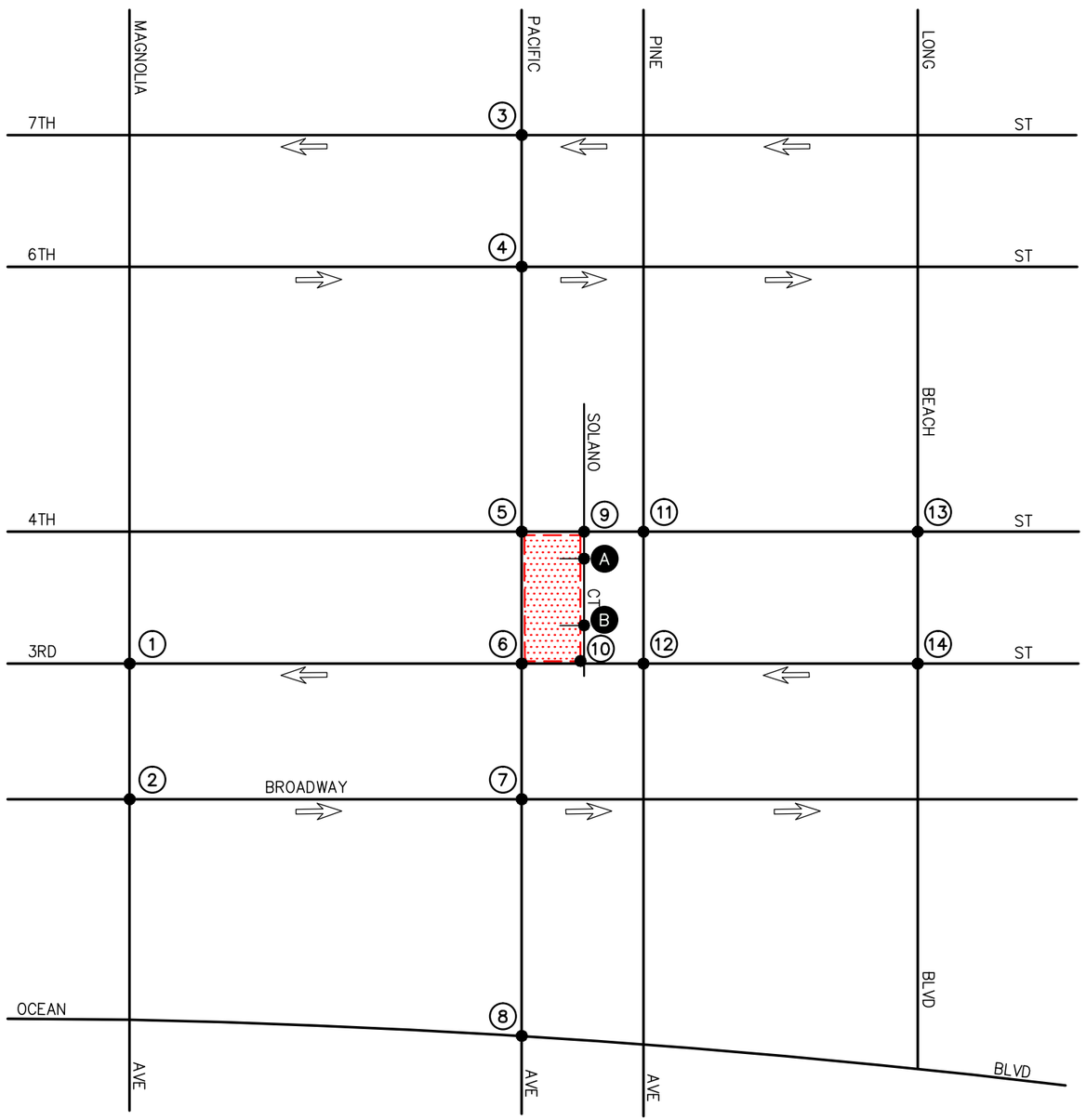
FIGURE 6-5

YEAR 2021 CUMULATIVE PM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



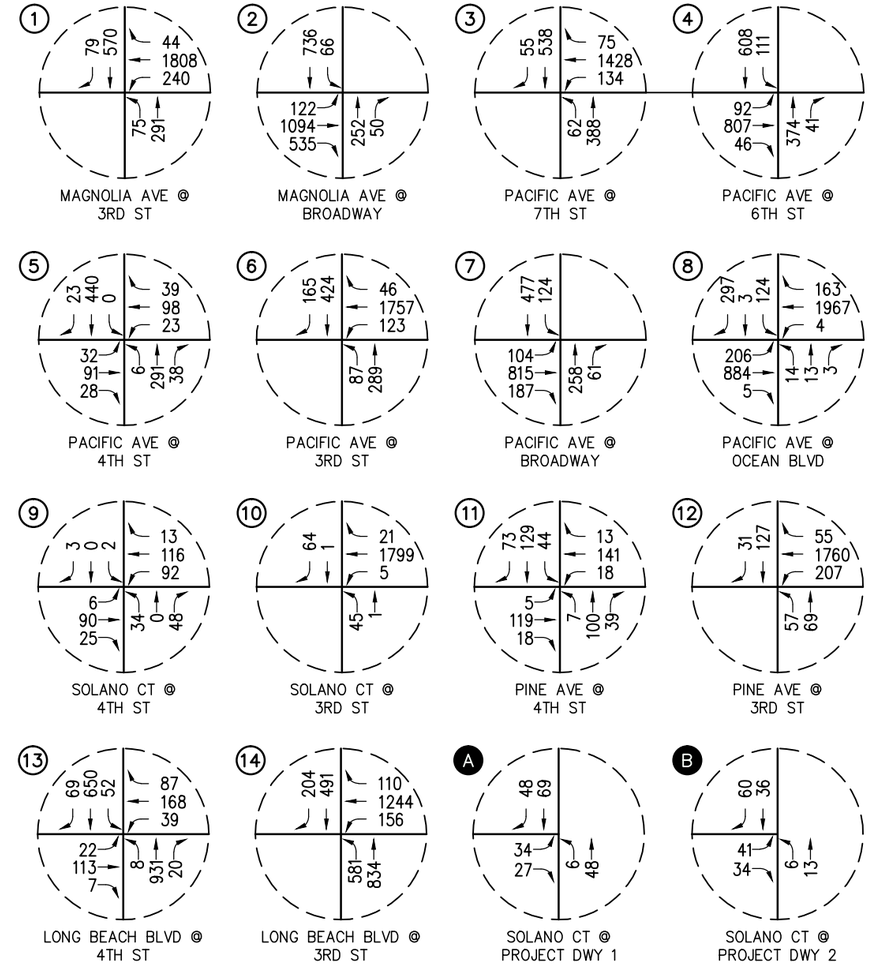


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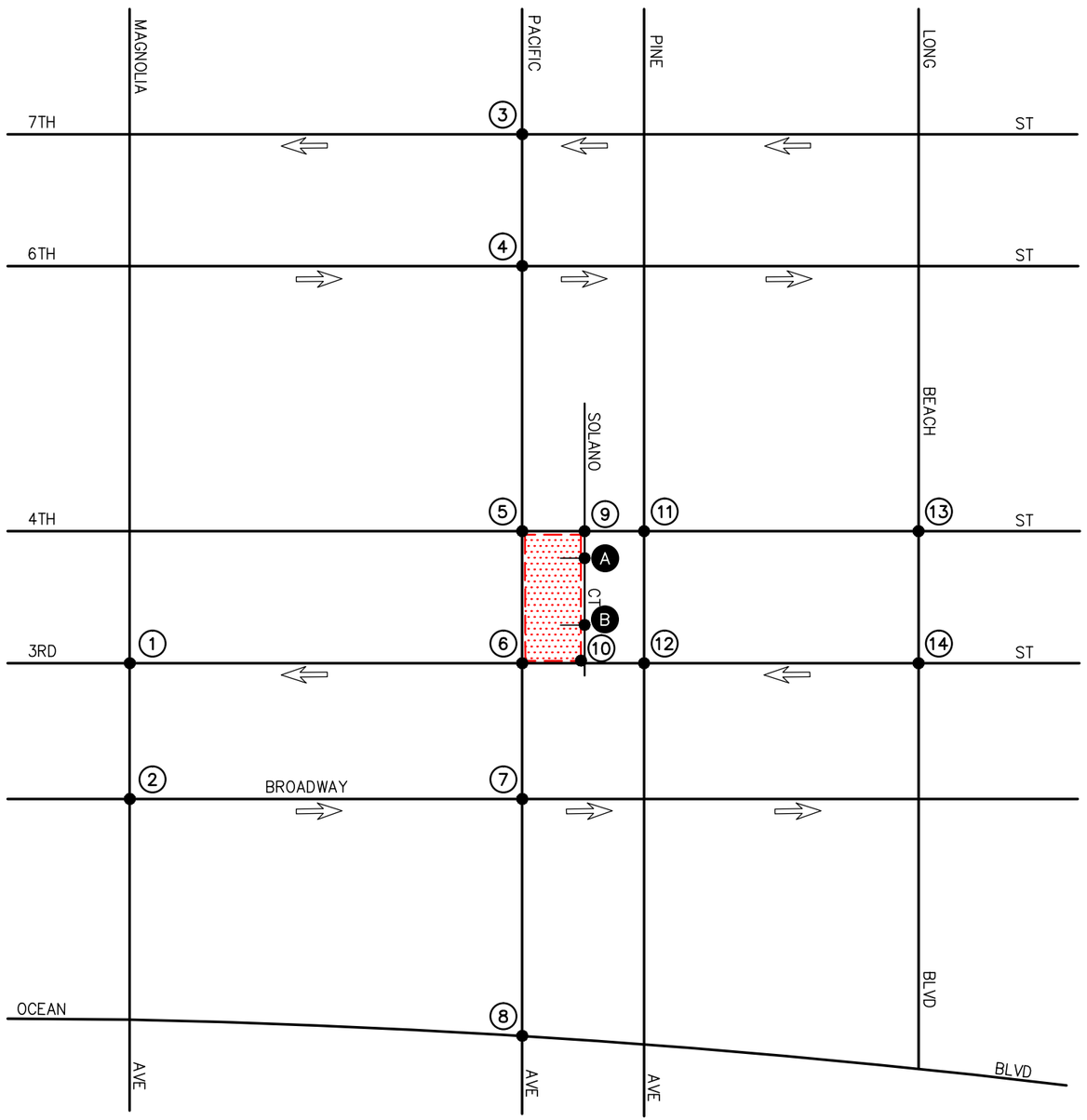
FIGURE 6–6

YEAR 2021 CUMUALTIVE PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



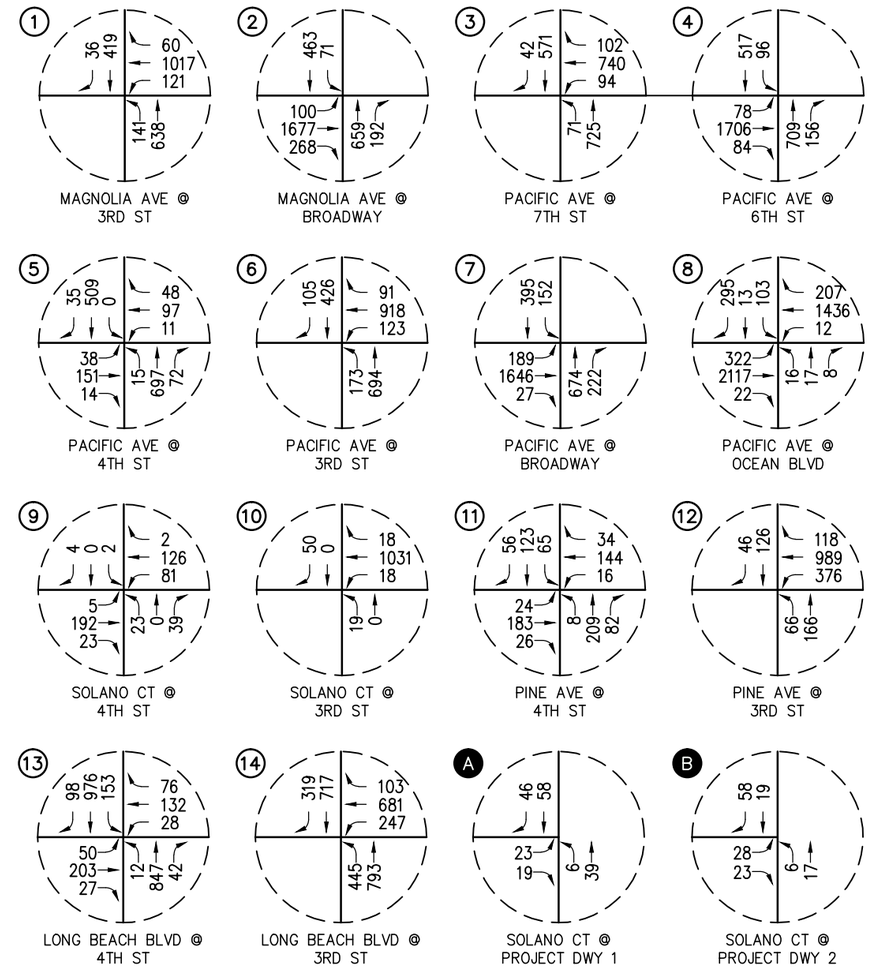


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FIGURE 6-7

YEAR 2021 CUMUALTIVE PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

7.1 Impact Criteria and Thresholds

The potential impact of the added Project traffic volumes generated by the proposed Project during the weekday peak hours was evaluated based on analysis of future operating conditions at the fourteen (14) key study intersections, without, then with, the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the Project at each key intersection was then evaluated using the following traffic impact criteria.

7.1.1 *City of Long Beach*

Per the City of Long Beach TIA Guidelines, impacts to local and regional transportation systems are considered significant if:

- The Project causes a study intersection to deteriorate from Level of Service (LOS) D to LOS E or F. The City of Long Beach considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections; or

- The Project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901) when an intersection is operating at LOS E or F in the baseline condition.

- At unsignalized intersections, an impact is considered to be significant if the Project causes an intersection operating at LOS D or better to degrade to LOS E or F, and the traffic signal warrant analysis determines that a traffic signal is justified.

7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed using the ICU/HCM methodologies:

A. Existing Traffic Conditions;
B. Existing Plus Project Traffic Conditions;
C. Scenario (B) with Improvements, if necessary;
D. Year 2021 Cumulative Traffic Conditions;
E. Year 2021 Cumulative Plus Project Traffic Conditions; and
F. Scenario (E) with Improvements, if necessary.

8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

8.1 Existing Plus Project Traffic Conditions

Table 8-1 summarizes the peak hour Level of Service results at the fourteen (14) key study intersections for Existing Plus Project traffic conditions. The first column (1) of ICU/LOS values in *Table 8-1* presents a summary of Existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists Existing Plus Project traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria defined in this report. The fourth column (4) indicates the anticipated level of service with improvements, if any.

8.1.1 *Existing Traffic Conditions*

As previously presented in *Table 3-3*, all fourteen (14) key study intersections currently operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours.

8.1.2 *Existing Plus Project Traffic Conditions*

Review of columns 2 and 3 of *Table 8-1* indicates that the traffic associated with the proposed Project will not directly impact any of the fourteen (14) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. *Appendix C* presents the Existing Plus Project weekday ICU/LOS calculations for the fourteen (14) key study intersections.

Although the intersection of Solano Court/3rd Street is forecast to operate at unacceptable LOS E during the AM peak hour, a traffic signal is not warranted at this location and therefore it is not considered a significant impact. A traffic signal warrant analysis for this location is included in Section 9.0 of this report. Additionally, it is not uncommon for unsignalized driveways, such as those of Solano Court/3rd Street, to experience a longer delay due to the heavy volumes on the major streets, such as 3rd Street. Furthermore, due to the intersection being in close proximity to the signalized intersections of Pine Avenue/3rd Street, it is expected that gaps in traffic would occur and actual vehicular delay experienced would be lower than what is being reported within the HCM methodology. As such, since there are no significant impacts no improvements are recommended.

Per the request of City staff, a pedestrian scramble phase at the intersection of Pacific Avenue/4th Street was also analyzed and the corresponding results are footnoted in *Table 8-1*. The analysis is based on ICU methodology and assumes that the pedestrian phase is 36% of the intersection cycle length[42]. Based on the results of this traffic impact sensitivity analysis, the potential installation of a pedestrian scramble phase at the intersection of Pacific Avenue/4th Street results in the following service levels:

- Existing Traffic Conditions : AM – 0.625, LOS B; PM – 0.739, LOS C
- Existing Plus Project Traffic Conditions: AM – 0.647, LOS B; PM – 0.754, LOS C

As shown, acceptable service levels are maintained with a potential pedestrian scramble phase.

[42] The exclusive pedestrian phase was assumed to be 36% of the intersection cycle length and was included in the clearance interval resulting in an adjustment of 0.46. The pedestrian phase was estimated based on the geometry of the intersection and a cycle length of 100 seconds.

TABLE 8-1
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection		Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact		(4) Existing Plus Project Traffic Conditions with Improvements	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1.	Magnolia Avenue at	AM	0.722	C	0.735	C	0.013	No	--	--
	3rd Street	PM	0.536	A	0.545	A	0.009	No	--	--
2.	Magnolia Avenue at	AM	0.475	A	0.475	A	0.000	No	--	--
	Broadway	PM	0.658	B	0.660	B	0.002	No	--	--
3.	Pacific Avenue at	AM	0.513	A	0.519	A	0.006	No	--	--
	7th Street	PM	0.414	A	0.418	A	0.004	No	--	--
4.	Pacific Avenue at	AM	0.368	A	0.392	A	0.024	No	--	--
	6th Street	PM	0.681	B	0.702	C	0.021	No	--	--
5.	Pacific Avenue at	AM	0.265	A	0.287	A	0.022	No	--	--
	4th Street[43]	PM	0.379	A	0.394	A	0.015	No	--	--
6.	Pacific Avenue at	AM	0.528	A	0.541	A	0.013	No	--	--
	3rd Street	PM	0.404	A	0.417	A	0.013	No	--	--
7.	Pacific Avenue at	AM	0.382	A	0.388	A	0.006	No	--	--
	Broadway	PM	0.605	B	0.607	B	0.002	No	--	--
8.	Pacific Avenue at	AM	0.604	B	0.612	B	0.008	No	--	--
	Ocean Boulevard	PM	0.552	A	0.555	A	0.003	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

[43] Per the request of City staff, the intersection of Pacific Avenue/4th Street was analyzed with a pedestrian scramble. The level of service analysis results includes the following:
Existing Traffic Conditions: AM – 0.625, LOS B; PM – 0.739, LOS C
Existing Plus Project Traffic Conditions: AM – 0.647, LOS B; PM – 0.754, LOS C

TABLE 8-1 (CONTINUED)
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection		Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact		(4) Existing Plus Project Traffic Conditions with Improvements	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
9.	Solano Court at	AM	9.4 s/v	A	10.7 s/v	B	1.3 s/v	No	--	--
	4th Street[44]	PM	9.5 s/v	A	11.0 s/v	B	1.5 s/v	No	--	--
10.	Solano Court at	AM	32.1 s/v	D	**47.0 s/v**	**E**	14.9 s/v	No[45]	--	--
	3rd Street[44]	PM	14.4 s/v	B	15.6 s/v	C	1.2 s/v	No	--	--
11.	Pine Avenue at	AM	0.264	A	0.316	A	0.052	No	--	--
	4th Street	PM	0.409	A	0.427	A	0.018	No	--	--
12.	Pine Avenue at	AM	0.508	A	0.512	A	0.004	No	--	--
	3rd Street	PM	0.363	A	0.367	A	0.004	No	--	--
13.	Long Beach Boulevard at	AM	0.390	A	0.403	A	0.013	No	--	--
	4th Street	PM	0.480	A	0.484	A	0.004	No	--	--
14.	Long Beach Boulevard at	AM	0.554	A	0.561	A	0.007	No	--	--
	3rd Street	PM	0.382	A	0.389	A	0.007	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

44 Unsignalized intersection.

45 A traffic signal is not warranted at this location and therefore it is not considered a significant impact. Refer to Section 9.0 for the traffic signal warrant analysis.

8.2 Year 2021 Traffic Conditions

Table 8-2 summarizes the peak hour Level of Service results at the fourteen (14) key study intersections for the Year 2021 horizon year. The first column (1) of ICU/LOS values in *Table 8-2* presents a summary of Existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists future Year 2021 cumulative traffic conditions (existing plus ambient growth traffic plus cumulative projects traffic), without any traffic generated by the proposed Project. The third column (3) presents future forecast traffic conditions with the addition of traffic generated by the proposed Project. The fourth column (4) shows the increase in ICU value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the LOS standards and significant impact criteria defined in this report. The fifth column (5) indicates the anticipated level of service with improvements, if any.

8.2.1 *Year 2021 Cumulative Traffic Conditions*

Review of Column 2 of *Table 8-2* indicates that the addition of ambient traffic growth and cumulative project traffic will cumulatively impact five (5) of the fourteen key study intersections. The remaining key study intersections will continue to operate at acceptable LOS D or better during the AM and PM peak hours with the addition of Project generated traffic to existing traffic. The intersections operating adversely are the following:

		AM Peak Hour		PM Peak Hour	
Key Intersection		ICU/HCM	LOS	ICU/HCM	LOS
1.	Magnolia Avenue at 3rd Street	1.118	F	--	--
2.	Magnolia Avenue at Broadway	--	--	1.078	F
7.	Pacific Avenue at Broadway	--	--	0.927	E
10.	Solano Court at 3rd Street	--	F	--	--
14.	Long Beach Boulevard at 3rd Street	1.032	F	--	--

8.2.2 *Year 2021 Cumulative Plus Project Conditions*

Review of columns 3 and 4 of *Table 8-2* indicates that the traffic associated with the proposed Project will not directly impact any of the fourteen (14) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report.

Although the intersections of Magnolia Avenue/3rd Street, Magnolia Avenue/Broadway, Pacific Avenue/Broadway and Long Beach Boulevard/3rd Street are forecast to operate adversely in the AM or PM peak hours with the addition of the proposed Project, the Project adds less than 0.020 to the ICU value and hence the Project's impact is considered insignificant and no improvements are recommended.

Additionally, although the intersection of Solano Court/3rd Street is forecast to operate at unacceptable LOS F during the AM peak hour and LOS E during the PM peak hour, a traffic signal is not warranted at this location and therefore it is not considered a significant impact. A traffic signal warrant analysis for this location is included in Section 9.0 of this report. Additionally, it is not uncommon for

unsignalized driveways, such as those of Solano Court/3rd Street, to experience a longer delay due to the heavy volumes on the major streets, such as 3rd Street. Furthermore, due to the intersection being in close proximity to the signalized intersections of Pine Avenue/3rd Street, it is expected that gaps in traffic would occur and actual vehicular delay experienced would be lower than what is being reported within the HCM methodology. As such, since there are no significant impacts no improvements are recommended.

Per the request of City staff, a pedestrian scramble phase at the intersection of Pacific Avenue/4th Street was also analyzed and the corresponding results are footnoted in *Table 8-2*. The analysis is based on ICU methodology and assumes that the pedestrian phase is 36% of the intersection cycle length[46]. Review of *Table 8-2* indicates that the intersection is forecast to operate at acceptable level of service conditions with the installation of a pedestrian scramble phase.

Appendix C presents the Year 2021 ICU/LOS calculations for the fourteen (14) key study intersections.

[46] The exclusive pedestrian phase was assumed to be 36% of the intersection cycle length and was included in the clearance interval resulting in an adjustment of 0.46. The pedestrian phase was estimated based on the geometry of the intersection and a cycle length of 100 seconds.

TABLE 8-2

YEAR 2021 CUMULATIVE PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2021 Cumulative Traffic Conditions		(3) Year 2021 Cumulative Plus Project Traffic Conditions		(4) Significant Impact		(5) Year 2021 Cumulative Plus Project Traffic Conditions with Improvements	
		ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1. Magnolia Avenue at 3rd Street	AM	0.722	C	**1.118**	**F**	**1.131**	**F**	0.013	No	--	--
	PM	0.536	A	0.827	D	0.835	D	0.008	No	--	--
2. Magnolia Avenue at Broadway	AM	0.475	A	0.670	B	0.672	B	0.002	No	--	--
	PM	0.658	B	**1.078**	**F**	**1.080**	**F**	0.002	No	--	--
3. Pacific Avenue at 7th Street	AM	0.513	A	0.632	B	0.637	B	0.005	No	--	--
	PM	0.414	A	0.506	A	0.511	A	0.005	No	--	--
4. Pacific Avenue at 6th Street	AM	0.368	A	0.452	A	0.467	A	0.015	No	--	--
	PM	0.681	B	0.765	C	0.786	C	0.021	No	--	--
5. Pacific Avenue at 4th Street[47]	AM	0.265	A	0.333	A	0.354	A	0.021	No	--	--
	PM	0.379	A	0.439	A	0.455	A	0.016	No	--	--
6. Pacific Avenue at 3rd Street	AM	0.528	A	0.838	D	0.850	D	0.012	No	--	--
	PM	0.404	A	0.648	B	0.657	B	0.009	No	--	--
7. Pacific Avenue at Broadway	AM	0.382	A	0.569	A	0.571	A	0.002	No	--	--
	PM	0.605	B	**0.927**	**E**	**0.928**	**E**	0.001	No	--	--
8. Pacific Avenue at Ocean Boulevard	AM	0.604	B	0.835	D	0.843	D	0.008	No	--	--
	PM	0.552	A	0.804	D	0.810	D	0.006	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

[47] Per the request of City staff, the intersection of Pacific Avenue/4th Street was analyzed with a pedestrian scramble. The level of service analysis results includes the following:
Year 2021 Cumulative Traffic Conditions: AM – 0.693, LOS B; PM – 0.799, LOS C
Year 2021 Cumulative Plus Project Traffic Conditions: AM – 0.714, LOS C; PM – 0.815, LOS D

TABLE 8-2 (CONTINUED)
YEAR 2021 CUMULATIVE PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2021 Cumulative Traffic Conditions		(3) Year 2021 Cumulative Plus Project Traffic Conditions		(4) Significant Impact		(5) Year 2021 Cumulative Plus Project Traffic Conditions with Improvements	
		ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
9. Solano Court at 4th Street[48]	AM	9.4 s/v	A	9.4 s/v	A	10.8 s/v	B	1.4 s/v	No	--	--
	PM	9.5 s/v	A	9.6 s/v	A	11.1 s/v	B	1.5 s/v	No	--	--
10. Solano Court at 3rd Street[48]	AM	32.1 s/v	D	--[49]	**F**	--[49]	**F**	--	No[50]	--	--
	PM	14.4 s/v	B	32.5 s/v	D	**42.2 s/v**	**E**	7.6 s/v	No[50]	--	--
11. Pine Avenue at 4th Street	AM	0.264	A	0.291	A	0.330	A	0.039	No	--	--
	PM	0.409	A	0.446	A	0.463	A	0.017	No	--	--
12. Pine Avenue at 3rd Street	AM	0.508	A	0.778	C	0.782	C	0.004	No	--	--
	PM	0.363	A	0.562	A	0.566	A	0.004	No	--	--
13. Long Beach Boulevard at 4th Street	AM	0.390	A	0.599	A	0.603	B	0.004	No	--	--
	PM	0.480	A	0.631	B	0.635	B	0.004	No	--	--
14. Long Beach Boulevard at 3rd Street	AM	0.554	A	**1.032**	**F**	**1.040**	**F**	0.008	No	--	--
	PM	0.382	A	0.840	D	0.847	D	0.007	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

48 Unsignalized intersection.

49 The intersection delay (sec/veh) calculated exceeded the capabilities of HCM 6th Edition, therefore only the adverse LOS F condition was reported.

50 A traffic signal is not warranted at this location and therefore it is not considered a significant impact. Refer to Section 9.0 for the traffic signal warrant analysis.

9.0 TRAFFIC SIGNAL WARRANT ANALYSIS

The level of service analysis at the unsignalized intersection of Solano Court at 3rd Street is supplemented with an assessment of the need for signalization of the intersection. This assessment is made on the basis of signal warrant criteria adopted by Caltrans. For this study, the need for signalization is assessed on the basis of the peak-hour traffic signal warrant as described in the *California Manual on Uniform Traffic Control Devices (MUTCD).*

Warrant #3 has two parts:

(1) *Part A* evaluates peak hour vehicle delay for traffic on the minor street approach with the highest delay, and

(2) *Part B* evaluates peak-hour traffic volumes on the major and minor streets.

This method provides an indication of whether peak-hour traffic conditions or peak-hour traffic volume levels are, or would be, sufficient to justify installation of a traffic signal.

The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

9.1 Existing Plus Project Traffic Signal Warrant Analysis

The results of the peak-hour traffic signal warrant analysis (Warrant #3) for Existing and Existing Plus Project traffic are summarized in ***Table 9-1***. The results indicate that the key unsignalized intersection of Solano Court at 3rd Street does not meet the warrants for a traffic signal under existing traffic conditions. As such, a traffic signal is not recommended at this location.

9.2 Year 2021 Cumulative Traffic Signal Warrant Analysis

The results of the peak-hour traffic signal warrant analysis (Warrant #3) for Year 2021 and Year 2021 Plus Project traffic are summarized in ***Table 9-2***. The results indicate that the key unsignalized intersection of Solano Court at 3rd Street does not meet the warrants for a traffic signal under future traffic conditions. As such, a traffic signal is not recommended at this location.

Appendix D presents the signal warrant worksheets for the unsignalized study intersections for existing and Year 2021 traffic conditions.

TABLE 9-1
EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS SUMMARY[51]

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions	
		Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?
10. Solano Court at 3rd Street	AM	No	No	No	No
	PM	No	No	No	No

[51] Signal warrant checks based on Warrant 3, Part A - Peak-Hour Delay Warrant and Part B - Peak-Hour Volume Warrant are contained in the California MUTCD.

TABLE 9-2
YEAR 2021 TRAFFIC SIGNAL WARRANT ANALYSIS SUMMARY[52]

Key Intersection	Time Period	(2) Year 2021 Cumulative Traffic Conditions		(3) Year 2021 Cumulative Plus Project Traffic Conditions	
		Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?
10. Solano Court at 3rd Street	AM	No	No	No	No
	PM	No	No	No	No

[52] Signal warrant checks based on Warrant 3, Part A - Peak-Hour Delay Warrant and Part B - Peak-Hour Volume Warrant are contained in the California MUTCD.

10.0 AREA-WIDE TRAFFIC IMPROVEMENTS

10.1 Recommended Improvements

For those intersections where projected traffic volumes are expected to result in poor operating conditions, this report identifies roadway improvements that are expected to:

- Mitigate the impact of existing traffic, Project traffic and future non-project (ambient growth and cumulative project) traffic; and
- Improve Levels of Service to an acceptable range and/or to pre-project conditions.

10.1.1 *Existing Plus Project Traffic Conditions*

The results of the intersection capacity analysis presented previously in *Table 8-1* shows that the proposed Project will not significantly impact any of the fourteen (14) key study intersections under the "Existing Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

10.1.2 *Year 2021 Cumulative Plus Project Traffic Conditions*

The results of the intersection capacity analysis presented previously in *Table 8-2* shows that the proposed Project will not significantly impact any of the fourteen (14) key study intersections under the "Year 2021 Cumulative Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

10.2 Project Specific Improvements

Subject to the review and approval of the City of Long Beach, the following improvements are recommended in conjunction with the development of the proposed Project:

- **Intersection No. 5 – Pacific Avenue at 4th Street:** Due to the curb relocation along Pacific Avenue, the existing traffic signal and corresponding equipment may need to be modified or relocated to accommodate the new curb modifications in the southeast corner of the intersection.

- **Intersection No. 6 – Pacific Avenue at 3rd Street:** Due to the curb relocation along Pacific Avenue, the existing traffic signal and corresponding equipment may need to be modified or relocated to accommodate the new curb modifications in the northeast corner of the intersection.

10.3 Transportation Improvement Fee

Pursuant to the requirements of the City of Long Beach Municipal Code, Transportation Improvement Frees will be required of the Project. The Transportation Improvement Fee, based on the size of all new commercial development in the City of Long Beach, is assessed as shown below:

- Residential: $1,125.00 per unit
- Retail (City-wide): $4.50 per square-foot

Based on a total Project development of 345 DU of residential and 14,481 SF of retail/restaurant space, the proposed Project can be expected to pay up to **$453,289.50** in Transportation Improvement Fees. The precise fee will be determined by the City upon issuance of Project building permits.

11.0 SITE ACCESS EVALUATION

11.1 Site Access

Vehicular access to the proposed Project's parking garage will be provided via two (2) full access driveways on the east side of the North and South Building off of Solano Court; no vehicular access is proposed from W. 3rd Street, W. 4th Street, or Pacific Avenue.

Table 11-1 summarizes the intersection operation at the proposed driveways for Year 2021 Cumulative plus Project traffic conditions upon completion and full occupancy of the proposed Project. The operations analysis for the Project driveways are based on the *Highway Capacity Manual* (HCM 6th Edition) methodology. A review of *Table 11-1* indicates that the proposed driveways are forecast to operate at acceptable LOS A during both the AM and PM peak hours. Therefore, Project site access is considered adequate.

Appendix E presents the level of service calculation worksheets for the proposed Project driveways.

11.2 Internal Circulation Evaluation

Solano Court will provide access for small service/delivery trucks (i.e. UPS, FedEx, and trash trucks) and passenger vehicles for the Project site. Trucks are anticipated to enter the Project site from 3rd Street and exit via 4th Street. Our evaluation of the on-site circulation shown on the Project site plan was performed using the *Turning Vehicle Templates*, developed by Jack E. Leisch & Associates and *AutoTURN for AutoCAD* computer software that simulates turning maneuvers for various types of vehicles. ***Figure 11-1*** illustrates the turning movements required of a trash truck as it accesses the site from W. 3rd Street via Solano Court and exits to W. 4th Street. Therefore, access to and from the site via a trash truck is considered adequate.

Figure 11-2 illustrates a small delivery truck (SU-30) as it accesses the site from W. 3rd Street via Solano Court and exits to W. 4th Street. Review of *Figure 11-2* shows that an SU-30 turning movement could be inhibited if vehicles are parked in the two parking spaces located along the south side of W. 3rd Street. In this case a truck driver may have to make a three-point turn to enter Solano Court and avoid vehicles parked on-street. Alternatively, removal of two (2) spaces is an optional improvement that would require review/approval by City staff.

Figure 11-3 presents the turning maneuvers of a small delivery truck form W. 4th Street via Solano Court and exiting to W. 3rd Street. Overall the turning maneuvers are considered adequate. However, please note that the loading spaces along Solano Court could not be accessed based on *Figure 11-3* and would require delivery trucks to use the alleyway for loading and unloading.

