Appendix E Traffic Report

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Draft Traffic Report Appendix

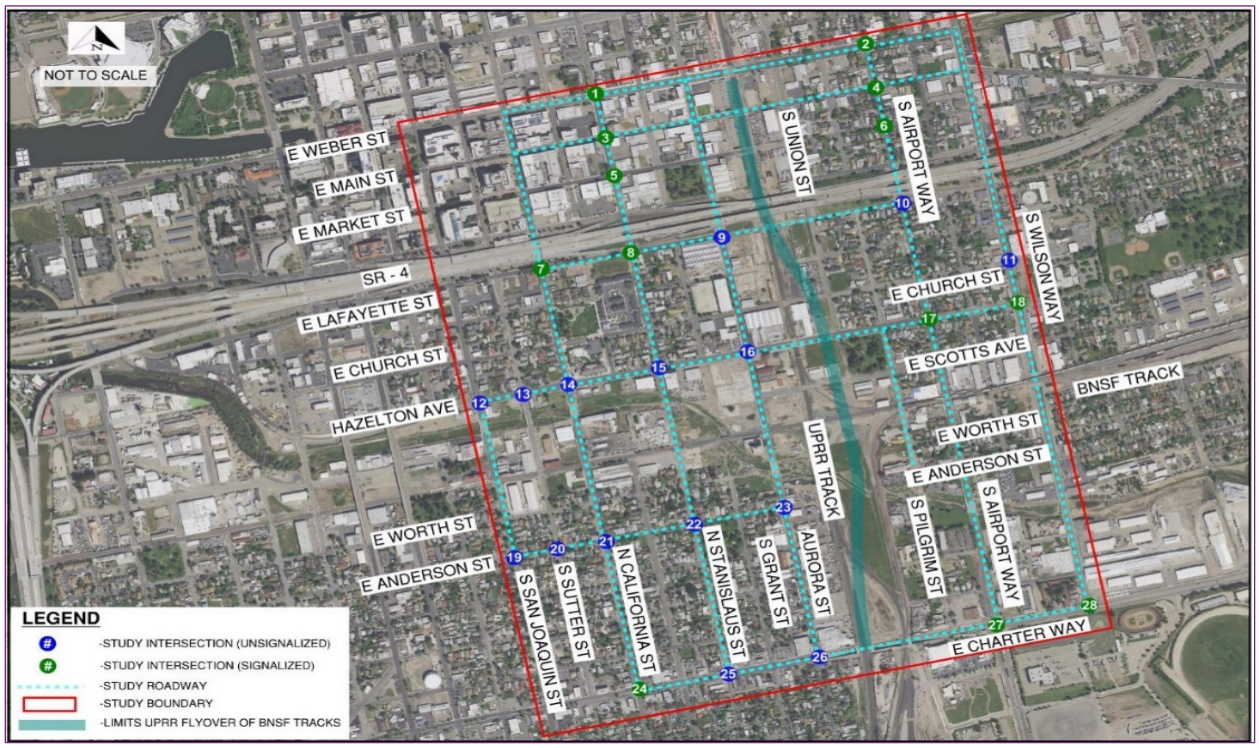
This draft report presents the existing traffic conditions analysis for the San Joaquin Regional Rail Commission Stockton Diamond Grade Separation Project (proposed Project). The report includes the following sections:

1. Traffic study area
2. Available and new data
3. Analysis approach
4. Existing traffic conditions analysis
5. No Action Alternative (2045) traffic conditions analysis
6. Proposed Project (2045) traffic conditions analysis.

1 Traffic Study Area

The traffic study area shown in Figure 1-1 includes the intersections, roadways, and multimodal transportation systems being analyzed for existing conditions. It will also be the basis for analyzing and presenting future conditions to be evaluated later in this proposed Project. The traffic study area was defined to address the full range of potential grade separation alignment concepts recently developed for the proposed Project. The intersections and roadways identified in the traffic study area provide the foundation for the comprehensive transportation impact analysis for existing (2019), future (2045) No Action alternative, and future (2045) proposed Project conditions.

Figure 1-1: Traffic Analysis Study Area and Location of Intersections



The traffic study area intersections shown in Table 1-1 include a total of 28 intersection, 13 of which are signalized in addition to 15 unsignalized intersections. Available and new data (refer to Section 2) was obtained to represent existing 2019 conditions, primarily due to COVID-19, which has limited the ability of agencies to collect observed 2020 data. Roadways analyzed for existing conditions are represented in the intersections shown in the traffic study area for both north-south and east-west oriented roadways in the traffic study area.

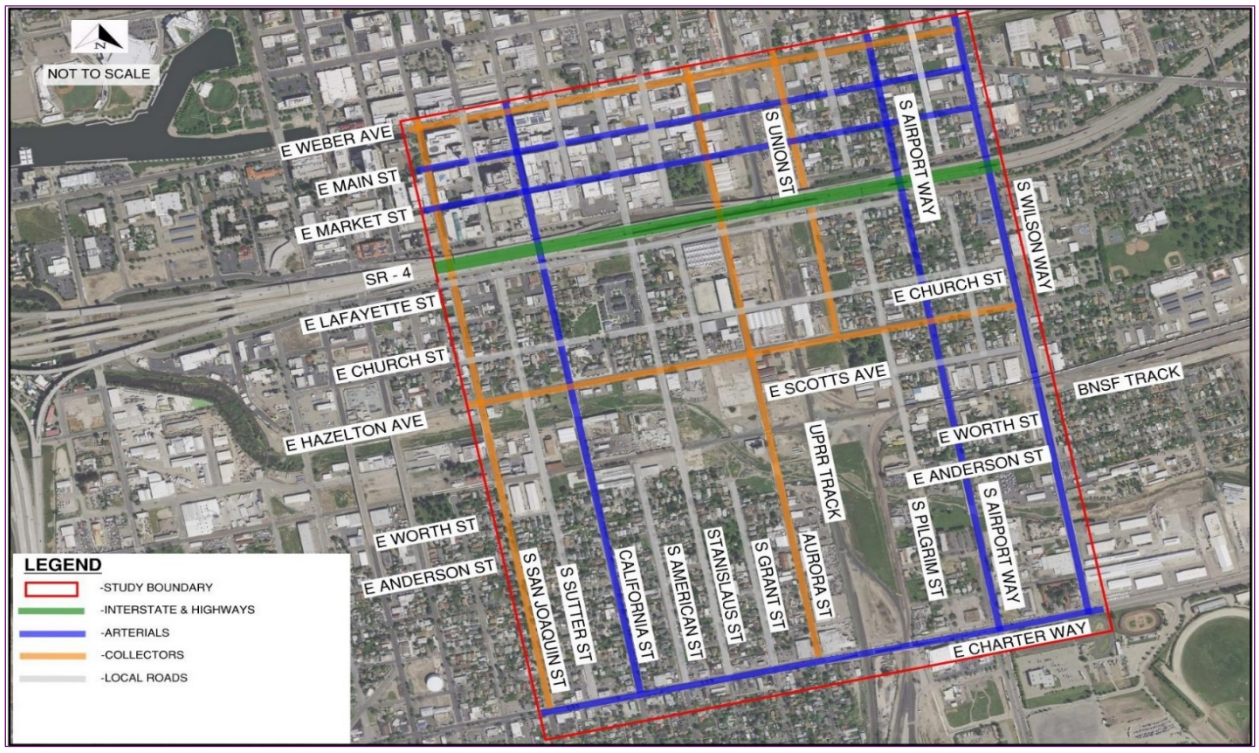
Table 1-1: Intersections Located in the Traffic Study Area

Intersection #	Intersection Name	Signalized or Unsignalized
1	South Stanislaus St /East Weber Ave	Signalized
2	South Airport Way/East Weber Ave	Signalized
3	South Stanislaus St/East Main St	Signalized
4	South Airport Way/East Main St	Signalized
5	South Stanislaus St/ East Market St	Signalized
6	South Airport Way/Market St	Signalized
7	East Lafayette Street and California Street	Signalized

Intersection #	Intersection Name	Signalized or Unsignalized
8	East Lafayette Street and South Stanislaus Street	Signalized
9	East Lafayette Street and Aurora Street	Unsignalized
10	East Lafayette Street and South Airport Way	Unsignalized
11	South Wilson Way and East Church Street	Unsignalized
12	East Hazelton Avenue and South San Joaquin Street	Unsignalized
13	East Hazelton Avenue and South Sutter Street	Unsignalized
14	East Hazelton Avenue and California Street	Unsignalized
15	East Hazelton Avenue and South Stanislaus Street	Unsignalized
16	East Hazelton Avenue and Aurora Street	Unsignalized
17	East Hazelton Avenue and South Airport Way	Signalized
18	East Hazelton Avenue and South Wilson Way	Signalized
19	East Anderson Street and South San Joaquin Street	Unsignalized
20	East Anderson Street and South Sutter Street	Unsignalized
21	East Anderson Street and California Street	Unsignalized
22	East Anderson Street and South Stanislaus Street	Unsignalized
23	East Anderson Street and Aurora Street	Unsignalized
24	East Charter Way and California Street	Signalized
25	East Charter Way and South Stanislaus Street	Unsignalized
26	East Charter Way and Aurora Street	Unsignalized
27	East Charter Way and South Airport Way	Signalized
28	East Charter Way and South Wilson Way	Signalized

Figure 1-2 shows the roadways in the traffic study area, which include freeway, arterial, collector, and local road functional classes.

Figure 1-2: Roadways by Functional Classification in the Traffic Study Area



State Route 4 (SR-4), the freeway traveling through the northern portion of the traffic study area, travels east-west through the traffic study area between I-5 to the west and State Route 99 (SR-99). The other roadways by functional class in the traffic study area include:

- Arterials with north to south movements include California Street, South Airport Way, and South Wilson Way, and arterials with east to west movements include East Main Street, East Market Street, and East Charter Way
- Collectors, with north to south movements include South San Joaquin Street, Aurora Street, and Union Street, with east to west collectors include East Weber Ave and East Hazelton Avenue identified in the traffic study area
- Local Roads comprise the remainder of the traffic study area roadways, with north to south movements on South Sutter Street, South Stanislaus Street, Grant Street, and S Pilgrim Street, and with east to west movements on East Lafayette Street, East Church Street, East Scotts Avenue, East Worth Street, and East Anderson Street.

2 Available and New Data

Transportation data was collected from both available and new sources to develop the existing traffic conditions for turning movements and volumes that encompass the intersections and roadways in the traffic study area. These available and new sources of data were collected, combined, and formatted to represent the existing 2019 average weekday traffic conditions, which is being used as

the foundation of the traffic analysis for existing conditions and the later future conditions analysis. Existing traffic conditions were defined to represent average weekday traffic conditions for 2019 based on the following factors:

- Traditionally, data collection of observed roadway volumes and intersection turning movements are scheduled for the Fall and Spring annually to avoid heavy vacation (Summer) and holiday (Winter) periods, with the Fall and Spring representative of normal commute and school travel (Note – 2020 observed data were not collected in the traffic study area before COVID-19 impacts of early March 2020.)
- Available traffic data obtained and used in this analysis were collected prior to 2020, primarily due to data not being collected in 2020 due to COVID-19 (Note – 2019 volumes more accurately reflect average weekday traffic conditions. Limited, if any data has been collected in 2020 due to COVID-19.)
- New 2019 data was obtained to represent average weekday travel conditions for 2019

Available roadway volumes and intersection turning movements, multimodal (pedestrian, bicycle, bus, truck) movements, roadway and intersection geometry, intersection signal timings and controls, and multimodal infrastructure (bus routes, bicycle paths), and accident data were collected from the following sources:

- City of Stockton traffic volume maps available online from the City's website
- City of Stockton intersection turning movement, geometric, and signal timing plans
- U.S. Department of Transportation Road-Rail Crossing Inventory roadway volumes
- Envision Stockton, 2040 General Plan Update and Utility Master Plan Supplements Draft Environmental Impact Report (EIR), June 2018, Transportation Section traffic volumes, forecasts, planned infrastructure, and multimodal (roadway, pedestrian, bicycle, transit, freight) characteristics
- San Joaquin Council of Governments Three-County Model developed as part of the San Joaquin Valley Model Improvement Plan, Phase 2
- Caltrans Traffic Volume summaries (on-line) by multiple years (up to 2019) representing on- and off-ramp Average Annual Daily Traffic and Peak Hour Volumes for state owned roadways impacting the traffic study area
- San Joaquin Regional Transit District (SJRTD) transit routes and schedules
- City of Stockton Bike Master Plan, 2017
- UC Berkeley Transportation Injury Mapping System, 2017-2019 crash data.

Upon the review and assessment of the available traffic data compiled above, while there was good coverage of Average Annual Daily Traffic of traffic study area roadways, the coverage of intersection turning movements was limited, with 4 of the 28 intersections providing representative morning and afternoon peak hour volumes.

In order to develop a more complete profile of existing turning movements for the traffic study area intersections, STREETLIGHT DATA was purchased to provide turning movements for each of the 28 intersections. This supplementary (new) data included morning and afternoon peak hour turning movements for each intersection representing average weekday traffic conditions for 2019. Streetlight data was represented average weekday traffic conditions collected in the following periods:

- Collected from March 2019 to April 2019 and September 2019 to October 2019
- Tuesdays through Thursdays
- 12 AM to 12 PM.

Figure 2-1 shows the 2019 intersection turning movements developed and formatted from both the available and new data sources identified above. Figure 2-2 shows the morning (AM) and afternoon (PM) peak hour turning movement volumes for each of the 28 intersections. In addition, morning (AM) and afternoon (PM) peak hour roadway volumes, prepared from the intersection turning movement volumes, are presented in Figure 2-3 and Figure 2-4.