TABLE 11-1
PROJECT DRIVEWAY PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Project Driveway		Time Period	Intersection Control	Year 2021 Cumulative Plus Project Traffic Conditions	
				Delay	LOS
A.	Solano Court at Project Driveway 1 (North)	AM PM	One – Way Stop	9.0 s/v 8.8 s/v	A A
B.	Solano Court at Project Driveway 2 (South)	AM PM	One – Way Stop	8.6 s/v 8.5 s/v	A A

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Table 3-2* for the LOS definitions

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SOURCE: ANKROM MOISAN ARCHITECTS

LINSCOTT LAW & GREENSPAN engineers

NO SCALE

FIGURE 11-1

TRASH TRUCK TURNING ANALYSIS FROM W 3RD STREET

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

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SOURCE: ANKROM MOISAN ARCHITECTS

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FIGURE 11-2

SU-30 TRUCK TURNING ANALYSIS FROM W 3RD STREET

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: ANKROM MOISAN ARCHITECTS

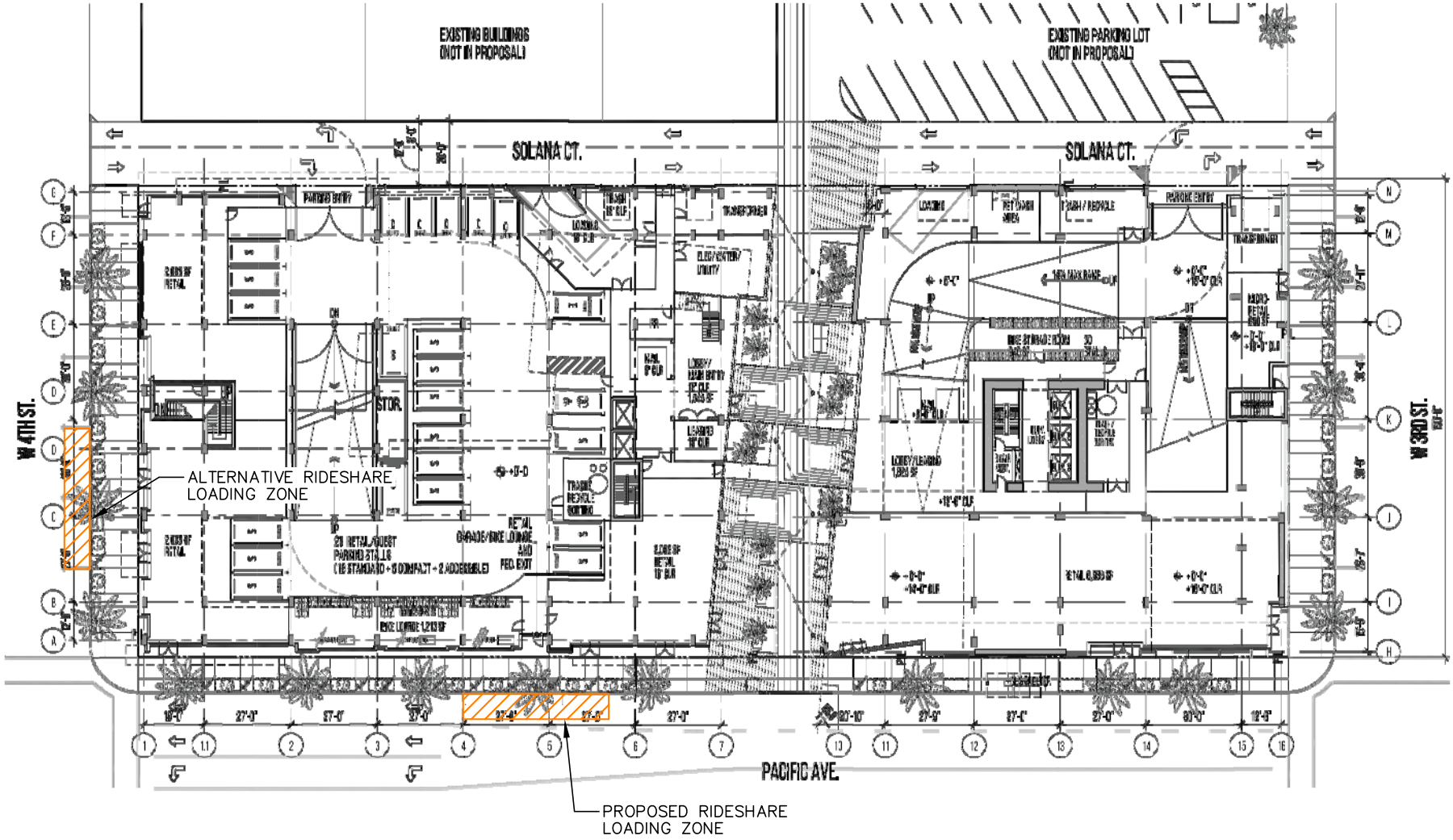
FIGURE 11-3

SU-30 TRUCK TURNING ANALYSIS FROM W 4TH STREET

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

11.3 Rideshare Loading Zone

A rideshare loading zone is proposed to be included as part of the Project. Two potential loading zone areas have been identified which are graphically depicted in ***Figure 11-4.*** The potential rideshare location along Pacific Avenue is proposed to be located north of Roble Way. The placement of the loading zone would occur in public right-of-way along Pacific Avenue and is anticipated to impede vehicles traveling in the northbound through lane. This would result in creating undue congestion along the Pacific Avenue which is not recommended. In an effort to minimize congestion, an alternative location is recommended along 4th Street. The placement of the loading zone on 4th Street is more feasible to achieve with the conversion of existing on-street parking spaces to rideshare loading spaces. Based on the two potential options, it is recommended that the 4th Street option be pursued, to help minimize conflicts and congestion.



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SOURCE: ANKROM MOISAN ARCHITECTS

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

FIGURE 11–4

RIDESHARE LOADING ZONE LOCATIONS

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

12.0 CONGESTION MANAGEMENT PROGRAM COMPLIANCE ASSESSMENT

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system.

For purposes of the CMP, a significant impact occurs when the proposed Project increases traffic demand on a CMP facility by two percent of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00). If the facility is already at LOS F, a significant impact occurs when the proposed Project increases traffic demand on a CMP facility by two percent of capacity (V/C ≥ 0.02).

12.1 Traffic Impact Review

As required by the current *Congestion Management Program for Los Angeles County*, a review has been made of designated monitoring locations on the CMP highway system for potential impact analysis. Per CMP TIA criteria, the geographic area examined in the TIA must include the following, at a minimum:

> All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where the Project will add 50 or more trips during either the AM or PM weekday peak hours.
>
> Mainline freeway-monitoring stations where the Project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

12.1.1 *Intersections*

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

CMP Station	Int. No.	Intersection/Jurisdiction
No. 33	28	Alamitos Avenue/Shoreline Drive at Ocean Boulevard

As stated earlier, the CMP guidelines require that arterial monitoring intersection locations must be examined if the proposed Project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic) at CMP monitoring intersections. Based on the proposed Project's trip generation potential, trip distribution and trip assignment, the Project will not add more than 50 at the identified CMP intersections during the weekday AM peak hour or PM peak hour[53]. Therefore a CMP intersection traffic impact analysis is not required.

[53] At the intersection of Alamitos Avenue/Shoreline Drive at Ocean Boulevard, the proposed Project is expected to only add 26 trips in the AM peak hour (256 total peak hour trips multiplied by 10% project distribution along Ocean Boulevard) and 21 trips in the PM peak hour (206 total peak hour trips multiplied by 10% project distribution along Ocean Boulevard).

12.1.2 *Freeways*

The following CMP freeway monitoring location in the Project vicinity has been identified:

CMP Station	Intersection/Jurisdiction
No. 1078	I-710, north of Route 1 (PCH)

As stated earlier, the CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. Based on the Project's trip generation potential and distribution pattern, the proposed Project will not add more than 150 trips during the AM or PM peak hour at this CMP mainline freeway-monitoring location. Therefore, a CMP freeway traffic impact analysis is not required.

12.2 Transit Impact Review

As required by the current *Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the Project on transit service. As previously discussed and shown in *Figure 3-4*, a number of transit services exist in the Project area, necessitating the following transit impact review.

The Project trip generation, as shown in *Table 5-1*, was adjusted by values set forth in the CMP (i.e. person trips equal 1.4 times vehicle trips, and transit trips equal 7 percent of the total person trips) to estimate Project-related transit trip generation. Pursuant to the CMP guidelines, the proposed Project is forecast to generate 25 transit trips (12 inbound and 13 outbound) during the AM peak hour and 20 transit trips (11 inbound and 9 outbound) during the PM peak hour. Over a 24-hour period the proposed Project is forecasted to generate 252 daily weekday transit trips.

Due to the extensive bus and rail line services in the immediate area, it is anticipated that the existing transit service would be able to accommodate the Project generated transit trips. Therefore, given the number of transit trips generated by the Project and the existing transit routes in the Project vicinity, it is concluded that the existing public transit system would not be significantly impacted by the proposed Project.

13.0 CONSTRUCTION ASSESSMENT

Per the request of City staff, an assessment was completed to address the potential traffic impacts associated with the construction activities for the proposed Project. It is anticipated that construction activities will include demolition, grading and excavation, and building construction.

13.1 Project Construction Traffic Generation

Table 13-1 presents a summary of the forecast construction peak hour and daily traffic volumes associated with each construction phase. Information on construction trip estimates were provided by Ensemble Real Estate Investments. In addition, the following assumptions were utilized for truck trips and employee trips.

- Each truckload requires an inbound trip and an outbound trip.
- The daily number of truck trips was averaged over the eight-hour workday to obtain the number of peak hour truck trips (50% entering and 50% exiting).
- All truck trips were converted to passenger car equivalents (P.C.E.'s) using a P.C.E. factor of 2.5.
- The majority, if not all, the workers would make 2 trips per day (one during the AM peak hour and one during the PM peak hour); some during the building construction phase would arrive and/or depart before the weekday morning and evening commute hours.

Review of *Table 13-1* shows that on a typical weekday during the demolition phase, construction traffic is expected to generate 73 daily trips with 14 trips (11 inbound, 3 outbound) produced during the AM peak hour and 14 trips (5 inbound, 9 outbound) produced in the PM peak hour.

On a typical weekday during the grading/site preparation phase, construction traffic is expected to generate 296 daily trips with 44 trips (26 inbound, 18 outbound) produced during the AM peak hour and 44 trips (18 inbound, 26 outbound) produced in the PM peak hour.

On a typical weekday during the building construction phase, construction traffic is expected to generate 614 daily trips with 198 trips (185 inbound, 13 outbound) produced during the AM peak hour and 198 trips (13 inbound, 185 outbound) produced in the PM peak hour.

Based on the expected generated trips, the building construction phase will produce the most trips. Therefore, the Project construction-related traffic analysis will be based off the building construction traffic.

TABLE 3-1
PROJECT CONSTRUCTION-RELATED TRIP GENERATION FORECAST

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Demolition Phase – Trip Generation Forecast							
▪ Construction Truck Traffic	24	2	1	3	2	1	3
Passenger Car Equivalent[54]	*60*	*5*	*3*	*8*	*5*	*3*	*8*
▪ Employees	13	6	0	6	0	6	6
Total Demolition Phase Trip Generation Potential	**73**	**11**	**3**	**14**	**5**	**9**	**14**
Grading/Site Preparation Phase – Trip Generation Forecast							
▪ Construction Truck Traffic	112	7	7	14	7	7	14
Passenger Car Equivalent[54]	*280*	*18*	*18*	*36*	*18*	*18*	*36*
▪ Employees	16	8	0	8	0	8	8
Total Grading/Site Preparation Phase Trip Generation Potential	**296**	**26**	**18**	**44**	**18**	**26**	**44**
Building Construction Phase – Trip Generation Forecast							
▪ Construction Truck Traffic	75	5	5	10	5	5	10
Passenger Car Equivalent[54]	*188*	*13*	*13*	*26*	*13*	*13*	*26*
▪ Employees	426	172	0	172	0	172	172
Total Building Construction Phase Trip Generation Potential	**614**	**185**	**13**	**198**	**13**	**185**	**198**

[54] A passenger car equivalent factor of 2.5 was applied to the truck trips to convert them into passenger car trips.

13.2 Project Construction Traffic Distribution Pattern

Figure 13-1 graphically illustrates the traffic distribution pattern for all construction employee related traffic. ***Figure 13-2*** illustrates the traffic distribution pattern for all construction truck related traffic.

The anticipated AM and PM peak hour construction traffic volumes at the key study intersections are presented in ***Figures 13-3*** and ***13-4***, respectively. The traffic volume assignments presented in *Figures 13-3* and *13-4* reflect the construction traffic distribution characteristics shown in *Figures 13-1* and *13-2* and the construction traffic generation forecast presented in *Table 13-1*.

13.3 Existing Plus Project Construction Traffic Volumes

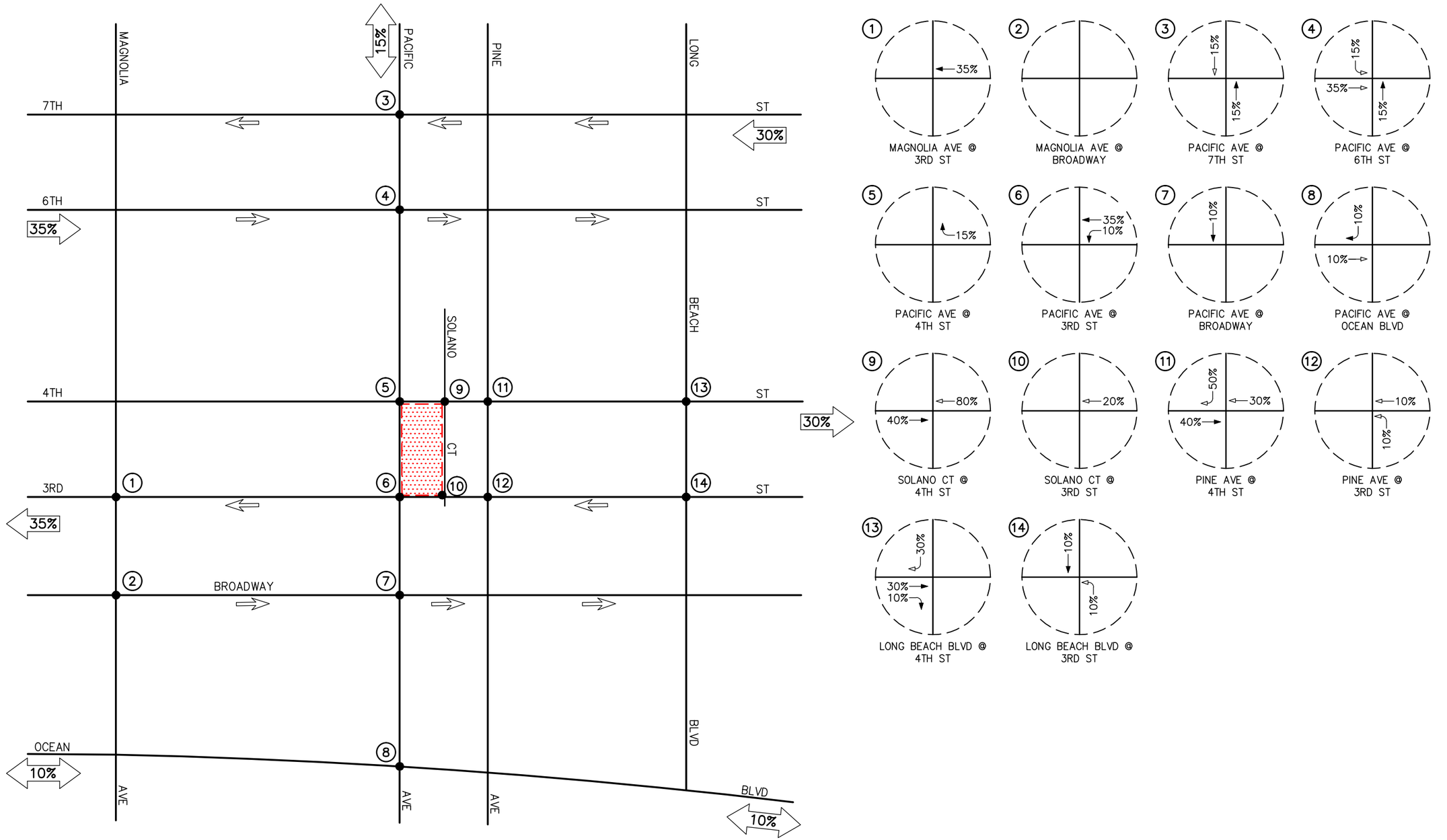
Figures 13-5 and ***13-6*** present the Existing Plus Project construction traffic volumes at the key study intersections during the AM and PM peak hours, respectively.

13.4 Existing Plus Project Construction Traffic Level of Service Results

Table 13-2 summarizes the peak hour Level of Service results at the fourteen (14) key study intersections for Existing Plus Construction traffic conditions. The first column (1) of ICU/LOS values in *Table 13-2* presents a summary of Existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists Existing Plus Construction traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU value due to the added peak hour construction trips and indicates whether the traffic associated with the construction will have a significant impact based on the significant impact criteria defined in this report. The fourth column (4) indicates the anticipated level of service with improvements, if any.

Review of columns 2 and 3 of *Table 13-2* indicates that the traffic associated with the construction activities of the Project will not directly impact any of the fourteen (14) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All the key study intersections are forecast to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours.

Appendix F presents the Existing Plus Construction traffic weekday ICU/LOS calculations for the fourteen (14) key study intersections.



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KEY

(#) = STUDY INTERSECTION

⟵ = INBOUND PERCENTAGE

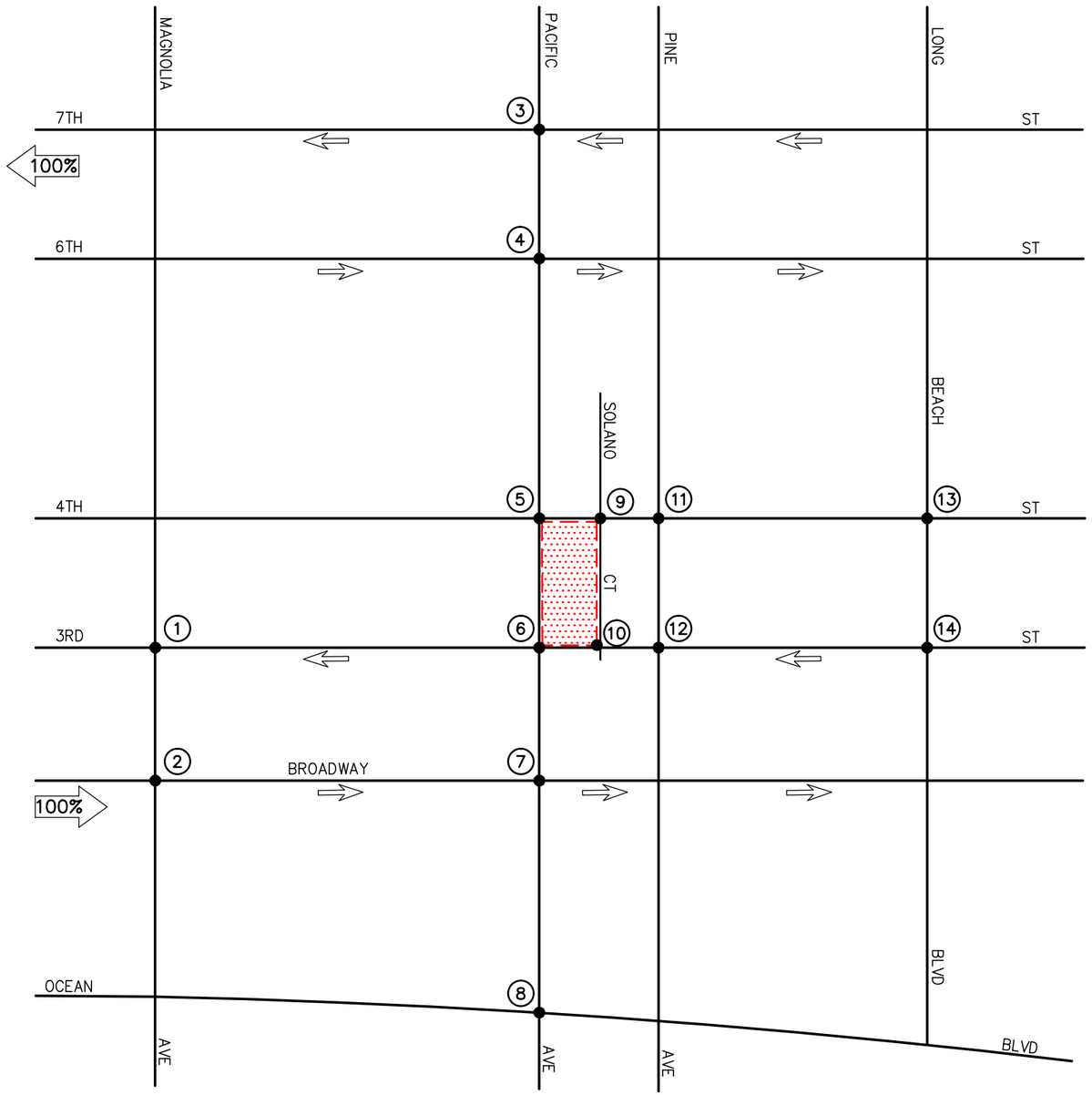
⟵ = OUTBOUND PERCENTAGE

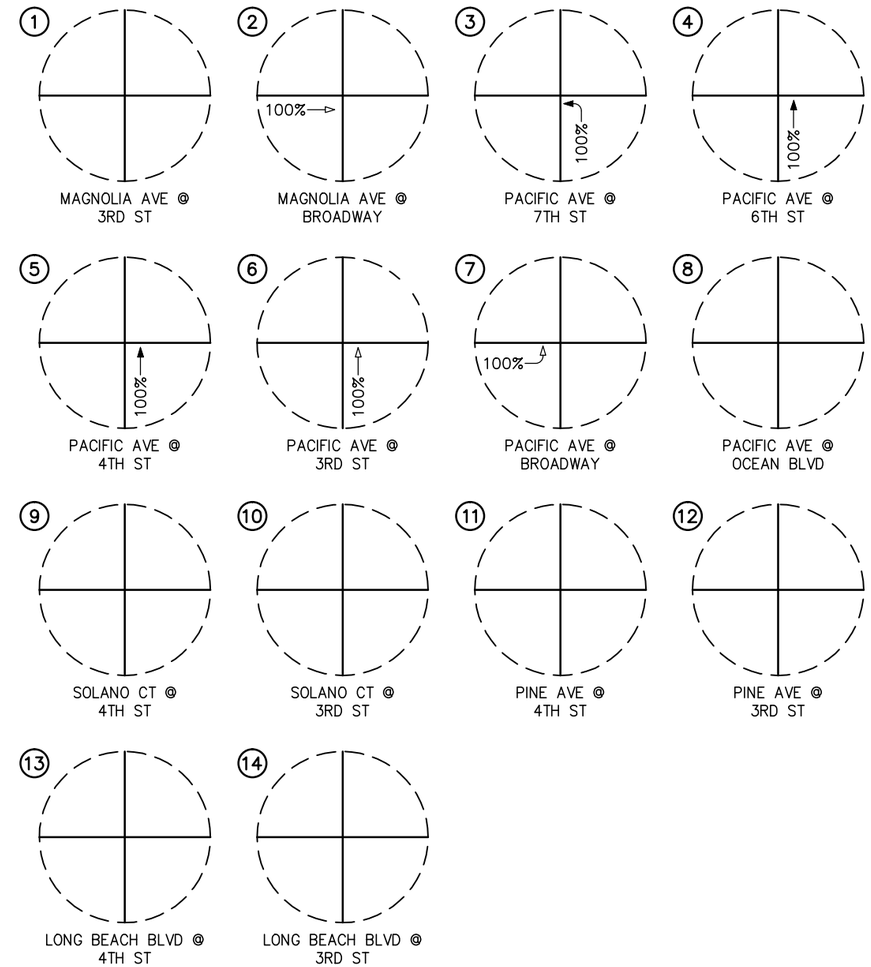
▭ = PROJECT SITE

FIGURE 13–1

PROJECT CONSTRUCTION EMPLOYEE TRAFFIC DISTRIBUTION PATTERN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH





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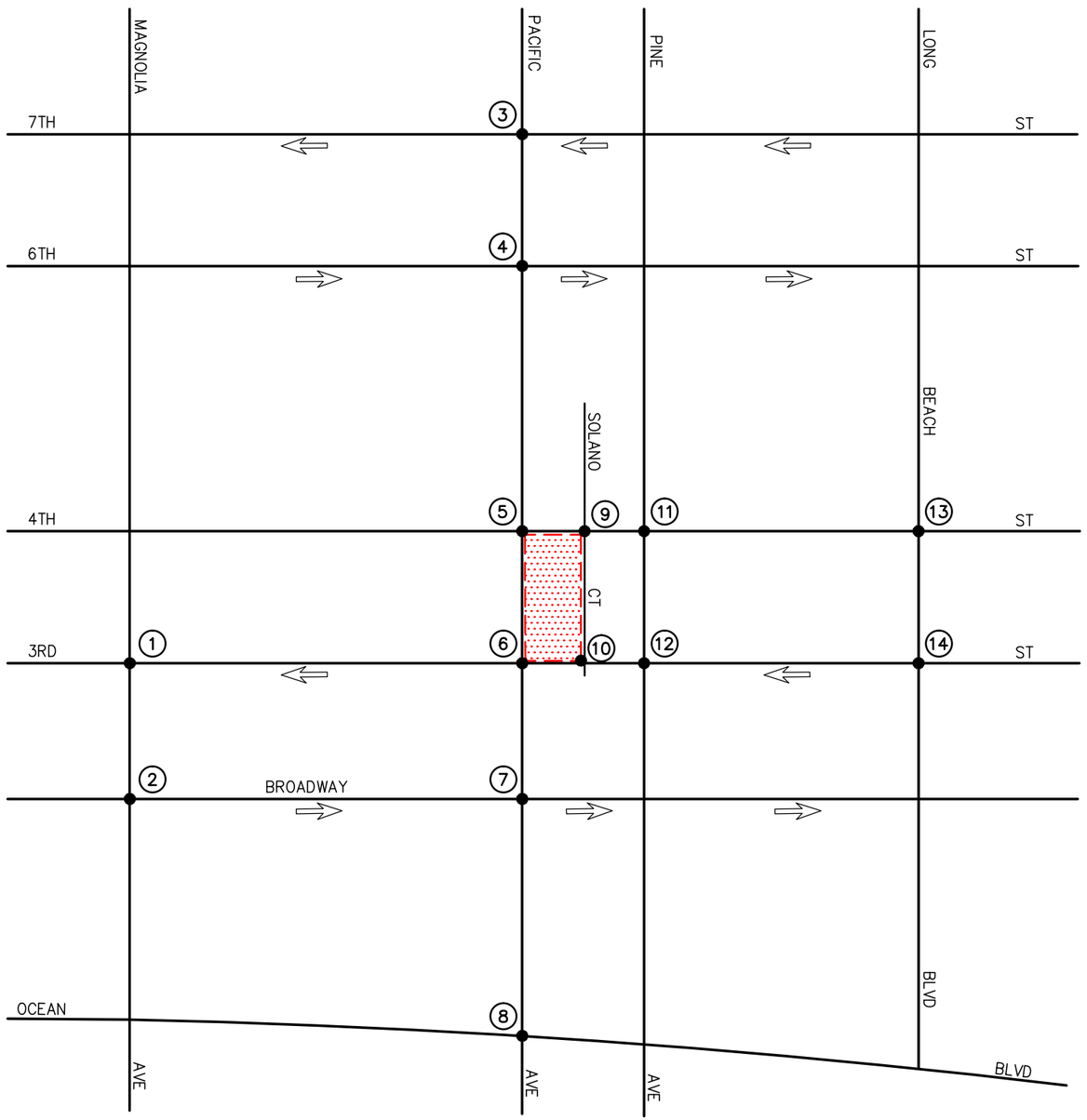
KEY

(#) = STUDY INTERSECTION
= INBOUND PERCENTAGE
= OUTBOUND PERCENTAGE
= PROJECT SITE

FIGURE 13–2

PROJECT CONSTRUCTION TRUCKS TRAFFIC DISTRIBUTION PATTERN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



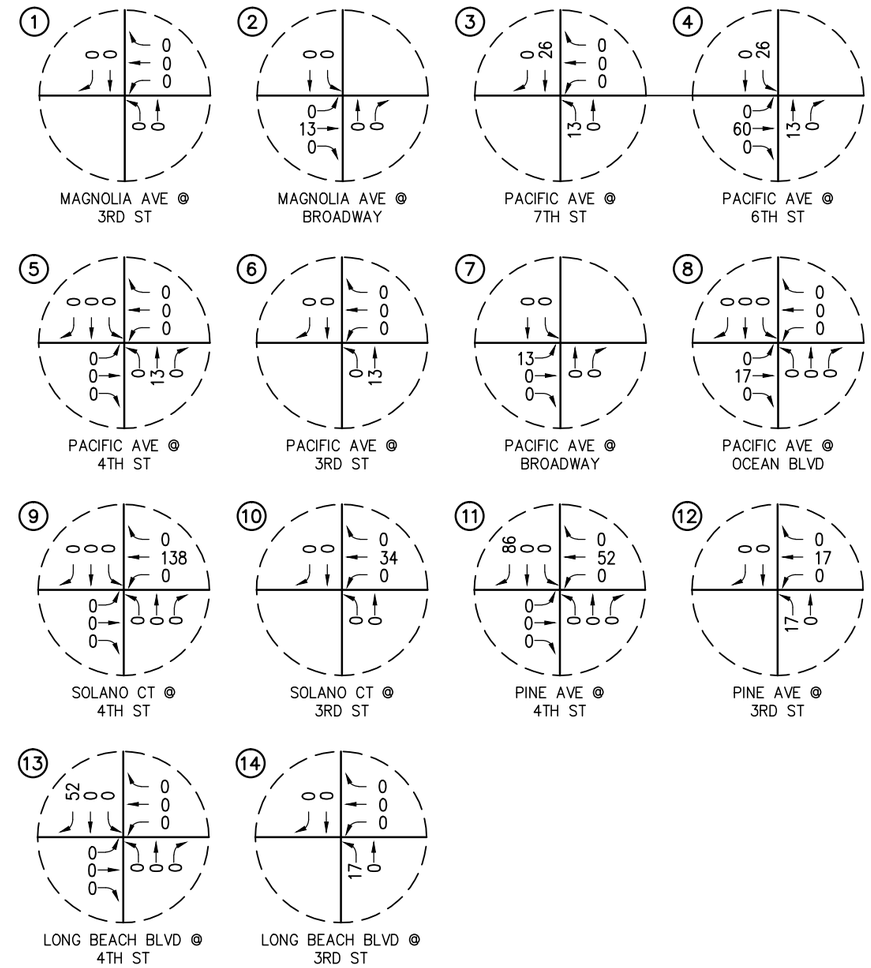


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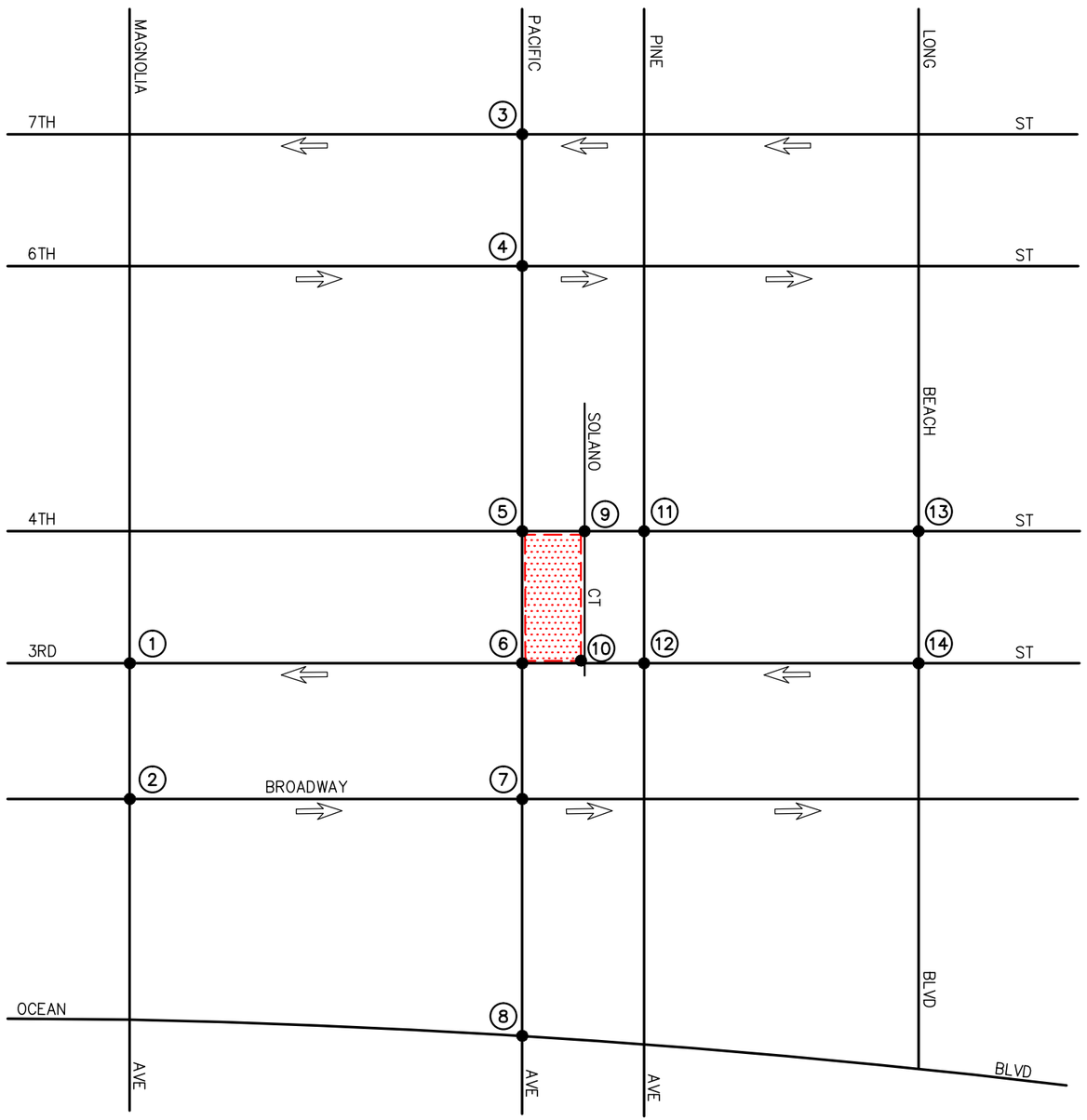
FIGURE 13–3

AM PEAK HOUR CONSTRUCTION TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



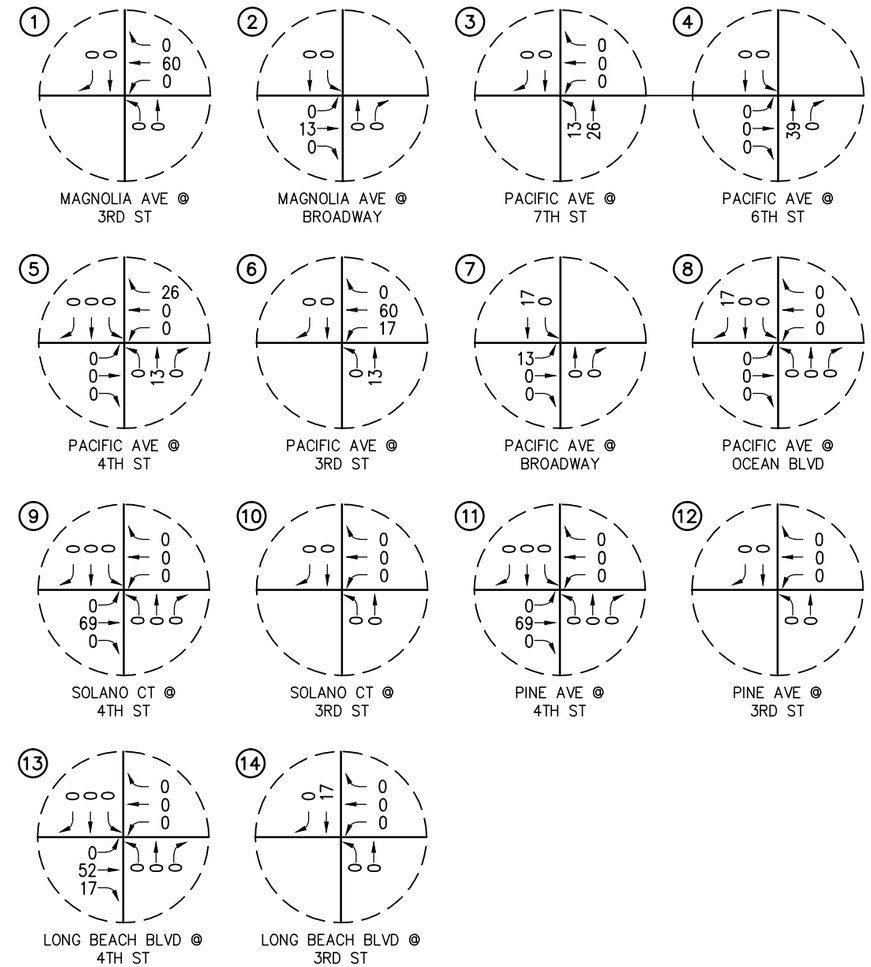


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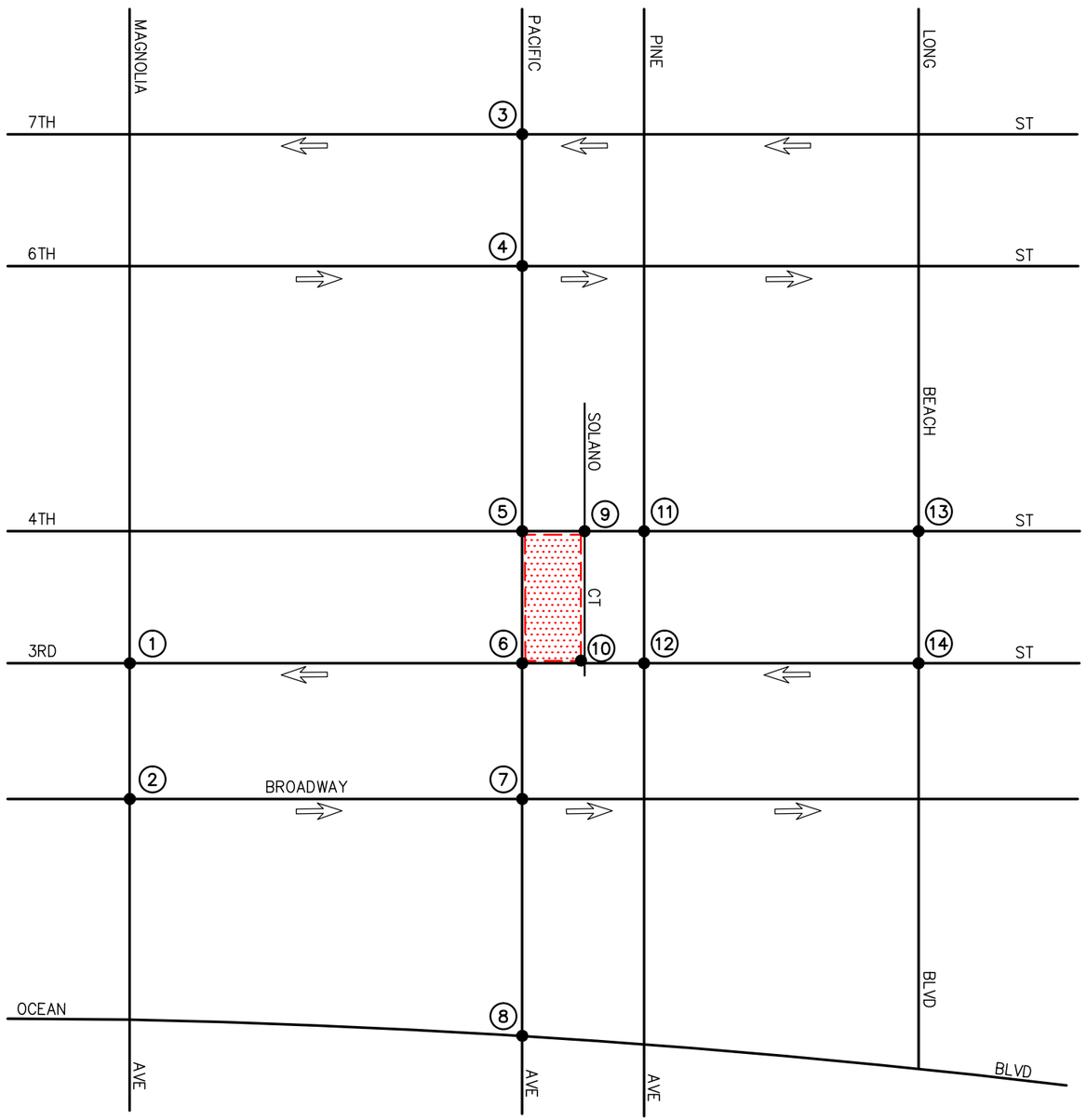
FIGURE 13–4

PM PEAK HOUR CONSTRUCTION TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



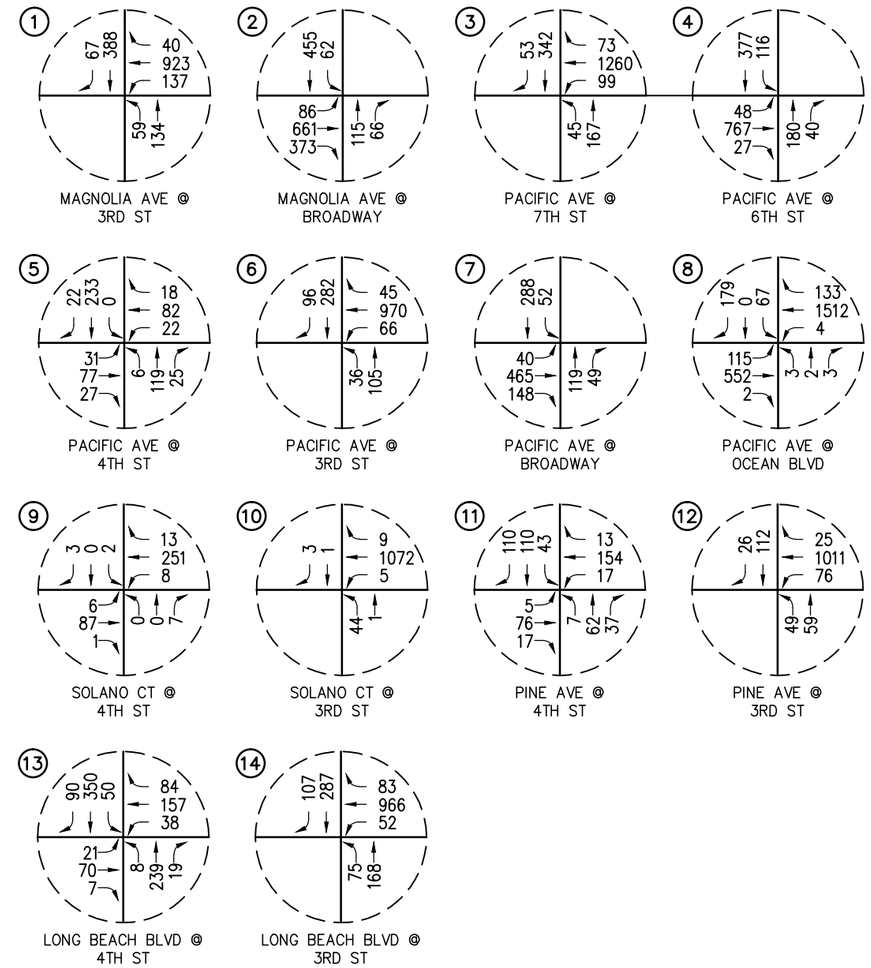


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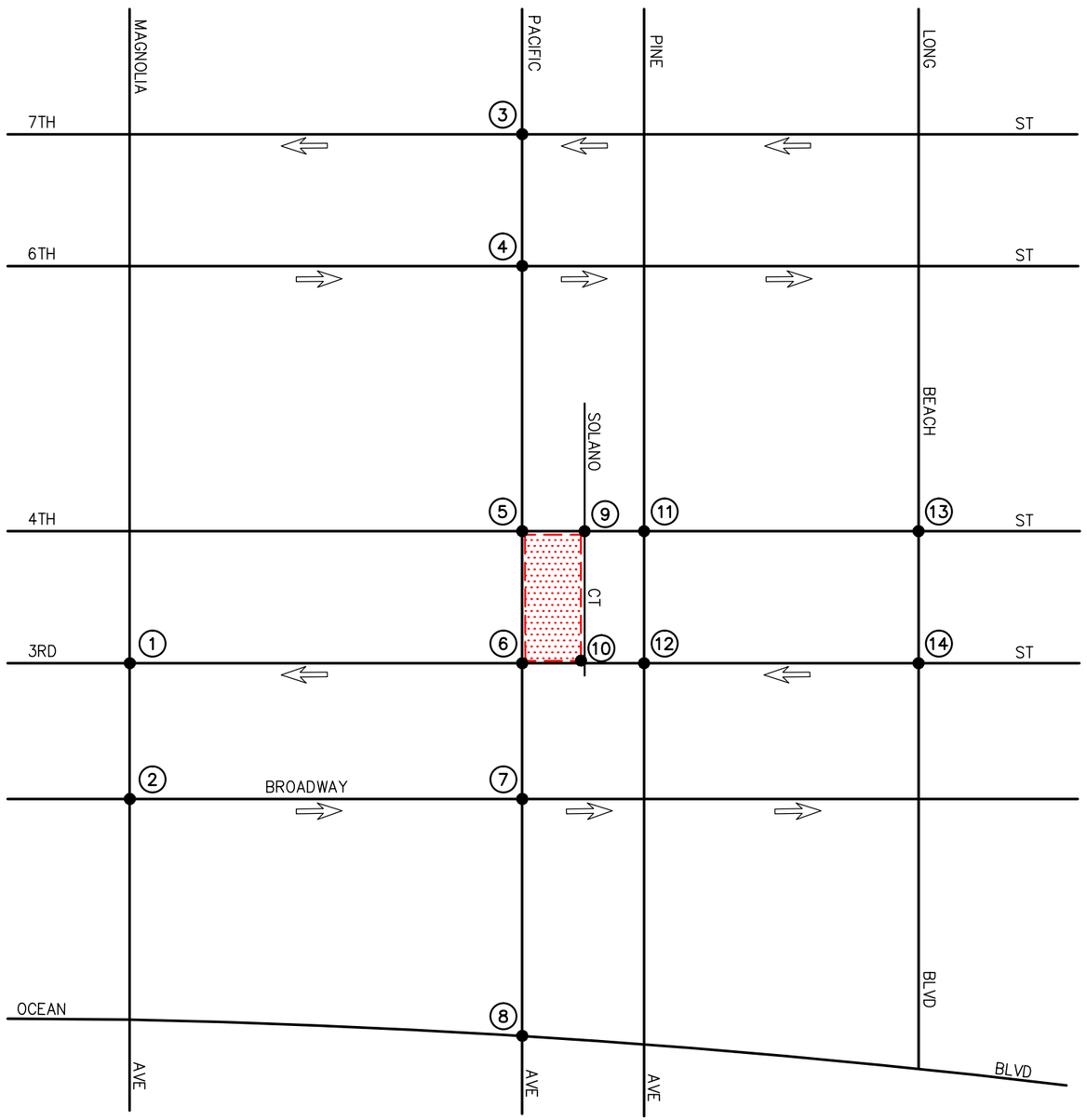
FIGURE 13–5

EXISTING PLUS CONSTRUCTION AM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



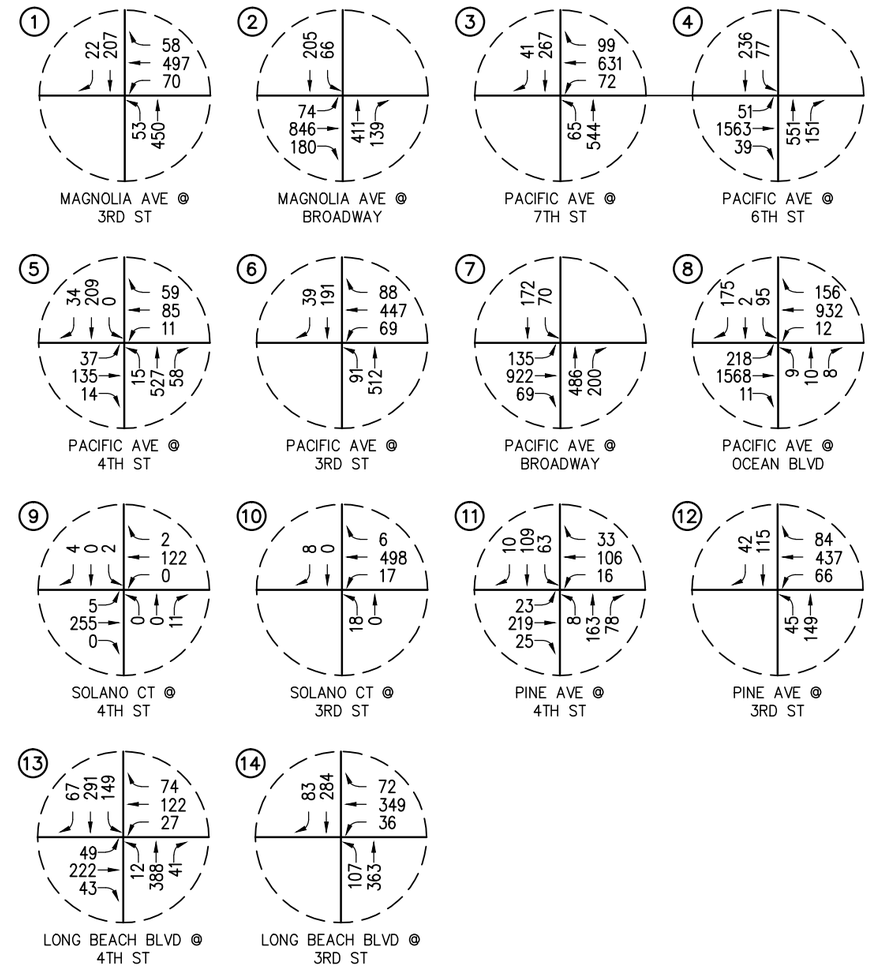


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FIGURE 13–6

EXISTING PLUS CONSTRUCTION PM PEAK HOUR TRAFFIC VOLUMES

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

TABLE 13-2

EXISTING PLUS CONSTRUCTION PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Construction Traffic Conditions		(3) Significant Impact		(4) Existing Plus Construction Traffic Conditions with Improvements	
		ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1. Magnolia Avenue at 3rd Street	AM	0.722	C	0.722	C	0.000	No	--	--
	PM	0.536	A	0.555	A	0.019	No	--	--
2. Magnolia Avenue at Broadway	AM	0.475	A	0.475	A	0.000	No	--	--
	PM	0.658	B	0.663	B	0.005	No	--	--
3. Pacific Avenue at 7th Street	AM	0.513	A	0.529	A	0.016	No	--	--
	PM	0.414	A	0.422	A	0.008	No	--	--
4. Pacific Avenue at 6th Street	AM	0.368	A	0.401	A	0.033	No	--	--
	PM	0.681	B	0.693	B	0.012	No	--	--
5. Pacific Avenue at 4th Street	AM	0.265	A	0.265	A	0.000	No	--	--
	PM	0.379	A	0.396	A	0.017	No	--	--
6. Pacific Avenue at 3rd Street	AM	0.528	A	0.528	A	0.000	No	--	--
	PM	0.404	A	0.427	A	0.023	No	--	--
7. Pacific Avenue at Broadway	AM	0.382	A	0.382	A	0.000	No	--	--
	PM	0.605	B	0.605	B	0.000	No	--	--
8. Pacific Avenue at Ocean Boulevard	AM	0.604	B	0.604	B	0.000	No	--	--
	PM	0.552	A	0.563	A	0.011	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

TABLE 13-2 (CONTINUED)
EXISTING PLUS CONSTRUCTION PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection		Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Construction Traffic Conditions		(3) Significant Impact		(4) Existing Plus Construction Traffic Conditions with Improvements	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
9.	Solano Court at	AM	9.4 s/v	A	10.3 s/v	B	0.9 s/v	No	--	--
	4th Street[55]	PM	9.5 s/v	A	10.1 s/v	B	0.6 s/v	No	--	--
10.	Solano Court at	AM	32.1 s/v	D	34.3 s/v	D	2.2 s/v	No	--	--
	3rd Street[55]	PM	14.4 s/v	B	14.4 s/v	B	0.0 s/v	No	--	--
11.	Pine Avenue at	AM	0.264	A	0.349	A	0.085	No	--	--
	4th Street	PM	0.409	A	0.453	A	0.044	No	--	--
12.	Pine Avenue at	AM	0.508	A	0.524	A	0.016	No	--	--
	3rd Street	PM	0.363	A	0.363	A	0.000	No	--	--
13.	Long Beach Boulevard at	AM	0.390	A	0.406	A	0.016	No	--	--
	4th Street	PM	0.480	A	0.510	A	0.030	No	--	--
14.	Long Beach Boulevard at	AM	0.554	A	0.564	A	0.010	No	--	--
	3rd Street	PM	0.382	A	0.387	A	0.005	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

[55] Unsignalized intersection.

13.5 Construction Management Plan

To ensure impacts to the surrounding street system are kept a minimum, it is recommended that a Construction Management Plan for the proposed Project be developed. The Construction Management Plan should be developed in coordination with the City of Long Beach and at a minimum, address the following:

- Traffic control for any street closure, detour, or other disruption to traffic circulation.
- Identify the routes that construction vehicles will utilize for the delivery of construction materials (i.e. lumber, tiles, piping, windows, etc.), to access the site, traffic controls and detours, and proposed construction phasing plan for the project.
- Specify the hours during which transport activities can occur and to minimize temporary construction-related impacts to adjacent streets.
- Require the Applicant to keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Applicant shall clean adjacent streets, as directed by the City Traffic Engineer (or representative of the City Traffic Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.
- Confirm when hauling or transport of oversize loads will be allowed during the weekdays, Monday through Friday, with the City Traffic Engineer.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.
- Construction-related parking and staging of vehicles shall occur on-site to the extent possible, but may occur on nearby public parking lots, as approved by the City Traffic Engineer.
- This Construction Manangement Plan shall meet standards established in the current *California Manual on Uniform Traffic Control Device (MUTCD)* as well as City of Long Beach requirements.

APPENDIX A

TRAFFIC IMPACT ANALYSIS SCOPE OF WORK

MEMORANDUM

LINSCOTT LAW & GREENSPAN engineers

Engineers & Planners
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Transportation
Parking

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Pasadena
Irvine
San Diego
Woodland Hills

To: Mr. Eric Widstrand, P.E., T.E., P.T.O.E.
City Traffic Engineer – City of Long Beach

Date: January 8, 2018

From: Richard E. Barretto, P.E., Principal
Linscott, Law & Greenspan, Engineers

LLG Ref: 2.17.3921.1

Subject: ***TIA Scope of Work for the 3rd & Pacific Apartments Project***
Long Beach, California

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit the following Traffic Impact Analysis Scope of Work for the proposed 3rd and Pacific Apartments Project in the City of Long Beach for the City's review and approval.

Traffic Study Scope of Work

The Traffic Impact Analysis for the proposed 3rd and Pacific Apartments Project (herein referred to as "Project") will be prepared according to and satisfy the traffic impact requirements of the City of Long Beach and will be consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Los Angeles County*.

A. Project Location: The Project site is located within the Downtown Planned Development district of the *Long Beach Downtown Community Plan*. The subject property is a rectangular-shaped 1.22± acre parcel of land that is currently improved with a public parking lot and a surface parking lot for City vehicles. Access to the site is currently provided via a right-turn only driveway on 3rd Street and a full access driveway on 4th Street. See attached ***Figure 1-1,*** a Vicinity Map that illustrates the general location of the Project and surrounding street system. ***Figure 2-1*** displays the existing sites aerial.

B. Project Description: The proposed Project will include the development of up to 366 apartment units and 19,782 square-feet (SF) if ground floor retail and restaurant/café uses with a total of 483 parking spaces within two buildings. The ground floor commercial amenities totaling 19,782 SF includes 12,562 SF of retail space and up to 7,220 SF of food uses/café.

The North Building is proposed as a seven level apartment podium with up to 118 apartment homes and approximately 8,037 SF of ground floor retail/commercial space (including mezzanine) over three-levels of subterranean structured parking.

The South Building is proposed as a 21-level apartment podium with up to 248 apartment homes and 11,745 SF of ground floor retail and restaurant/café uses over three-levels of subterranean structured parking.

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A review of the Project site plan indicates that vehicular access to the proposed Project's parking garage will be provided via a full access driveway on the east side of the North Building off of Solana Court; no vehicular access is proposed from W. 3rd Street, W. 4th Street, or Pacific Avenue. Trucks are anticipated to enter the Project site from 3rd Street and exit via 4th Street. Pedestrian access to both the residential and retail components of the Project will be provided via building entries/exits located on the streets bordering the site, but also on Roble Way, which bisects the two buildings and is planned as a pedestrian promenade.

Figure 2-2 presents the conceptual site plan, prepared by Ankrom Moisan Architects, Inc.

C. Traffic Study Locations: Subject to confirmation of City of Long Beach, the following fourteen (14) key study intersections represent a list of potential study intersections to be evaluated in the Project's traffic impact study.

Key Study Intersections

1. Magnolia Avenue at 3rd Street
2. Magnolia Avenue at Broadway
3. Pacific Avenue at 7th Street
4. Pacific Avenue at 6th Street
5. Pacific Avenue at 4th Street
6. Pacific Avenue at 3rd Street
7. Pacific Avenue at Broadway
8. Pacific Avenue at Ocean Boulevard
9. Solana Court at 4th Street
10. Solana Court at 3rd Street
11. Pine Avenue at 4th Street
12. Pine Avenue at 3rd Street
13. Long Beach Boulevard at 4th Street
14. Long Beach Boulevard at 3rd Street

D. Level of Service Criteria: According to City of Long Beach criteria, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all City intersections.

E. Impact Criteria: The City of Long Beach considers LOS D to be the minimum acceptable service level that should be maintained during the peak commute hours, or the current LOS if that existing LOS is worse than LOS D (i.e. LOS E or F). For this study, a significant project impact is defined as an increase in the intersection volume-to-capacity (V/C) of 0.020 or greater at any location where the final (future) LOS is deficient or adverse (LOS E or worse); or a two percent (2%) change in delay at unsignalized intersections where the final LOS is E or F.

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F. Traffic Counts: Weekday AM peak period and PM peak period intersection traffic counts will be collected on the second week of January at the fourteen (14) key study intersections to establish existing baseline traffic conditions.

G. Traffic Generation: Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the Tenth Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2017].

Table 5-1A presents the trip generation forecast for the proposed Project based on the methodologies used in prior traffic studies that were approved in downtown Long Beach. *Table 5-1A* summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and also presents the project's forecast peak hour and daily traffic volumes.

As shown in the upper portion of *Table 5-1A*, ITE Land Use 221: Multifamily Housing (Mid-Rise), ITE Land Use 222: Multifamily Housing (High-Rise), and ITE Land Use 820: Shopping Center trip rates was used to forecast the trip generation potential of the proposed Project.

A review of the lower portion of this table indicates that the proposed Project is forecast to generate approximately 2,872 "net" daily trips, with 263 "net" trips (121 inbound, 142 outbound) produced in the AM peak hour and 233 "net" trips (128 inbound, 104 outbound) produced in the PM peak hour on a "typical" weekday.

Please note that a 5% non-auto trip reduction was applied to the trip generation to account for other modes of transportation within a downtown area (i.e. public transit, walking, biking, etc.). This reduction is considered conservative since the downtown area in all reality may have much larger reductions.

Alternatively, ***Table 5-1B*** presents the trip generation forecast for the proposed Project based on the most current ITE *Trip Generation 10th Edition* methodology. The ITE *Trip Generation 10th Edition* defines different setting/locations for each land use and thus provides different rates based on those settings. ITE has a "Dense Multi-Use Urban" setting, which is defined as "a fully developed area (or nearly so), with diverse and interacting complementary land uses, good pedestrian connectivity, and convenient and frequent transit." The Dense Multi-Use Urban setting was considered appropriate for the setting of the proposed Project, and the respective rates were applied to forecast the project's peak hour and daily traffic volumes.

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As shown in the upper portion of *Table 5-1B*, ITE Land Use 221: Multifamily Housing (Mid-Rise), ITE Land Use 222: Multifamily Housing (High-Rise), and ITE Land Use 820: Shopping Center trip rates using Dense Multi-Use Urban setting was used to forecast the trip generation potential of the proposed Project.

A review of the lower portion of this table indicates that the proposed Project is forecast to generate approximately 1,783 daily trips, with 124 trips (35 inbound, 89 outbound) produced in the AM peak hour and 165 trips (95 inbound, 70 outbound) produced in the PM peak hour on a "typical" weekday.

A comparison of *Tables 5-1A* and *5-1B* indicate that the methodology used in the prior approved traffic studies yields a higher trip generation potential for the proposed project. As such, in order to provide a conservative assessment the project trips shown in *Table 5-1A* will be analyzed in the traffic analysis.

H. Trip Distribution: See attached ***Figure 5-1***. Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- location of site access points in relation to the surrounding street system,
- the site's proximity to major traffic carriers and regional access routes,
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns, and
- ingress/egress availability at the project site, plus parking layout and allocation within the subject property.

I. Near-Term Background Traffic:

- Project Completion: The Project is expected to be constructed over the next two years or so and completed by 2020. However, to provide a conservative assessment, Year 2021 has been utilized to assess the Project's potential traffic impacts at full occupancy of the neighborhood retail center within a near-term cumulative traffic setting.
- Ambient Growth Rate: 1.0% per year
- Cumulative Projects: The planned and/or approved projects within the project study area will be researched at the City of Long Beach.

J. Analysis Scenarios: Consistent with the City's TIA Guidelines, the following are the proposed traffic analysis scenarios.

(a) Existing traffic conditions;
(b) Existing plus Project traffic conditions;
(c) Scenario (b) with Mitigation, if necessary;

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(d) Near-Term Cumulative (2021) Traffic Conditions (Existing plus Ambient Growth plus Related Projects);
(e) Near-Term Cumulative (2021) plus Project Traffic Conditions;
(f) Scenario in (e) with Mitigation, if necessary.

The LOS calculations will be based on the Intersection Capacity Utilization (ICU) method of analysis for signalized intersections and on the Highway Capacity Manual (HCM) method for unsignalized intersections. The Project's potential impacts will be based on City of Long Beach significant impact criteria.

K. Other Issues:

- Evaluate Site Access, inclusive of service truck access and circulation.
- Conduct a CMP compliance assessment.

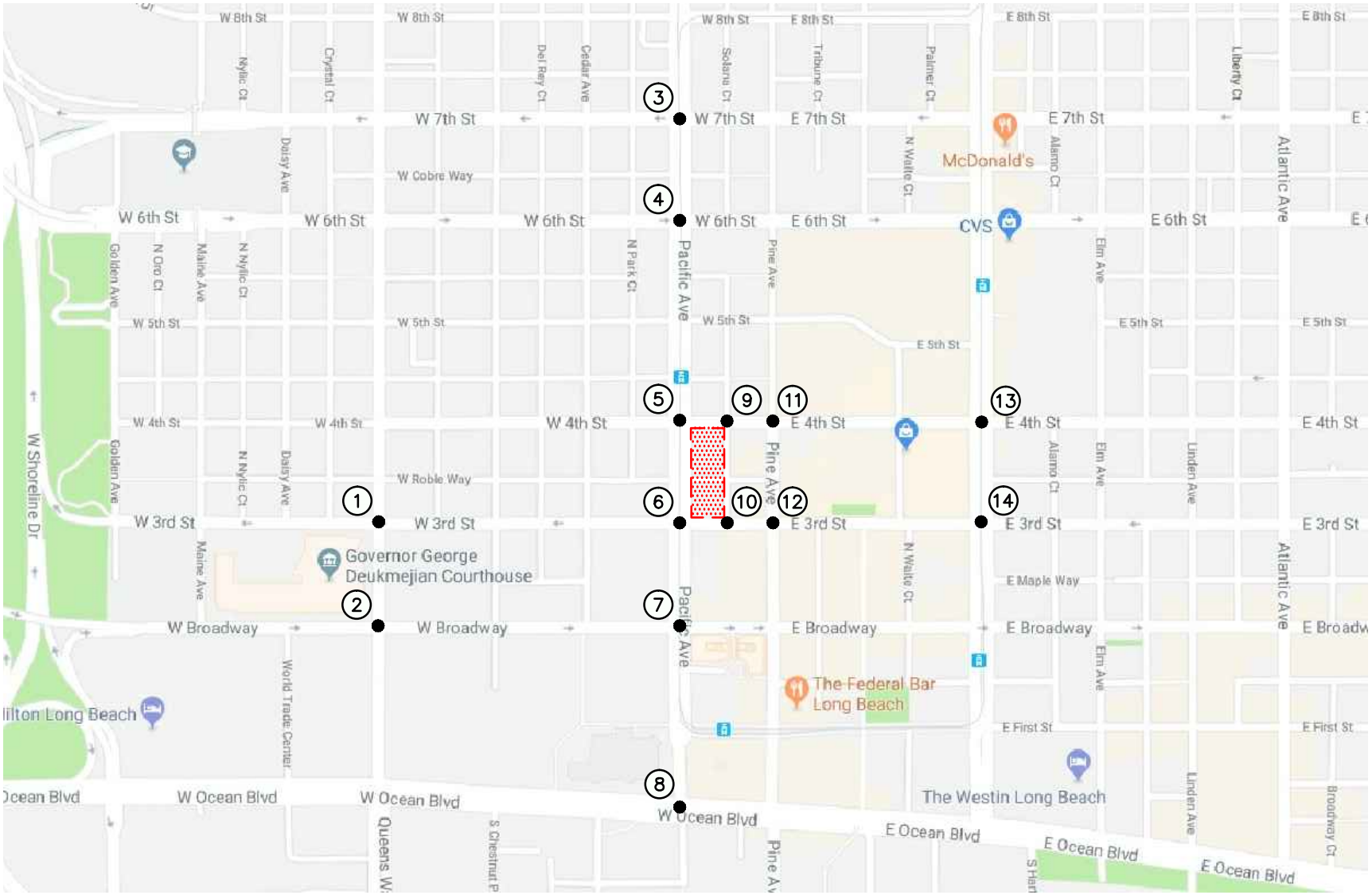
We appreciate the opportunity to provide this scope of work. Should you have any questions, please call me at (949) 825-6175. Thank You.

Approved by:

_____ _____

City of Long Beach Date

cc: File
Abraham Bandegan, TE, PTP, Assistant City Traffic Engineer
Shane Green, P.E., LLG



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = STUDY INTERSECITON

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

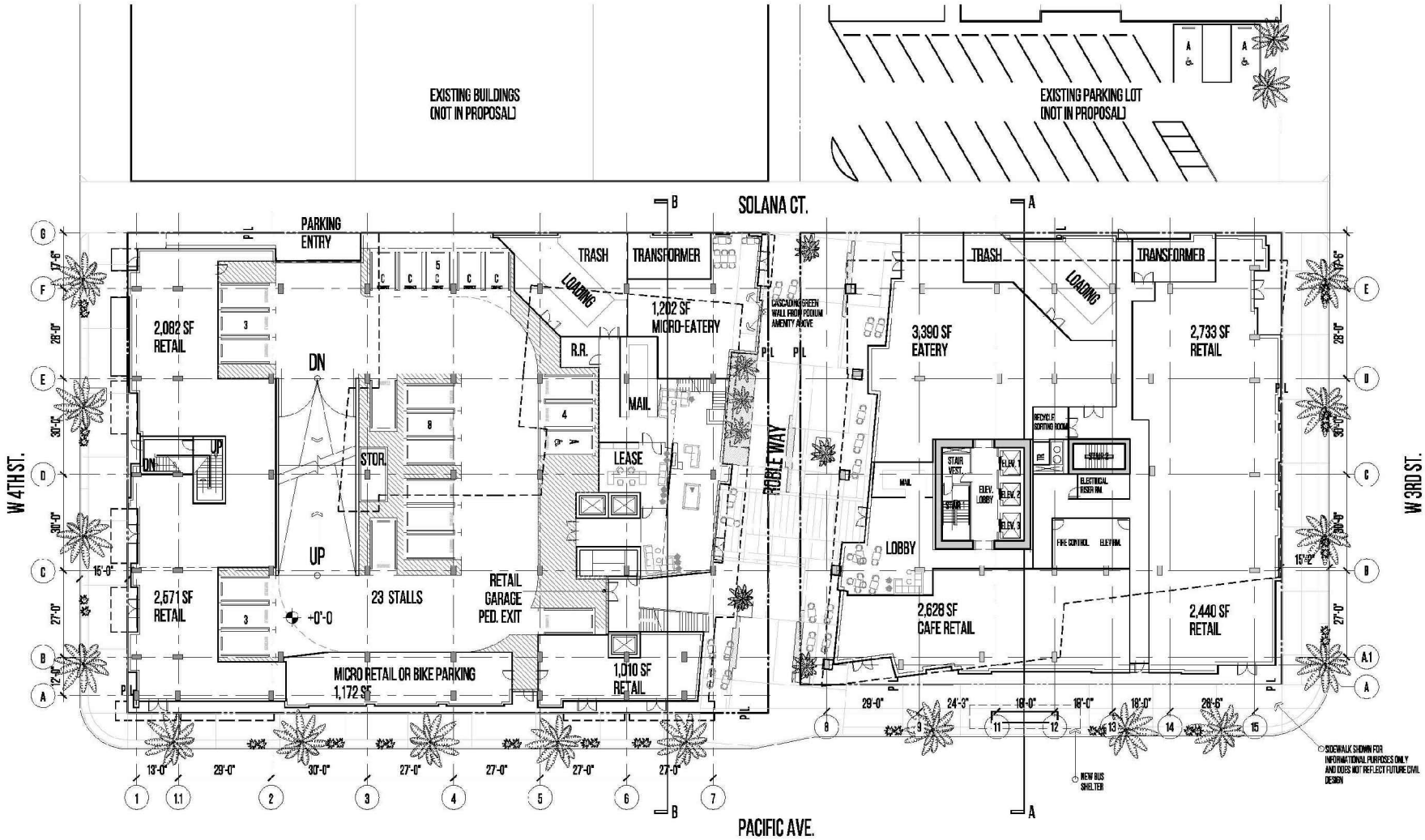
KEY

= PROJECT SITE

FIGURE 2-1

EXISTING SITE AERIAL

W. 3RD & PACIFIC APARTMENTS, LONG BEACH



SOURCE: ANKROM MOISAN ARCHITECTS

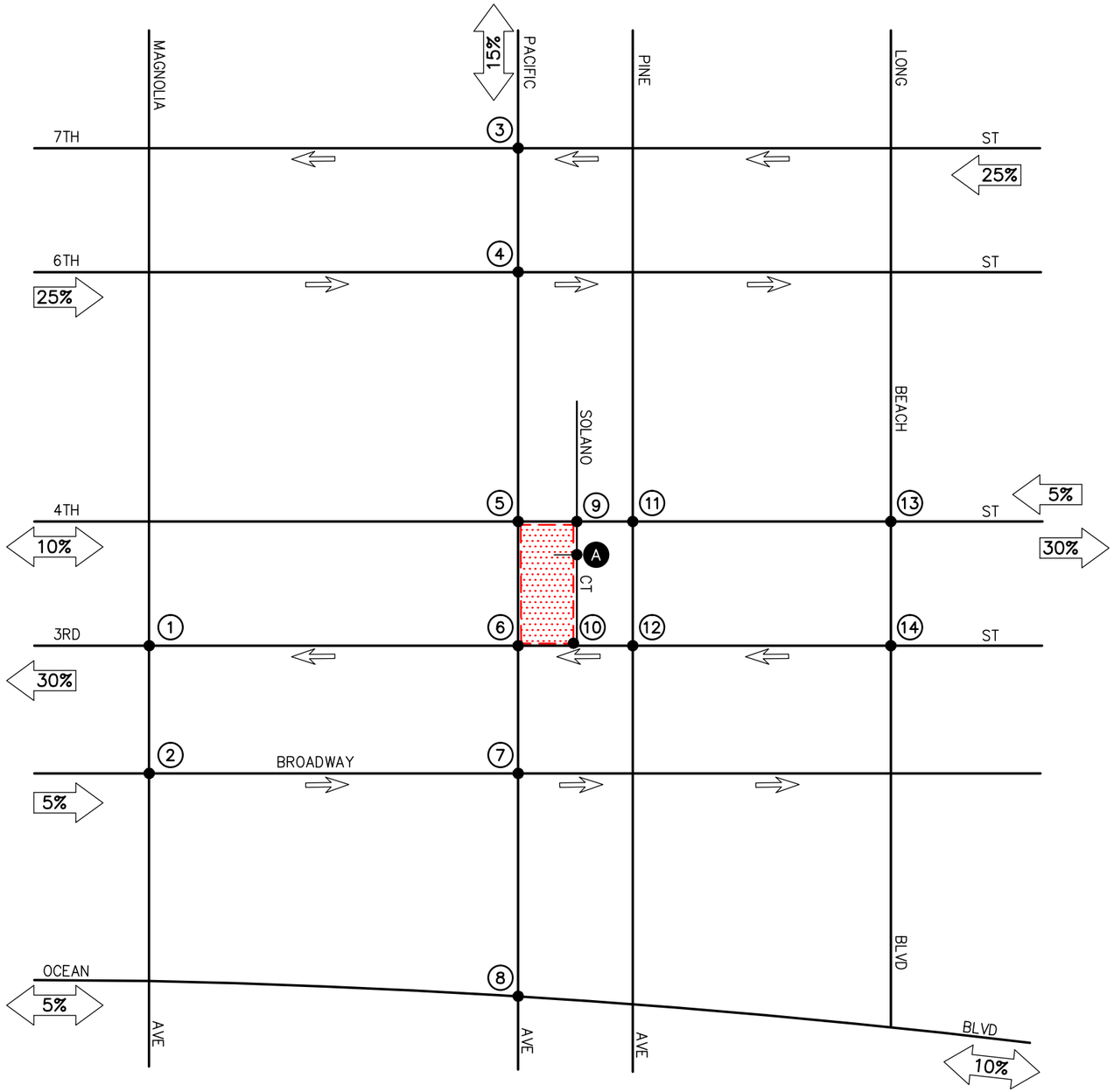
LINSCOTT LAW & GREENSPAN engineers

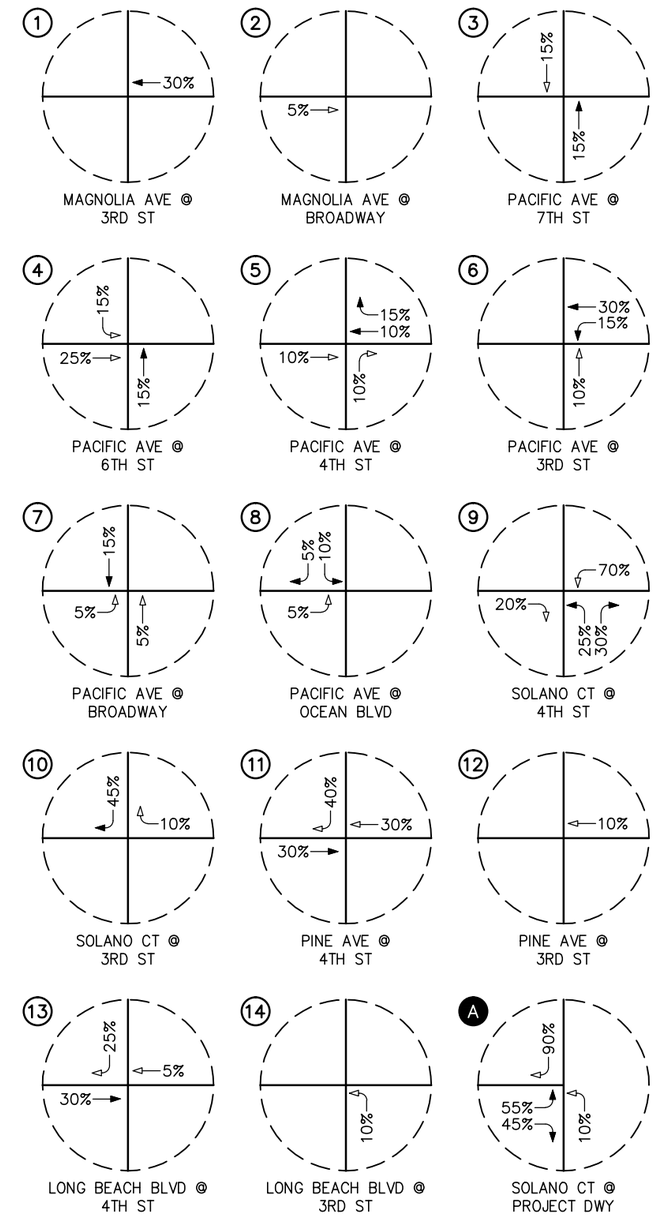
NO SCALE

FIGURE 2-2

PROPOSED SITE PLAN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION
= INBOUND PERCENTAGE
= OUTBOUND PERCENTAGE
= PROJECT SITE