Figure 2-1: 2019 Turning Movement Diagrams for Study Area Intersections

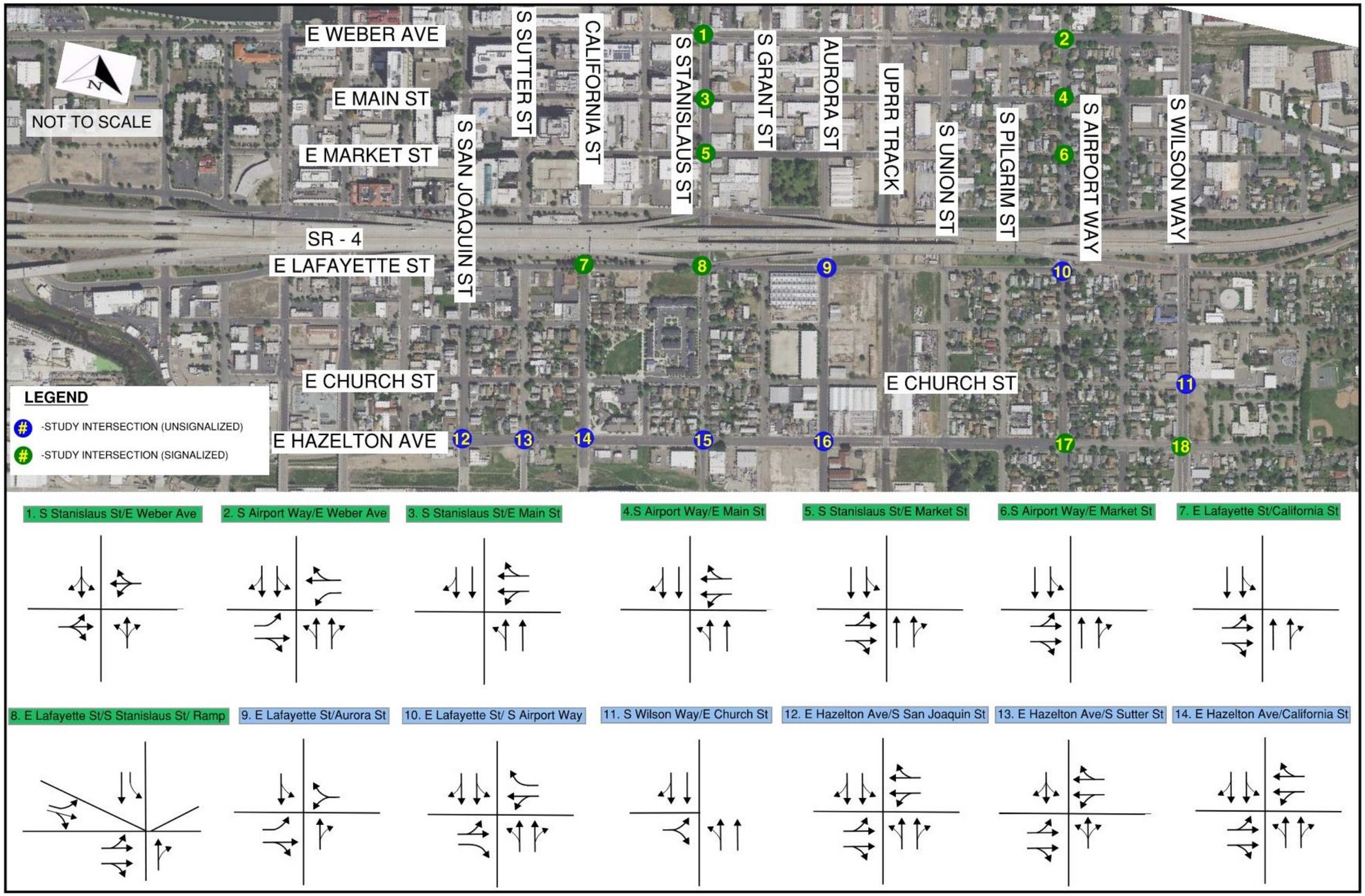


Figure 2-1: 2019 Turning Movement Diagrams for Study Area Intersections (continued)

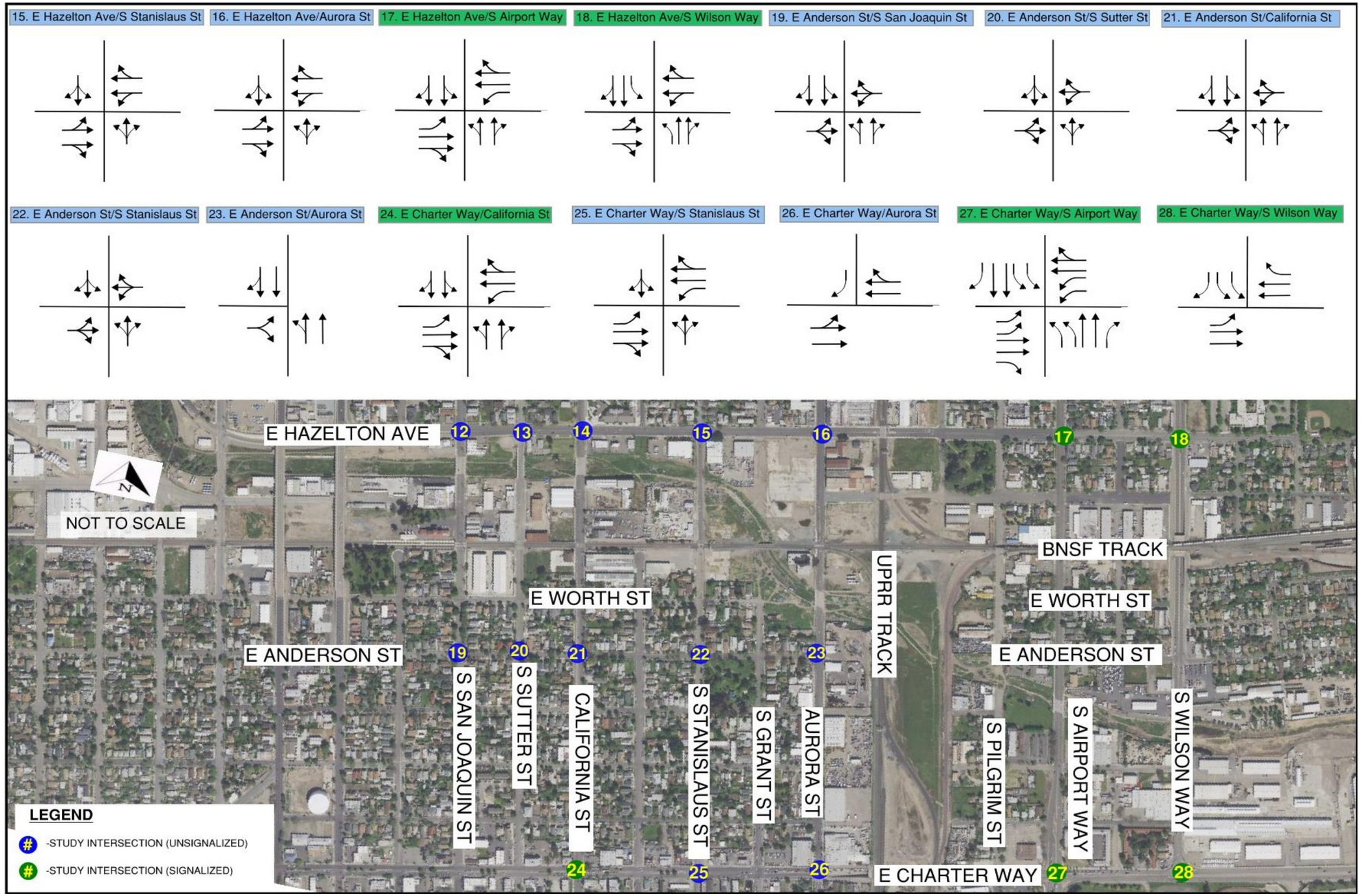


Figure 2-2: 2019 AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections

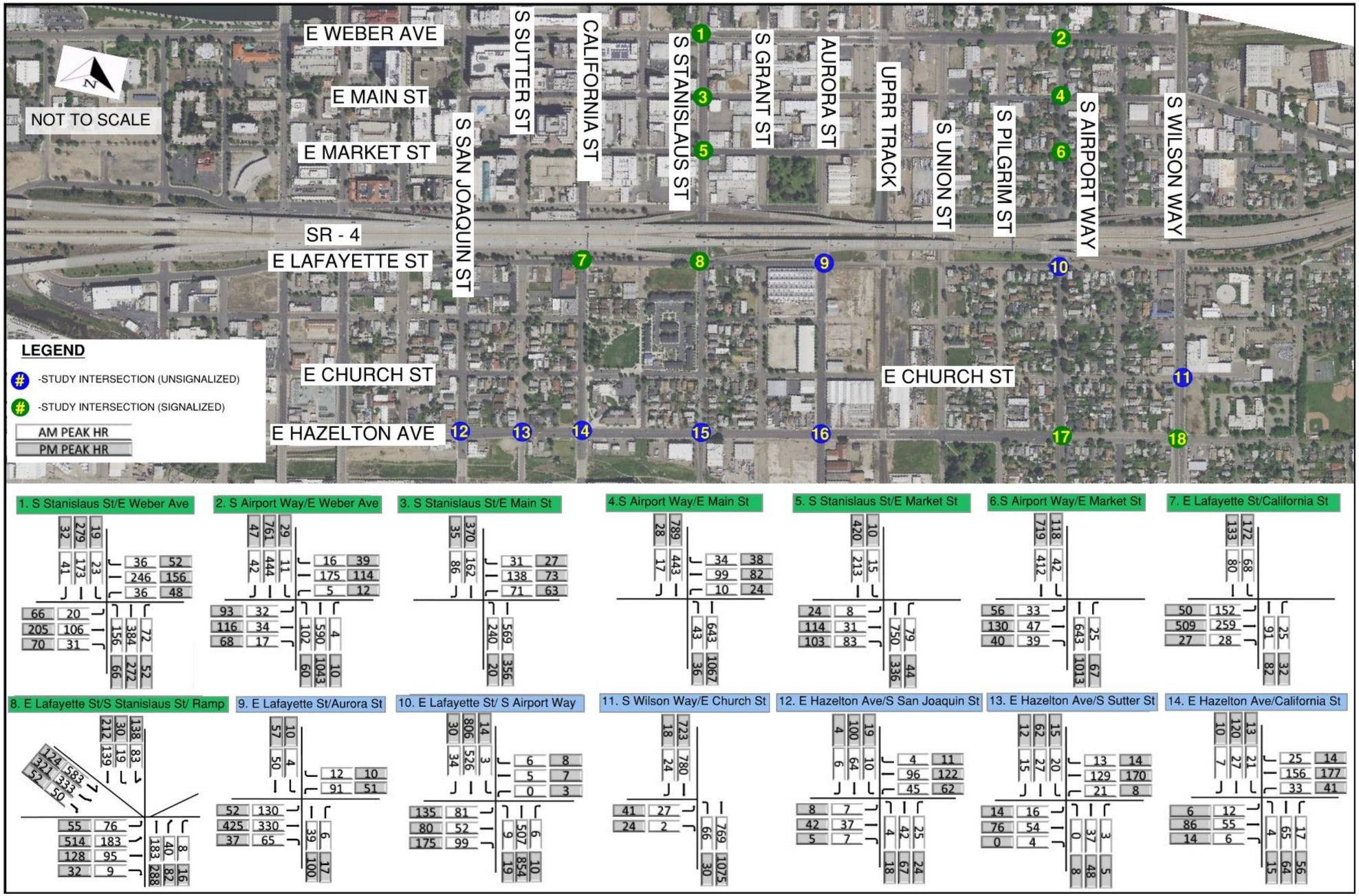


Figure 2-2.: 2019 AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections (continued)