FIGURE 5–1

PROJECT TRAFFIC DISTRIBUTION PATTERN

W. 3RD & PACIFIC APARTMENTS, LONG BEACH

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TABLE 5-1A
PROJECT TRIP GENERATION FORECAST[1]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 221: Multifamily Housing (Mid-Rise[2]) (TE/DU)	5.44	26%	74%	0.36	61%	39%	0.44
▪ 222: Multifamily Housing (High-Rise[3]) (TE/DU)	4.45	24%	76%	0.31	61%	39%	0.36
▪ 820: Shopping Center (TE/1000 SF)	[a]	62%	38%	[a]	48%	52%	[a]
Generation Forecasts:							
▪ 221: Apartments (118 DU)	642	11	31	42	32	20	52
Internal Capture[4]	*-133*	*0*	*0*	*0*	*-8*	*-3*	*-11*
Subtotal	509	11	31	42	24	17	41
▪ 222: Apartments (248 DU)	1,104	18	59	77	54	35	89
Internal Capture[4]	*-227*	*-1*	*-1*	*-2*	*-14*	*-5*	*-19*
Subtotal	877	17	58	75	40	30	70
▪ 820: Retail/Restaurant (19,782 SF)	1,997	100	62	162	79	85	164
Internal Capture[4]	*-360*	*-1*	*-1*	*-2*	*-8*	*-22*	*-30*
Subtotal	1,637	99	61	160	71	63	134
Project Trip Generation Subtotal	**3,023**	**127**	**150**	**277**	**135**	**110**	**245**
Non-Auto Trip Adjustment (5%)	**-151**	**-6**	**-8**	**-14**	**-7**	**-6**	**-12**
Net Trip Generation Potential	**2,872**	**121**	**142**	**263**	**128**	**104**	**233**

Notes:
TE/DU = Trip end per dwelling unit
TE/1000 SF = Trip end per 1,000 SF
[a] = Shopping Center equations were used:
Daily: $Ln(T) = 0.68Ln(X) + 5.57$
AM Peak Hour: $T = 0.50(X) + 151.78$
PM Peak Hour: $Ln(T) = 0.74Ln(X) + 2.89$

1 Source: *Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).*

2 Mid-Rise Multifamily Housing consists of buildings that range between 3 and 10 levels.

3 High-Rise Multifamily Housing consists of buildings that have more than 10 levels.

4 Consistent with the *Trip Generation Handbook*, published by ITE (2014). Project trip generation was adjusted to account for internal capture between the apartment buildings and the retail components of the Project.

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TABLE 5-1B
PROJECT TRIP GENERATION FORECAST
(DENSE MULTI-USE URBAN SETTING)[5]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 221: Multifamily Housing (Mid-Rise[6]) (TE/DU)	2.59	12%	88%	0.20	72%	28%	0.18
▪ 222: Multifamily Housing (High-Rise[7]) (TE/DU)	48.75	54%	46%	2.41	48%	52%	4.92
▪ 820: Shopping Center (TE/1000 SF)	2.07	12%	88%	0.21	70%	30%	0.19
Generation Forecasts:							
▪ 221: Apartments (118 DU)	306	3	21	24	15	6	21
▪ 222: Apartments (248 DU)	513	6	46	52	33	14	47
▪ 820: Retail/Restaurant (19,782 SF)	964	26	22	48	47	50	97
Project Trip Generation Potential	**1,783**	**35**	**89**	**124**	**95**	**70**	**165**

Notes:
TE/DU = Trip end per dwelling unit
TE/1000 SF = Trip end per 1,000 SF

5 Source: *Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).*

6 Mid-Rise Multifamily Housing consists of buildings that range between 3 and 10 levels.

7 High-Rise Multifamily Housing consists of buildings that have more than 10 levels.

APPENDIX B

EXISTING TRAFFIC COUNT DATA

Prepared by National Data & Surveying Services

Magnolia Ave & 3rd St

Peak Hour Turning Movement Count

ID: 18-05007-001
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Magnolia Ave — SOUTHBOUND

AM	67	388	0	0	174	AM
NOON	0	0	0	0	0	NOON
PM	22	207	0	0	508	PM
	0	1	0	0		

3rd St — EASTBOUND

AM	NOON	PM	
1049	0	512	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

3rd St — WESTBOUND

	PM	NOON	AM
0	58	0	40
2	437	0	923
1	70	0	137
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL

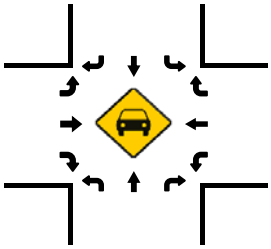
Signalized

	AM	NOON	PM
TEV	1748	0	1297
PHF	0.98		0.92

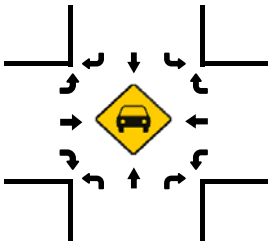
Magnolia Ave — NORTHBOUND

PM	277	0	53	450	0	PM
NOON	0	0	0	0	0	NOON
AM	525	0	59	134	0	AM
		0	1	1	0	

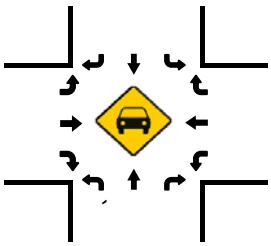
Total Vehicles (AM)



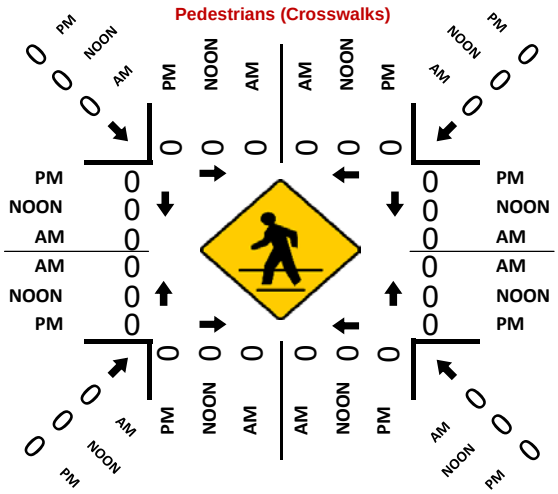
Total Vehicles (NOON)



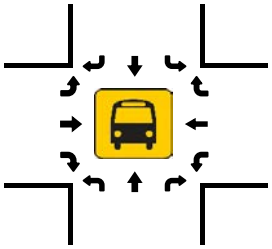
Total Vehicles (PM)



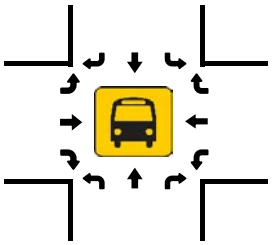
Pedestrians (Crosswalks)



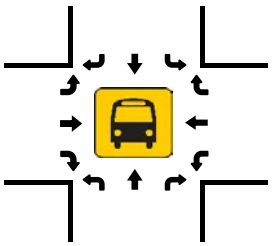
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Magnolia Ave & 3rd St
City: Long Beach
Control: Signalized

Project ID: 18-05007-001
Date: 1/11/2018

Total

NS/EW Streets:	Magnolia Ave				Magnolia Ave				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	13	13	0	0	0	65	6	0	0	0	0	0	27	238	4	0	366
7:15 AM	7	22	0	0	0	102	8	0	0	0	0	0	20	261	9	0	429
7:30 AM	11	32	0	0	0	89	6	0	0	0	0	0	32	239	5	0	414
7:45 AM	13	23	0	0	0	102	23	0	0	0	0	0	22	249	10	0	442
8:00 AM	17	33	0	0	0	106	19	0	0	0	0	0	42	219	12	0	448
8:15 AM	18	46	0	0	0	91	19	0	0	0	0	0	41	216	13	0	444
8:30 AM	13	27	0	0	0	77	24	0	0	0	0	0	38	185	20	0	384
8:45 AM	15	44	0	0	0	85	20	0	0	0	0	0	33	178	15	0	390
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	107	240	0	0	0	717	125	0	0	0	0	0	255	1785	88	0	3317
APPROACH %'s :	30.84%	69.16%	0.00%	0.00%	0.00%	85.15%	14.85%	0.00%					11.98%	83.88%	4.14%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	59	134	0	0	0	388	67	0	0	0	0	0	137	923	40	0	1748
PEAK HR FACTOR :	0.819	0.728	0.000	0.000	0.000	0.915	0.728	0.000	0.000	0.000	0.000	0.000	0.815	0.927	0.769	0.000	0.975
	0.754				0.910								0.979				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	77	0	0	0	51	4	0	0	0	0	0	11	99	17	0	271
4:15 PM	9	87	0	0	0	54	7	0	0	0	0	0	14	99	13	0	283
4:30 PM	17	114	0	0	0	32	7	0	0	0	0	0	18	110	16	0	314
4:45 PM	14	115	0	0	0	71	7	0	0	0	0	0	20	86	9	0	322
5:00 PM	13	113	0	0	0	51	1	0	0	0	0	0	15	139	22	0	354
5:15 PM	9	108	0	0	0	53	7	0	0	0	0	0	17	102	11	0	307
5:30 PM	10	74	0	0	0	35	7	0	0	0	0	0	17	99	15	0	257
5:45 PM	9	42	0	0	0	37	6	0	0	0	0	0	16	89	14	0	213
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	93	730	0	0	0	384	46	0	0	0	0	0	128	823	117	0	2321
APPROACH %'s :	11.30%	88.70%	0.00%	0.00%	0.00%	89.30%	10.70%	0.00%					11.99%	77.06%	10.96%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	53	450	0	0	0	207	22	0	0	0	0	0	70	437	58	0	1297
PEAK HR FACTOR :	0.779	0.978	0.000	0.000	0.000	0.729	0.786	0.000	0.000	0.000	0.000	0.000	0.875	0.786	0.659	0.000	0.916
	0.960				0.734								0.803				

Prepared by National Data & Surveying Services

Magnolia Ave & Broadway

Peak Hour Turning Movement Count

ID: 18-05007-002
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Magnolia Ave — SOUTHBOUND

AM	0	455	62	0	201	AM
NOON	0	0	0	0	0	NOON
PM	0	205	66	0	485	PM

Broadway — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
86	0	74	1
648	0	833	2
373	0	180	1
AM	NOON	PM	

Broadway — WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1038	0	776	
PM	NOON	AM	

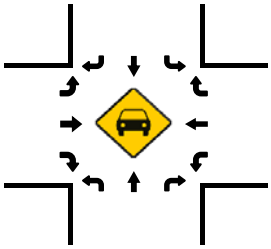
Magnolia Ave — NORTHBOUND

PM	385	0	0	411	139	PM
NOON	0	0	0	0	0	NOON
AM	828	0	0	115	66	AM

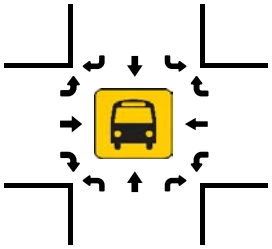
Turning movements (0 2 1 0 / 0 0 1.5 0.5)

CONTROL			
Signalized			
TEV	1805	0	1908
	AM	NOON	PM
PHF	0.93		0.95

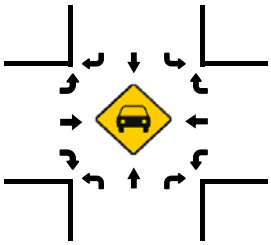
Total Vehicles (AM)



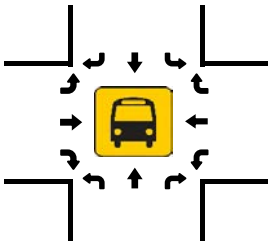
Total Vehicles (AM)



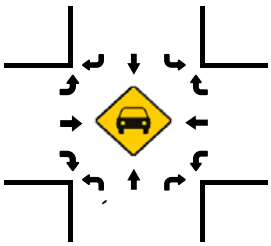
Total Vehicles (NOON)



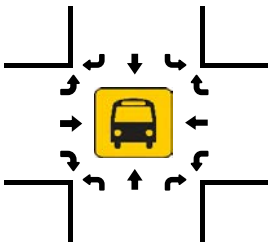
Total Vehicles (NOON)



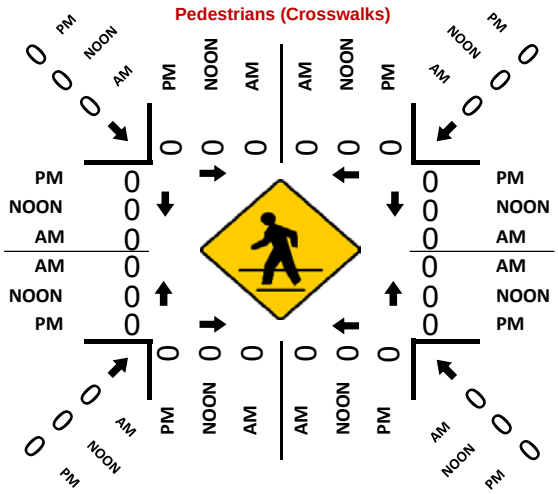
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Magnolia Ave & Broadway
City: Long Beach
Control: Signalized

Project ID: 18-05007-002
Date: 1/11/2018

Total

NS/EW Streets:	Magnolia Ave				Magnolia Ave				Broadway				Broadway				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1.5	0.5	0	1	2	0	0	1	2	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	17	7	0	9	79	0	0	13	114	49	0	0	0	0	0	288
7:15 AM	0	15	15	0	16	104	0	0	17	117	54	0	0	0	0	0	338
7:30 AM	0	24	13	0	11	111	0	0	17	138	82	0	0	0	0	0	396
7:45 AM	0	25	18	0	18	106	0	0	15	157	107	0	0	0	0	0	446
8:00 AM	0	31	20	0	20	121	0	0	22	171	93	0	0	0	0	0	478
8:15 AM	0	35	15	0	13	117	0	0	32	182	91	0	0	0	0	0	485
8:30 AM	0	17	27	0	25	90	0	0	17	137	77	0	0	0	0	0	390
8:45 AM	0	33	16	0	23	90	0	0	23	157	85	0	0	0	0	0	427
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	197	131	0	135	818	0	0	156	1173	638	0	0	0	0	0	3248
APPROACH %'s :	0.00%	60.06%	39.94%	0.00%	14.17%	85.83%	0.00%	0.00%	7.93%	59.63%	32.44%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	115	66	0	62	455	0	0	86	648	373	0	0	0	0	0	1805
PEAK HR FACTOR :	0.000	0.821	0.825	0.000	0.775	0.940	0.000	0.000	0.672	0.890	0.871	0.000	0.000	0.000	0.000	0.000	0.930
	0.887				0.917				0.907								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1.5	0.5	0	1	2	0	0	1	2	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	71	31	0	13	47	0	0	11	157	50	0	0	0	0	0	380
4:15 PM	0	84	28	0	19	47	0	0	15	213	46	0	0	0	0	0	452
4:30 PM	0	100	35	0	15	41	0	0	22	196	39	0	0	0	0	0	448
4:45 PM	0	104	18	0	22	60	0	0	20	197	47	0	0	0	0	0	468
5:00 PM	0	112	42	0	18	49	0	0	15	207	49	0	0	0	0	0	492
5:15 PM	0	95	44	0	11	55	0	0	17	233	45	0	0	0	0	0	500
5:30 PM	0	66	38	0	13	37	0	0	16	210	34	0	0	0	0	0	414
5:45 PM	0	46	23	0	13	37	0	0	9	194	55	0	0	0	0	0	377
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	678	259	0	124	373	0	0	125	1607	365	0	0	0	0	0	3531
APPROACH %'s :	0.00%	72.36%	27.64%	0.00%	24.95%	75.05%	0.00%	0.00%	5.96%	76.63%	17.41%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	411	139	0	66	205	0	0	74	833	180	0	0	0	0	0	1908
PEAK HR FACTOR :	0.000	0.917	0.790	0.000	0.750	0.854	0.000	0.000	0.841	0.894	0.918	0.000	0.000	0.000	0.000	0.000	0.954
	0.893				0.826				0.921								

Prepared by National Data & Surveying Services

Pacific Ave & 7th St

Peak Hour Turning Movement Count

ID: 18-05007-003
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Pacific Ave — SOUTHBOUND

AM	53	316	0	0	240	AM
NOON	0	0	0	0	0	NOON
PM	41	267	0	0	617	PM
	0	2	0	0		

7th St — EASTBOUND

AM	NOON	PM	
1343	0	716	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

7th St — WESTBOUND

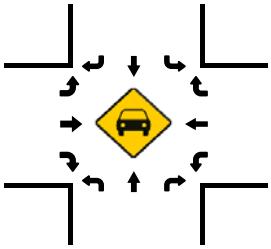
	PM	NOON	AM
0	99	0	73
3	631	0	1260
1	72	0	99
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL			
Signalized			
TEV	2000	0	1680
	AM	NOON	PM
PHF	0.96		0.90

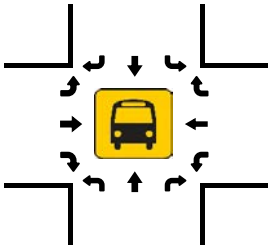
Pacific Ave — NORTHBOUND

PM	347	8	44	518	0	PM
NOON	0	0	0	0	0	NOON
AM	417	2	30	167	0	AM
		0	1	2	0	

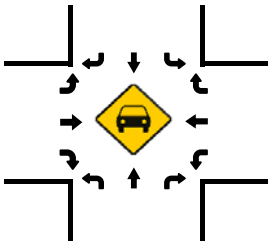
Total Vehicles (AM)



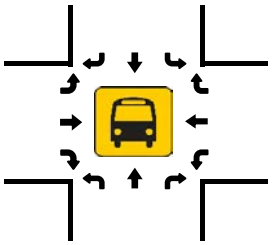
Total Vehicles (AM)



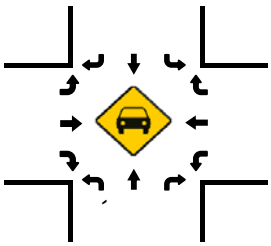
Total Vehicles (NOON)



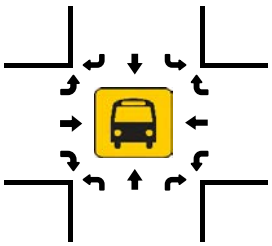
Total Vehicles (NOON)



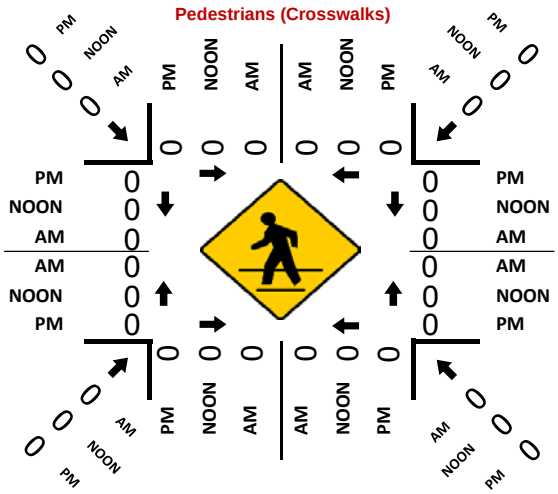
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & 7th St
City: Long Beach
Control: Signalized

Project ID: 18-05007-003
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				7th St				7th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	27	0	0	0	40	10	0	0	0	0	0	28	292	13	0	414
7:15 AM	9	35	0	2	0	65	11	0	0	0	0	0	32	307	13	0	474
7:30 AM	6	47	0	0	0	59	17	0	0	0	0	0	24	322	18	0	493
7:45 AM	6	39	0	0	0	99	12	0	0	0	0	0	19	315	20	0	510
8:00 AM	9	46	0	0	0	93	13	0	0	0	0	0	24	316	22	0	523
8:15 AM	7	57	0	1	0	97	18	0	0	0	0	0	43	217	18	0	458
8:30 AM	11	46	0	1	0	64	12	0	0	0	0	0	16	194	16	0	360
8:45 AM	11	55	0	0	0	76	13	0	0	0	0	0	24	184	10	0	373
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	63	352	0	4	0	593	106	0	0	0	0	0	210	2147	130	0	3605
APPROACH %'s :	15.04%	84.01%	0.00%	0.95%	0.00%	84.84%	15.16%	0.00%					8.44%	86.33%	5.23%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	30	167	0	2	0	316	53	0	0	0	0	0	99	1260	73	0	2000
PEAK HR FACTOR :	0.833	0.888	0.000	0.250	0.000	0.798	0.779	0.000	0.000	0.000	0.000	0.000	0.773	0.978	0.830	0.000	0.956
	0.905				0.831								0.984				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	9	95	0	2	0	64	11	0	0	0	0	0	17	161	28	0	387
4:15 PM	10	85	0	1	0	80	12	0	0	0	0	0	12	148	21	0	369
4:30 PM	9	104	0	3	0	74	12	0	0	0	0	0	18	140	29	0	389
4:45 PM	9	127	0	0	0	57	10	0	0	0	0	0	20	140	20	0	383
5:00 PM	13	156	0	1	0	64	8	0	0	0	0	0	15	185	25	0	467
5:15 PM	13	131	0	4	0	72	11	0	0	0	0	0	19	166	25	0	441
5:30 PM	9	105	0	3	0	53	12	0	0	0	0	0	14	168	19	0	383
5:45 PM	15	79	0	2	0	63	13	0	0	0	0	0	20	156	31	0	379
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	87	882	0	16	0	527	89	0	0	0	0	0	135	1264	198	0	3198
APPROACH %'s :	8.83%	89.54%	0.00%	1.62%	0.00%	85.55%	14.45%	0.00%					8.45%	79.15%	12.40%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	44	518	0	8	0	267	41	0	0	0	0	0	72	631	99	0	1680
PEAK HR FACTOR :	0.846	0.830	0.000	0.500	0.000	0.902	0.854	0.000	0.000	0.000	0.000	0.000	0.900	0.853	0.853	0.000	0.899
	0.838				0.895								0.891				

Prepared by National Data & Surveying Services

Pacific Ave & 6th St

Peak Hour Turning Movement Count

ID: 18-05007-004
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

SOUTHBOUND (Pacific Ave)

AM	0	377	89	1	216	AM
NOON	0	0	0	0	0	NOON
PM	0	236	75	2	565	PM
	0	2	1	0		

EASTBOUND (6th St)

AM	NOON	PM	
0	0	0	
0	0	0	0
48	0	51	1
707	0	1563	3
27	0	39	1
AM	NOON	PM	

WESTBOUND (6th St)

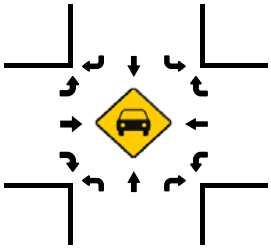
PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1789	0	836	
PM	NOON	AM	

NORTHBOUND (Pacific Ave)

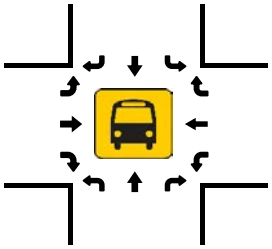
PM	275	0	0	512	151	PM
NOON	0	0	0	0	0	NOON
AM	404	0	0	167	40	AM
		0	0	2	0	

CONTROL			
Signalized			
TEV	1456 AM	0 NOON	2629 PM
PHF	0.87		0.93

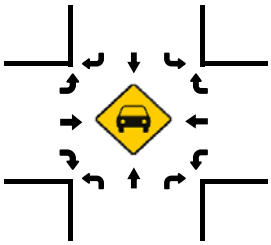
Total Vehicles (AM)



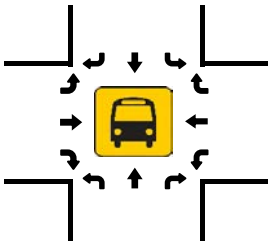
Total Vehicles (AM)



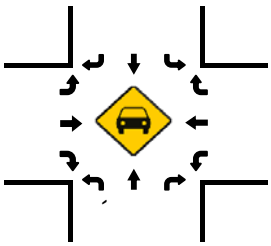
Total Vehicles (NOON)



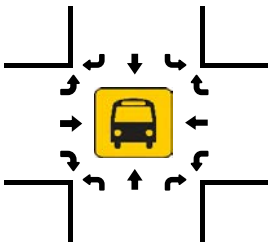
Total Vehicles (NOON)



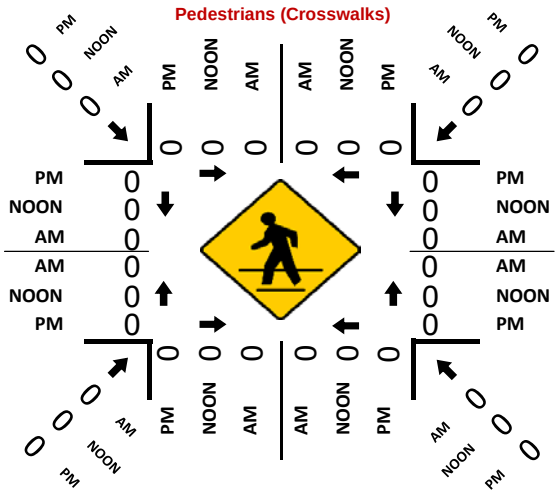
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & 6th St
City: Long Beach
Control: Signalized

Project ID: 18-05007-004
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				6th St				6th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	1	3	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	24	6	0	7	58	0	1	9	107	4	0	0	0	0	0	216
7:15 AM	0	37	10	0	20	82	0	0	6	168	6	0	0	0	0	0	329
7:30 AM	0	38	13	0	18	69	0	1	14	169	6	0	0	0	0	0	328
7:45 AM	0	32	12	0	28	90	0	0	11	238	8	0	0	0	0	0	419
8:00 AM	0	47	5	0	21	97	0	0	8	138	5	0	0	0	0	0	321
8:15 AM	0	50	10	0	22	121	0	0	15	162	8	0	0	0	0	0	388
8:30 AM	0	39	19	0	15	63	0	1	12	166	5	0	0	0	0	0	320
8:45 AM	0	49	16	0	20	83	0	1	15	169	6	0	0	0	0	0	359
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	316	91	0	151	663	0	4	90	1317	48	0	0	0	0	0	2680
APPROACH %'s :	0.00%	77.64%	22.36%	0.00%	18.46%	81.05%	0.00%	0.49%	6.19%	90.52%	3.30%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	167	40	0	89	377	0	1	48	707	27	0	0	0	0	0	1456
PEAK HR FACTOR :	0.000	0.835	0.769	0.000	0.795	0.779	0.000	0.250	0.800	0.743	0.844	0.000	0.000	0.000	0.000	0.000	0.869
	0.863				0.816				0.761								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	1	3	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	86	25	0	16	61	0	2	12	293	7	0	0	0	0	0	502
4:15 PM	0	86	25	0	23	70	0	0	8	338	10	0	0	0	0	0	560
4:30 PM	0	100	30	0	24	69	0	0	16	356	11	0	0	0	0	0	606
4:45 PM	0	117	39	0	16	57	0	0	17	372	9	0	0	0	0	0	627
5:00 PM	0	154	39	0	27	52	0	1	13	407	10	0	0	0	0	0	703
5:15 PM	0	134	35	0	16	73	0	0	12	397	11	0	0	0	0	0	678
5:30 PM	0	107	38	0	16	54	0	1	9	387	9	0	0	0	0	0	621
5:45 PM	0	77	25	0	27	58	0	2	17	349	12	0	0	0	0	0	567
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	861	256	0	165	494	0	6	104	2899	79	0	0	0	0	0	4864
APPROACH %'s :	0.00%	77.08%	22.92%	0.00%	24.81%	74.29%	0.00%	0.90%	3.37%	94.06%	2.56%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	512	151	0	75	236	0	2	51	1563	39	0	0	0	0	0	2629
PEAK HR FACTOR :	0.000	0.831	0.968	0.000	0.694	0.808	0.000	0.500	0.750	0.960	0.886	0.000	0.000	0.000	0.000	0.000	0.935
	0.859				0.879				0.961								

Prepared by National Data & Surveying Services

Pacific Ave & 4th St

Peak Hour Turning Movement Count

ID: 18-05007-005
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Pacific Ave — SOUTHBOUND

AM	22	333	0	0	155	AM
NOON	0	0	0	0	0	NOON
PM	34	209	0	0	584	PM
	0	2	0	0		

4th St — EASTBOUND

AM	NOON	PM	
110	0	133	
0	0	0	0
31	0	37	1
77	0	135	1
27	0	14	0
AM	NOON	PM	

4th St — WESTBOUND

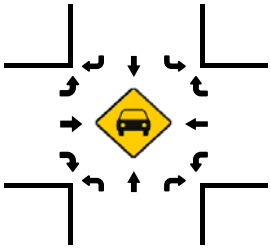
PM	NOON	AM	
33	0	18	0
85	0	82	1
11	0	22	1
0	0	0	0
193	0	102	
PM	NOON	AM	

Pacific Ave — NORTHBOUND

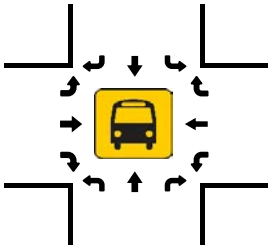
PM	235	1	14	514	58	PM
NOON	0	0	0	0	0	NOON
AM	382	0	6	106	25	AM
		0	1	2	0	

CONTROL			
Signalized			
TEV	749 AM	0 NOON	1145 PM
PHF	0.83		0.93

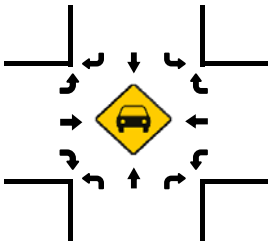
Total Vehicles (AM)



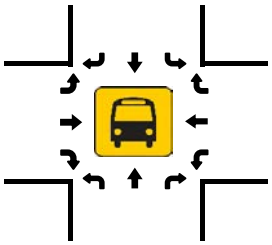
Total Vehicles (AM)



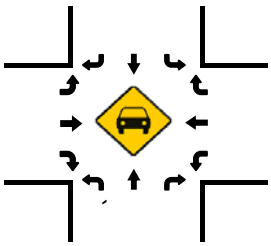
Total Vehicles (NOON)



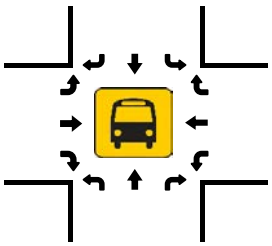
Total Vehicles (NOON)



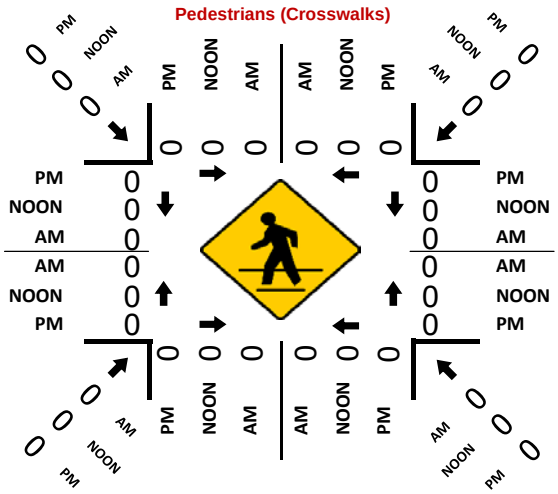
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & 4th St
City: Long Beach
Control: Signalized