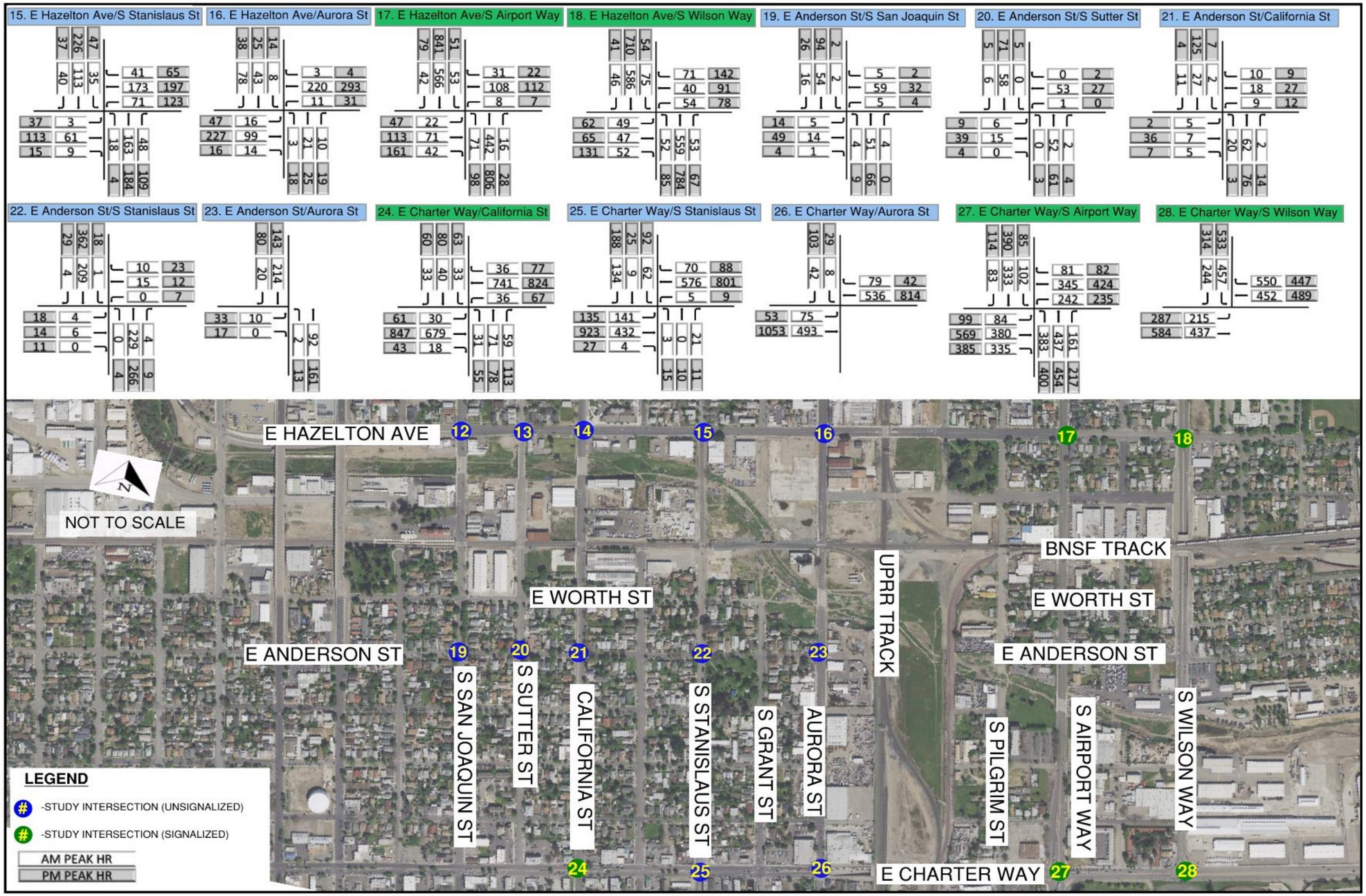


Figure 2-3: 2019 AM Peak Hour Roadway Volumes in the Study Area

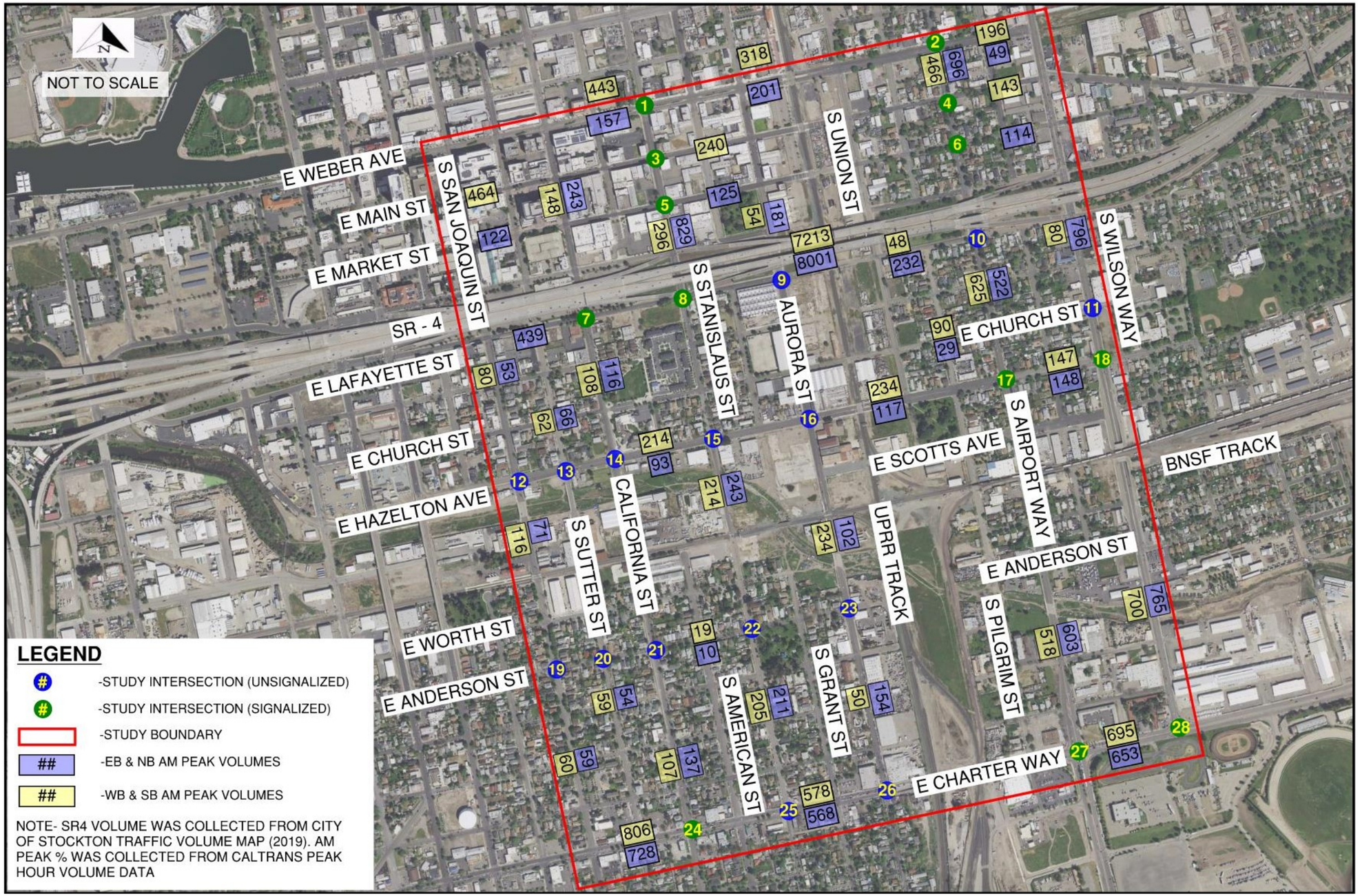
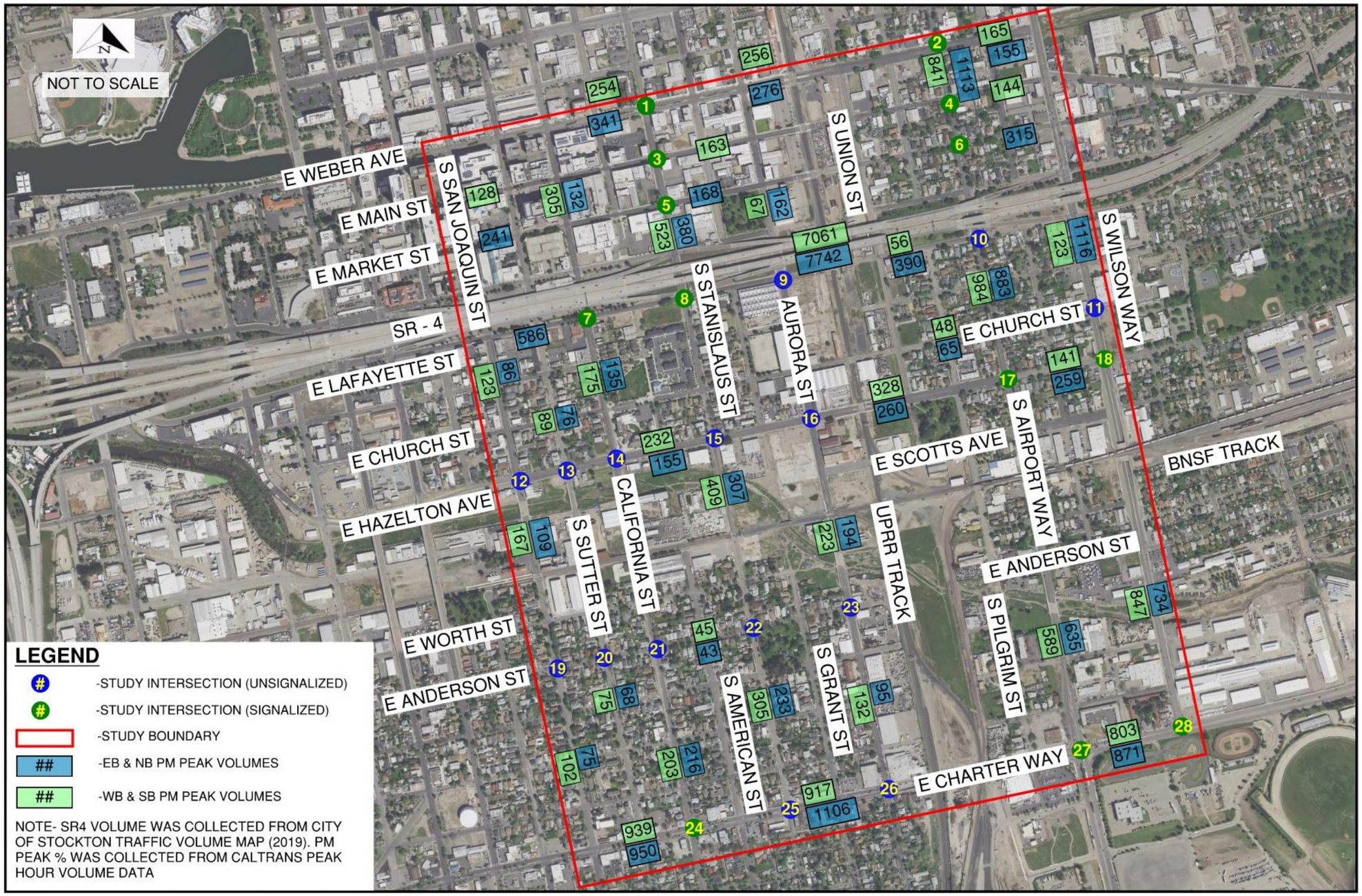


Figure 2-4: 2019 PM Peak Hour Roadway Volumes in the Study Area



3 Analysis Approach

This section presents the analysis methods applied to identify the 2019 existing conditions analysis for the traffic study area for intersections, roadways, pedestrians, bicyclists, transit, freight, and safety.

3.1 Intersection Level of Service

Accepted, state-of-the practice traffic analysis methods were used to assess the morning and afternoon peak hour intersection operations and levels of service. The 2019 existing traffic profile developed and presented above in Section 2, in addition to the detailed intersection geometry and traffic signal timing and phasing, and unsignalized intersection geometry and controls, were used as primary inputs in this analysis. The intersection operational analysis procedure outlined in the 2010 *Highway Capacity Manual* was implemented using the Synchro 10 traffic analysis software (Attachment 1).

This commonly accepted methodology and software is applied to "grade" the intersection operations with levels of service (LOS) from LOS A through LOS F, characterized by the average stopped delay per vehicle. LOS is a measure of driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time. This technique uses 1,900 vehicles per hour per lane as a maximum saturation volume of an intersection, which is adjusted accordingly given varying lane widths, on-street parking availability, pedestrian movements, traffic composition, and shared lane movements at any given intersection. Table 3-1 presents the LOS definitions and criteria used for this analysis. The City of Stockton considers an intersection LOS E or better acceptable.

Table 3-1: Definitions for Signalized Intersection LOS

Average Stopped Delay Per Vehicle (seconds)	LOS Characteristics
<10.0	LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
10.1–20.0	LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.
20.1–35.0	LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is substantial, although many vehicles still pass through the intersection without stopping.

Average Stopped Delay Per Vehicle (seconds)	LOS Characteristics
35.1–55.0	LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable
55.1–80.0	LOS E is typically assigned when the v/c ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
>80.0	LOS F is typically assigned when the v/c is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual (2010)

3.2 Roadway Performance

Roadway segments were evaluated using a volume-to-capacity (v/c) ratio to measure performance. A v/c analysis is a traditional measure used to assess roadway operations where if the v/c is greater than 1.0, the roadway is over capacity and likely experiences delays. Since speed is difficult to predict for future conditions for freeway and highway segments, the v/c was used to analyze all roadway segments for both the AM and PM peak hours.

Within the traffic study area, SR-4 and South Airport Way are considered Regional Congestion Management Program facilities by the San Joaquin County. The LOS standard established for Regional Congestion Management facilities is LOS D, with the exception of the LOS F standard for SR-4 segments located in the traffic study area. These standards are being used to support the roadway performance analysis presented later in Section 4.

3.3 Pedestrians and Bicycle inventory

Pedestrian movements were identified from limited available data to provide a general inventory of pedestrian movements in the traffic study area. Availability of pedestrian crossings for the at-grade roadway crossings with both railroads (Union Pacific [UP] and Burlington Northern Santa Fe [BNSF]) were identified in the traffic study area. The traffic study area does not currently include any of the City of Stockton's Class 1 – Off-Road Bike Trail, Class 2 – On-Road Bike Lane, Class 3 – Bike Route – Mixed Traffic, and/or Class 4 - Separated Bikeway designations documented in the Envision Stockton, 2040 General Plan Update and Utility Master Plan Supplements Draft EIR, June 2018 and City of Stockton Bike Master Plan, 2017.

3.4 Transit Route Coverage Inventory

An inventory of the SJRTD's transit routes and schedules that currently provide access to the traffic study area was prepared, including designated Express Routes, Hopper Routes, and Local Routes.

3.5 Freight Inventory

An inventory of the existing truck routes and intermodal (truck and rail) facilities were documented for City Truck Routes, in the Envision Stockton, 2040 General Plan Update and Utility Master Plan Supplemental Draft EIR, June 2018.

3.6 Safety/Crash inventory

Crash data from 2017 to 2019 was compiled from UC Berkeley's Transportation Injury Mapping System. This data encompassed detailed crash (all modes) history by intersection and roadway locations in the traffic study by fatality, severe injury, other vehicle injury, and complaint of pan injury.

4 Existing Traffic Conditions Analysis

This section presents the 2019 existing traffic conditions in the traffic study area. Traffic, pedestrian, bicycle, transit and truck conditions were evaluated to provide a multimodal assessment of the transportation system consistent with the approach used by the city of Stockton.

4.1 Intersection Operations

As presented in Section 3, the data (turning movements, geometry, signal timing, and unsignalized controls) compiled above from available and new sources were input into the Synchro 10 traffic analysis software to calculate both morning (AM) and afternoon peak (PM) hour LOS analysis for each of the 28 intersections being evaluated. **Table 3** summarizes existing AM and PM peak hour LOS and average delay (in seconds) at each intersection.

The results of the AM peak hour indicate that indicate that the majority of the intersections operate at excellent to good levels of service with most intersections currently operating at LOS C or better during the 2019 AM peak hour except for intersection #8, East Lafayette St/South Stanislaus St operating at LOS F.

Similarly, in the 2019 PM peak hour, most of the intersections also operate with excellent to good levels of service C or better except for the following four intersections: intersection #8, East Lafayette St/South Stanislaus St, intersection #10, East Lafayette St/South Airport Way, intersection #15, East Hazelton Ave/South Stanislaus St, and intersection #25, East Charter Way and South Stanislaus St. All four of these intersections operate at poor levels of service or LOS F in PM peak hour conditions.

Intersection #8, East Lafayette St/South Stanislaus St has LOS F and does not meet the City of Stockton's acceptable level of Standard (LOS E) during AM peak hour due to follow reasons:

- Higher SR-4 off ramp volume
  - 54 percent of total intersection volume come from SR-4 off ramp
- SR-4 off ramp v/c ratio is greater than 1

  - Vehicles turning left from SR-4 off ramp has v/c ratio of 1.89
  - Vehicles going thru/right from SR-4 off ramp has v/c ratio of 1.25

The following intersections have LOS F and does not meet the City of Stockton's acceptable level of Standard (LOS E) during PM Peak hour.

Intersection #8, East Lafayette St/South Stanislaus St

- Higher eastbound volumes on East Lafayette St.
  - Eastbound thru volume on East Lafayette Street (entering SR-4 on ramp) totals 26 percent of total intersection volumes
- SR-4 off ramp and East Lafayette St eastbound v/c ratio is greater than 1.
  - Vehicles going thru/right from SR-4 off ramp has v/c ratio of 1.31
  - Vehicles entering SR-4 on ramp via East Lafayette St has v/c ratio of 1.01

Intersection #10, East Lafayette St/South Airport Way

- Inadequate gaps in traffic
  - Eastbound left volume is the cause for LOS F at this intersection. Although only 6 percent of total intersection vehicles are turning left from East Lafayette St, these stop-controlled vehicles do not have sufficient gaps in traffic to make left turns because of heavy northbound/southbound movements
- V/c ratio for eastbound direction is 3.29

Intersection #15, East Hazelton Ave/South Stanislaus St

- Inadequate gaps in traffic
  - Southbound thru/left turning volume is the cause for LOS F at this intersection. 24 percent of the total intersection volume is for southbound thru/left vehicles. These stop-controlled vehicles do not have sufficient gaps in traffic to pass the intersection because of the eastbound/westbound movements
  - V/c ratio for southbound direction is 1.33

Intersection #25, East Charter Way and South Stanislaus St

- Inadequate gaps in traffic
  - Northbound thru/left volume and southbound thru/left volume are the causes for LOS F at this intersection. Only 1 percent of the total intersection volumes are for northbound thru/left vehicles and only 5 percent of the total intersection volumes are for southbound thru/left vehicles. These stop-controlled vehicles do not have sufficient gaps in traffic to pass the intersection because of the heavy eastbound/westbound movements
  - V/c ratios for northbound and southbound direction are 2.71 and 3.85 respectively

Table 4-1: 2019 AM and PM Peak Hour Intersection Level of Service and Delay

	Intersection	AM		PM	
		Delay (seconds)	LOS	Delay (seconds)	LOS
1	South Stanislaus St and East Weber Ave	15.8	B	16.9	B
2	South Airport Way and East Weber Ave	11.8	B	14.5	B
3	South Stanislaus St and East Main St	9.2	A	8.8	A
4	South Airport Way and East Main St	9.6	A	7.8	A
5	South Stanislaus St and East Market St	11.8	B	8.3	A
6	South Airport Way and Market St	9.2	A	11.2	B
7	East Lafayette St and California St	16.1	B	18.3	B
8	East Lafayette St and South Stanislaus St	192.2	F	87.8	F
9	East Lafayette St and Aurora St	11.8	B	15.6	B
1	East Lafayette St and South Airport Way	6.6	A	117.6	F
1	South Wilson Way and East Church St	1.6	A	2	A
1	East Hazelton Ave and South San Joaquin St	8.3	A	8.9	A
1	East Hazelton Ave and South Sutter St	4.2	A	4.5	A
1	East Hazelton Ave and California St	8.5	A	9.3	A
1	East Hazelton Ave and South Stanislaus St	9.8	A	62.6	E
1	East Hazelton Ave and Aurora St	8.7	A	9.7	A
1	East Hazelton Ave and South Airport Way	8	A	9.8	A
1	East Hazelton Ave and South Wilson Way	14.3	B	16	B
1	East Anderson St and South San Joaquin St	7.6	A	7.9	A
2	East Anderson St and South Sutter St	7.5	A	7.6	A
2	East Anderson St and California St	3.8	A	3.3	A
2	East Anderson St and South Stanislaus St	0.9	A	1.9	A
2	East Anderson St and Aurora St	0.4	A	1.5	A
2	East Charter Way and California St	12.7	B	18.4	B
2	East Charter Way and South Stanislaus St	6.5	A	95.5	F
2	East Charter Way and Aurora St	1	A	0.7	A
2	East Charter Way and South Airport Way	21.4	C	23.3	C
2	East Charter Way and South Wilson Way	21.9	C	24.2	C

4.2 Roadway Conditions

As summarized above in Section 3, roadway segments for both AM and PM peak hours in the traffic study area were evaluated using v/c ratios to measure performance. Figure 7 and Figure 8 show the v/c results by roadway segment in the traffic study area, for the AM peak hour and PM peak hour respectively. The following parameters and methods were used from the Highway Capacity Manual 2010 to analyze roadway v/c ratios for local roads, arterials, collectors, and freeways:

- 1200 Vehicles/hour/lane capacity on Local Roadways
- 1780 Vehicles/hour/lane capacity on Arterials and Collectors

2400 Vehicles/hour/lane capacity on Freeways (SR-4 Crosstown Freeway).

The resulting v/c ratios for roadways in morning peak hour for 2019 include:

- Local roads
  - East Lafayette Street between South San Joaquin St and Aurora St operates at LOS B with v/c ratio of 0.37
  - South Stanislaus Street north of SR-4 operates at LOS C with v/c ratio of 0.69
  - All other local roads operate at LOS A with v/c ratio less than 0.30
- Collectors
  - All collector roads within traffic study area operate at LOS A with v/c ratios less than 0.30
- Arterials
  - East Main Street, West Market Street and California Street operate at LOS A with v/c ratio less than 0.30
  - East Charter Way, South Airport Way and South Wilson Way operate at LOS B with v/c ratios between 0.31 to 0.50
- Freeways
  - SR-4 operates at LOS F with v/c ratio of 1.11

The resulting v/c ratios for roadways in afternoon peak hour includes:

- Local roads
  - East Lafayette Street between South San Joaquin St and Aurora St operates at LOS B with v/c ratio of 0.48
  - South Stanislaus St north of East Anderson St also operates at LOS B with v/c ratio between 0.31 to 0.50
  - All other local roads operate at LOS A with v/c ratio less than 0.30
- Collector

  - All collector roads within traffic study area operate at LOS A with v/c ratios less than 0.30
- Arterials
  - East Main Street, East Market Street and California Street operate at LOS A with v/c ratio less than 0.30
  - East Charter Way between South San Joaquin St and Aurora St operates at LOS C with v/c ratio of 0.62
  - East Charter Way between Aurora St and South Wilson Way operates at LOS B with v/c ratio of 0.49
  - South Airport Way between East Charter Way and East Lafayette St operates at LOS B with v/c ratio of 0.49
  - South Airport Way between East Lafayette St and East Weber Ave operates at LOS C with v/c ratio of 0.63
  - South Wilson Way between East Charter Way and East Church St operates at LOS B with v/c ratio of 0.41
  - South Wilson Way between East Church St and East Weber Ave operates at LOS C with v/c ratio of 0.62
- Freeways
  - SR-4 operates at LOS F with v/c ratio of 1.08.

Figure 4-1: 2019 AM Peak Hour Roadway Volume to Capacity Ratios in the Study Area

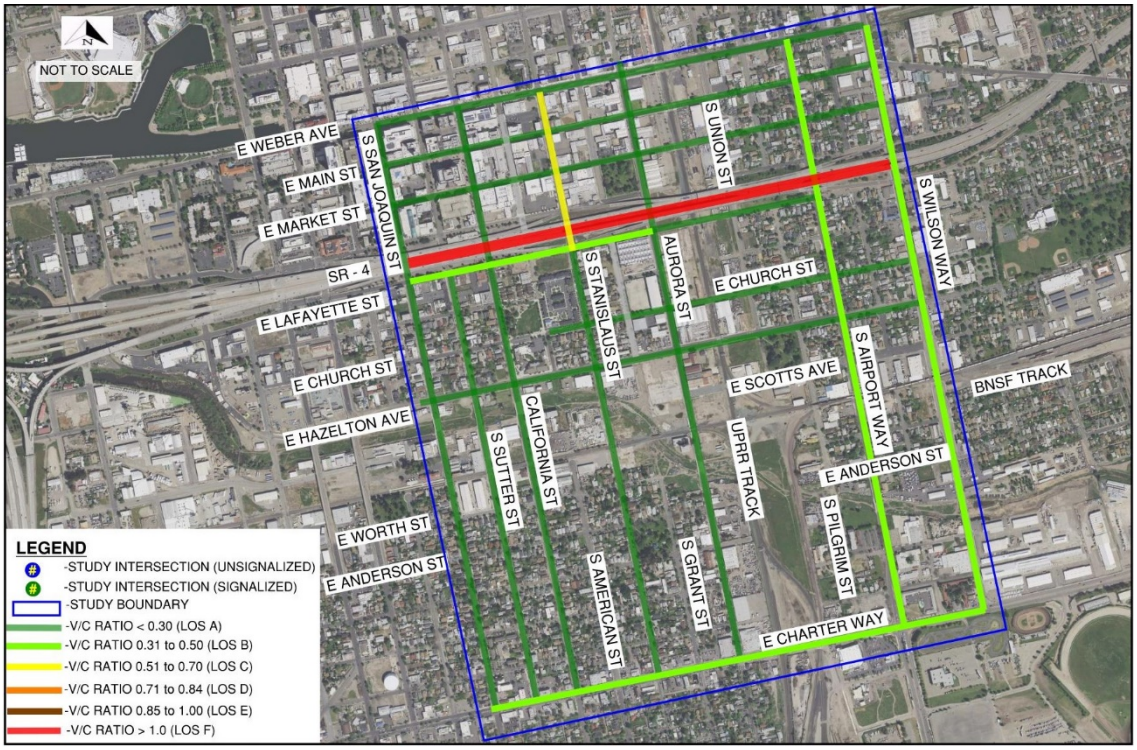
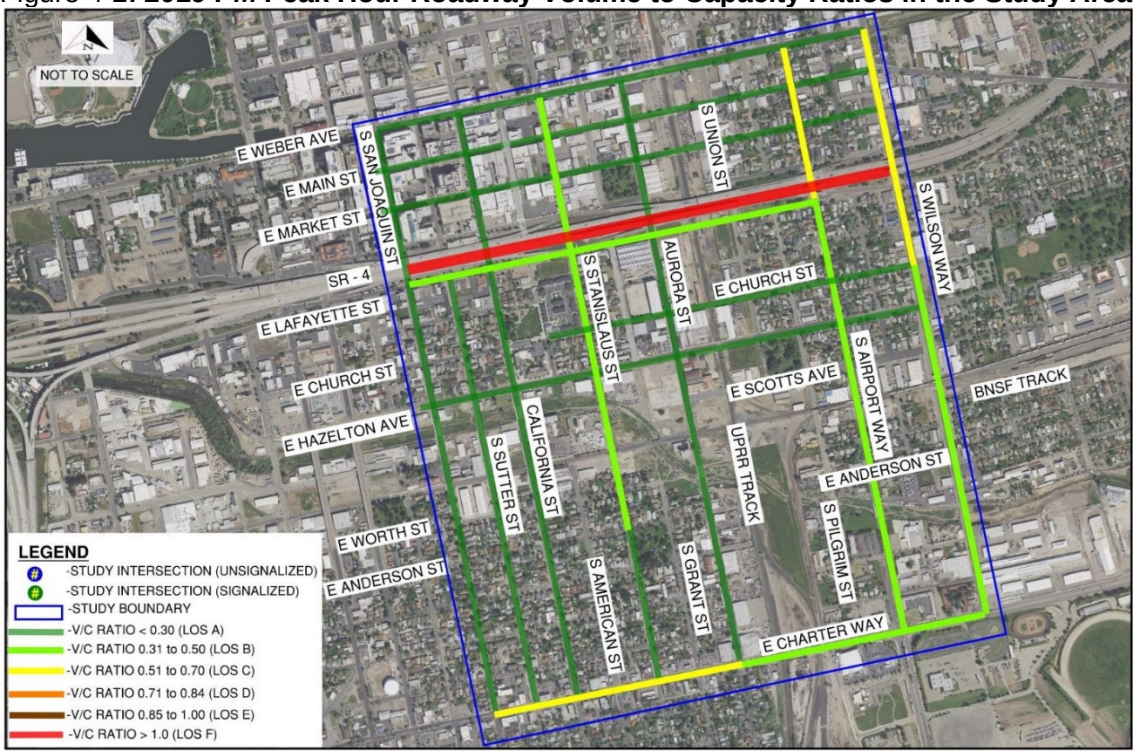


Figure 4-2**: 2019 PM Peak Hour Roadway Volume to Capacity Ratios in the Study Area**



4.3 Existing Pedestrian Conditions

There is limited data available to identify pedestrian activity in the traffic study area. Currently, there are seven at-grade roadway crossings of UP tracks and seven at-grade roadway crossings of BNSF tracks in the traffic study area. The pedestrian inventory identified only four of the 14 intersections meeting ADA compliance. Table 4-2 below provides an inventory of pedestrian accessibility at these crossings with ADA compliance indicated.