Project ID: 18-05007-005
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				4th St				4th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	19	1	0	0	52	1	0	2	11	3	0	2	19	6	0	117
7:15 AM	0	29	4	0	0	74	6	0	7	12	3	0	4	19	5	0	163
7:30 AM	1	21	5	0	0	65	4	0	7	24	10	0	5	20	9	0	171
7:45 AM	1	25	4	0	0	82	5	0	12	16	9	0	5	11	2	0	172
8:00 AM	3	25	6	0	0	83	4	0	5	17	4	0	5	24	4	0	180
8:15 AM	1	35	10	0	0	103	9	0	7	20	4	0	7	27	3	0	226
8:30 AM	2	33	4	0	0	59	5	0	13	10	7	0	7	16	6	0	162
8:45 AM	2	28	10	0	0	71	5	0	7	20	5	0	4	17	10	0	179
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	215	44	0	0	589	39	0	60	130	45	0	39	153	45	0	1370
APPROACH %'s :	4.07%	79.63%	16.30%	0.00%	0.00%	93.79%	6.21%	0.00%	25.53%	55.32%	19.15%	0.00%	16.46%	64.56%	18.99%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	6	106	25	0	0	333	22	0	31	77	27	0	22	82	18	0	749
PEAK HR FACTOR :	0.500	0.757	0.625	0.000	0.000	0.808	0.611	0.000	0.646	0.802	0.675	0.000	0.786	0.759	0.500	0.000	0.829
	0.745				0.792				0.823				0.824				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	87	10	1	0	44	8	0	14	23	0	0	5	18	9	0	222
4:15 PM	0	72	9	0	0	56	11	0	13	33	4	0	4	16	3	0	221
4:30 PM	1	111	11	0	0	65	11	0	12	43	4	0	8	29	12	0	307
4:45 PM	6	124	15	0	0	44	8	0	7	25	4	0	1	18	4	0	256
5:00 PM	6	160	12	1	0	47	8	0	6	27	3	0	1	18	9	0	298
5:15 PM	1	119	20	0	0	53	7	0	12	40	3	0	1	20	8	0	284
5:30 PM	1	109	12	0	0	49	4	0	8	21	1	0	3	19	5	0	232
5:45 PM	3	65	9	1	0	46	6	0	8	24	2	0	2	14	3	0	183
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	847	98	3	0	404	63	0	80	236	21	0	25	152	53	0	2003
APPROACH %'s :	2.17%	87.41%	10.11%	0.31%	0.00%	86.51%	13.49%	0.00%	23.74%	70.03%	6.23%	0.00%	10.87%	66.09%	23.04%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	14	514	58	1	0	209	34	0	37	135	14	0	11	85	33	0	1145
PEAK HR FACTOR :	0.583	0.803	0.725	0.250	0.000	0.804	0.773	0.000	0.771	0.785	0.875	0.000	0.344	0.733	0.688	0.000	0.932
	0.820				0.799				0.788				0.658				

Prepared by National Data & Surveying Services

Pacific Ave & 3rd St

Peak Hour Turning Movement Count

ID: 18-05007-006
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

Pacific Ave — SOUTHBOUND

AM	96	282	0	0	137	AM
NOON	0	0	0	0	0	NOON
PM	39	191	0	0	587	PM
	1	2	0	0		

3rd St — EASTBOUND

AM	NOON	PM	
1102	0	513	⇦
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

3rd St — WESTBOUND

	PM	NOON	AM
0	88	0	45
3	387	0	970
1	52	0	66
0	0	0	0
⇨	0	0	0
	PM	NOON	AM

CONTROL

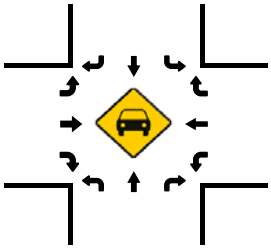
Signalized

TEV	1587	0	1347
	AM	NOON	PM
PHF	0.94		0.90

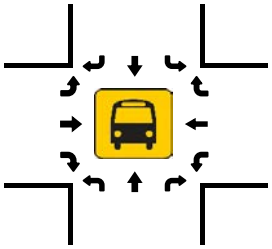
Pacific Ave — NORTHBOUND

PM	247	4	87	499	0	PM
NOON	0	0	0	0	0	NOON
AM	348	0	36	92	0	AM
		0	1	2	0	

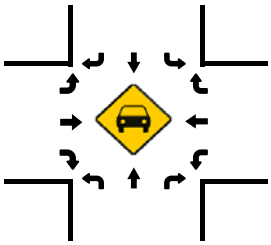
Total Vehicles (AM)



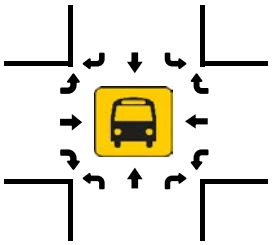
Total Vehicles (AM)



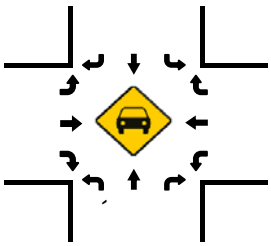
Total Vehicles (NOON)



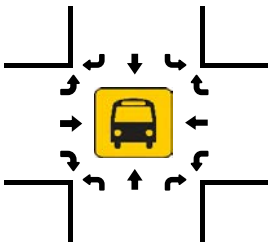
Total Vehicles (NOON)



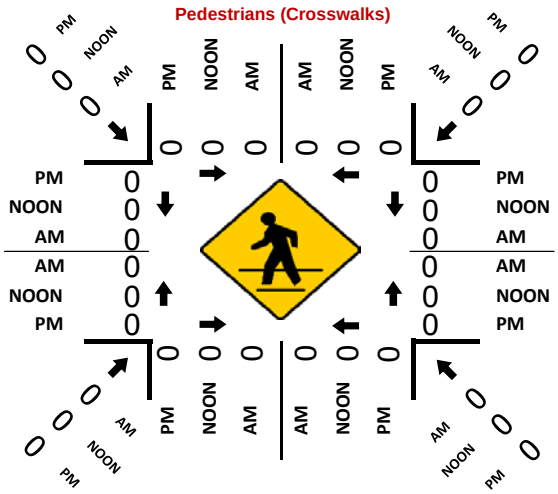
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & 3rd St
City: Long Beach
Control: Signalized

Project ID: 18-05007-006
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	0	0	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	6	14	0	3	0	42	15	0	0	0	0	0	10	239	9	0	338
7:15 AM	7	18	0	0	0	64	21	0	0	0	0	0	10	248	16	0	384
7:30 AM	8	17	0	0	0	51	23	0	0	0	0	0	8	251	11	0	369
7:45 AM	8	18	0	0	0	80	18	0	0	0	0	0	18	251	12	0	405
8:00 AM	12	25	0	0	0	70	24	0	0	0	0	0	18	235	8	0	392
8:15 AM	8	32	0	0	0	81	31	0	0	0	0	0	22	233	14	0	421
8:30 AM	5	24	0	0	0	56	16	0	0	0	0	0	17	189	13	0	320
8:45 AM	14	28	0	2	0	66	19	0	0	0	0	0	18	163	14	0	324
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	68	176	0	5	0	510	167	0	0	0	0	0	121	1809	97	0	2953
APPROACH %'s :	27.31%	70.68%	0.00%	2.01%	0.00%	75.33%	24.67%	0.00%					5.97%	89.25%	4.79%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	36	92	0	0	0	282	96	0	0	0	0	0	66	970	45	0	1587
PEAK HR FACTOR :	0.750	0.719	0.000	0.000	0.000	0.870	0.774	0.000	0.000	0.000	0.000	0.000	0.750	0.966	0.804	0.000	0.942
	0.800				0.844								0.962				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	0	0	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	13	82	0	0	0	43	6	0	0	0	0	0	7	101	16	0	268
4:15 PM	18	71	0	1	0	57	10	0	0	0	0	0	8	91	13	0	269
4:30 PM	16	97	0	0	0	61	15	0	0	0	0	0	14	84	20	0	307
4:45 PM	22	132	0	0	0	40	6	0	0	0	0	0	17	91	18	0	326
5:00 PM	23	147	0	1	0	39	8	0	0	0	0	0	13	117	27	0	375
5:15 PM	26	123	0	3	0	51	10	0	0	0	0	0	8	95	23	0	339
5:30 PM	21	101	0	1	0	34	9	0	0	0	0	0	6	74	18	0	264
5:45 PM	18	71	0	0	0	47	15	0	0	0	0	0	15	81	14	0	261
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	157	824	0	6	0	372	79	0	0	0	0	0	88	734	149	0	2409
APPROACH %'s :	15.91%	83.49%	0.00%	0.61%	0.00%	82.48%	17.52%	0.00%					9.06%	75.59%	15.35%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	87	499	0	4	0	191	39	0	0	0	0	0	52	387	88	0	1347
PEAK HR FACTOR :	0.837	0.849	0.000	0.333	0.000	0.783	0.650	0.000	0.000	0.000	0.000	0.000	0.765	0.827	0.815	0.000	0.898
	0.863				0.757								0.839				

Prepared by National Data & Surveying Services

Pacific Ave & Broadway

Peak Hour Turning Movement Count

ID: 18-05007-007
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	07:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Pacific Ave — SOUTHBOUND

AM	0	288	48	4	150	AM
NOON	0	0	0	0	0	NOON
PM	0	155	63	7	615	PM

Broadway — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
27	0	122	1
465	0	922	2
148	0	69	0
AM	NOON	PM	

Broadway — WESTBOUND

	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1185	0	562	
	PM	NOON	AM

Pacific Ave — NORTHBOUND

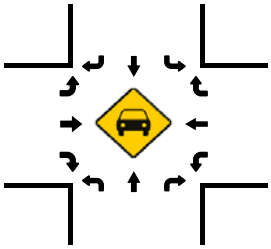
PM	224	0	0	486	200	PM
NOON	0	0	0	0	0	NOON
AM	436	0	0	119	49	AM

Turning movements (red): 0 2 1 0 | 0 0 2 1

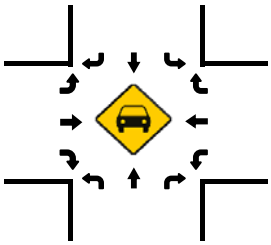
CONTROL: Signalized

	AM	NOON	PM
TEV	1148	0	2024
PHF	0.92		0.96

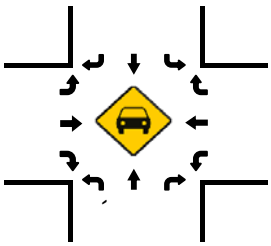
Total Vehicles (AM)



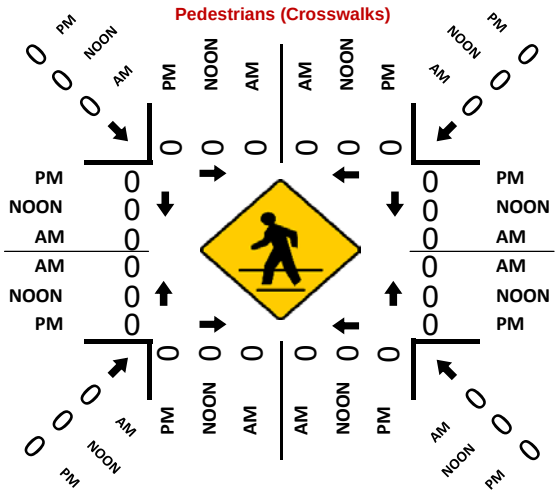
Total Vehicles (NOON)



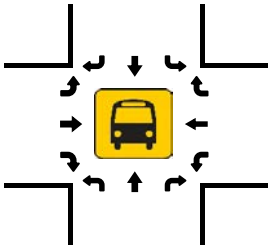
Total Vehicles (PM)



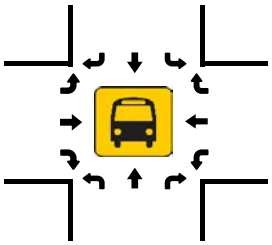
Pedestrians (Crosswalks)



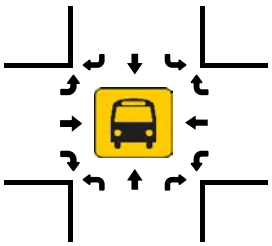
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & Broadway
City: Long Beach
Control: Signalized

Project ID: 18-05007-007
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				Broadway				Broadway				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	1	2	0	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	16	11	0	5	45	0	0	5	79	28	0	0	0	0	0	189
7:15 AM	0	20	8	0	13	59	0	1	3	76	24	0	0	0	0	0	204
7:30 AM	0	18	6	0	7	54	0	2	9	98	26	0	0	0	0	0	220
7:45 AM	0	20	4	0	24	71	0	0	5	118	23	0	0	0	0	0	265
8:00 AM	0	30	14	0	11	69	0	2	7	110	36	0	0	0	0	0	279
8:15 AM	0	31	10	0	9	89	0	1	5	120	46	0	0	0	0	0	311
8:30 AM	0	23	16	0	13	60	0	0	8	119	35	0	0	0	0	0	274
8:45 AM	0	35	9	0	15	70	0	1	7	116	31	0	0	0	0	0	284
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	193	78	0	97	517	0	7	49	836	249	0	0	0	0	0	2026
APPROACH %'s :	0.00%	71.22%	28.78%	0.00%	15.62%	83.25%	0.00%	1.13%	4.32%	73.72%	21.96%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	119	49	0	48	288	0	4	27	465	148	0	0	0	0	0	1148
PEAK HR FACTOR :	0.000	0.850	0.766	0.000	0.800	0.809	0.000	0.500	0.844	0.969	0.804	0.000	0.000	0.000	0.000	0.000	0.923
	0.955				0.859				0.936								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	1	2	0	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	80	38	0	15	32	0	1	21	188	13	0	0	0	0	0	388
4:15 PM	0	76	43	0	15	50	0	3	12	215	15	0	0	0	0	0	429
4:30 PM	0	90	43	0	18	56	0	1	25	209	17	0	0	0	0	0	459
4:45 PM	0	120	48	0	19	41	0	3	29	215	17	0	0	0	0	0	492
5:00 PM	0	144	48	0	16	38	0	2	36	226	15	0	0	0	0	0	525
5:15 PM	0	115	63	0	16	44	0	2	33	227	17	0	0	0	0	0	517
5:30 PM	0	107	41	0	12	32	0	0	24	254	20	0	0	0	0	0	490
5:45 PM	0	68	33	0	21	39	0	2	15	229	9	0	0	0	0	0	416
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	800	357	0	132	332	0	14	195	1763	123	0	0	0	0	0	3716
APPROACH %'s :	0.00%	69.14%	30.86%	0.00%	27.62%	69.46%	0.00%	2.93%	9.37%	84.72%	5.91%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	486	200	0	63	155	0	7	122	922	69	0	0	0	0	0	2024
PEAK HR FACTOR :	0.000	0.844	0.794	0.000	0.829	0.881	0.000	0.583	0.847	0.907	0.863	0.000	0.000	0.000	0.000	0.000	0.964
	0.893				0.893				0.934								

Prepared by National Data & Surveying Services

Pacific Ave & Ocean Blvd

Peak Hour Turning Movement Count

ID: 18-05007-008
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

SOUTHBOUND (Pacific Ave)

AM	179	0	67	0	250	AM
NOON	0	0	0	0	0	NOON
PM	158	2	95	0	384	PM
	1	0.5	1.5	0		

EASTBOUND (Ocean Blvd)

AM	NOON	PM	
1694	0	1099	
0	0	0	0
115	0	218	1
535	0	1568	3
2	0	11	0
AM	NOON	PM	

WESTBOUND (Ocean Blvd)

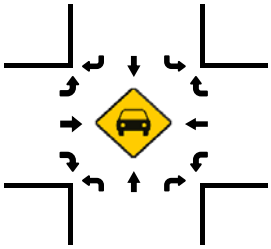
PM	NOON	AM	
156	0	133	1
932	0	1512	3
3	0	1	1
9	0	3	0
1680	0	608	
PM	NOON	AM	

NORTHBOUND (Pacific Ave)

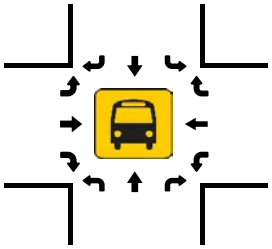
PM	16	0	9	10	8	PM
NOON	0	0	0	0	0	NOON
AM	3	0	3	2	3	AM
		0	0	1	0	

CONTROL			
Signalized			
TEV	2555 AM	0 NOON	3179 PM
PHF	0.94		0.95

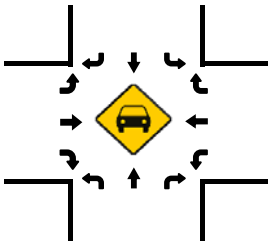
Total Vehicles (AM)



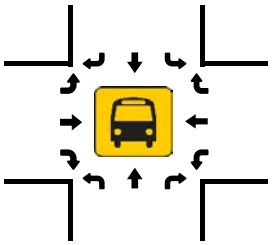
Total Vehicles (AM)



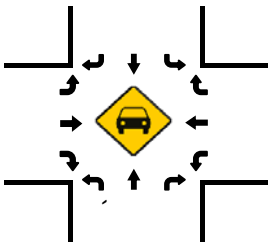
Total Vehicles (NOON)



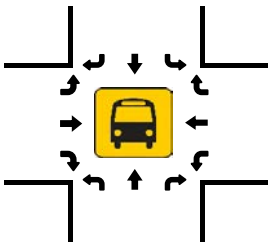
Total Vehicles (NOON)



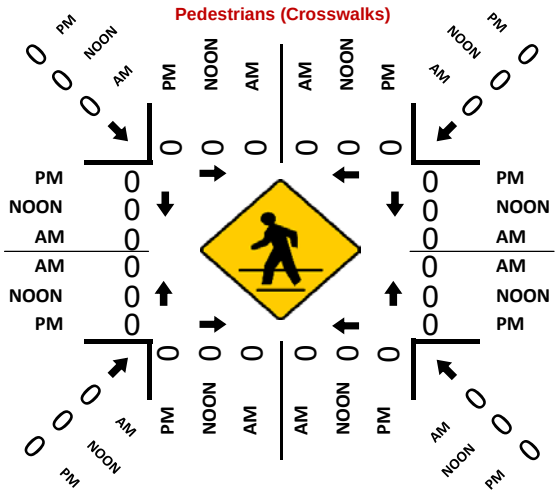
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pacific Ave & Ocean Blvd
City: Long Beach
Control: Signalized

Project ID: 18-05007-008
Date: 1/11/2018

Total

NS/EW Streets:	Pacific Ave				Pacific Ave				Ocean Blvd				Ocean Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	0	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	1	0	0	10	0	33	0	13	89	1	0	0	390	20	0	558
7:15 AM	1	0	0	0	11	0	33	0	10	116	0	0	0	372	27	0	570
7:30 AM	0	0	2	0	16	0	40	0	20	107	0	0	0	410	27	1	623
7:45 AM	2	0	1	0	20	0	34	0	18	136	1	0	1	377	38	1	629
8:00 AM	0	1	0	0	17	0	44	0	25	138	0	0	0	366	32	0	623
8:15 AM	1	1	0	0	14	0	61	0	52	154	1	0	0	359	36	1	680
8:30 AM	1	0	0	0	10	0	48	0	28	137	0	0	1	366	26	1	618
8:45 AM	2	0	0	0	26	1	43	0	36	146	1	0	0	297	36	0	588
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	3	3	0	124	1	336	0	202	1023	4	0	2	2937	242	4	4889
APPROACH %'s :	57.14%	21.43%	21.43%	0.00%	26.90%	0.22%	72.89%	0.00%	16.44%	83.24%	0.33%	0.00%	0.06%	92.21%	7.60%	0.13%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	3	2	3	0	67	0	179	0	115	535	2	0	1	1512	133	3	2555
PEAK HR FACTOR :	0.375	0.500	0.375	0.000	0.838	0.000	0.734	0.000	0.553	0.869	0.500	0.000	0.250	0.922	0.875	0.750	0.939
	0.667				0.820				0.787				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	0	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	1	0	18	0	32	0	41	342	1	0	0	206	25	0	667
4:15 PM	1	1	1	0	27	0	36	1	35	365	0	0	1	169	25	1	663
4:30 PM	1	2	1	0	30	0	40	0	51	395	3	0	0	219	34	5	781
4:45 PM	4	1	1	0	17	0	31	0	61	427	3	0	0	207	35	2	789
5:00 PM	2	3	2	0	23	1	47	0	50	371	2	0	3	286	48	2	840
5:15 PM	2	4	4	0	25	1	40	0	56	375	3	0	0	220	39	0	769
5:30 PM	2	1	2	0	17	3	36	0	49	413	1	0	0	221	31	2	778
5:45 PM	1	2	1	0	17	1	23	0	36	291	0	0	0	167	21	4	564
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	14	14	13	0	174	6	285	1	379	2979	13	0	4	1695	258	16	5851
APPROACH %'s :	34.15%	34.15%	31.71%	0.00%	37.34%	1.29%	61.16%	0.21%	11.24%	88.37%	0.39%	0.00%	0.20%	85.91%	13.08%	0.81%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	9	10	8	0	95	2	158	0	218	1568	11	0	3	932	156	9	3179
PEAK HR FACTOR :	0.563	0.625	0.500	0.000	0.792	0.500	0.840	0.000	0.893	0.918	0.917	0.000	0.250	0.815	0.813	0.450	0.946
	0.675				0.898				0.915				0.811				

Prepared by National Data & Surveying Services

Solano Ct & 4th St

Peak Hour Turning Movement Count

ID: 18-05007-009
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM		07:00 AM - 09:00 AM
NONE		NONE
04:30 PM - 05:30 PM		04:00 PM - 06:00 PM

SOUTHBOUND (Solano Ct)

AM	3	0	2	0	17	AM
NOON	0	0	0	0	0	NOON
PM	4	0	2	0	6	PM

EASTBOUND (4th St)

AM	NOON	PM	
118	0	127	⇦
2	0	1	↶ 0
4	0	4	↱ 0
87	0	186	→ 1
1	0	0	↳ 0

WESTBOUND (4th St)

	PM	NOON	AM
0 ↰	2	0	13
1 ←	122	0	113
0 ↰	0	0	4
0 ↰	0	0	4
⇨	199	0	100

NORTHBOUND (Solano Ct)

PM	0	0	0	0	11	PM
NOON	0	0	0	0	0	NOON
AM	5	0	0	0	7	AM

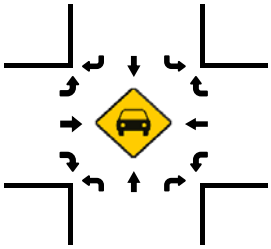
	0	0	0	0
	0	0	1	0

CONTROL

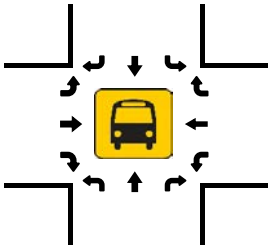
No Control

	AM	NOON	PM
TEV	240	0	332
PHF	0.82		0.81

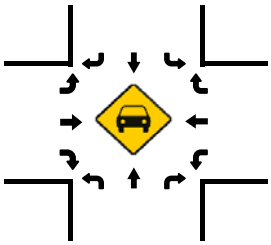
Total Vehicles (AM)



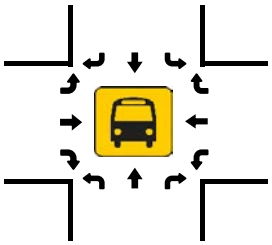
Total Vehicles (AM)



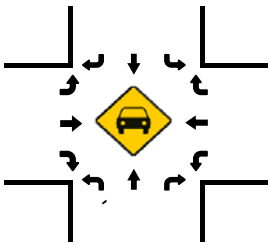
Total Vehicles (NOON)



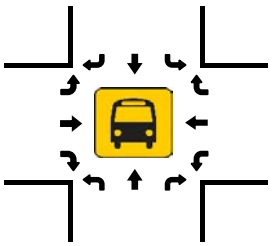
Total Vehicles (NOON)



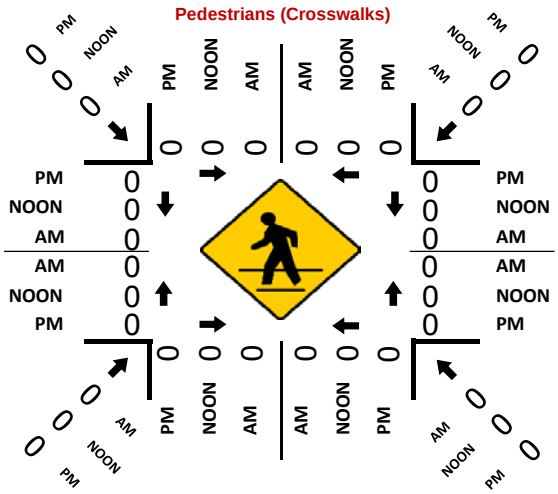
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Solano Ct & 4th St
City: Long Beach
Control: No Control

Project ID: 18-05007-009
Date: 1/11/2018

Total

NS/EW Streets:	Solano Ct				Solano Ct				4th St				4th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	0	11	0	0	1	23	2	0	38
7:15 AM	0	1	0	0	0	0	1	0	0	15	0	0	0	30	0	0	47
7:30 AM	0	0	2	0	2	0	2	0	0	23	0	0	2	31	2	1	65
7:45 AM	0	0	3	0	0	0	0	0	0	21	1	1	0	17	4	0	47
8:00 AM	0	0	1	0	0	0	1	0	0	19	0	1	2	30	1	0	55
8:15 AM	0	0	1	0	0	0	0	0	4	24	0	0	0	35	6	3	73
8:30 AM	1	0	0	0	1	0	2	0	0	13	1	0	0	26	1	2	47
8:45 AM	0	0	0	0	3	0	1	0	0	28	0	0	0	30	2	0	64
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	7	0	6	0	8	0	4	154	2	2	5	222	18	6	436
APPROACH %'s :	11.11%	11.11%	77.78%	0.00%	42.86%	0.00%	57.14%	0.00%	2.47%	95.06%	1.23%	1.23%	1.99%	88.45%	7.17%	2.39%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	7	0	2	0	3	0	4	87	1	2	4	113	13	4	240
PEAK HR FACTOR :	0.000	0.000	0.583	0.000	0.250	0.000	0.375	0.000	0.250	0.906	0.250	0.500	0.500	0.807	0.542	0.333	0.822
	0.583				0.313				0.839				0.761				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	1	0	0	0	2	0	3	30	1	0	0	31	2	0	70
4:15 PM	0	0	0	0	1	0	0	0	1	44	0	0	0	22	0	0	68
4:30 PM	0	0	3	0	1	0	1	0	1	48	0	1	0	48	0	0	103
4:45 PM	0	0	0	0	0	0	0	0	0	40	0	0	0	24	0	0	64
5:00 PM	0	0	7	0	1	0	1	0	2	42	0	0	0	22	1	0	76
5:15 PM	0	0	1	0	0	0	2	0	1	56	0	0	0	28	1	0	89
5:30 PM	1	0	3	0	0	0	1	0	1	35	1	0	1	24	1	0	68
5:45 PM	1	0	1	0	1	0	0	0	2	30	1	0	0	19	0	0	55
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	16	0	4	0	7	0	11	325	3	1	1	218	5	0	593
APPROACH %'s :	11.11%	0.00%	88.89%	0.00%	36.36%	0.00%	63.64%	0.00%	3.24%	95.59%	0.88%	0.29%	0.45%	97.32%	2.23%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	11	0	2	0	4	0	4	186	0	1	0	122	2	0	332
PEAK HR FACTOR :	0.000	0.000	0.393	0.000	0.500	0.000	0.500	0.000	0.500	0.830	0.000	0.250	0.000	0.635	0.500	0.000	0.806
	0.393				0.750				0.838				0.646				

Prepared by National Data & Surveying Services

Solano Ct & 3rd St

Peak Hour Turning Movement Count

ID: 18-05007-010
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

SOUTHBOUND (Solano Ct)

AM	3	1	0	0	10	AM
NOON	0	0	0	0	0	NOON
PM	8	0	0	0	6	PM
	0	1	0	0		

EASTBOUND (3rd St)

AM	NOON	PM	
1085	0	524	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (3rd St)

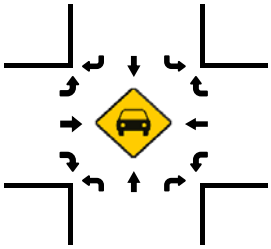
	PM	NOON	AM
0	6	0	9
2	498	0	1038
0	17	0	5
0	0	0	0
	0	0	0
	PM	NOON	AM

NORTHBOUND (Solano Ct)

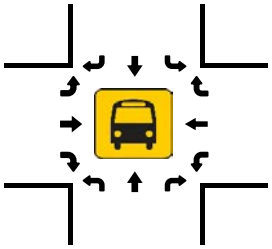
PM	17	0	18	0	0	PM
NOON	0	0	0	0	0	NOON
AM	6	0	44	1	0	AM
		0	0	1	0	

CONTROL			
No Control			
TEV	1101	0	547
	AM	NOON	PM
PHF	0.94		0.88

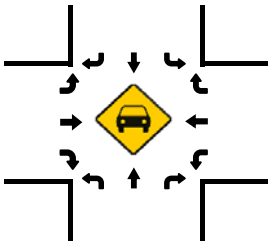
Total Vehicles (AM)



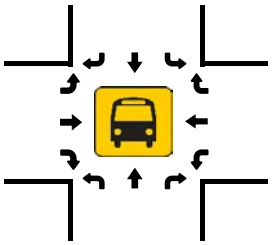
Total Vehicles (AM)



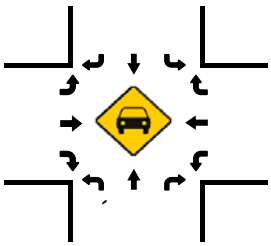
Total Vehicles (NOON)



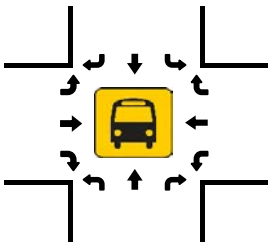
Total Vehicles (NOON)



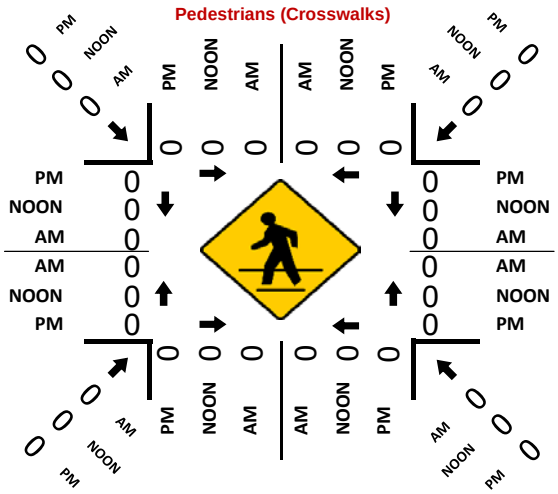
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Solano Ct & 3rd St
City: Long Beach
Control: No Control

Project ID: 18-05007-010
Date: 1/11/2018

Total

NS/EW Streets:	Solano Ct				Solano Ct				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	0	0	0	0	0	0	0	0	0	0	0	1	246	2	0	261
7:15 AM	13	1	0	0	0	0	0	0	0	0	0	0	1	264	0	0	279
7:30 AM	8	0	0	0	0	0	2	0	0	0	0	0	1	252	1	0	264
7:45 AM	14	0	0	0	0	1	1	0	0	0	0	0	2	271	5	0	294
8:00 AM	9	0	0	0	0	0	0	0	0	0	0	0	1	251	3	0	264
8:15 AM	7	1	0	0	0	0	3	0	0	0	0	0	1	259	5	0	276
8:30 AM	6	0	0	0	0	0	2	0	0	0	0	0	3	207	7	0	225
8:45 AM	7	0	0	0	0	0	1	0	0	0	0	0	1	184	4	0	197
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	76	2	0	0	0	1	9	0	0	0	0	0	11	1934	27	0	2060
APPROACH %'s :	97.44%	2.56%	0.00%	0.00%	0.00%	10.00%	90.00%	0.00%					0.56%	98.07%	1.37%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	44	1	0	0	0	1	3	0	0	0	0	0	5	1038	9	0	1101
PEAK HR FACTOR :	0.786	0.250	0.000	0.000	0.000	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.625	0.958	0.450	0.000	0.936
	0.804				0.500								0.946				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	5	0	0	0	0	0	2	0	0	0	0	0	4	117	0	0	128
4:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	2	109	0	0	113
4:30 PM	3	0	0	0	0	0	2	0	0	0	0	0	5	115	3	0	128
4:45 PM	7	0	0	0	0	0	2	0	0	0	0	0	2	116	1	0	128
5:00 PM	3	0	0	0	0	0	3	0	0	0	0	0	2	146	1	0	155
5:15 PM	5	0	0	0	0	0	1	0	0	0	0	0	8	121	1	0	136
5:30 PM	5	0	0	0	0	0	1	0	0	0	0	0	4	92	1	0	103
5:45 PM	4	0	0	0	0	0	1	0	0	0	0	0	5	106	3	0	119
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	34	0	0	0	0	0	12	0	0	0	0	0	32	922	10	0	1010
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					3.32%	95.64%	1.04%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	18	0	0	0	0	0	8	0	0	0	0	0	17	498	6	0	547
PEAK HR FACTOR :	0.643	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.531	0.853	0.500	0.000	0.882
	0.643				0.667								0.874				

Prepared by National Data & Surveying Services

Pine Ave & 4th St

Peak Hour Turning Movement Count

ID: 18-05007-011
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

SOUTHBOUND (Pine Ave)

AM	24	110	43	0	80	AM
NOON	0	0	0	0	0	NOON
PM	10	109	63	0	219	PM
	0	1	1	0		

EASTBOUND (4th St)

AM	NOON	PM		
133	0	124		
0	0	0	0	
5	0	23	1	
76	0	150	1	
17	0	25	0	
AM	NOON	PM		

WESTBOUND (4th St)

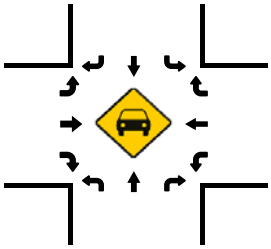
	PM	NOON	AM
0	33	0	13
1	106	0	102
1	16	0	17
0	0	0	0
	291	0	156
	PM	NOON	AM

NORTHBOUND (Pine Ave)

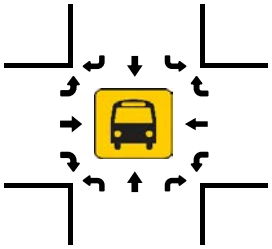
PM	150	0	8	163	78	PM
NOON	0	0	0	0	0	NOON
AM	144	0	7	62	37	AM
		0	1	1	0	

CONTROL			
Signalized			
TEV	513 AM	0 NOON	784 PM
PHF	0.83		0.90

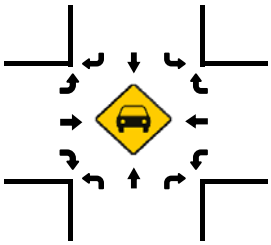
Total Vehicles (AM)



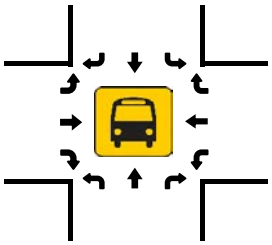
Total Vehicles (AM)



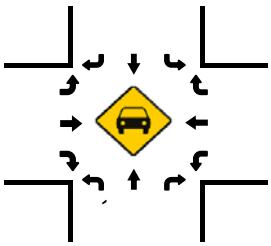
Total Vehicles (NOON)