Table 4-2: Pedestrian Facilities with at-Grade Roadway/Rail Crossings in the Traffic Study Area

Intersection	Sidewalk	ADA Compliant Sidewalk	Reason for ADA Non-Compliance
East Weber Ave/UP	Yes	Yes	N/A
East Main St/UP	Yes	Yes	N/A
East Market St/UP	Yes	No	Missing detectable warning panel on RR crossing. Missing Audible active warning devices and automated pedestrian gates.
East Lafayette St/UP	No	No	Missing Sidewalk
East Church St/UP	Yes	No	Railroad Light Post/Crossbuck on sidewalk Missing detectable warning panel on RR crossing. Missing Audible active warning devices and automated pedestrian gates.
East Hazelton Ave/UP	Yes	Yes	N/A
East Scotts Ave/UP	No	No	Missing Sidewalk
South San Joaquin St/BNSF	Yes	Yes	N/A
South Sutter St/BNSF	Yes	No	Railroad Light Post/Crossbuck and utility post on pedestrian travel path. Missing detectable warning panel on RR crossing. Missing Audible active warning devices and automated pedestrian gates.
California St/BNSF	Yes	No	Railroad Light Post/Crossbuck and utility post on pedestrian travel path. Missing detectable warning panel on RR crossing. Missing Audible active warning devices and automated pedestrian gates.
South Stanislaus St/BNSF	No	No	Missing Sidewalk

Intersection	Sidewalk	ADA Compliant Sidewalk	Reason for ADA Non-Compliance
Aurora St/BNSF	Yes	No	Missing Audible active warning devices. Missing automated pedestrian gates south of BNSF track. Flangeway gaps on RR track.
S Pilgrim St/BNSF	No	No	Missing Sidewalk
South Airport Way/BNSF	Yes	No	Railroad Light Post/Crossbuck on pedestrian travel path. Missing detectable warning panel on RR crossing. Missing Audible active warning devices and automated pedestrian gates.

4.4 Bicycle Conditions

Bikeway facilities in the traffic study area include the following classes defined in the Envision Stockton, 2040 General Plan Update and Utility Master Plan Supplemental Draft EIR (also following Caltrans bike designation criteria):

- Class 1 – Off-Road Bike Trail, facilities with exclusive right of way for bicyclists and pedestrians, away from the roadway and with cross flows by motor traffic minimized
- Class 2 – On-Road Bike Lane, facilities established along streets and defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel
- Class 3 – Bike Route – Mixed Traffic, facilities designated as a preferred route for bicyclists on streets shared with motorized traffic not served by dedicated bikeways often marked by route signs
- Class 4 - Separated Bikeway, facilities established along streets and defined by not only pavement striping and signage, but also a complete separation with barriers such as on-street parking, grade separation, delineator poles to delineate a portion of roadway for bicycle travel.

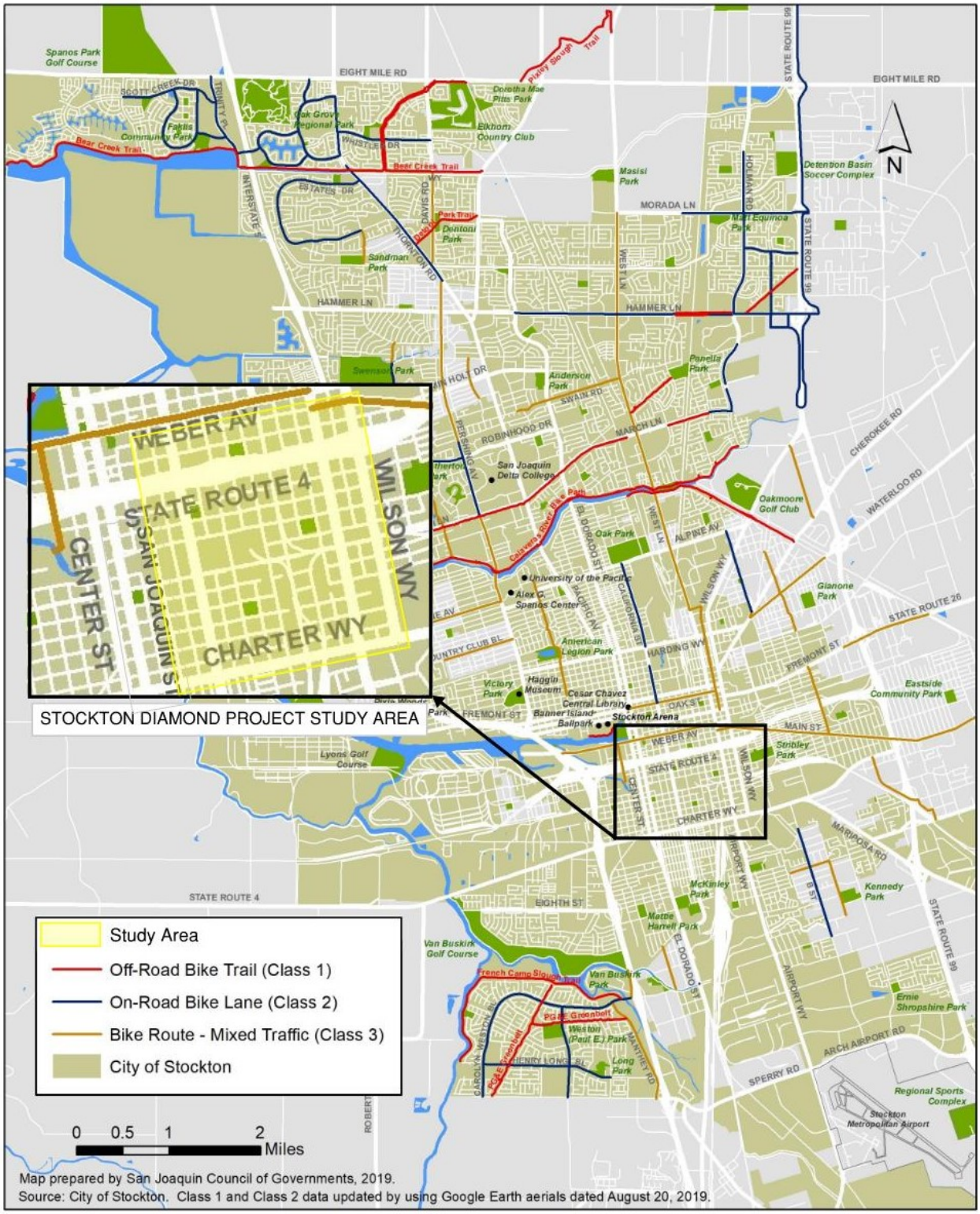
Bicycle movements, based on information obtained from the City of Stockton, mirror the low level of activity shown with pedestrian movements in the traffic study area. For both the AM and PM peak hours, bicycle movements are less than 1 percent of traffic volumes for a sample of traffic study area intersections. There are no current designated bicycle network routes and facilities (Classes 1-4) and limited bicycle access available in the traffic study area. The following takeaways from the “City of Stockton Bicycle Master Plan” mirror the bicycle facilities and movements in the traffic study area:

- Lack of north/south and east/west connectors for commuters and recreational riders
- Bicycle parking is not available at most locations and bikes are often stolen

- Existing facilities are not always family friendly and many need maintenance and many traffic lights and intersections do not detect or accommodate bikes.

Figure 4-3 shows that there is no existing bicycle network (by Class 1, 2, and 3) available to users in the traffic study area.

Figure 4-3: 2019 Bicycle Route Network in the Traffic Study Area

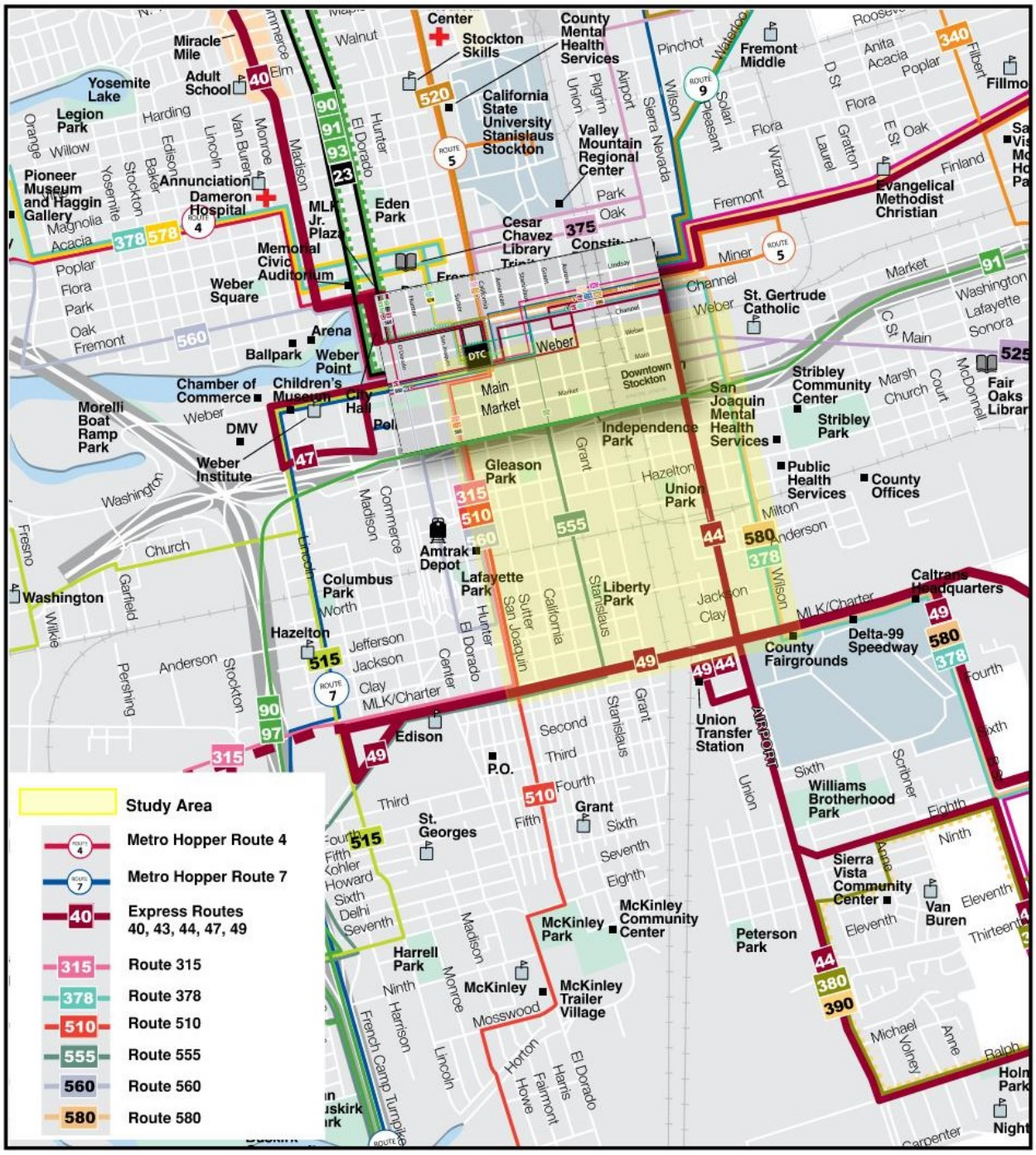


4.5 Transit Conditions

Public transit service in the traffic study area is primarily provided by the SJRTD. There are 12 transit routes within our traffic study area. Metro Hopper route 4 and 7 operate on East Weber Avenue. Transit routes 315, 510 and 560 operate northbound/southbound on San Joaquin Street, transit route 555 operates northbound/southbound on South Stanislaus St, express route 44 operates northbound/southbound on South Airport Way and transit routes 378 and 580 operate northbound/southbound on South Wilson Way. Express route 49 operates eastbound/westbound on East Charter Way, and express routes 44 and 47 operate eastbound/westbound on East Weber Ave.

Figure 4-4 shows the routes in the traffic study area. Note, currently due to COVID19, San Joaquin RTD has limited services while operating typical weekend schedule during weekdays.