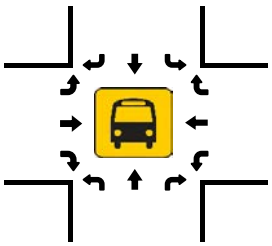
Total Vehicles (NOON)



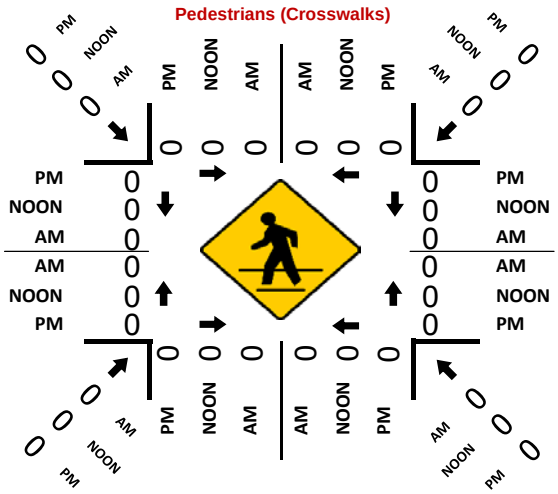
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pine Ave & 4th St
City: Long Beach
Control: Signalized

Project ID: 18-05007-011
Date: 1/11/2018

Total

NS/EW Streets:	Pine Ave				Pine Ave				4th St				4th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	3	4	0	6	16	2	0	1	10	0	0	5	24	0	0	71
7:15 AM	1	9	2	0	3	23	2	0	0	11	3	0	5	26	4	0	89
7:30 AM	2	11	4	0	3	24	3	0	1	25	4	0	4	27	4	0	112
7:45 AM	1	19	7	0	9	23	2	0	1	19	2	0	3	18	6	0	110
8:00 AM	2	14	5	0	9	26	5	0	2	16	4	0	4	26	1	0	114
8:15 AM	0	13	14	0	14	35	11	0	3	19	6	0	4	32	3	0	154
8:30 AM	2	13	11	0	13	29	2	0	0	11	3	0	5	19	5	0	113
8:45 AM	3	22	7	0	7	20	6	0	0	30	4	0	4	25	4	0	132
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	104	54	0	64	196	33	0	8	141	26	0	34	197	27	0	895
APPROACH %'s :	6.51%	61.54%	31.95%	0.00%	21.84%	66.89%	11.26%	0.00%	4.57%	80.57%	14.86%	0.00%	13.18%	76.36%	10.47%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	7	62	37	0	43	110	24	0	5	76	17	0	17	102	13	0	513
PEAK HR FACTOR :	0.583	0.705	0.661	0.000	0.768	0.786	0.545	0.000	0.417	0.633	0.708	0.000	0.850	0.797	0.650	0.000	0.833
	0.828				0.738				0.721				0.846				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	33	7	0	12	20	4	0	4	23	2	0	10	24	3	0	145
4:15 PM	2	27	19	0	8	26	2	1	2	39	5	0	2	20	9	0	162
4:30 PM	4	36	17	0	9	22	5	0	8	39	8	0	7	37	8	0	200
4:45 PM	1	36	17	0	19	33	0	0	3	33	4	0	4	21	9	0	180
5:00 PM	2	47	24	0	19	36	4	0	7	34	7	0	4	23	10	0	217
5:15 PM	1	44	20	0	16	18	1	0	5	44	6	0	1	25	6	0	187
5:30 PM	1	32	15	0	8	27	4	0	5	28	4	0	7	21	6	0	158
5:45 PM	1	46	17	0	17	21	3	0	5	26	3	0	6	16	6	0	167
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	15	301	136	0	108	203	23	1	39	266	39	0	41	187	57	0	1416
APPROACH %'s :	3.32%	66.59%	30.09%	0.00%	32.24%	60.60%	6.87%	0.30%	11.34%	77.33%	11.34%	0.00%	14.39%	65.61%	20.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	8	163	78	0	63	109	10	0	23	150	25	0	16	106	33	0	784
PEAK HR FACTOR :	0.500	0.867	0.813	0.000	0.829	0.757	0.500	0.000	0.719	0.852	0.781	0.000	0.571	0.716	0.825	0.000	0.903
	0.853				0.771				0.900				0.745				

Prepared by National Data & Surveying Services

Pine Ave & 3rd St

Peak Hour Turning Movement Count

ID: 18-05007-012
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	04:00 PM - 06:00 PM

SOUTHBOUND (Pine Ave)

AM	26	112	0	0	84	AM
NOON	0	0	0	0	0	NOON
PM	42	115	0	0	233	PM

EASTBOUND (3rd St)

AM	NOON	PM	
1052	0	524	⇦
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (3rd St)

	PM	NOON	AM
0	84	0	25
2	437	0	994
1	66	0	76
0	0	0	0
⇨	0	0	0
	PM	NOON	AM

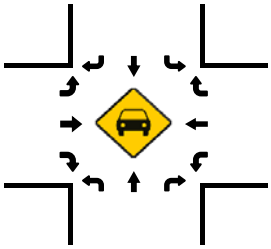
NORTHBOUND (Pine Ave)

PM	181	0	45	149	0	PM
NOON	0	0	0	0	0	NOON
AM	188	0	32	59	0	AM

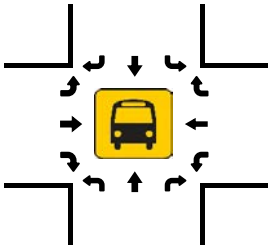
Turning movements (left, through, right, U-turn): 1 1 0 0 (southbound); 0 1 1 0 (northbound)

CONTROL			
Signalized			
TEV	1324	0	938
	AM	NOON	PM
PHF	0.95		0.87

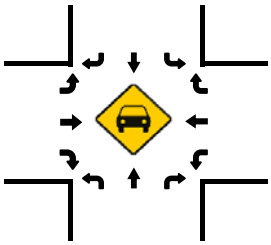
Total Vehicles (AM)



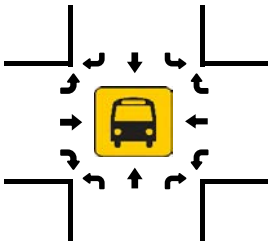
Total Vehicles (AM)



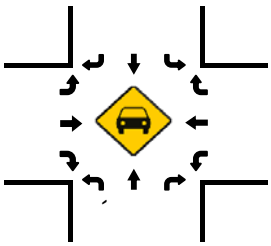
Total Vehicles (NOON)



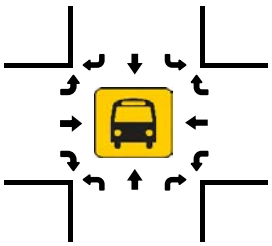
Total Vehicles (NOON)



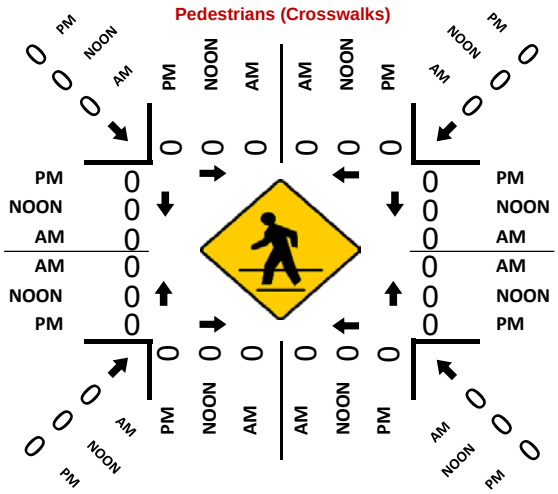
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Pine Ave & 3rd St
City: Long Beach
Control: Signalized

Project ID: 18-05007-012
Date: 1/11/2018

Total

NS/EW Streets:	Pine Ave				Pine Ave				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	5	0	0	0	20	5	0	0	0	0	0	6	240	3	0	283
7:15 AM	9	9	0	0	0	26	4	0	0	0	0	0	11	253	3	0	315
7:30 AM	9	13	0	0	0	28	2	0	0	0	0	0	12	241	4	0	309
7:45 AM	5	15	0	0	0	22	9	0	0	0	0	0	17	265	9	0	342
8:00 AM	10	15	0	0	0	29	5	0	0	0	0	0	23	238	3	0	323
8:15 AM	8	16	0	0	0	33	10	0	0	0	0	0	24	250	9	0	350
8:30 AM	2	20	0	0	0	29	12	0	0	0	0	0	12	204	5	0	284
8:45 AM	12	24	0	0	0	24	5	0	0	0	0	0	18	169	11	0	263
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	117	0	0	0	211	52	0	0	0	0	0	123	1860	47	0	2469
APPROACH %'s :	33.52%	66.48%	0.00%	0.00%	0.00%	80.23%	19.77%	0.00%					6.06%	91.63%	2.32%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	32	59	0	0	0	112	26	0	0	0	0	0	76	994	25	0	1324
PEAK HR FACTOR :	0.800	0.922	0.000	0.000	0.000	0.848	0.650	0.000	0.000	0.000	0.000	0.000	0.792	0.938	0.694	0.000	0.946
	0.910				0.802								0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	17	22	0	0	0	29	11	0	0	0	0	0	12	91	20	0	202
4:15 PM	13	23	0	0	0	23	8	0	0	0	0	0	18	93	21	0	199
4:30 PM	10	40	0	0	0	28	10	0	0	0	0	0	12	105	13	0	218
4:45 PM	13	40	0	0	0	32	11	0	0	0	0	0	14	94	17	0	221
5:00 PM	11	29	0	0	0	33	14	0	0	0	0	0	21	126	36	0	270
5:15 PM	11	40	0	0	0	22	7	0	0	0	0	0	19	112	18	0	229
5:30 PM	8	23	0	0	0	25	9	0	0	0	0	0	16	86	24	0	191
5:45 PM	10	40	0	0	0	25	6	0	0	0	0	0	18	95	20	0	214
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	93	257	0	0	0	217	76	0	0	0	0	0	130	802	169	0	1744
APPROACH %'s :	26.57%	73.43%	0.00%	0.00%	0.00%	74.06%	25.94%	0.00%					11.81%	72.84%	15.35%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	45	149	0	0	0	115	42	0	0	0	0	0	66	437	84	0	938
PEAK HR FACTOR :	0.865	0.931	0.000	0.000	0.000	0.871	0.750	0.000	0.000	0.000	0.000	0.000	0.786	0.867	0.583	0.000	0.869
	0.915				0.835								0.802				

Prepared by National Data & Surveying Services

Long Beach Blvd & 4th St

Peak Hour Turning Movement Count

ID: 18-05007-013
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Long Beach Blvd — SOUTHBOUND

AM	38	350	45	5	349	AM
NOON	0	0	0	0	0	NOON
PM	67	291	118	31	542	PM
	0	2	1	0		

4th St — EASTBOUND

AM	NOON	PM	
200	0	200	
0	0	0	0
21	0	49	1
70	0	170	1
7	0	26	0
AM	NOON	PM	

4th St — WESTBOUND

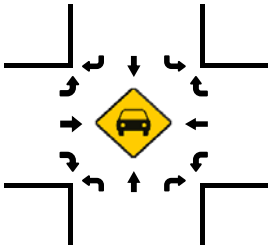
	PM	NOON	AM
0	74	0	84
1	122	0	157
1	27	0	38
0	0	0	0
	329	0	134
	PM	NOON	AM

Long Beach Blvd — NORTHBOUND

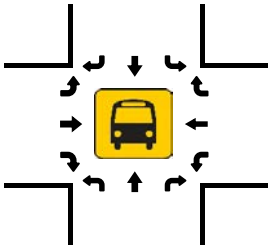
PM	345	1	11	388	41	PM
NOON	0	0	0	0	0	NOON
AM	398	3	5	239	19	AM
		0	1	2	0	

CONTROL			
Signalized			
TEV	1081 AM	0 NOON	1416 PM
PHF	0.96		0.95

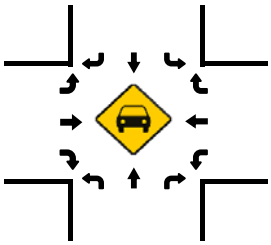
Total Vehicles (AM)



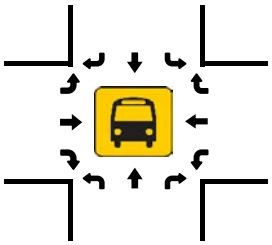
Total Vehicles (AM)



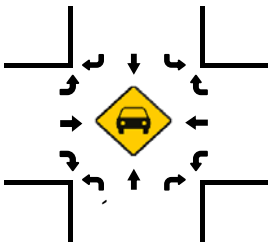
Total Vehicles (NOON)



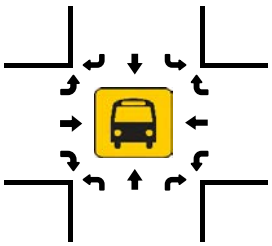
Total Vehicles (NOON)



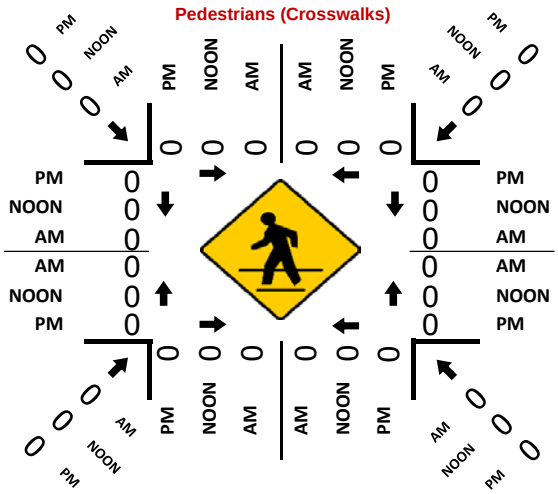
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Long Beach Blvd & 4th St
City: Long Beach
Control: Signalized

Project ID: 18-05007-013
Date: 1/11/2018

Total

NS/EW Streets:	Long Beach Blvd				Long Beach Blvd				4th St				4th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	38	5	2	9	44	10	1	1	13	2	0	6	30	16	0	177
7:15 AM	1	52	2	0	12	56	3	2	3	14	1	0	7	31	17	0	201
7:30 AM	2	50	1	1	10	72	4	4	7	13	3	0	4	39	15	0	225
7:45 AM	0	62	8	3	9	78	5	2	2	24	2	0	14	36	27	0	272
8:00 AM	2	61	2	0	9	100	8	0	4	17	1	0	9	38	30	0	281
8:15 AM	1	56	2	0	16	84	14	0	6	18	2	0	12	56	11	0	278
8:30 AM	2	60	7	0	11	88	11	3	9	11	2	0	3	27	16	0	250
8:45 AM	1	51	0	0	18	78	11	5	9	17	3	0	8	41	23	0	265
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	430	27	6	94	600	66	17	41	127	16	0	63	298	155	0	1949
APPROACH %'s :	1.91%	91.10%	5.72%	1.27%	12.10%	77.22%	8.49%	2.19%	22.28%	69.02%	8.70%	0.00%	12.21%	57.75%	30.04%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	239	19	3	45	350	38	5	21	70	7	0	38	157	84	0	1081
PEAK HR FACTOR :	0.625	0.964	0.594	0.250	0.703	0.875	0.679	0.417	0.583	0.729	0.875	0.000	0.679	0.701	0.700	0.000	0.962
	0.911				0.936				0.875				0.883				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	94	18	2	28	61	14	6	5	31	2	0	7	33	9	0	312
4:15 PM	4	77	10	1	30	52	8	4	8	40	6	0	3	33	11	0	287
4:30 PM	7	67	20	0	32	66	17	9	13	35	6	0	9	42	19	0	342
4:45 PM	4	101	6	1	30	64	16	9	9	43	5	0	6	27	12	0	333
5:00 PM	3	99	15	0	22	72	22	9	14	50	6	0	7	32	22	0	373
5:15 PM	2	97	9	0	31	81	13	8	12	44	8	0	5	29	21	0	360
5:30 PM	2	91	11	0	35	74	16	5	14	33	7	0	9	34	19	0	350
5:45 PM	1	67	7	1	24	72	14	10	1	37	4	0	3	29	15	0	285
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	693	96	5	232	542	120	60	76	313	44	0	49	259	128	0	2642
APPROACH %'s :	3.05%	84.62%	11.72%	0.61%	24.32%	56.81%	12.58%	6.29%	17.55%	72.29%	10.16%	0.00%	11.24%	59.40%	29.36%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	11	388	41	1	118	291	67	31	49	170	26	0	27	122	74	0	1416
PEAK HR FACTOR :	0.688	0.960	0.683	0.250	0.843	0.898	0.761	0.861	0.875	0.850	0.813	0.000	0.750	0.897	0.841	0.000	0.949
	0.942				0.953				0.875				0.899				

Prepared by National Data & Surveying Services

Long Beach Blvd & 3rd St

Peak Hour Turning Movement Count

ID: 18-05007-014
City: Long Beach

Day: Thursday
Date: 01/11/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

Long Beach Blvd — SOUTHBOUND

AM	107	287	0	0	251	AM
NOON	0	0	0	0	0	NOON
PM	83	267	0	0	435	PM
	1	2	0	0		

3rd St — EASTBOUND

AM	NOON	PM	
1124	0	536	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

3rd St — WESTBOUND

	PM	NOON	AM
0	72	0	83
2	349	0	966
1	36	0	52
0	0	0	0
	0	0	0
	PM	NOON	AM

CONTROL

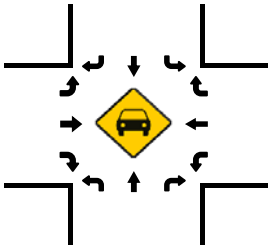
Signalized

	AM	NOON	PM
TEV	1721	0	1277
PHF	0.96		0.94

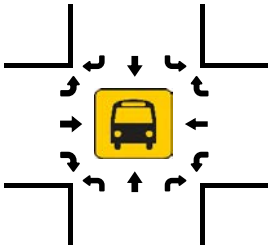
Long Beach Blvd — NORTHBOUND

	0	1	2	0	
PM	306	3	104	363	0	PM
NOON	0	0	0	0	0	NOON
AM	346	7	51	168	0	AM

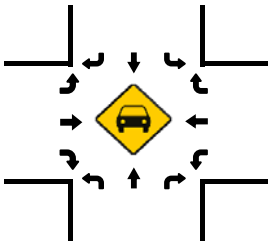
Total Vehicles (AM)



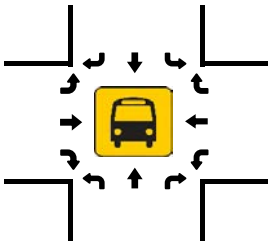
Total Vehicles (AM)



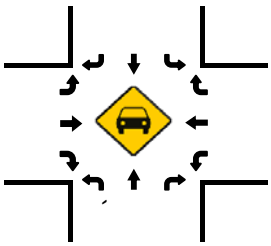
Total Vehicles (NOON)



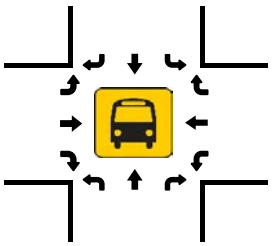
Total Vehicles (NOON)



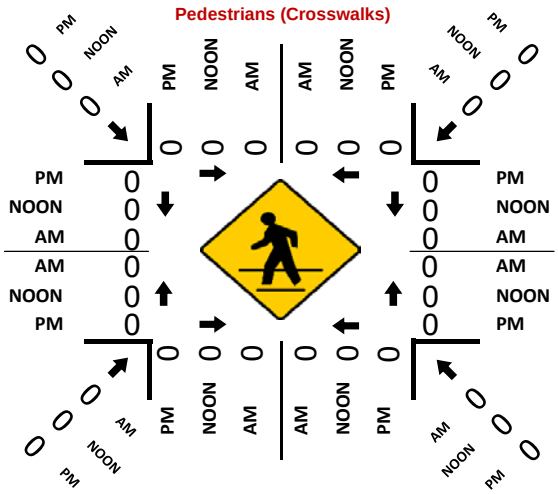
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Long Beach Blvd & 3rd St
City: Long Beach
Control: Signalized

Project ID: 18-05007-014
Date: 1/11/2018

Total

NS/EW Streets:	Long Beach Blvd				Long Beach Blvd				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	13	35	0	1	0	44	11	0	0	0	0	0	12	222	10	0	348
7:15 AM	15	43	0	3	0	47	15	0	0	0	0	0	13	228	13	0	377
7:30 AM	12	35	0	2	0	66	21	0	0	0	0	0	9	226	17	0	388
7:45 AM	14	48	0	0	0	62	31	0	0	0	0	0	18	251	23	0	447
8:00 AM	11	45	0	3	0	87	23	0	0	0	0	0	11	240	27	0	447
8:15 AM	14	40	0	2	0	72	32	0	0	0	0	0	14	249	16	0	439
8:30 AM	21	49	0	2	0	65	26	0	0	0	0	0	8	185	16	0	372
8:45 AM	13	42	0	4	0	74	21	0	0	0	0	0	19	180	17	0	370
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	113	337	0	17	0	517	180	0	0	0	0	0	104	1781	139	0	3188
APPROACH %'s :	24.20%	72.16%	0.00%	3.64%	0.00%	74.18%	25.82%	0.00%					5.14%	87.99%	6.87%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	51	168	0	7	0	287	107	0	0	0	0	0	52	966	83	0	1721
PEAK HR FACTOR :	0.911	0.875	0.000	0.583	0.000	0.825	0.836	0.000	0.000	0.000	0.000	0.000	0.722	0.962	0.769	0.000	0.963
	0.911				0.895								0.943				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	0	0	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	21	97	0	0	0	52	21	0	0	0	0	0	10	80	21	0	302
4:15 PM	17	71	0	2	0	45	17	0	0	0	0	0	4	91	17	0	264
4:30 PM	16	71	0	1	0	57	19	0	0	0	0	0	6	92	23	0	285
4:45 PM	19	86	0	0	0	61	23	0	0	0	0	0	11	81	24	0	305
5:00 PM	27	101	0	2	0	69	15	0	0	0	0	0	4	102	19	0	339
5:15 PM	32	92	0	0	0	67	27	0	0	0	0	0	7	89	12	0	326
5:30 PM	26	84	0	1	0	70	18	0	0	0	0	0	14	77	17	0	307
5:45 PM	22	56	0	2	0	56	27	0	0	0	0	0	5	91	23	0	282
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	180	658	0	8	0	477	167	0	0	0	0	0	61	703	156	0	2410
APPROACH %'s :	21.28%	77.78%	0.00%	0.95%	0.00%	74.07%	25.93%	0.00%					6.63%	76.41%	16.96%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	104	363	0	3	0	267	83	0	0	0	0	0	36	349	72	0	1277
PEAK HR FACTOR :	0.813	0.899	0.000	0.375	0.000	0.954	0.769	0.000	0.000	0.000	0.000	0.000	0.643	0.855	0.750	0.000	0.942
	0.904				0.931								0.914				

APPENDIX C

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

APPENDIX C-I

EXISTING TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.722

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	34	0	0	97	17	0	0	0	34	231	10
Total Analysis Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.08	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.09	0.30	0.30
Intersection LOS	C											
Intersection V/C	0.722											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	115	66	62	455	0	86	648	373	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	115	66	62	455	0	86	648	373	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	29	17	16	114	0	22	162	93	0	0	0
Total Analysis Volume [veh/h]	0	115	66	62	455	0	86	648	373	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.04	0.04	0.14	0.00	0.05	0.20	0.23	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.475											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.513

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	32	167	0	0	316	53	0	0	0	99	1260	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	167	0	0	316	53	0	0	0	99	1260	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	42	0	0	79	13	0	0	0	25	315	18
Total Analysis Volume [veh/h]	32	167	0	0	316	53	0	0	0	99	1260	73
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.05	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.06	0.28	0.28
Intersection LOS	A											
Intersection V/C	0.513											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.368

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	167	40	90	377	0	48	707	27	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	167	40	90	377	0	48	707	27	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	42	10	23	94	0	12	177	7	0	0	0
Total Analysis Volume [veh/h]	0	167	40	90	377	0	48	707	27	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.06	0.06	0.12	0.00	0.03	0.15	0.02	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.368											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.265

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	27	6	0	58	6	8	19	7	6	21	5
Total Analysis Volume [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.04	0.00	0.08	0.08	0.02	0.07	0.07	0.01	0.06	0.06
Intersection LOS	A											
Intersection V/C	0.265											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	36	92	0	0	282	96	0	0	0	66	970	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	92	0	0	282	96	0	0	0	66	970	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	23	0	0	71	24	0	0	0	17	243	11
Total Analysis Volume [veh/h]	36	92	0	0	282	96	0	0	0	66	970	45
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.09	0.06	0.00	0.00	0.00	0.04	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.528											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.382

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	119	49	52	288	0	27	465	148	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	119	49	52	288	0	27	465	148	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	30	12	13	72	0	7	116	37	0	0	0
Total Analysis Volume [veh/h]	0	119	49	52	288	0	27	465	148	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.03	0.03	0.09	0.00	0.02	0.19	0.19	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.382											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	3	2	3	67	0	179	115	535	2	4	1512	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	2	3	67	0	179	115	535	2	4	1512	133
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	17	0	45	29	134	1	1	378	33
Total Analysis Volume [veh/h]	3	2	3	67	0	179	115	535	2	4	1512	133
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.02	0.00	0.11	0.07	0.11	0.11	0.00	0.32	0.08
Intersection LOS	B											
Intersection V/C	0.604											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	7	2	0	3	6	87	1	8	113	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	2	0	3	6	87	1	8	113	13
Peak Hour Factor	0.8220	0.8220	0.8220	1.0000	1.0000	1.0000	0.8220	0.8220	0.8220	0.8220	0.8220	0.8220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	1	0	1	2	26	0	2	34	4
Total Analysis Volume [veh/h]	0	0	9	2	0	3	7	106	1	10	137	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	9.89	10.36	8.84	9.90	10.31	9.02	7.53	0.00	0.00	7.44	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.72	0.72	0.72	0.45	0.45	0.45	0.37	0.00	0.00	0.51	0.00	0.00
d_A, Approach Delay [s/veh]	8.84			9.37			0.46			0.46		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.87											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	32.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.262

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	44	1	0	0	1	3	0	0	0	5	1038	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1	0	0	1	3	0	0	0	5	1038	9
Peak Hour Factor	0.9360	0.9360	1.0000	1.0000	0.9360	0.9360	1.0000	1.0000	1.0000	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	0	0	1	0	0	0	1	277	2
Total Analysis Volume [veh/h]	47	1	0	0	1	3	0	0	0	5	1109	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.26	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	32.16	29.77	0.00	0.00	22.79	19.47	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D			C	C				A	A	A
95th-Percentile Queue Length [veh/ln]	1.03	1.03	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	25.67	25.67	0.00	0.00	1.27	1.27	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	32.11			20.30			0.00			0.00		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	1.38											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.264

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	7	62	37	43	110	24	5	76	17	17	102	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	62	37	43	110	24	5	76	17	17	102	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	16	9	11	28	6	1	19	4	4	26	3
Total Analysis Volume [veh/h]	7	62	37	43	110	24	5	76	17	17	102	13
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.06	0.03	0.08	0.08	0.00	0.06	0.06	0.01	0.07	0.07
Intersection LOS	A											
Intersection V/C	0.264											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.508

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	32	59	0	0	112	26	0	0	0	76	994	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	59	0	0	112	26	0	0	0	76	994	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	15	0	0	28	7	0	0	0	19	249	6
Total Analysis Volume [veh/h]	32	59	0	0	112	26	0	0	0	76	994	25
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.04	0.00	0.00	0.07	0.02	0.00	0.00	0.00	0.05	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.508											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.390

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	8	239	19	50	350	38	21	70	7	38	157	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	239	19	50	350	38	21	70	7	38	157	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	60	5	13	88	10	5	18	2	10	39	21
Total Analysis Volume [veh/h]	8	239	19	50	350	38	21	70	7	38	157	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.08	0.03	0.12	0.12	0.01	0.05	0.05	0.02	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.390											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	58	168	0	0	287	107	0	0	0	52	966	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	168	0	0	287	107	0	0	0	52	966	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	42	0	0	72	27	0	0	0	13	242	21
Total Analysis Volume [veh/h]	58	168	0	0	287	107	0	0	0	52	966	83
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.05	0.00	0.00	0.09	0.07	0.00	0.00	0.00	0.03	0.33	0.33
Intersection LOS	A											
Intersection V/C	0.554											

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.536

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	53	450	0	0	207	22	0	0	0	70	437	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	437	58
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	113	0	0	52	6	0	0	0	18	109	15
Total Analysis Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	437	58
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.28	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.04	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.536											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	411	139	66	205	0	74	833	180	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	411	139	66	205	0	74	833	180	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	103	35	17	51	0	19	208	45	0	0	0
Total Analysis Volume [veh/h]	0	411	139	66	205	0	74	833	180	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.26	0.09	0.04	0.06	0.00	0.05	0.26	0.11	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.658											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.414

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	52	518	0	0	267	41	0	0	0	72	631	99
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	518	0	0	267	41	0	0	0	72	631	99
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	130	0	0	67	10	0	0	0	18	158	25
Total Analysis Volume [veh/h]	52	518	0	0	267	41	0	0	0	72	631	99
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.16	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.05	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.414											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	512	151	77	236	0	51	1563	39	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	512	151	77	236	0	51	1563	39	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	128	38	19	59	0	13	391	10	0	0	0
Total Analysis Volume [veh/h]	0	512	151	77	236	0	51	1563	39	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.21	0.21	0.05	0.07	0.00	0.03	0.33	0.02	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.681											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	129	15	0	52	9	9	34	4	3	21	8
Total Analysis Volume [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.00	0.08	0.08	0.02	0.09	0.09	0.01	0.07	0.07
Intersection LOS	A											
Intersection V/C	0.379											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.404

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	91	499	0	0	191	39	0	0	0	52	387	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	499	0	0	191	39	0	0	0	52	387	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	125	0	0	48	10	0	0	0	13	97	22
Total Analysis Volume [veh/h]	91	499	0	0	191	39	0	0	0	52	387	88
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.16	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.03	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.404											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	486	200	70	155	0	122	922	69	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	486	200	70	155	0	122	922	69	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	122	50	18	39	0	31	231	17	0	0	0
Total Analysis Volume [veh/h]	0	486	200	70	155	0	122	922	69	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.15	0.13	0.04	0.05	0.00	0.08	0.31	0.31	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.605											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	9	10	8	95	2	158	218	1568	11	12	932	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	10	8	95	2	158	218	1568	11	12	932	156
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	24	1	40	55	392	3	3	233	39
Total Analysis Volume [veh/h]	9	10	8	95	2	158	218	1568	11	12	932	156
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.03	0.03	0.03	0.10	0.14	0.33	0.33	0.01	0.19	0.10
Intersection LOS	A											
Intersection V/C	0.552											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	11	2	0	4	5	186	0	0	122	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	2	0	4	5	186	0	0	122	2
Peak Hour Factor	0.8060	0.8060	0.8060	1.0000	1.0000	1.0000	0.8060	0.8060	0.8060	0.8060	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	1	0	1	2	58	0	0	38	1
Total Analysis Volume [veh/h]	0	0	14	2	0	4	6	231	0	0	151	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.40	10.79	9.53	10.44	10.73	9.06	7.53	0.00	0.00	7.69	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.32	1.32	1.32	0.57	0.57	0.57	0.32	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.53			9.52			0.19			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.58											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	18	0	0	0	0	8	0	0	0	17	498	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	0	0	0	0	8	0	0	0	17	498	6
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	2	0	0	0	5	141	2
Total Analysis Volume [veh/h]	20	0	0	0	0	9	0	0	0	19	565	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.43	14.27	0.00	0.00	13.88	12.02	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B			B	B				A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.92	3.92	0.00	0.00	1.31	1.31	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.43			12.02			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.64											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.409

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	8	163	78	63	109	10	23	150	25	16	106	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	163	78	63	109	10	23	150	25	16	106	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	41	20	16	27	3	6	38	6	4	27	8
Total Analysis Volume [veh/h]	8	163	78	63	109	10	23	150	25	16	106	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.15	0.15	0.04	0.07	0.07	0.01	0.11	0.11	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.409											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.363

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	37	0	0	29	11	0	0	0	17	109	21
Total Analysis Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.00	0.00	0.07	0.03	0.00	0.00	0.00	0.04	0.16	0.16
Intersection LOS	A											
Intersection V/C	0.363											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	12	388	41	149	291	67	49	170	26	27	122	74
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	388	41	149	291	67	49	170	26	27	122	74
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	97	10	37	73	17	12	43	7	7	31	19
Total Analysis Volume [veh/h]	12	388	41	149	291	67	49	170	26	27	122	74
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.13	0.13	0.09	0.11	0.11	0.03	0.12	0.12	0.02	0.12	0.12
Intersection LOS	A											
Intersection V/C	0.480											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.382

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	107	363	0	0	267	83	0	0	0	36	349	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	107	363	0	0	267	83	0	0	0	36	349	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	91	0	0	67	21	0	0	0	9	87	18
Total Analysis Volume [veh/h]	107	363	0	0	267	83	0	0	0	36	349	72
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.11	0.00	0.00	0.08	0.05	0.00	0.00	0.00	0.02	0.13	0.13
Intersection LOS	A											
Intersection V/C	0.382											

APPENDIX C-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	59	134	0	0	388	67	0	0	0	137	964	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	964	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	34	0	0	97	17	0	0	0	34	241	10
Total Analysis Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	964	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.08	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.09	0.31	0.31
Intersection LOS	C											
Intersection V/C	0.735											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	115	66	62	455	0	86	654	373	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	115	66	62	455	0	86	654	373	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	29	17	16	114	0	22	164	93	0	0	0
Total Analysis Volume [veh/h]	0	115	66	62	455	0	86	654	373	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.04	0.04	0.14	0.00	0.05	0.20	0.23	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.475											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	32	187	0	0	334	53	0	0	0	99	1260	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	187	0	0	334	53	0	0	0	99	1260	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	47	0	0	84	13	0	0	0	25	315	18
Total Analysis Volume [veh/h]	32	187	0	0	334	53	0	0	0	99	1260	73
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.06	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.06	0.28	0.28
Intersection LOS	A											
Intersection V/C	0.519											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.392

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	187	40	108	377	0	48	737	27	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	187	40	108	377	0	48	737	27	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	47	10	27	94	0	12	184	7	0	0	0
Total Analysis Volume [veh/h]	0	187	40	108	377	0	48	737	27	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.07	0.07	0.12	0.00	0.03	0.15	0.02	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.392											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.287

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	27	9	0	58	6	8	22	7	6	24	10
Total Analysis Volume [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.04	0.00	0.08	0.08	0.02	0.07	0.07	0.01	0.08	0.08
Intersection LOS	A											
Intersection V/C	0.287											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.541

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	36	104	0	0	282	96	0	0	0	86	1011	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	104	0	0	282	96	0	0	0	86	1011	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	26	0	0	71	24	0	0	0	22	253	11
Total Analysis Volume [veh/h]	36	104	0	0	282	96	0	0	0	86	1011	45
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.09	0.06	0.00	0.00	0.00	0.05	0.33	0.33
Intersection LOS	A											
Intersection V/C	0.541											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	125	49	52	308	0	33	465	148	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	125	49	52	308	0	33	465	148	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	31	12	13	77	0	8	116	37	0	0	0
Total Analysis Volume [veh/h]	0	125	49	52	308	0	33	465	148	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.03	0.03	0.10	0.00	0.02	0.19	0.19	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.388											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	3	2	3	81	0	186	121	535	2	4	1512	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	2	3	81	0	186	121	535	2	4	1512	133
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	20	0	47	30	134	1	1	378	33
Total Analysis Volume [veh/h]	3	2	3	81	0	186	121	535	2	4	1512	133
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.03	0.00	0.12	0.08	0.11	0.11	0.00	0.32	0.08
Intersection LOS	B											
Intersection V/C	0.612											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.073