Figure 4-4: San Joaquin Regional Transit Routes in the Traffic Study Area

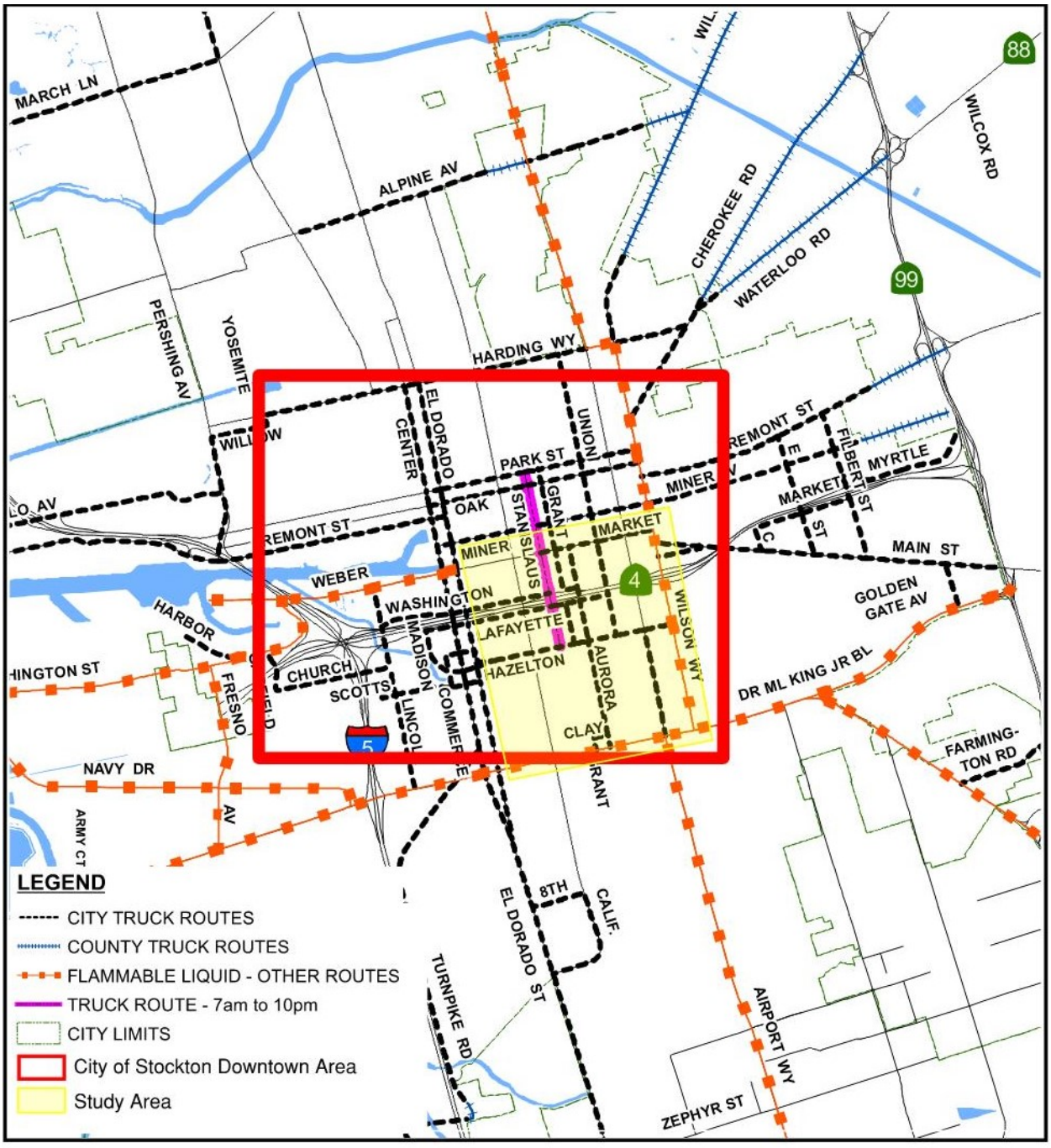


Source: San Joaquin RDT Weekday System Map Effective: January 26, 2020

4.6 Freight Conditions

Truck routes in Stockton consist primarily of the State Highway system and major arterials within the City. Figure 4-5 shows the truck routes operating in the traffic study area and city of Stockton.

Figure 4-5: 2019 Truck Route Designations in the Traffic Study Area



Source: City of Stockton. Truck Routes Map dated October 2009.

SR-99 and I-5 are considered major truck routes connecting Central Valley cities to other metropolitan areas throughout the state, with the crosstown freeway, SR-4, and Arch-Airport Road supporting citywide truck circulation, as well as providing connections to the airport and BNSF intermodal facility. Truck route designations include City Truck Routes, County Truck Routes, Flammable Liquid-Other Routes, and Truck Routes operating from 7am to 10pm. Currently, with the exception of County Truck Routes, the traffic study area includes roadways with each of the other three designations (in some cases roadways include multiple designations):

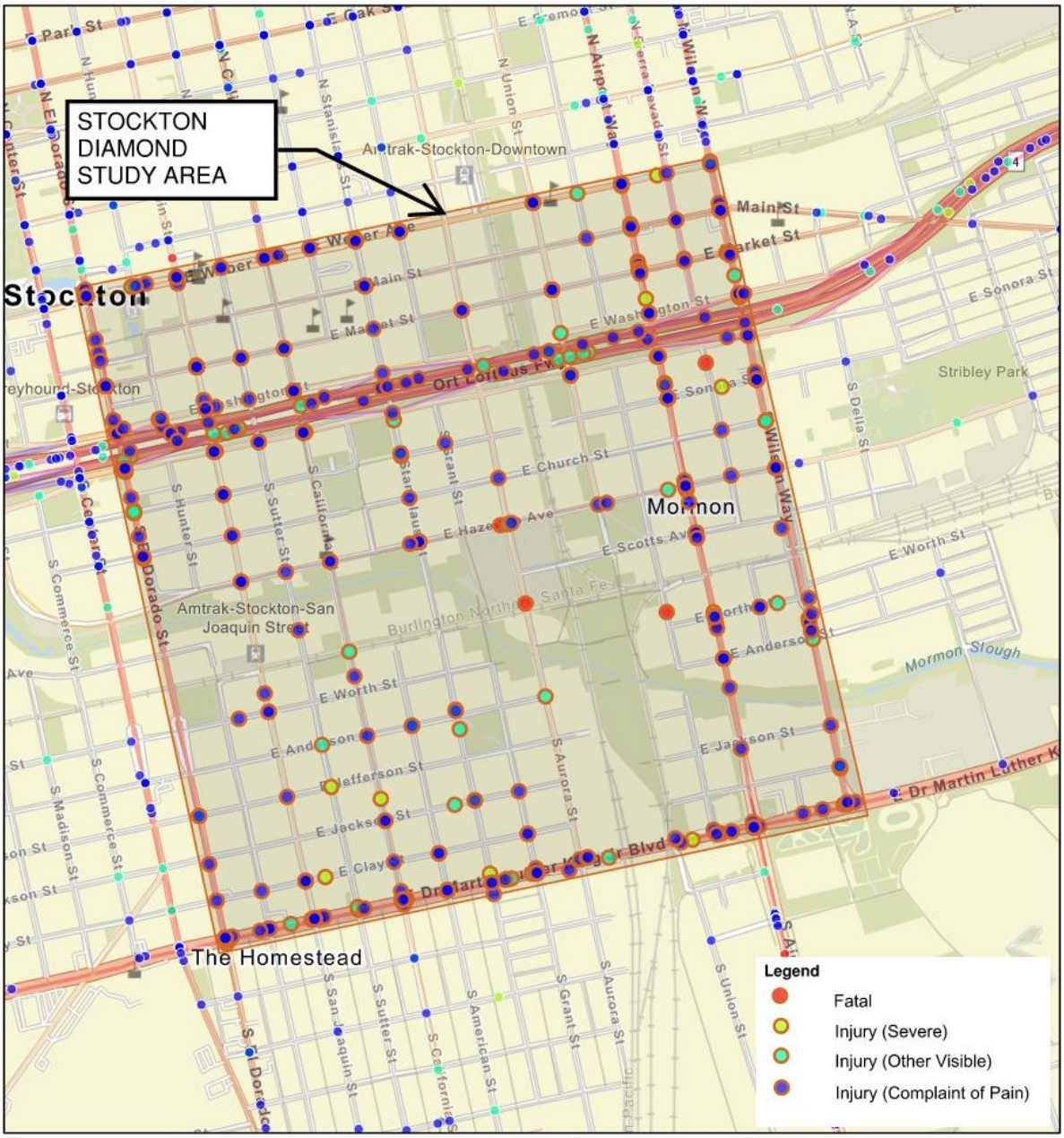
- City Truck Routes on South Airport Way, East Hazelton Avenue, East Lafayette Street, East Market Street, East Weber Ave, Aurora Street and South Union Street
- Flammable Liquid-Other Routes on East Charter Way, South Wilson Way, and South Airport Way
- Truck Route–7 am to 10 pm on South Stanislaus Street.

4.7 Safety Analysis

Crash data for all transportation modes from 2017 to 2019 was compiled from the University of California Berkeley Transportation Injury Mapping System (TIMS). During this 3-year period, 562 incidents were reported within the traffic study area (Figure 4-6). These included 12 fatalities and 790 injuries. Of the 12 fatalities, 4 were pedestrians, 4 were bicyclists, and remaining 4 were motorists.

In addition to the TIMS data, crashes that occurred at the railroad crossings published by Federal Railroad Administration (FRA) were also compiled to understand road-rail crash locations in the traffic study area. This crash data from 2015 to 2019 were obtained, reviewed, and summarized in Table 4-3. This data also shows crashes at these locations by pedestrians, bicycles, and total vehicles. In this 4-year period, a total of 10 accidents occurred at these at-grade road/rail locations, with six involving pedestrians and bicycles (with freight trains) and four involving vehicles with trains).

Figure 4-6: 2017-2019 Multimodal Crash Locations in the Traffic Study Area



Source: SWITRS GIS MAP-UC Berkeley Transportation Injury Mapping System (TIMS)

Table 4-3: Table 5. Accidents on at-grade Crossings between 2015 to 2019

Intersection	Injury		Fatal		Non-Injury		
	Bike/ Ped	Vehicle	Bike/ Ped	Vehicle	Bike/ Ped	Vehicle	Total by Location
East Weber Ave/UP						1	1
East Market St/UP	1						1
East Scotts Ave/UP						1	1
South San Joaquin St/BNSF	1		1				2
South Sutter St/BNSF	1						1
California St/BNSF	1						1
South Stanislaus St/BNSF	1						1
S Pilgrim St/BNSF						1	1
South Airport Way/BNSF						1	1
Total by Type	5	0	1	0	0	4	10

Source: Department of Transportation Federal Railroad Administration (FRA) Incident Report

5 No Action Alternative (2045) Traffic Condition Analysis

This section presents the expected future transportation condition in the traffic study area assuming other anticipated transportation improvements (planned as part of other plans and studies) would move forward. The No Action Alternative traffic conditions does not include the proposed Project being evaluated. The anticipated transportation infrastructure improvement projects, future growth rate and 2045 No Action Alternative Traffic conditions are presented in this section.

5.1 Anticipated Transportation Infrastructure Improvement Projects

Table 5-1 shows the anticipated transportation infrastructure (intersections and roadway) improvement projects identified in the traffic study area by the City of Stockton while Table 5-2 shows the specific intersection and roadway improvements from the listing above that were built into the No Action Alternative traffic conditions analysis.

Table 5-1: Anticipated Future Transportation Infrastructure Improvement Projects

Location	Project
East Hazelton Avenue and South Airport Way	Signal re-modeling and sidewalk gap closure installation at railroad crossing Existing City Project PW 1902) Install left-turn phasing on Airport Way Existing City Project PW 1902)
East Hazelton Ave and East Stanislaus St	Conversion of side street stop-controlled intersection to all way stop controlled intersection
East Charter Way and California Street	Traffic signal remodeling (City Project PW 1713)
East Charter Way and Aurora Street	Sidewalk, Median, and fencing improvement (City project PW 1903)

Table 5-2: Traffic Improvements Built Into The No Action Alternative traffic Conditions Analysis

Location	Project
East Hazelton Avenue and South Airport Way	Install left-turn phasing on Airport Way
East Hazelton Ave and East Stanislaus St	Conversion of side street stop-controlled intersection to all way stop controlled intersection

Figure 5-1shows the 2045 intersection turning movements developed from traffic improvement Project identified earlier in Table 5-2 above.

5.2 Future Growth Rate

Traffic growth rates were required to estimate future expected 2045 traffic volumes. Several sources of available information were used to support the development of annualized traffic growth rates, including traffic volume flow maps, volumes, and reports from the City of Stockton traffic flow maps, travel model forecasts, and most recent General Plan, Caltrans counts, and discussions with City of Stockton Traffic Engineering staff, to determine an annual traffic growth rate for application in this analysis.

Based on this analysis, the City's traffic flow maps from 2015 to 2019 including a combination of major and minor roads within the traffic study area including close by segments of I-5, SR-99 and SR-4 provided an annual growth rate of 0.063 percent per year. The travel demand model for the City of Stockton, which is based on population and employment estimates to determine future travel demand, considered a growth rate of between 1to 1.5 percent annually. The 1.5 percent annual

growth rate was estimated for areas outside of/peripheral to Downtown Stockton area, while the 1 percent growth rate was estimated for the Downtown Stockton Area including the proposed Project traffic study area.

Although 1.0 percent growth rate is much higher than the computed rate of 0.063 percent (based on historical traffic counts), a conservative approach was applied using 1.0 percent annual growth rate to apply to \the existing traffic volumes to estimate 2045 No Action Alternative traffic volumes. With the exception on SR-4, the traffic growth rate of 0.063 percent per year was applied for this facility, which based on historical traffic volume analysis, considers zero annual growth since 2015.