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	34	0	48	2	0	3	6	87	25	92	113	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	0	48	2	0	3	6	87	25	92	113	13
Peak Hour Factor	0.8220	0.8220	0.8220	1.0000	1.0000	1.0000	0.8220	0.8220	0.8220	0.8220	0.8220	0.8220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	15	1	0	1	2	26	8	28	34	4
Total Analysis Volume [veh/h]	41	0	58	2	0	3	7	106	30	112	137	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	12.23	12.69	9.64	11.89	12.02	9.03	7.53	0.00	0.00	7.69	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.47	0.47	0.47	0.02	0.02	0.02	0.01	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.72	11.72	11.72	0.54	0.54	0.54	0.37	0.00	0.00	6.28	0.00	0.00
d_A, Approach Delay [s/veh]	10.71			10.17			0.37			3.25		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.96											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	47.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	44	1	0	0	1	64	0	0	0	5	1038	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1	0	0	1	64	0	0	0	5	1038	21
Peak Hour Factor	0.9360	0.9360	1.0000	1.0000	0.9360	0.9360	1.0000	1.0000	1.0000	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	0	0	17	0	0	0	1	277	6
Total Analysis Volume [veh/h]	47	1	0	0	1	68	0	0	0	5	1109	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.36	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	47.17	37.69	0.00	0.00	28.06	24.71	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	E			D	C				A	A	A
95th-Percentile Queue Length [veh/ln]	1.50	1.50	0.00	0.00	1.09	1.09	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	37.41	37.41	0.00	0.00	27.22	27.22	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	46.97			24.76			0.00			0.00		
Approach LOS	E			C			A			A		
d_I, Intersection Delay [s/veh]	3.16											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.316

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	7	62	37	43	110	72	5	117	17	17	138	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	62	37	43	110	72	5	117	17	17	138	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	16	9	11	28	18	1	29	4	4	35	3
Total Analysis Volume [veh/h]	7	62	37	43	110	72	5	117	17	17	138	13
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.06	0.03	0.11	0.11	0.00	0.08	0.08	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.316											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	32	59	0	0	112	26	0	0	0	76	1006	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	59	0	0	112	26	0	0	0	76	1006	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	15	0	0	28	7	0	0	0	19	252	6
Total Analysis Volume [veh/h]	32	59	0	0	112	26	0	0	0	76	1006	25
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.04	0.00	0.00	0.07	0.02	0.00	0.00	0.00	0.05	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.512											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.403

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	8	239	19	50	350	68	21	111	7	38	163	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	239	19	50	350	68	21	111	7	38	163	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	60	5	13	88	17	5	28	2	10	41	21
Total Analysis Volume [veh/h]	8	239	19	50	350	68	21	111	7	38	163	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.08	0.03	0.13	0.13	0.01	0.07	0.07	0.02	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.403											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.561

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	70	168	0	0	287	107	0	0	0	52	966	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	168	0	0	287	107	0	0	0	52	966	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	42	0	0	72	27	0	0	0	13	242	21
Total Analysis Volume [veh/h]	70	168	0	0	287	107	0	0	0	52	966	83
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.05	0.00	0.00	0.09	0.07	0.00	0.00	0.00	0.03	0.33	0.33
Intersection LOS	A											
Intersection V/C	0.561											

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.545

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	53	450	0	0	207	22	0	0	0	70	465	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	465	58
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	113	0	0	52	6	0	0	0	18	116	15
Total Analysis Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	465	58
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.28	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.04	0.16	0.16
Intersection LOS	A											
Intersection V/C	0.545											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	411	139	66	205	0	74	839	180	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	411	139	66	205	0	74	839	180	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	103	35	17	51	0	19	210	45	0	0	0
Total Analysis Volume [veh/h]	0	411	139	66	205	0	74	839	180	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.26	0.09	0.04	0.06	0.00	0.05	0.26	0.11	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.660											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	52	532	0	0	284	41	0	0	0	72	631	99
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	532	0	0	284	41	0	0	0	72	631	99
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	133	0	0	71	10	0	0	0	18	158	25
Total Analysis Volume [veh/h]	52	532	0	0	284	41	0	0	0	72	631	99
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.17	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.05	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.418											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	526	151	94	236	0	51	1592	39	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	526	151	94	236	0	51	1592	39	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	132	38	24	59	0	13	398	10	0	0	0
Total Analysis Volume [veh/h]	0	526	151	94	236	0	51	1592	39	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.21	0.21	0.06	0.07	0.00	0.03	0.33	0.02	0.00	0.00	0.00
Intersection LOS	C											
Intersection V/C	0.702											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	129	18	0	52	9	9	37	4	3	24	12
Total Analysis Volume [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.00	0.08	0.08	0.02	0.10	0.10	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.394											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.417

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	91	511	0	0	191	39	0	0	0	66	415	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	511	0	0	191	39	0	0	0	66	415	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	128	0	0	48	10	0	0	0	17	104	22
Total Analysis Volume [veh/h]	91	511	0	0	191	39	0	0	0	66	415	88
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.16	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.04	0.16	0.16
Intersection LOS	A											
Intersection V/C	0.417											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.607

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	492	200	70	169	0	128	922	69	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	492	200	70	169	0	128	922	69	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	123	50	18	42	0	32	231	17	0	0	0
Total Analysis Volume [veh/h]	0	492	200	70	169	0	128	922	69	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.15	0.13	0.04	0.05	0.00	0.08	0.31	0.31	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.607											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	9	10	8	104	2	163	224	1568	11	12	932	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	10	8	104	2	163	224	1568	11	12	932	156
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	26	1	41	56	392	3	3	233	39
Total Analysis Volume [veh/h]	9	10	8	104	2	163	224	1568	11	12	932	156
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.03	0.03	0.03	0.10	0.14	0.33	0.33	0.01	0.19	0.10
Intersection LOS	A											
Intersection V/C	0.555											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	23	0	39	2	0	4	5	186	23	81	122	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	0	39	2	0	4	5	186	23	81	122	2
Peak Hour Factor	0.8060	0.8060	0.8060	1.0000	1.0000	1.0000	0.8060	0.8060	0.8060	0.8060	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	12	1	0	1	2	58	7	25	38	1
Total Analysis Volume [veh/h]	29	0	48	2	0	4	6	231	29	100	151	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	12.37	12.75	10.23	12.45	12.46	9.07	7.53	0.00	0.00	7.99	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.39	0.39	0.39	0.03	0.03	0.03	0.01	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.63	9.63	9.63	0.65	0.65	0.65	0.32	0.00	0.00	6.22	0.00	0.00
d_A, Approach Delay [s/veh]	11.04			10.20			0.17			3.16		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.92											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	18	0	0	0	0	50	0	0	0	17	498	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	0	0	0	0	50	0	0	0	17	498	18
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	14	0	0	0	5	141	5
Total Analysis Volume [veh/h]	20	0	0	0	0	57	0	0	0	19	565	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.59	14.54	0.00	0.00	14.69	12.81	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	C	B			B	B				A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.39	4.39	0.00	0.00	9.22	9.22	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.59			12.81			0.00			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	1.53											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	8	163	78	63	109	56	23	178	25	16	141	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	163	78	63	109	56	23	178	25	16	141	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	41	20	16	27	14	6	45	6	4	35	8
Total Analysis Volume [veh/h]	8	163	78	63	109	56	23	178	25	16	141	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.15	0.15	0.04	0.10	0.10	0.01	0.13	0.13	0.01	0.11	0.11
Intersection LOS	A											
Intersection V/C	0.427											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.367

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	45	149	0	0	115	42	0	0	0	66	449	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	449	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	37	0	0	29	11	0	0	0	17	112	21
Total Analysis Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	449	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.00	0.00	0.07	0.03	0.00	0.00	0.00	0.04	0.17	0.17
Intersection LOS	A											
Intersection V/C	0.367											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	12	388	41	149	291	96	49	198	26	27	128	74
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	388	41	149	291	96	49	198	26	27	128	74
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	97	10	37	73	24	12	50	7	7	32	19
Total Analysis Volume [veh/h]	12	388	41	149	291	96	49	198	26	27	128	74
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.13	0.13	0.09	0.12	0.12	0.03	0.14	0.14	0.02	0.13	0.13
Intersection LOS	A											
Intersection V/C	0.484											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.389

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	119	363	0	0	267	83	0	0	0	36	349	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	363	0	0	267	83	0	0	0	36	349	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	91	0	0	67	21	0	0	0	9	87	18
Total Analysis Volume [veh/h]	119	363	0	0	267	83	0	0	0	36	349	72
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.11	0.00	0.00	0.08	0.05	0.00	0.00	0.00	0.02	0.13	0.13
Intersection LOS	A											
Intersection V/C	0.389											

APPENDIX C-III

YEAR 2021 CUMULATIVE TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.118

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	75	291	0	0	570	79	0	0	0	240	1767	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	291	0	0	570	79	0	0	0	240	1767	44
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	73	0	0	143	20	0	0	0	60	442	11
Total Analysis Volume [veh/h]	75	291	0	0	570	79	0	0	0	240	1767	44
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.18	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.15	0.57	0.57
Intersection LOS	F											
Intersection V/C	1.118											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	252	50	66	736	0	122	1088	535	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	252	50	66	736	0	122	1088	535	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	13	17	184	0	31	272	134	0	0	0
Total Analysis Volume [veh/h]	0	252	50	66	736	0	122	1088	535	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.16	0.03	0.04	0.23	0.00	0.08	0.34	0.33	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.670											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	62	368	0	0	520	55	0	0	0	134	1428	75
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	368	0	0	520	55	0	0	0	134	1428	75
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	92	0	0	130	14	0	0	0	34	357	19
Total Analysis Volume [veh/h]	62	368	0	0	520	55	0	0	0	134	1428	75
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.12	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.08	0.31	0.31
Intersection LOS	B											
Intersection V/C	0.632											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	354	41	93	608	0	92	777	46	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	354	41	93	608	0	92	777	46	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	89	10	23	152	0	23	194	12	0	0	0
Total Analysis Volume [veh/h]	0	354	41	93	608	0	92	777	46	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.12	0.12	0.06	0.19	0.00	0.06	0.16	0.03	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.452											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.333

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	73	7	0	110	6	8	20	7	6	21	5
Total Analysis Volume [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.10	0.10	0.00	0.14	0.14	0.02	0.07	0.07	0.01	0.06	0.06
Intersection LOS	A											
Intersection V/C	0.333											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.838

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	87	277	0	0	424	165	0	0	0	103	1716	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	87	277	0	0	424	165	0	0	0	103	1716	46
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	69	0	0	106	41	0	0	0	26	429	12
Total Analysis Volume [veh/h]	87	277	0	0	424	165	0	0	0	103	1716	46
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.09	0.00	0.00	0.13	0.10	0.00	0.00	0.00	0.06	0.55	0.55
Intersection LOS	D											
Intersection V/C	0.838											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.569

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	252	61	124	457	0	98	815	187	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	252	61	124	457	0	98	815	187	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	15	31	114	0	25	204	47	0	0	0
Total Analysis Volume [veh/h]	0	252	61	124	457	0	98	815	187	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.04	0.08	0.14	0.00	0.06	0.31	0.31	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.569											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.835

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	14	13	3	110	3	290	200	884	5	4	1967	163
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	13	3	110	3	290	200	884	5	4	1967	163
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	1	28	1	73	50	221	1	1	492	41
Total Analysis Volume [veh/h]	14	13	3	110	3	290	200	884	5	4	1967	163
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.03	0.07	0.00	0.18	0.13	0.19	0.19	0.00	0.41	0.10
Intersection LOS	D											
Intersection V/C	0.835											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	7	2	0	3	6	90	1	8	116	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	2	0	3	6	90	1	8	116	13
Peak Hour Factor	0.8220	0.8220	0.8220	1.0000	1.0000	1.0000	0.8220	0.8220	0.8220	0.8220	0.8220	0.8220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	1	0	1	2	27	0	2	35	4
Total Analysis Volume [veh/h]	0	0	9	2	0	3	7	109	1	10	141	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	9.92	10.39	8.85	9.93	10.34	9.04	7.54	0.00	0.00	7.45	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.72	0.72	0.72	0.46	0.46	0.46	0.37	0.00	0.00	0.51	0.00	0.00
d_A, Approach Delay [s/veh]	8.85			9.39			0.45			0.45		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.85											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	277.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.020

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	45	1	0	0	1	3	0	0	0	5	1799	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1	0	0	1	3	0	0	0	5	1799	9
Peak Hour Factor	0.9360	0.9360	1.0000	1.0000	0.9360	0.9360	1.0000	1.0000	1.0000	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	0	0	1	0	0	0	1	481	2
Total Analysis Volume [veh/h]	48	1	0	0	1	3	0	0	0	5	1922	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.02	0.02	0.00	0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	277.67	256.51	0.00	0.00	62.40	50.82	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F			F	F				A	A	A
95th-Percentile Queue Length [veh/ln]	4.39	4.39	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	109.78	109.78	0.00	0.00	3.99	3.99	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	277.24			53.72			0.00			0.00		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	6.93											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.291

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	7	100	39	44	129	25	5	78	18	18	105	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	100	39	44	129	25	5	78	18	18	105	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	25	10	11	32	6	1	20	5	5	26	3
Total Analysis Volume [veh/h]	7	100	39	44	129	25	5	78	18	18	105	13
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.09	0.09	0.03	0.10	0.10	0.00	0.06	0.06	0.01	0.07	0.07
Intersection LOS	A											
Intersection V/C	0.291											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	57	69	0	0	127	31	0	0	0	207	1748	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	69	0	0	127	31	0	0	0	207	1748	55
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	17	0	0	32	8	0	0	0	52	437	14
Total Analysis Volume [veh/h]	57	69	0	0	127	31	0	0	0	207	1748	55
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.04	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.13	0.56	0.56
Intersection LOS	C											
Intersection V/C	0.778											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.599

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	8	931	20	52	650	39	22	72	7	39	162	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	931	20	52	650	39	22	72	7	39	162	87
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	233	5	13	163	10	6	18	2	10	41	22
Total Analysis Volume [veh/h]	8	931	20	52	650	39	22	72	7	39	162	87
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.30	0.30	0.03	0.22	0.22	0.01	0.05	0.05	0.02	0.16	0.16
Intersection LOS	A											
Intersection V/C	0.599											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.032

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	569	834	0	0	491	204	0	0	0	156	1244	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	569	834	0	0	491	204	0	0	0	156	1244	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	142	209	0	0	123	51	0	0	0	39	311	28
Total Analysis Volume [veh/h]	569	834	0	0	491	204	0	0	0	156	1244	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.36	0.26	0.00	0.00	0.15	0.13	0.00	0.00	0.00	0.10	0.42	0.42
Intersection LOS	F											
Intersection V/C	1.032											

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	141	638	0	0	419	36	0	0	0	121	989	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	638	0	0	419	36	0	0	0	121	989	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	160	0	0	105	9	0	0	0	30	247	15
Total Analysis Volume [veh/h]	141	638	0	0	419	36	0	0	0	121	989	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.40	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.08	0.33	0.33
Intersection LOS	D											
Intersection V/C	0.827											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.078

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	659	192	71	463	0	100	1671	268	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	659	192	71	463	0	100	1671	268	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	165	48	18	116	0	25	418	67	0	0	0
Total Analysis Volume [veh/h]	0	659	192	71	463	0	100	1671	268	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.41	0.12	0.04	0.14	0.00	0.06	0.52	0.17	0.00	0.00	0.00
Intersection LOS	F											
Intersection V/C	1.078											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.506

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	71	711	0	0	554	42	0	0	0	94	740	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	711	0	0	554	42	0	0	0	94	740	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	178	0	0	139	11	0	0	0	24	185	26
Total Analysis Volume [veh/h]	71	711	0	0	554	42	0	0	0	94	740	102
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.22	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.06	0.18	0.18
Intersection LOS	A											
Intersection V/C	0.506											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.765

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	695	156	79	517	0	78	1677	84	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	695	156	79	517	0	78	1677	84	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	174	39	20	129	0	20	419	21	0	0	0
Total Analysis Volume [veh/h]	0	695	156	79	517	0	78	1677	84	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.27	0.27	0.05	0.16	0.00	0.05	0.35	0.05	0.00	0.00	0.00
Intersection LOS	C											
Intersection V/C	0.765											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.439

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	174	15	0	127	9	10	35	4	3	22	9
Total Analysis Volume [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.24	0.24	0.00	0.17	0.17	0.02	0.10	0.10	0.01	0.08	0.08
Intersection LOS	A											
Intersection V/C	0.439											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.648

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	173	682	0	0	426	105	0	0	0	109	890	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	173	682	0	0	426	105	0	0	0	109	890	91
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	171	0	0	107	26	0	0	0	27	223	23
Total Analysis Volume [veh/h]	173	682	0	0	426	105	0	0	0	109	890	91
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.21	0.00	0.00	0.13	0.07	0.00	0.00	0.00	0.07	0.31	0.31
Intersection LOS	B											
Intersection V/C	0.648											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.927

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	668	222	152	381	0	183	1646	27	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	668	222	152	381	0	183	1646	27	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	167	56	38	95	0	46	412	7	0	0	0
Total Analysis Volume [veh/h]	0	668	222	152	381	0	183	1646	27	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.21	0.14	0.10	0.12	0.00	0.11	0.52	0.52	0.00	0.00	0.00
Intersection LOS	E											
Intersection V/C	0.927											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.804

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	16	17	8	94	13	290	316	2117	22	12	1436	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	17	8	94	13	290	316	2117	22	12	1436	207
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	4	2	24	3	73	79	529	6	3	359	52
Total Analysis Volume [veh/h]	16	17	8	94	13	290	316	2117	22	12	1436	207
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.04	0.04	0.06	0.01	0.18	0.20	0.45	0.45	0.01	0.30	0.13
Intersection LOS	D											
Intersection V/C	0.804											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	11	2	0	4	5	192	0	0	126	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	2	0	4	5	192	0	0	126	2
Peak Hour Factor	0.8060	0.8060	0.8060	1.0000	1.0000	1.0000	0.8060	0.8060	0.8060	0.8060	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	1	0	1	2	60	0	0	39	1
Total Analysis Volume [veh/h]	0	0	14	2	0	4	6	238	0	0	156	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.46	10.84	9.57	10.50	10.78	9.09	7.54	0.00	0.00	7.71	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.33	1.33	1.33	0.57	0.57	0.57	0.32	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.57			9.56			0.19			0.00		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.56											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	32.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.144

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	19	0	0	0	0	8	0	0	0	18	1031	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	0	0	8	0	0	0	18	1031	6
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	2	0	0	0	5	292	2
Total Analysis Volume [veh/h]	22	0	0	0	0	9	0	0	0	20	1169	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.14	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	32.52	28.83	0.00	0.00	25.41	20.99	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D			D	C				A	A	A
95th-Percentile Queue Length [veh/ln]	0.49	0.49	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	12.26	12.26	0.00	0.00	2.99	2.99	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	32.52			20.99			0.00			0.00		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	0.74											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	8	209	82	65	123	10	24	155	26	16	109	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	209	82	65	123	10	24	155	26	16	109	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	52	21	16	31	3	6	39	7	4	27	9
Total Analysis Volume [veh/h]	8	209	82	65	123	10	24	155	26	16	109	34
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.04	0.08	0.08	0.02	0.11	0.11	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.446											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.562

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	66	166	0	0	126	46	0	0	0	376	977	118
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	166	0	0	126	46	0	0	0	376	977	118
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	42	0	0	32	12	0	0	0	94	244	30
Total Analysis Volume [veh/h]	66	166	0	0	126	46	0	0	0	376	977	118
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.10	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.24	0.34	0.34
Intersection LOS	A											
Intersection V/C	0.562											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	12	847	42	153	976	69	50	175	27	28	126	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	847	42	153	976	69	50	175	27	28	126	76
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	212	11	38	244	17	13	44	7	7	32	19
Total Analysis Volume [veh/h]	12	847	42	153	976	69	50	175	27	28	126	76
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.28	0.28	0.10	0.33	0.33	0.03	0.13	0.13	0.02	0.13	0.13
Intersection LOS	B											
Intersection V/C	0.631											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	433	793	0	0	717	319	0	0	0	247	681	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	433	793	0	0	717	319	0	0	0	247	681	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	198	0	0	179	80	0	0	0	62	170	26
Total Analysis Volume [veh/h]	433	793	0	0	717	319	0	0	0	247	681	103
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.27	0.25	0.00	0.00	0.22	0.20	0.00	0.00	0.00	0.15	0.25	0.25
Intersection LOS	D											
Intersection V/C	0.840											

APPENDIX C-IV

YEAR 2021 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.131

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	75	291	0	0	570	79	0	0	0	240	1808	44
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	291	0	0	570	79	0	0	0	240	1808	44
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	73	0	0	143	20	0	0	0	60	452	11
Total Analysis Volume [veh/h]	75	291	0	0	570	79	0	0	0	240	1808	44
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.18	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.15	0.58	0.58
Intersection LOS	F											
Intersection V/C	1.131											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.672

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	252	50	66	736	0	122	1094	535	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	252	50	66	736	0	122	1094	535	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	13	17	184	0	31	274	134	0	0	0
Total Analysis Volume [veh/h]	0	252	50	66	736	0	122	1094	535	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.16	0.03	0.04	0.23	0.00	0.08	0.34	0.33	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.672											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.637

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	62	388	0	0	538	55	0	0	0	134	1428	75
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	388	0	0	538	55	0	0	0	134	1428	75
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	97	0	0	135	14	0	0	0	34	357	19
Total Analysis Volume [veh/h]	62	388	0	0	538	55	0	0	0	134	1428	75
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.12	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.08	0.31	0.31
Intersection LOS	B											
Intersection V/C	0.637											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	374	41	111	608	0	92	807	46	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	374	41	111	608	0	92	807	46	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	94	10	28	152	0	23	202	12	0	0	0
Total Analysis Volume [veh/h]	0	374	41	111	608	0	92	807	46	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.13	0.13	0.07	0.19	0.00	0.06	0.17	0.03	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.467											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.354

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	73	10	0	110	6	8	23	7	6	25	10
Total Analysis Volume [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.10	0.10	0.00	0.14	0.14	0.02	0.07	0.07	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.354											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.850

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	87	289	0	0	424	165	0	0	0	123	1757	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	87	289	0	0	424	165	0	0	0	123	1757	46
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	72	0	0	106	41	0	0	0	31	439	12
Total Analysis Volume [veh/h]	87	289	0	0	424	165	0	0	0	123	1757	46
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.09	0.00	0.00	0.13	0.10	0.00	0.00	0.00	0.08	0.56	0.56
Intersection LOS	D											
Intersection V/C	0.850											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	258	61	124	477	0	104	815	187	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	258	61	124	477	0	104	815	187	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	65	15	31	119	0	26	204	47	0	0	0
Total Analysis Volume [veh/h]	0	258	61	124	477	0	104	815	187	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.04	0.08	0.15	0.00	0.07	0.31	0.31	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.571											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.843

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	14	13	3	124	3	297	206	884	5	4	1967	163
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	13	3	124	3	297	206	884	5	4	1967	163
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	1	31	1	74	52	221	1	1	492	41
Total Analysis Volume [veh/h]	14	13	3	124	3	297	206	884	5	4	1967	163
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.03	0.08	0.00	0.19	0.13	0.19	0.19	0.00	0.41	0.10
Intersection LOS	D											
Intersection V/C	0.843											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	34	0	48	2	0	3	6	90	25	92	116	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	0	48	2	0	3	6	90	25	92	116	13
Peak Hour Factor	0.8220	0.8220	0.8220	1.0000	1.0000	1.0000	0.8220	0.8220	0.8220	0.8220	0.8220	0.8220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	0	15	1	0	1	2	27	8	28	35	4
Total Analysis Volume [veh/h]	41	0	58	2	0	3	7	109	30	112	141	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	12.27	12.73	9.67	11.94	12.06	9.05	7.54	0.00	0.00	7.70	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.47	0.47	0.47	0.02	0.02	0.02	0.01	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.79	11.79	11.79	0.54	0.54	0.54	0.37	0.00	0.00	6.29	0.00	0.00
d_A, Approach Delay [s/veh]	10.75			10.20			0.36			3.21		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.91											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	2,969.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	5.684

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	45	1	0	0	1	64	0	0	0	5	1799	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	1	0	0	1	64	0	0	0	5	1799	21
Peak Hour Factor	0.9360	0.9360	1.0000	1.0000	0.9360	0.9360	1.0000	1.0000	1.0000	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	0	0	17	0	0	0	1	481	6
Total Analysis Volume [veh/h]	48	1	0	0	1	68	0	0	0	5	1922	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	5.68	0.02	0.00	0.00	0.02	0.83	0.00	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	2969.55	2599.49	0.00	0.00	158.28	146.59	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	F	F			F	F				A	A	A
95th-Percentile Queue Length [veh/ln]	7.50	7.50	0.00	0.00	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	187.51	187.51	0.00	0.00	108.38	108.38	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	2962.00			146.76			0.00			0.00		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	75.12											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.330

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	7	100	39	44	129	73	5	119	18	18	141	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	100	39	44	129	73	5	119	18	18	141	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	25	10	11	32	18	1	30	5	5	35	3
Total Analysis Volume [veh/h]	7	100	39	44	129	73	5	119	18	18	141	13
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.09	0.09	0.03	0.13	0.13	0.00	0.09	0.09	0.01	0.10	0.10
Intersection LOS	A											
Intersection V/C	0.330											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.782

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	57	69	0	0	127	31	0	0	0	207	1760	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	57	69	0	0	127	31	0	0	0	207	1760	55
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	17	0	0	32	8	0	0	0	52	440	14
Total Analysis Volume [veh/h]	57	69	0	0	127	31	0	0	0	207	1760	55
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.04	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.13	0.57	0.57
Intersection LOS	C											
Intersection V/C	0.782											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	8	931	20	52	650	69	22	113	7	39	168	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	931	20	52	650	69	22	113	7	39	168	87
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	233	5	13	163	17	6	28	2	10	42	22
Total Analysis Volume [veh/h]	8	931	20	52	650	69	22	113	7	39	168	87
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.30	0.30	0.03	0.22	0.22	0.01	0.08	0.08	0.02	0.16	0.16
Intersection LOS	B											
Intersection V/C	0.603											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.040

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	581	834	0	0	491	204	0	0	0	156	1244	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	581	834	0	0	491	204	0	0	0	156	1244	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	145	209	0	0	123	51	0	0	0	39	311	28
Total Analysis Volume [veh/h]	581	834	0	0	491	204	0	0	0	156	1244	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.36	0.26	0.00	0.00	0.15	0.13	0.00	0.00	0.00	0.10	0.42	0.42
Intersection LOS	F											
Intersection V/C	1.040											

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.835

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	141	638	0	0	419	36	0	0	0	121	1017	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	638	0	0	419	36	0	0	0	121	1017	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	160	0	0	105	9	0	0	0	30	254	15
Total Analysis Volume [veh/h]	141	638	0	0	419	36	0	0	0	121	1017	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.40	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.08	0.34	0.34
Intersection LOS	D											
Intersection V/C	0.835											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.080

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	659	192	71	463	0	100	1677	268	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	659	192	71	463	0	100	1677	268	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	165	48	18	116	0	25	419	67	0	0	0
Total Analysis Volume [veh/h]	0	659	192	71	463	0	100	1677	268	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.41	0.12	0.04	0.14	0.00	0.06	0.52	0.17	0.00	0.00	0.00
Intersection LOS	F											
Intersection V/C	1.080											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.511

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	71	725	0	0	571	42	0	0	0	94	740	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	725	0	0	571	42	0	0	0	94	740	102
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	181	0	0	143	11	0	0	0	24	185	26
Total Analysis Volume [veh/h]	71	725	0	0	571	42	0	0	0	94	740	102
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.23	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.06	0.18	0.18
Intersection LOS	A											
Intersection V/C	0.511											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.786

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	709	156	96	517	0	78	1706	84	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	709	156	96	517	0	78	1706	84	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	177	39	24	129	0	20	427	21	0	0	0
Total Analysis Volume [veh/h]	0	709	156	96	517	0	78	1706	84	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.27	0.27	0.06	0.16	0.00	0.05	0.36	0.05	0.00	0.00	0.00
Intersection LOS	C											
Intersection V/C	0.786											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.455

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	174	18	0	127	9	10	38	4	3	24	12
Total Analysis Volume [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.24	0.24	0.00	0.17	0.17	0.02	0.10	0.10	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.455											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.657

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	173	694	0	0	426	105	0	0	0	123	918	91
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	173	694	0	0	426	105	0	0	0	123	918	91
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	174	0	0	107	26	0	0	0	31	230	23
Total Analysis Volume [veh/h]	173	694	0	0	426	105	0	0	0	123	918	91
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.22	0.00	0.00	0.13	0.07	0.00	0.00	0.00	0.08	0.32	0.32
Intersection LOS	B											
Intersection V/C	0.657											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.928

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	674	222	152	395	0	189	1646	27	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	674	222	152	395	0	189	1646	27	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	169	56	38	99	0	47	412	7	0	0	0
Total Analysis Volume [veh/h]	0	674	222	152	395	0	189	1646	27	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.21	0.14	0.10	0.12	0.00	0.12	0.52	0.52	0.00	0.00	0.00
Intersection LOS	E											
Intersection V/C	0.928											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.810

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	16	17	8	103	13	295	322	2117	22	12	1436	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	17	8	103	13	295	322	2117	22	12	1436	207
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	4	2	26	3	74	81	529	6	3	359	52
Total Analysis Volume [veh/h]	16	17	8	103	13	295	322	2117	22	12	1436	207
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.04	0.04	0.06	0.01	0.18	0.20	0.45	0.45	0.01	0.30	0.13
Intersection LOS	D											
Intersection V/C	0.810											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	23	0	39	2	0	4	5	192	23	81	126	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	0	39	2	0	4	5	192	23	81	126	2
Peak Hour Factor	0.8060	0.8060	0.8060	1.0000	1.0000	1.0000	0.8060	0.8060	0.8060	0.8060	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	0	12	1	0	1	2	60	7	25	39	1
Total Analysis Volume [veh/h]	29	0	48	2	0	4	6	238	29	100	156	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	12.45	12.83	10.28	12.54	12.53	9.10	7.54	0.00	0.00	8.01	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.39	0.39	0.39	0.03	0.03	0.03	0.01	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.73	9.73	9.73	0.66	0.66	0.66	0.32	0.00	0.00	6.26	0.00	0.00
d_A, Approach Delay [s/veh]	11.10			10.24			0.17			3.10		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.87											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	42.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.186

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	19	0	0	0	0	50	0	0	0	18	1031	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	0	0	50	0	0	0	18	1031	18
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	14	0	0	0	5	292	5
Total Analysis Volume [veh/h]	22	0	0	0	0	57	0	0	0	20	1169	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	42.18	32.05	0.00	0.00	29.96	25.49	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	E	D			D	D				A	A	A
95th-Percentile Queue Length [veh/ln]	0.65	0.65	0.00	0.00	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.23	16.23	0.00	0.00	23.42	23.42	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	42.18			25.49			0.00			0.00		
Approach LOS	E			D			A			A		
d_I, Intersection Delay [s/veh]	1.85											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.463

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	8	209	82	65	123	56	24	183	26	16	144	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	209	82	65	123	56	24	183	26	16	144	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	52	21	16	31	14	6	46	7	4	36	9
Total Analysis Volume [veh/h]	8	209	82	65	123	56	24	183	26	16	144	34
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.04	0.11	0.11	0.02	0.13	0.13	0.01	0.11	0.11
Intersection LOS	A											
Intersection V/C	0.463											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.566

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	66	166	0	0	126	46	0	0	0	376	989	118
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	166	0	0	126	46	0	0	0	376	989	118
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	42	0	0	32	12	0	0	0	94	247	30
Total Analysis Volume [veh/h]	66	166	0	0	126	46	0	0	0	376	989	118
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.10	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.24	0.35	0.35
Intersection LOS	A											
Intersection V/C	0.566											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.635

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	12	847	42	153	976	98	50	203	27	28	132	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	847	42	153	976	98	50	203	27	28	132	76
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	212	11	38	244	25	13	51	7	7	33	19
Total Analysis Volume [veh/h]	12	847	42	153	976	98	50	203	27	28	132	76
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.28	0.28	0.10	0.34	0.34	0.03	0.14	0.14	0.02	0.13	0.13
Intersection LOS	B											
Intersection V/C	0.635											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.847

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	445	793	0	0	717	319	0	0	0	247	681	103
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	445	793	0	0	717	319	0	0	0	247	681	103
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	198	0	0	179	80	0	0	0	62	170	26
Total Analysis Volume [veh/h]	445	793	0	0	717	319	0	0	0	247	681	103
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.28	0.25	0.00	0.00	0.22	0.20	0.00	0.00	0.00	0.15	0.25	0.25
Intersection LOS	D											
Intersection V/C	0.847											

APPENDIX C-V

EXISTING TRAFFIC CONDITIONS WITH PEDESTRIAN SCRAMBLE

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	27	6	0	58	6	8	19	7	6	21	5
Total Analysis Volume [veh/h]	6	106	25	0	233	22	31	77	27	22	82	18
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.04	0.00	0.08	0.08	0.02	0.07	0.07	0.01	0.06	0.06
Intersection LOS	B											
Intersection V/C	0.625											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	129	15	0	52	9	9	34	4	3	21	8
Total Analysis Volume [veh/h]	15	514	58	0	209	34	37	135	14	11	85	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.00	0.08	0.08	0.02	0.09	0.09	0.01	0.07	0.07
Intersection LOS	C											
Intersection V/C	0.739											

APPENDIX C-VI

EXISTING PLUS PROJECT TRAFFIC CONDITIONS WITH PEDESTRIAN SCRAMBLE

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	27	9	0	58	6	8	22	7	6	24	10
Total Analysis Volume [veh/h]	6	106	37	0	233	22	31	89	27	22	96	38
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.04	0.00	0.08	0.08	0.02	0.07	0.07	0.01	0.08	0.08
Intersection LOS	B											
Intersection V/C	0.647											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.754

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	129	18	0	52	9	9	37	4	3	24	12
Total Analysis Volume [veh/h]	15	514	70	0	209	34	37	147	14	11	94	47
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.00	0.08	0.08	0.02	0.10	0.10	0.01	0.09	0.09
Intersection LOS	C											
Intersection V/C	0.754											

APPENDIX C-VII

YEAR 2021 CUMULATIVE TRAFFIC CONDITIONS WITH PEDESTRIAN SCRAMBLE

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	73	7	0	110	6	8	20	7	6	21	5
Total Analysis Volume [veh/h]	6	291	26	0	440	23	32	79	28	23	84	19
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.10	0.10	0.00	0.14	0.14	0.02	0.07	0.07	0.01	0.06	0.06
Intersection LOS	B											
Intersection V/C	0.693											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	174	15	0	127	9	10	35	4	3	22	9
Total Analysis Volume [veh/h]	15	697	60	0	509	35	38	139	14	11	88	34
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.24	0.24	0.00	0.17	0.17	0.02	0.10	0.10	0.01	0.08	0.08
Intersection LOS	C											
Intersection V/C	0.799											

APPENDIX C-VIII

YEAR 2021 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS WITH PEDESTRIAN SCRAMBLE

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.714

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	73	10	0	110	6	8	23	7	6	25	10
Total Analysis Volume [veh/h]	6	291	38	0	440	23	32	91	28	23	98	39
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.10	0.10	0.00	0.14	0.14	0.02	0.07	0.07	0.01	0.09	0.09
Intersection LOS	C											
Intersection V/C	0.714											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.815

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	174	18	0	127	9	10	38	4	3	24	12
Total Analysis Volume [veh/h]	15	697	72	0	509	35	38	151	14	11	97	48
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	46.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.24	0.24	0.00	0.17	0.17	0.02	0.10	0.10	0.01	0.09	0.09
Intersection LOS	D											
Intersection V/C	0.815											