5.3 Future Land Use Developments Impacting the Study Area

HDR reached out to the City of Stockton to inquire about any future land use developments impacting the traffic study area. Currently there are no planned future land use developments within or adjacent to the proposed Project's traffic study area.

5.4 Intersection Operations

The 2045 No Action Alternative traffic volumes were generated by applying the annualized growth rates to the 2019 existing traffic volumes. Figure 5-1 illustrates the 2045 No Project Alternative morning (AM) and afternoon (PM) peak hour turning movement volumes for each of the 28 intersections being analyzed. In addition, the 2045 No Action Alternative morning (AM) and afternoon (PM) peak hour roadway volumes, prepared for the intersection turning movement volumes, are presented in Figure 5-2 , Figure 5-3, and Figure 5-4.

Figure 5-1: 2045 No Action Alternative Turning Movement Diagrams for Study Area Intersections

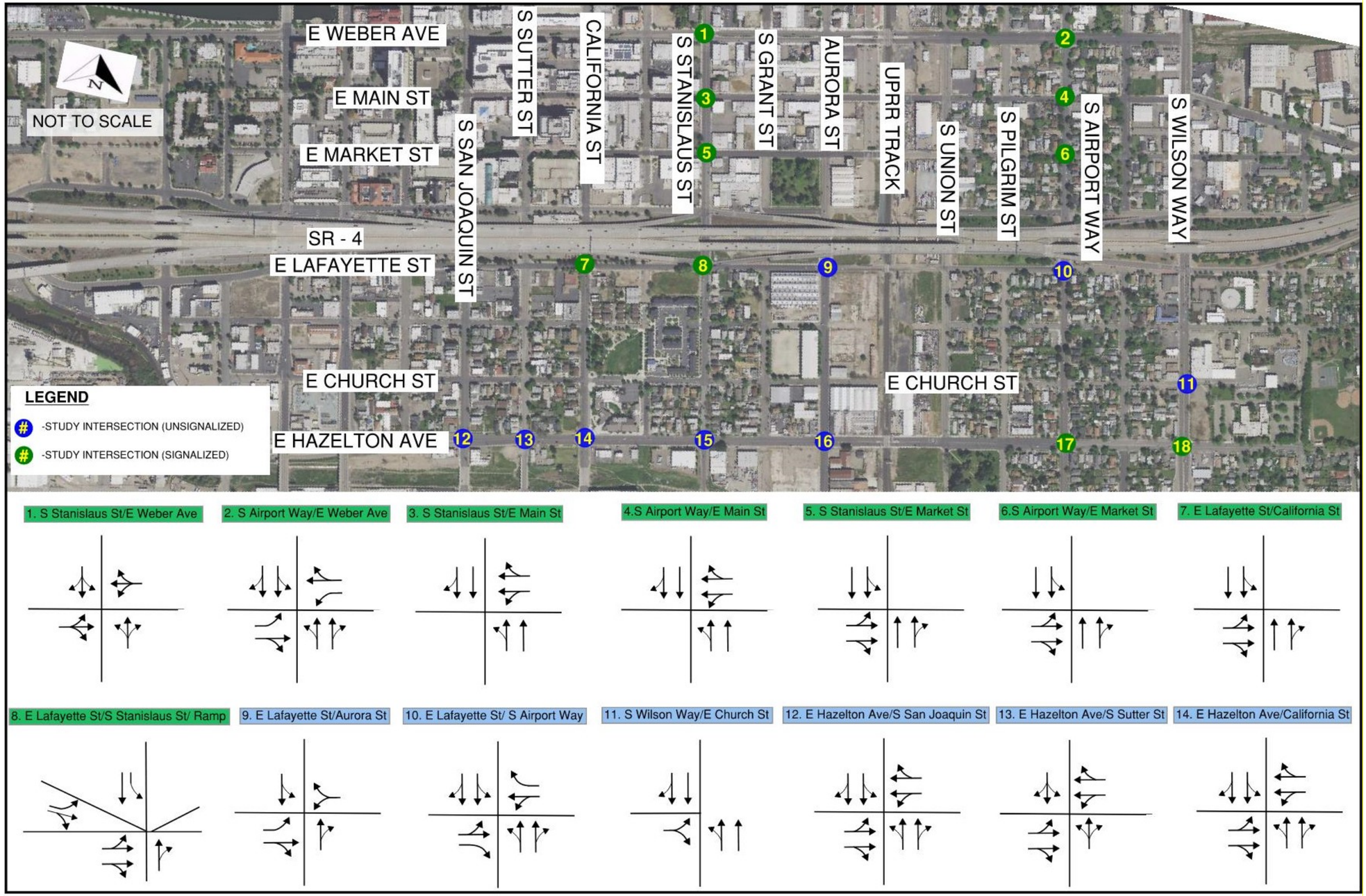


Figure 5.1: 2045 No Action Alternative Turning Movement Diagrams for Study Area Intersections (continued)

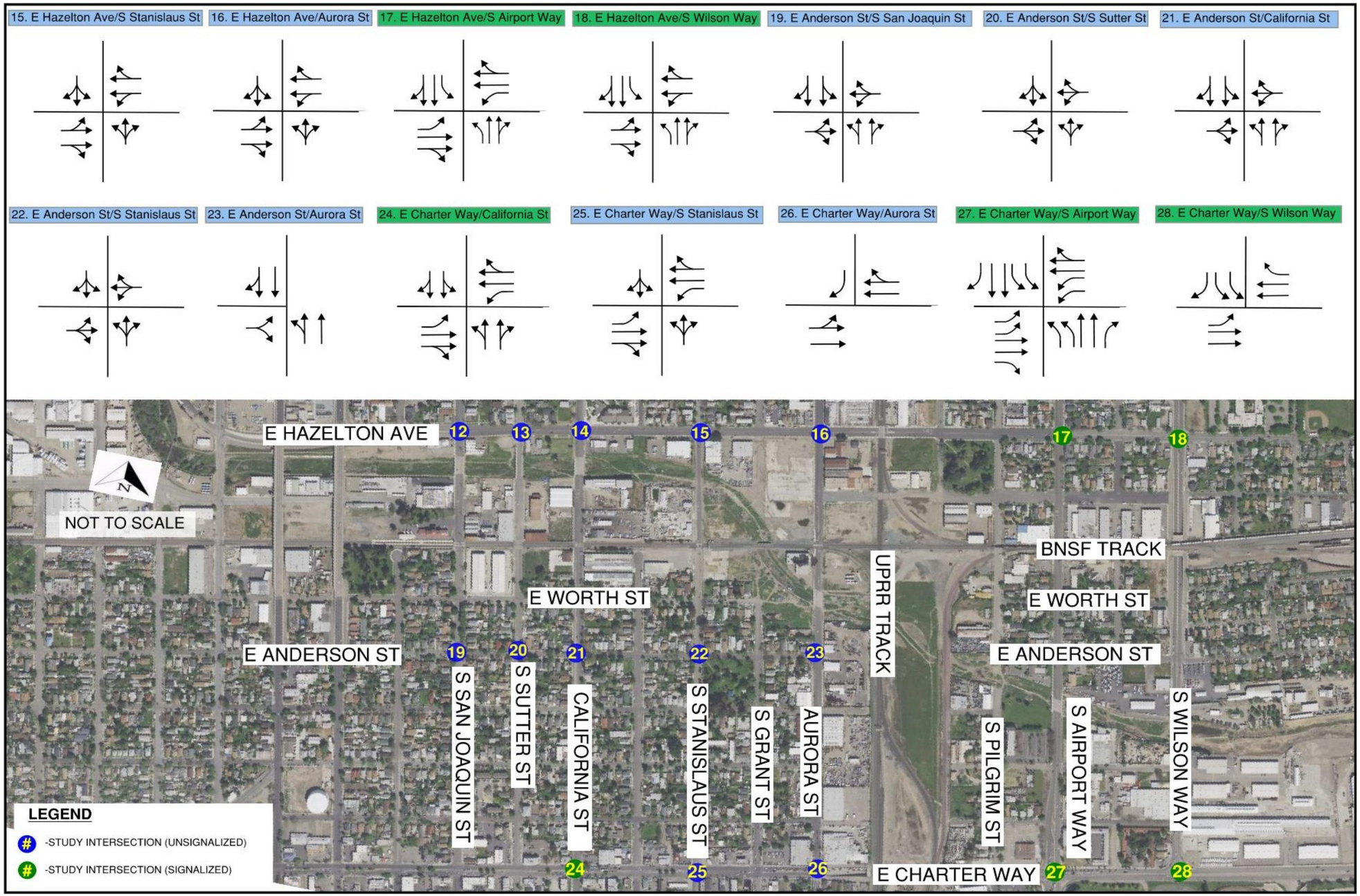


Figure 5-2: 2045 No Action Alternative AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections

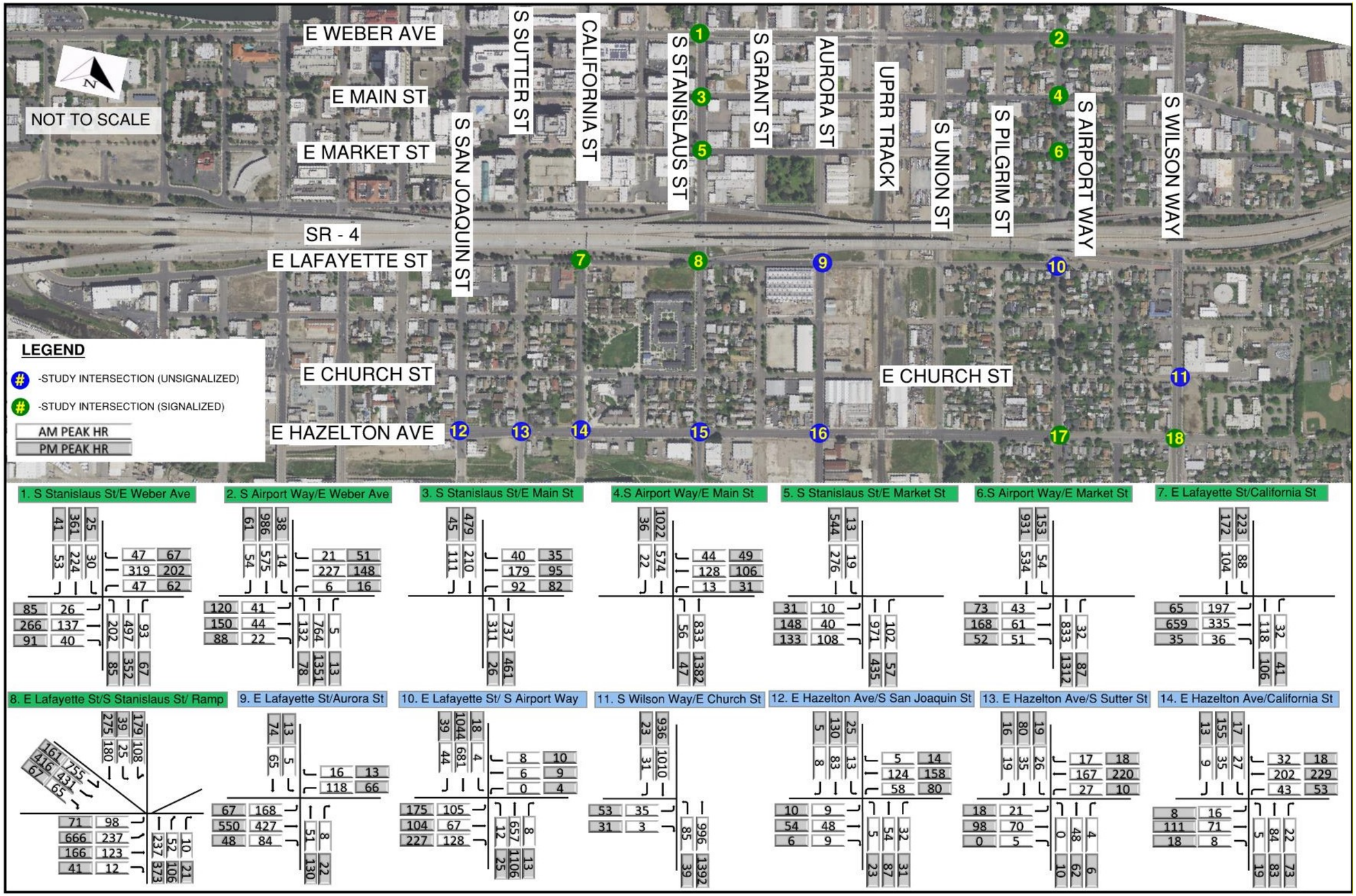


Figure 5-2: 2045 No Action Alternative AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections (continued)