APPENDIX D

TRAFFIC SIGNAL WARRANTS WORKSHEETS

APPENDIX D-I

EXISTING TRAFFIC CONDITIONS

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1052	45	4
2	1010	43	4
3	989	42	4
4	842	36	3
5	800	34	3
6	715	31	3
7	663	28	3
8	631	27	2
9	505	22	2
10	473	20	2
11	473	20	2
12	452	19	2
13	410	18	2
14	379	16	1
15	379	16	1
16	368	16	1
17	210	9	1
18	116	5	0
19	105	5	0
20	42	2	0
21	32	1	0
22	32	1	0
23	21	1	0
24	21	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1052	2	49	No	No	No	No	No	No	No	Yes	No	No
2	2	1010	2	47	No	No	No	No	No	No	No	Yes	No	No
3	2	989	2	46	No	No	No	No	No	No	No	Yes	No	No
4	2	842	2	39	No	No	No	No	No	No	No	No	No	No
5	2	800	2	37	No	No	No	No	No	No	No	No	No	No
6	2	715	2	34	No	No	No	No	No	No	No	No	No	No
7	2	663	2	31	No	No	No	No	No	No	No	No	No	No
8	2	631	2	29	No	No	No	No	No	No	No	No	No	No
9	2	505	2	24	No	No	No	No	No	No	No	No	No	No
10	2	473	2	22	No	No	No	No	No	No	No	No	No	No
11	2	473	2	22	No	No	No	No	No	No	No	No	No	No
12	2	452	2	21	No	No	No	No	No	No	No	No	No	No
13	2	410	2	20	No	No	No	No	No	No	No	No	No	No
14	2	379	2	17	No	No	No	No	No	No	No	No	No	No
15	2	379	2	17	No	No	No	No	No	No	No	No	No	No
16	2	368	2	17	No	No	No	No	No	No	No	No	No	No
17	2	210	2	10	No	No	No	No	No	No	No	No	No	No
18	2	116	2	5	No	No	No	No	No	No	No	No	No	No
19	2	105	2	5	No	No	No	No	No	No	No	No	No	No
20	2	42	2	2	No	No	No	No	No	No	No	No	No	No
21	2	32	2	1	No	No	No	No	No	No	No	No	No	No
22	2	32	2	1	No	No	No	No	No	No	No	No	No	No
23	2	21	2	1	No	No	No	No	No	No	No	No	No	No
24	2	21	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	32.1	20.3
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:24	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	45	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1101	1101
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	521	18	8
2	500	17	8
3	490	17	8
4	417	14	6
5	396	14	6
6	354	12	5
7	328	11	5
8	313	11	5
9	250	9	4
10	234	8	4
11	234	8	4
12	224	8	3
13	203	7	3
14	188	6	3
15	188	6	3
16	182	6	3
17	104	4	2
18	57	2	1
19	52	2	1
20	21	1	0
21	16	1	0
22	16	1	0
23	10	0	0
24	10	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	521	2	26	No	No	No	No	No	No	No	No	No	No
2	2	500	2	25	No	No	No	No	No	No	No	No	No	No
3	2	490	2	25	No	No	No	No	No	No	No	No	No	No
4	2	417	2	20	No	No	No	No	No	No	No	No	No	No
5	2	396	2	20	No	No	No	No	No	No	No	No	No	No
6	2	354	2	17	No	No	No	No	No	No	No	No	No	No
7	2	328	2	16	No	No	No	No	No	No	No	No	No	No
8	2	313	2	16	No	No	No	No	No	No	No	No	No	No
9	2	250	2	13	No	No	No	No	No	No	No	No	No	No
10	2	234	2	12	No	No	No	No	No	No	No	No	No	No
11	2	234	2	12	No	No	No	No	No	No	No	No	No	No
12	2	224	2	11	No	No	No	No	No	No	No	No	No	No
13	2	203	2	10	No	No	No	No	No	No	No	No	No	No
14	2	188	2	9	No	No	No	No	No	No	No	No	No	No
15	2	188	2	9	No	No	No	No	No	No	No	No	No	No
16	2	182	2	9	No	No	No	No	No	No	No	No	No	No
17	2	104	2	6	No	No	No	No	No	No	No	No	No	No
18	2	57	2	3	No	No	No	No	No	No	No	No	No	No
19	2	52	2	3	No	No	No	No	No	No	No	No	No	No
20	2	21	2	1	No	No	No	No	No	No	No	No	No	No
21	2	16	2	1	No	No	No	No	No	No	No	No	No	No
22	2	16	2	1	No	No	No	No	No	No	No	No	No	No
23	2	10	2	0	No	No	No	No	No	No	No	No	No	No
24	2	10	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	14.4	12
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04	0:01
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	18	8
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	547	547
Number of Approaches on Intersection	3	3
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

APPENDIX D-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1064	45	65
2	1021	43	62
3	1000	42	61
4	851	36	52
5	809	34	49
6	724	31	44
7	670	28	41
8	638	27	39
9	511	22	31
10	479	20	29
11	479	20	29
12	458	19	28
13	415	18	25
14	383	16	23
15	383	16	23
16	372	16	23
17	213	9	13
18	117	5	7
19	106	5	7
20	43	2	3
21	32	1	2
22	32	1	2
23	21	1	1
24	21	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1064	2	110	No	No	No	No	No	Yes	Yes	Yes	No	No
2	2	1021	2	105	No	No	No	No	No	Yes	Yes	Yes	No	No
3	2	1000	2	103	No	No	No	No	No	Yes	Yes	Yes	No	No
4	2	851	2	88	No	No	No	No	No	No	Yes	Yes	No	No
5	2	809	2	83	No	No	No	No	No	No	No	Yes	No	No
6	2	724	2	75	No	No	No	No	No	No	No	Yes	No	No
7	2	670	2	69	No	No	No	No	No	No	No	No	No	No
8	2	638	2	66	No	No	No	No	No	No	No	No	No	No
9	2	511	2	53	No	No	No	No	No	No	No	No	No	No
10	2	479	2	49	No	No	No	No	No	No	No	No	No	No
11	2	479	2	49	No	No	No	No	No	No	No	No	No	No
12	2	458	2	47	No	No	No	No	No	No	No	No	No	No
13	2	415	2	43	No	No	No	No	No	No	No	No	No	No
14	2	383	2	39	No	No	No	No	No	No	No	No	No	No
15	2	383	2	39	No	No	No	No	No	No	No	No	No	No
16	2	372	2	39	No	No	No	No	No	No	No	No	No	No
17	2	213	2	22	No	No	No	No	No	No	No	No	No	No
18	2	117	2	12	No	No	No	No	No	No	No	No	No	No
19	2	106	2	12	No	No	No	No	No	No	No	No	No	No
20	2	43	2	5	No	No	No	No	No	No	No	No	No	No
21	2	32	2	3	No	No	No	No	No	No	No	No	No	No
22	2	32	2	3	No	No	No	No	No	No	No	No	No	No
23	2	21	2	2	No	No	No	No	No	No	No	No	No	No
24	2	21	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	3	4	6	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	47	24.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:35	0:26
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	45	65
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1174	1174
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	533	18	50
2	512	17	48
3	501	17	47
4	426	14	40
5	405	14	38
6	362	12	34
7	336	11	32
8	320	11	30
9	256	9	24
10	240	8	23
11	240	8	23
12	229	8	22
13	208	7	20
14	192	6	18
15	192	6	18
16	187	6	18
17	107	4	10
18	59	2	6
19	53	2	5
20	21	1	2
21	16	1	2
22	16	1	2
23	11	0	1
24	11	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	533	2	68	No	No	No	No	No	No	No	Yes	No	No
2	2	512	2	65	No	No	No	No	No	No	No	Yes	No	No
3	2	501	2	64	No	No	No	No	No	No	No	No	No	No
4	2	426	2	54	No	No	No	No	No	No	No	No	No	No
5	2	405	2	52	No	No	No	No	No	No	No	No	No	No
6	2	362	2	46	No	No	No	No	No	No	No	No	No	No
7	2	336	2	43	No	No	No	No	No	No	No	No	No	No
8	2	320	2	41	No	No	No	No	No	No	No	No	No	No
9	2	256	2	33	No	No	No	No	No	No	No	No	No	No
10	2	240	2	31	No	No	No	No	No	No	No	No	No	No
11	2	240	2	31	No	No	No	No	No	No	No	No	No	No
12	2	229	2	30	No	No	No	No	No	No	No	No	No	No
13	2	208	2	27	No	No	No	No	No	No	No	No	No	No
14	2	192	2	24	No	No	No	No	No	No	No	No	No	No
15	2	192	2	24	No	No	No	No	No	No	No	No	No	No
16	2	187	2	24	No	No	No	No	No	No	No	No	No	No
17	2	107	2	14	No	No	No	No	No	No	No	No	No	No
18	2	59	2	8	No	No	No	No	No	No	No	No	No	No
19	2	53	2	7	No	No	No	No	No	No	No	No	No	No
20	2	21	2	3	No	No	No	No	No	No	No	No	No	No
21	2	16	2	3	No	No	No	No	No	No	No	No	No	No
22	2	16	2	3	No	No	No	No	No	No	No	No	No	No
23	2	11	2	1	No	No	No	No	No	No	No	No	No	No
24	2	11	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	2	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	15.6	12.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:04	0:10
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	18	50
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	601	601
Number of Approaches on Intersection	3	3
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

APPENDIX D-III

YEAR 2021 CUMULATIVE TRAFFIC CONDITIONS

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1813	46	4
2	1740	44	4
3	1704	43	4
4	1450	37	3
5	1378	35	3
6	1233	31	3
7	1142	29	3
8	1088	28	2
9	870	22	2
10	816	21	2
11	816	21	2
12	780	20	2
13	707	18	2
14	653	17	1
15	653	17	1
16	635	16	1
17	363	9	1
18	199	5	0
19	181	5	0
20	73	2	0
21	54	1	0
22	54	1	0
23	36	1	0
24	36	1	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1813	2	50	No	No	No	No	No	No	No	Yes	No	No
2	2	1740	2	48	No	No	No	No	No	No	No	Yes	No	No
3	2	1704	2	47	No	No	No	No	No	No	No	Yes	No	No
4	2	1450	2	40	No	No	No	No	No	No	No	No	No	No
5	2	1378	2	38	No	No	No	No	No	No	No	No	No	No
6	2	1233	2	34	No	No	No	No	No	No	No	No	No	No
7	2	1142	2	32	No	No	No	No	No	No	No	No	No	No
8	2	1088	2	30	No	No	No	No	No	No	No	No	No	No
9	2	870	2	24	No	No	No	No	No	No	No	No	No	No
10	2	816	2	23	No	No	No	No	No	No	No	No	No	No
11	2	816	2	23	No	No	No	No	No	No	No	No	No	No
12	2	780	2	22	No	No	No	No	No	No	No	No	No	No
13	2	707	2	20	No	No	No	No	No	No	No	No	No	No
14	2	653	2	18	No	No	No	No	No	No	No	No	No	No
15	2	653	2	18	No	No	No	No	No	No	No	No	No	No
16	2	635	2	17	No	No	No	No	No	No	No	No	No	No
17	2	363	2	10	No	No	No	No	No	No	No	No	No	No
18	2	199	2	5	No	No	No	No	No	No	No	No	No	No
19	2	181	2	5	No	No	No	No	No	No	No	No	No	No
20	2	73	2	2	No	No	No	No	No	No	No	No	No	No
21	2	54	2	1	No	No	No	No	No	No	No	No	No	No
22	2	54	2	1	No	No	No	No	No	No	No	No	No	No
23	2	36	2	1	No	No	No	No	No	No	No	No	No	No
24	2	36	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	277.2	53.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	3:32	0:03
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	46	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1863	1863
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

W. 3rd & Pacific Apartments, Long Beach

Vistro File: N:\...\3921 - ICU Base.vistro
Report File: N:\...\PM Cum.pdf

Scenario 6 PM Year 2021
2/25/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
10	Solano Court at 3rd Street	Two-way stop	HCM 6th Edition	NB Left	0.144	32.5	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	32.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.144

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	19	0	0	0	0	8	0	0	0	18	1031	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	0	0	0	0	8	0	0	0	18	1031	6
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	2	0	0	0	5	292	2
Total Analysis Volume [veh/h]	22	0	0	0	0	9	0	0	0	20	1169	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.14	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	32.52	28.83	0.00	0.00	25.41	20.99	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D			D	C				A	A	A
95th-Percentile Queue Length [veh/ln]	0.49	0.49	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	12.26	12.26	0.00	0.00	2.99	2.99	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	32.52			20.99			0.00			0.00		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	0.74											
Intersection LOS	D											

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1055	19	8
2	1013	18	8
3	992	18	8
4	844	15	6
5	802	14	6
6	717	13	5
7	665	12	5
8	633	11	5
9	506	9	4
10	475	9	4
11	475	9	4
12	454	8	3
13	411	7	3
14	380	7	3
15	380	7	3
16	369	7	3
17	211	4	2
18	116	2	1
19	106	2	1
20	42	1	0
21	32	1	0
22	32	1	0
23	21	0	0
24	21	0	0

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1055	2	27	No	No	No	No	No	No	No	No	No	No
2	2	1013	2	26	No	No	No	No	No	No	No	No	No	No
3	2	992	2	26	No	No	No	No	No	No	No	No	No	No
4	2	844	2	21	No	No	No	No	No	No	No	No	No	No
5	2	802	2	20	No	No	No	No	No	No	No	No	No	No
6	2	717	2	18	No	No	No	No	No	No	No	No	No	No
7	2	665	2	17	No	No	No	No	No	No	No	No	No	No
8	2	633	2	16	No	No	No	No	No	No	No	No	No	No
9	2	506	2	13	No	No	No	No	No	No	No	No	No	No
10	2	475	2	13	No	No	No	No	No	No	No	No	No	No
11	2	475	2	13	No	No	No	No	No	No	No	No	No	No
12	2	454	2	11	No	No	No	No	No	No	No	No	No	No
13	2	411	2	10	No	No	No	No	No	No	No	No	No	No
14	2	380	2	10	No	No	No	No	No	No	No	No	No	No
15	2	380	2	10	No	No	No	No	No	No	No	No	No	No
16	2	369	2	10	No	No	No	No	No	No	No	No	No	No
17	2	211	2	6	No	No	No	No	No	No	No	No	No	No
18	2	116	2	3	No	No	No	No	No	No	No	No	No	No
19	2	106	2	3	No	No	No	No	No	No	No	No	No	No
20	2	42	2	1	No	No	No	No	No	No	No	No	No	No
21	2	32	2	1	No	No	No	No	No	No	No	No	No	No
22	2	32	2	1	No	No	No	No	No	No	No	No	No	No
23	2	21	2	0	No	No	No	No	No	No	No	No	No	No
24	2	21	2	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	32.5	21
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:10	0:02
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	19	8
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1082	1082
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

APPENDIX D-IV

YEAR 2021 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1825	46	65
2	1752	44	62
3	1716	43	61
4	1460	37	52
5	1387	35	49
6	1241	31	44
7	1150	29	41
8	1095	28	39
9	876	22	31
10	821	21	29
11	821	21	29
12	785	20	28
13	712	18	25
14	657	17	23
15	657	17	23
16	639	16	23
17	365	9	13
18	201	5	7
19	183	5	7
20	73	2	3
21	55	1	2
22	55	1	2
23	37	1	1
24	37	1	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1825	2	111	No	No	No	No	No	Yes	Yes	Yes	No	No
2	2	1752	2	106	No	No	No	No	No	Yes	Yes	Yes	No	No
3	2	1716	2	104	No	No	No	No	No	Yes	Yes	Yes	No	No
4	2	1460	2	89	No	No	No	No	No	No	Yes	Yes	No	No
5	2	1387	2	84	No	No	No	No	No	No	No	Yes	No	No
6	2	1241	2	75	No	No	No	No	No	No	No	Yes	No	No
7	2	1150	2	70	No	No	No	No	No	No	No	No	No	No
8	2	1095	2	67	No	No	No	No	No	No	No	No	No	No
9	2	876	2	53	No	No	No	No	No	No	No	No	No	No
10	2	821	2	50	No	No	No	No	No	No	No	No	No	No
11	2	821	2	50	No	No	No	No	No	No	No	No	No	No
12	2	785	2	48	No	No	No	No	No	No	No	No	No	No
13	2	712	2	43	No	No	No	No	No	No	No	No	No	No
14	2	657	2	40	No	No	No	No	No	No	No	No	No	No
15	2	657	2	40	No	No	No	No	No	No	No	No	No	No
16	2	639	2	39	No	No	No	No	No	No	No	No	No	No
17	2	365	2	22	No	No	No	No	No	No	No	No	No	No
18	2	201	2	12	No	No	No	No	No	No	No	No	No	No
19	2	183	2	12	No	No	No	No	No	No	No	No	No	No
20	2	73	2	5	No	No	No	No	No	No	No	No	No	No
21	2	55	2	3	No	No	No	No	No	No	No	No	No	No
22	2	55	2	3	No	No	No	No	No	No	No	No	No	No
23	2	37	2	2	No	No	No	No	No	No	No	No	No	No
24	2	37	2	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	3	4	6	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	2962	146.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	37:50	2:38
Delay Condition Met	Yes	No
Volume on Minor Street Approach During Same Hour	46	65
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1936	1936
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

Signal Warrants Report For Intersection 10: Solano Court at 3rd Street

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E
Minor Approaches	S, N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets	Minor Streets	
	E	S	N
1	1067	19	50
2	1024	18	48
3	1003	18	47
4	854	15	40
5	811	14	38
6	726	13	34
7	672	12	32
8	640	11	30
9	512	9	24
10	480	9	23
11	480	9	23
12	459	8	22
13	416	7	20
14	384	7	18
15	384	7	18
16	373	7	18
17	213	4	10
18	117	2	6
19	107	2	5
20	43	1	2
21	32	1	2
22	32	1	2
23	21	0	1
24	21	0	1

Warrant Analysis by Hour

Hour	Major Lanes		Minor Lanes		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1067	2	69	No	No	No	No	No	No	No	Yes	No	No
2	2	1024	2	66	No	No	No	No	No	No	No	Yes	No	No
3	2	1003	2	65	No	No	No	No	No	No	No	Yes	No	No
4	2	854	2	55	No	No	No	No	No	No	No	No	No	No
5	2	811	2	52	No	No	No	No	No	No	No	No	No	No
6	2	726	2	47	No	No	No	No	No	No	No	No	No	No
7	2	672	2	44	No	No	No	No	No	No	No	No	No	No
8	2	640	2	41	No	No	No	No	No	No	No	No	No	No
9	2	512	2	33	No	No	No	No	No	No	No	No	No	No
10	2	480	2	32	No	No	No	No	No	No	No	No	No	No
11	2	480	2	32	No	No	No	No	No	No	No	No	No	No
12	2	459	2	30	No	No	No	No	No	No	No	No	No	No
13	2	416	2	27	No	No	No	No	No	No	No	No	No	No
14	2	384	2	25	No	No	No	No	No	No	No	No	No	No
15	2	384	2	25	No	No	No	No	No	No	No	No	No	No
16	2	373	2	25	No	No	No	No	No	No	No	No	No	No
17	2	213	2	14	No	No	No	No	No	No	No	No	No	No
18	2	117	2	8	No	No	No	No	No	No	No	No	No	No
19	2	107	2	7	No	No	No	No	No	No	No	No	No	No
20	2	43	2	3	No	No	No	No	No	No	No	No	No	No
21	2	32	2	3	No	No	No	No	No	No	No	No	No	No
22	2	32	2	3	No	No	No	No	No	No	No	No	No	No
23	2	21	2	1	No	No	No	No	No	No	No	No	No	No
24	2	21	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	3	0	0

Warrant 3 Condition A

Orientation	S	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	42.2	25.5
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	0:13	0:21
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	19	50
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	1136	1136
Number of Approaches on Intersection	3	3
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	No	No
Warrant Met for Intersection	**No**	

APPENDIX E

PROJECT DRIVEWAY INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 15: Solano Court at Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.044

Intersection Setup

Name	Solano Court		Solano Court		Project Driveway	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00		15.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Solano Court		Solano Court		Project Driveway	
Base Volume Input [veh/h]	6	48	69	48	34	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	48	69	48	34	27
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	13	18	13	9	7
Total Analysis Volume [veh/h]	6	51	73	51	36	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.04	0.03
d_M, Delay for Movement [s/veh]	7.47	0.00	0.00	0.00	9.68	9.08
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.24	0.24
95th-Percentile Queue Length [ft/ln]	0.31	0.31	0.00	0.00	5.88	5.88
d_A, Approach Delay [s/veh]	0.79		0.00		9.42	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.64					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Solano Court at Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Solano Court		Solano Court		Project Driveway	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00		15.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Solano Court		Solano Court		Project Driveway	
Base Volume Input [veh/h]	6	13	36	60	41	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	13	36	60	41	34
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	9	16	11	9
Total Analysis Volume [veh/h]	6	14	38	63	43	36
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	7.42	0.00	0.00	0.00	9.35	8.97
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.27	0.27
95th-Percentile Queue Length [ft/ln]	0.30	0.30	0.00	0.00	6.86	6.86
d_A, Approach Delay [s/veh]	2.23		0.00		9.18	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.85					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 15: Solano Court at Project Driveway 1

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.028

Intersection Setup

Name	Solano Court		Solano Court		Project Driveway	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00		15.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Solano Court		Solano Court		Project Driveway	
Base Volume Input [veh/h]	6	39	58	46	23	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	39	58	46	23	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	10	15	12	6	5
Total Analysis Volume [veh/h]	6	41	61	48	24	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.03	0.02
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	0.00	9.43	8.90
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.30	0.30	0.00	0.00	3.84	3.84
d_A, Approach Delay [s/veh]	0.95		0.00		9.19	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.24					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 16: Solano Court at Project Driveway 2

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name	Solano Court		Solano Court		Project Driveway	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00		15.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Solano Court		Solano Court		Project Driveway	
Base Volume Input [veh/h]	6	17	19	58	28	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	17	19	58	28	23
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	5	15	7	6
Total Analysis Volume [veh/h]	6	18	20	61	29	24
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.03	0.02
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	0.00	9.14	8.76
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.30	0.30	0.00	0.00	4.37	4.37
d_A, Approach Delay [s/veh]	1.85		0.00		8.97	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.29					
Intersection LOS	A					

APPENDIX F

CONSTRUCTION ASSESSMENT INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.722

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	34	0	0	97	17	0	0	0	34	231	10
Total Analysis Volume [veh/h]	59	134	0	0	388	67	0	0	0	137	923	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.08	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.09	0.30	0.30
Intersection LOS	C											
Intersection V/C	0.722											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.475

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	115	66	62	455	0	86	661	373	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	115	66	62	455	0	86	661	373	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	29	17	16	114	0	22	165	93	0	0	0
Total Analysis Volume [veh/h]	0	115	66	62	455	0	86	661	373	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.04	0.04	0.14	0.00	0.05	0.21	0.23	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.475											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.529

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	45	167	0	0	342	53	0	0	0	99	1260	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	167	0	0	342	53	0	0	0	99	1260	73
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	42	0	0	86	13	0	0	0	25	315	18
Total Analysis Volume [veh/h]	45	167	0	0	342	53	0	0	0	99	1260	73
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.05	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.06	0.28	0.28
Intersection LOS	A											
Intersection V/C	0.529											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	180	40	116	377	0	48	767	27	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	180	40	116	377	0	48	767	27	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	45	10	29	94	0	12	192	7	0	0	0
Total Analysis Volume [veh/h]	0	180	40	116	377	0	48	767	27	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.07	0.07	0.12	0.00	0.03	0.16	0.02	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.401											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.265

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	6	119	25	0	233	22	31	77	27	22	82	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	119	25	0	233	22	31	77	27	22	82	18
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	30	6	0	58	6	8	19	7	6	21	5
Total Analysis Volume [veh/h]	6	119	25	0	233	22	31	77	27	22	82	18
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.05	0.00	0.08	0.08	0.02	0.07	0.07	0.01	0.06	0.06
Intersection LOS	A											
Intersection V/C	0.265											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.528

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	36	105	0	0	282	96	0	0	0	66	970	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	105	0	0	282	96	0	0	0	66	970	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	26	0	0	71	24	0	0	0	17	243	11
Total Analysis Volume [veh/h]	36	105	0	0	282	96	0	0	0	66	970	45
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.00	0.00	0.09	0.06	0.00	0.00	0.00	0.04	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.528											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.382

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	119	49	52	288	0	40	465	148	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	119	49	52	288	0	40	465	148	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	30	12	13	72	0	10	116	37	0	0	0
Total Analysis Volume [veh/h]	0	119	49	52	288	0	40	465	148	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.04	0.03	0.03	0.09	0.00	0.03	0.19	0.19	0.00	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.382											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.604

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	3	2	3	67	0	179	115	552	2	4	1512	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	2	3	67	0	179	115	552	2	4	1512	133
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	17	0	45	29	138	1	1	378	33
Total Analysis Volume [veh/h]	3	2	3	67	0	179	115	552	2	4	1512	133
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.02	0.00	0.11	0.07	0.12	0.12	0.00	0.32	0.08
Intersection LOS	B											
Intersection V/C	0.604											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	7	2	0	3	6	87	1	8	251	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	7	2	0	3	6	87	1	8	251	13
Peak Hour Factor	0.8220	0.8220	0.8220	1.0000	1.0000	1.0000	0.8220	0.8220	0.8220	0.8220	0.8220	0.8220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	2	1	0	1	2	26	0	2	76	4
Total Analysis Volume [veh/h]	0	0	9	2	0	3	7	106	1	10	305	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	10.89	11.25	8.84	10.86	11.17	9.99	7.92	0.00	0.00	7.44	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.72	0.72	0.72	0.56	0.56	0.56	0.43	0.00	0.00	0.51	0.00	0.00
d_A, Approach Delay [s/veh]	8.84			10.34			0.49			0.22		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	0.57											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	34.4
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.277

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	44	1	0	0	1	3	0	0	0	5	1072	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1	0	0	1	3	0	0	0	5	1072	9
Peak Hour Factor	0.9360	0.9360	1.0000	1.0000	0.9360	0.9360	1.0000	1.0000	1.0000	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	0	0	1	0	0	0	1	286	2
Total Analysis Volume [veh/h]	47	1	0	0	1	3	0	0	0	5	1145	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.28	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	34.36	31.67	0.00	0.00	23.70	20.20	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	D	D			C	C				A	A	A
95th-Percentile Queue Length [veh/ln]	1.10	1.10	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	27.52	27.52	0.00	0.00	1.34	1.34	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	34.31			21.08			0.00			0.00		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	1.43											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.349

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	7	62	37	43	110	110	5	76	17	17	154	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	62	37	43	110	110	5	76	17	17	154	13
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	16	9	11	28	28	1	19	4	4	39	3
Total Analysis Volume [veh/h]	7	62	37	43	110	110	5	76	17	17	154	13
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.06	0.03	0.14	0.14	0.00	0.06	0.06	0.01	0.10	0.10
Intersection LOS	A											
Intersection V/C	0.349											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.524

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	49	59	0	0	112	26	0	0	0	76	1011	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	59	0	0	112	26	0	0	0	76	1011	25
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	15	0	0	28	7	0	0	0	19	253	6
Total Analysis Volume [veh/h]	49	59	0	0	112	26	0	0	0	76	1011	25
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.04	0.00	0.00	0.07	0.02	0.00	0.00	0.00	0.05	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.524											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.406

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	8	239	19	50	350	90	21	70	7	38	157	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	239	19	50	350	90	21	70	7	38	157	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	60	5	13	88	23	5	18	2	10	39	21
Total Analysis Volume [veh/h]	8	239	19	50	350	90	21	70	7	38	157	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.08	0.03	0.14	0.14	0.01	0.05	0.05	0.02	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.406											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	75	168	0	0	287	107	0	0	0	52	966	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	168	0	0	287	107	0	0	0	52	966	83
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	42	0	0	72	27	0	0	0	13	242	21
Total Analysis Volume [veh/h]	75	168	0	0	287	107	0	0	0	52	966	83
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.05	0.00	0.00	0.09	0.07	0.00	0.00	0.00	0.03	0.33	0.33
Intersection LOS	A											
Intersection V/C	0.564											

Intersection Level Of Service Report
Intersection 1: Magnolia Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	53	450	0	0	207	22	0	0	0	70	497	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	497	58
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	113	0	0	52	6	0	0	0	18	124	15
Total Analysis Volume [veh/h]	53	450	0	0	207	22	0	0	0	70	497	58
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.28	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.04	0.17	0.17
Intersection LOS	A											
Intersection V/C	0.555											

Intersection Level Of Service Report
Intersection 2: Magnolia Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Magnolia Avenue			Magnolia Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	411	139	66	205	0	74	846	180	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	411	139	66	205	0	74	846	180	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	103	35	17	51	0	19	212	45	0	0	0
Total Analysis Volume [veh/h]	0	411	139	66	205	0	74	846	180	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.26	0.09	0.04	0.06	0.00	0.05	0.26	0.11	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.663											

Intersection Level Of Service Report
Intersection 3: Pacific Avenue at 7th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.422

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			7th Street			7th Street		
Base Volume Input [veh/h]	65	544	0	0	267	41	0	0	0	72	631	99
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	544	0	0	267	41	0	0	0	72	631	99
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	136	0	0	67	10	0	0	0	18	158	25
Total Analysis Volume [veh/h]	65	544	0	0	267	41	0	0	0	72	631	99
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.17	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.05	0.15	0.15
Intersection LOS	A											
Intersection V/C	0.422											

Intersection Level Of Service Report
Intersection 4: Pacific Avenue at 6th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			6th Street			6th Street		
Base Volume Input [veh/h]	0	551	151	77	236	0	51	1563	39	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	551	151	77	236	0	51	1563	39	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	138	38	19	59	0	13	391	10	0	0	0
Total Analysis Volume [veh/h]	0	551	151	77	236	0	51	1563	39	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.22	0.22	0.05	0.07	0.00	0.03	0.33	0.02	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.693											

Intersection Level Of Service Report
Intersection 5: Pacific Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.396

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	15	527	58	0	209	34	37	135	14	11	85	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	527	58	0	209	34	37	135	14	11	85	59
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	132	15	0	52	9	9	34	4	3	21	15
Total Analysis Volume [veh/h]	15	527	58	0	209	34	37	135	14	11	85	59
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.18	0.00	0.08	0.08	0.02	0.09	0.09	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.396											

Intersection Level Of Service Report
Intersection 6: Pacific Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	91	512	0	0	191	39	0	0	0	69	447	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	512	0	0	191	39	0	0	0	69	447	88
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	128	0	0	48	10	0	0	0	17	112	22
Total Analysis Volume [veh/h]	91	512	0	0	191	39	0	0	0	69	447	88
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.16	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.04	0.17	0.17
Intersection LOS	A											
Intersection V/C	0.427											

Intersection Level Of Service Report
Intersection 7: Pacific Avenue at Broadway

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Broadway			Broadway		
Base Volume Input [veh/h]	0	486	200	70	172	0	135	922	69	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	486	200	70	172	0	135	922	69	0	0	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	122	50	18	43	0	34	231	17	0	0	0
Total Analysis Volume [veh/h]	0	486	200	70	172	0	135	922	69	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	1	6	0	0	8	0	0	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.15	0.13	0.04	0.05	0.00	0.08	0.31	0.31	0.00	0.00	0.00
Intersection LOS	B											
Intersection V/C	0.605											

Intersection Level Of Service Report
Intersection 8: Pacific Avenue at Ocean Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.563

Intersection Setup

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pacific Avenue			Pacific Avenue			Ocean Boulevard			Ocean Boulevard		
Base Volume Input [veh/h]	9	10	8	95	2	175	218	1568	11	12	932	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	10	8	95	2	175	218	1568	11	12	932	156
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	3	2	24	1	44	55	392	3	3	233	39
Total Analysis Volume [veh/h]	9	10	8	95	2	175	218	1568	11	12	932	156
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal group	0	2	0	0	6	6	3	8	0	7	4	0
Auxiliary Signal Groups						3,6						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.03	0.03	0.03	0.03	0.11	0.14	0.33	0.33	0.01	0.19	0.10
Intersection LOS	A											
Intersection V/C	0.563											

Intersection Level Of Service Report
Intersection 9: Solano Court at 4th Street

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

Intersection Setup

Name	Solano Court			Solano Court			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			4th Street			4th Street		
Base Volume Input [veh/h]	0	0	11	2	0	4	5	255	0	0	122	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	11	2	0	4	5	255	0	0	122	2
Peak Hour Factor	0.8060	0.8060	0.8060	1.0000	1.0000	1.0000	0.8060	0.8060	0.8060	0.8060	0.8060	0.8060
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	1	0	1	2	79	0	0	38	1
Total Analysis Volume [veh/h]	0	0	14	2	0	4	6	316	0	0	151	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.93	11.25	10.07	10.98	11.18	9.06	7.53	0.00	0.00	7.89	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.48	1.48	1.48	0.59	0.59	0.59	0.32	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.07			9.70			0.14			0.00		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	0.49											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Solano Court at 3rd Street

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	15.00			15.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Solano Court			Solano Court			3rd Street			3rd Street		
Base Volume Input [veh/h]	18	0	0	0	0	8	0	0	0	17	498	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	0	0	0	0	8	0	0	0	17	498	6
Peak Hour Factor	0.8820	0.8820	1.0000	1.0000	0.8820	0.8820	1.0000	1.0000	1.0000	0.8820	0.8820	0.8820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	0	0	2	0	0	0	5	141	2
Total Analysis Volume [veh/h]	20	0	0	0	0	9	0	0	0	19	565	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane		No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.43	14.27	0.00	0.00	13.88	12.02	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS	B	B			B	B				A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.92	3.92	0.00	0.00	1.31	1.31	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.43			12.02			0.00			0.00		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.64											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 11: Pine Avenue at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.453

Intersection Setup

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			4th Street			4th Street		
Base Volume Input [veh/h]	8	163	78	63	109	10	23	219	25	16	106	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	163	78	63	109	10	23	219	25	16	106	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	41	20	16	27	3	6	55	6	4	27	8
Total Analysis Volume [veh/h]	8	163	78	63	109	10	23	219	25	16	106	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.15	0.15	0.04	0.07	0.07	0.01	0.15	0.15	0.01	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.453											

Intersection Level Of Service Report
Intersection 12: Pine Avenue at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.363

Intersection Setup

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Pine Avenue			Pine Avenue			3rd Street			3rd Street		
Base Volume Input [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	37	0	0	29	11	0	0	0	17	109	21
Total Analysis Volume [veh/h]	45	149	0	0	115	42	0	0	0	66	437	84
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	0	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.00	0.00	0.07	0.03	0.00	0.00	0.00	0.04	0.16	0.16
Intersection LOS	A											
Intersection V/C	0.363											

Intersection Level Of Service Report
Intersection 13: Long Beach Boulevard at 4th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.510

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			4th Street			4th Street		
Base Volume Input [veh/h]	12	388	41	149	291	67	49	222	43	27	122	74
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	388	41	149	291	67	49	222	43	27	122	74
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	97	10	37	73	17	12	56	11	7	31	19
Total Analysis Volume [veh/h]	12	388	41	149	291	67	49	222	43	27	122	74
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.13	0.13	0.09	0.11	0.11	0.03	0.17	0.17	0.02	0.12	0.12
Intersection LOS	A											
Intersection V/C	0.510											

Intersection Level Of Service Report
Intersection 14: Long Beach Boulevard at 3rd Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.387

Intersection Setup

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Long Beach Boulevard			Long Beach Boulevard			3rd Street			3rd Street		
Base Volume Input [veh/h]	107	363	0	0	284	83	0	0	0	36	349	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	107	363	0	0	284	83	0	0	0	36	349	72
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	91	0	0	71	21	0	0	0	9	87	18
Total Analysis Volume [veh/h]	107	363	0	0	284	83	0	0	0	36	349	72
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	10.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	0	6	0	0	0	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.11	0.00	0.00	0.09	0.05	0.00	0.00	0.00	0.02	0.13	0.13
Intersection LOS	A											
Intersection V/C	0.387											