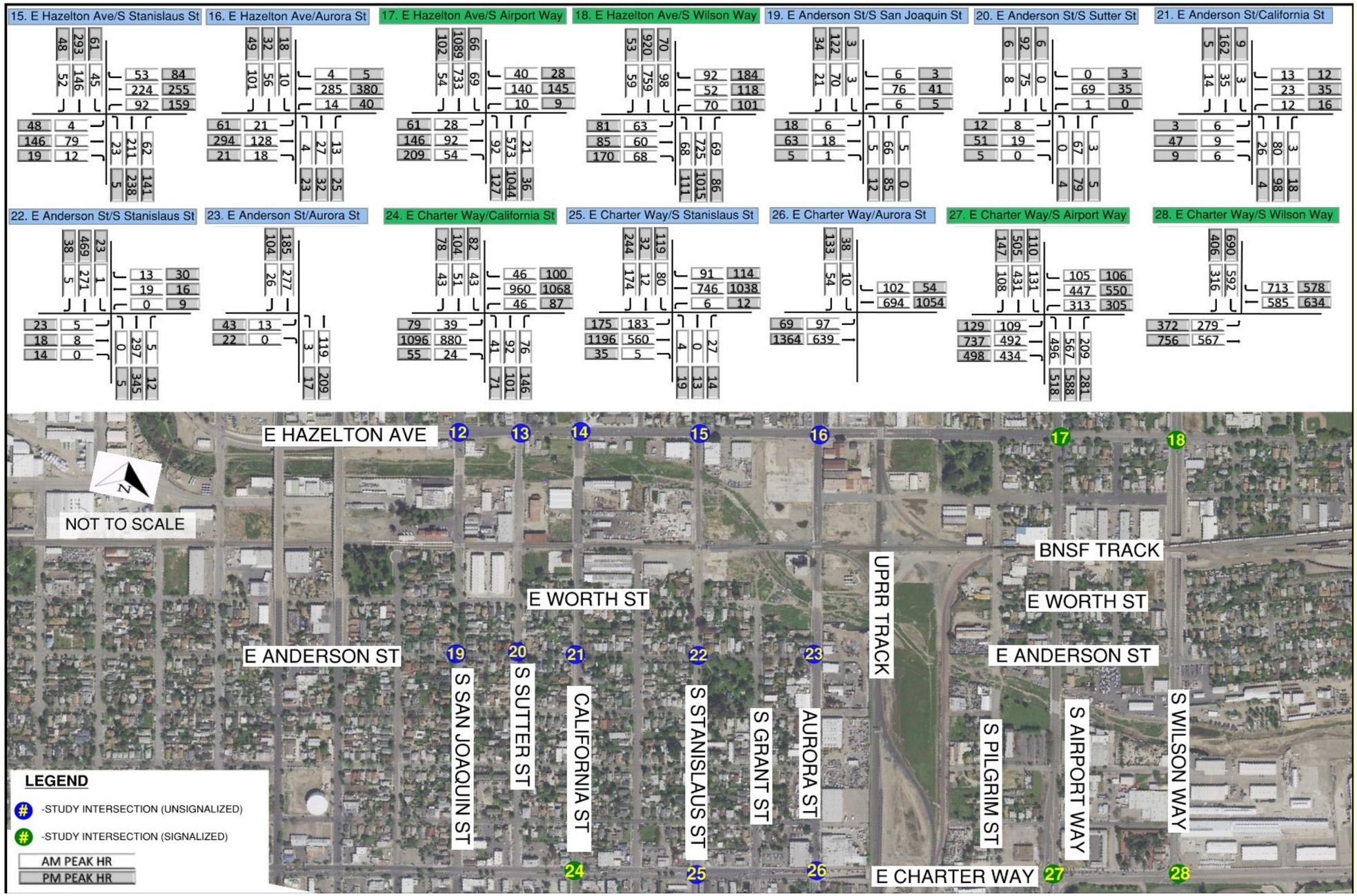


Figure 5-3: 2045 No Action Alternative AM Peak Hour Roadway Volumes in the Study Area

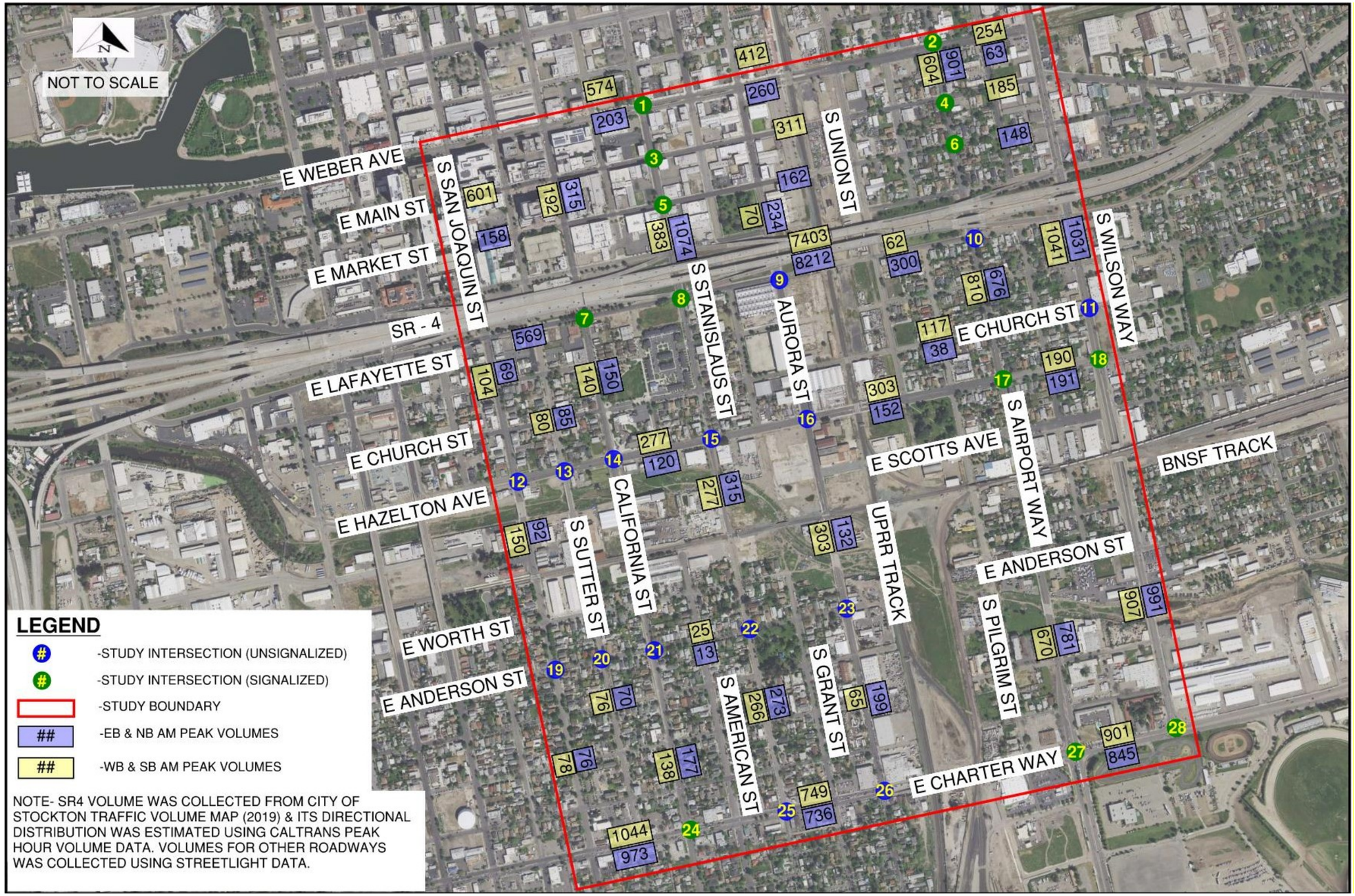
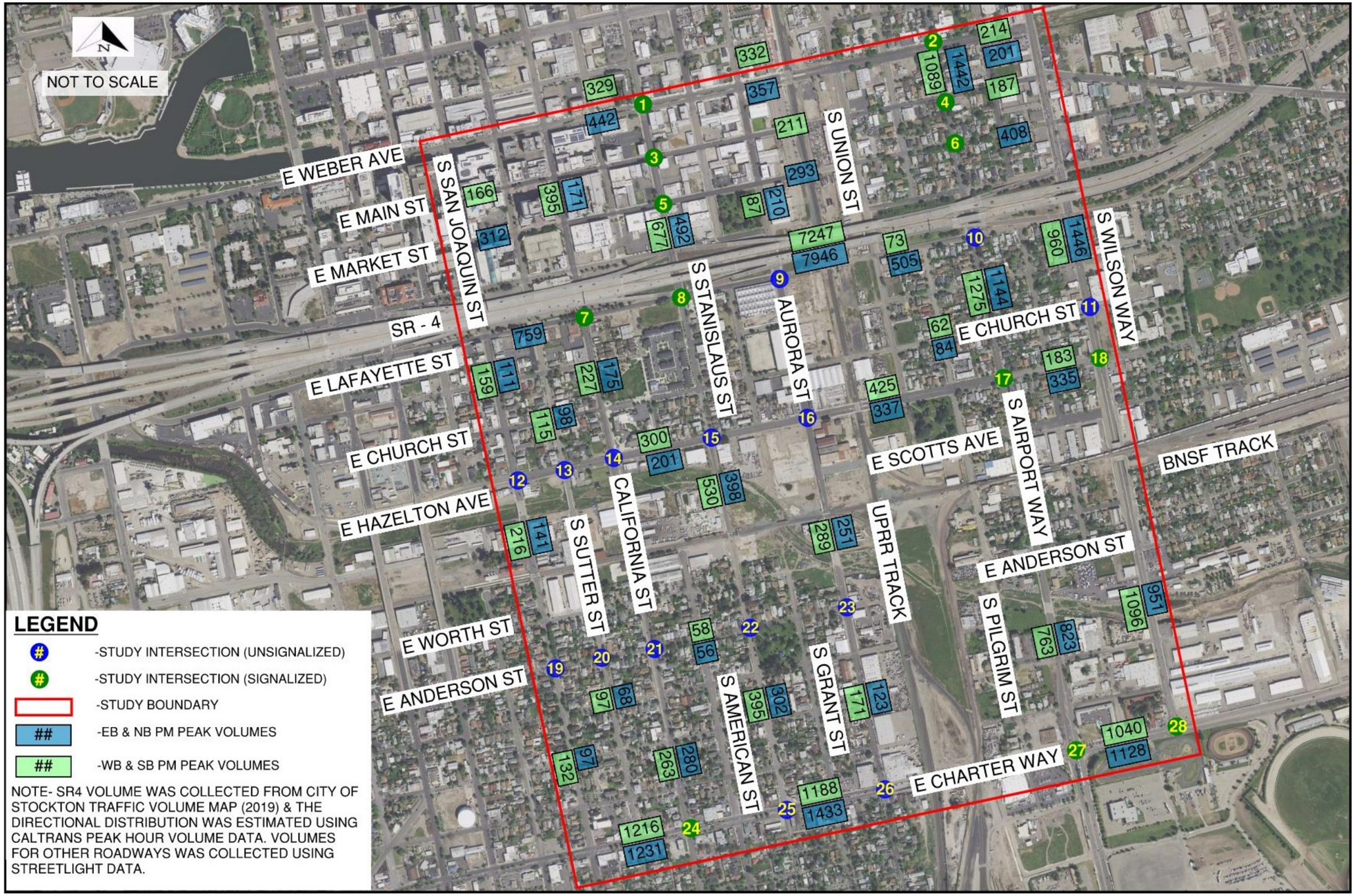


Figure 5-4: 2045 No Action Alternative PM Peak Hour Roadway Volumes in the Study Area



The 2045 No Action Alternative intersection operations were analyzed for the study intersections. Identical to the assessment of the 2019 Existing Condition, intersection operations in 2045 No Action Alternative condition were evaluated for the AM and PM peak hours. LOS analysis was conducted according to procedures outlined in the 2010 Highway Capacity Manual using Synchro 10 traffic analysis software per City and County standards. As discussed in the existing condition section, LOS E or better represents the acceptable LOS in City of Stockton.

Table 5-3 below summarizes and compares the intersection LOS results in the 2045 No Action Alternative with the Existing Conditions (2019) during the AM peak hour. All intersections operate at an acceptable LOS under the 2045 No Action Alternative AM condition, except for East Lafayette Street and North Stanislaus Street (#8). This intersection is anticipated to operate at LOS F during the AM Peak hour.

Table 5-3: Existing and 2045 No Action Alternative AM Intersection LOS Comparison

	Intersection	EXISTING (AM) Delay (sec)	EXISTING (AM) LOS	2045 NO ACTION (AM) Delay (sec)	2045 NO ACTION (AM) LOS	DIFFERENCE Delay Diff. (sec)	DIFFERENCE LOS Change
1	South Stanislaus St and East Weber Ave	15.8	B	24.2	C	8.4	B to C
2	South Airport Way and East Weber Ave	11.8	B	14.2	B	2.4	N/A
3	South Stanislaus St and East Main St	9.2	A	17.3	B	8.1	A to B
4	South Airport Way and East Main St	9.6	A	11	B	1.4	A to B
5	South Stanislaus St and East Market St	11.8	B	13.9	B	2.1	N/A
6	South Airport Way and Market St	9.2	A	10.2	B	1	A to B
7	East Lafayette St and California St	16.1	B	17.8	B	1.7	N/A
8	East Lafayette St and South Stanislaus St	192.2	F	319	F	126.8	N/A
9	East Lafayette St and Aurora St	11.8	B	16.8	B	5	N/A
10	East Lafayette St and South Airport Way	6.6	A	32.1	C	25.5	A to C
11	South Wilson Way and East Church St	1.6	A	5.7	A	4.1	N/A
12	East Hazelton Ave and South San Joaquin St	8.3	A	8.7	A	0.4	N/A
13	East Hazelton Ave and South Sutter St	4.2	A	4.5	A	0.3	N/A
14	East Hazelton Ave and California St	8.5	A	9.1	A	0.6	N/A
15	East Hazelton Ave and South Stanislaus St	9.8	B	13	B	3.2	N/A
16	East Hazelton Ave and Aurora St	8.7	A	9.5	A	0.8	N/A
17	East Hazelton Ave and South Airport Way	8	A	17.1	B	9.1	A to B
18	East Hazelton Ave and South Wilson Way	14.3	B	16.3	B	2	N/A
19	East Anderson St and South San Joaquin St	7.6	A	7.9	A	0.3	N/A

20	East Anderson St and South Sutter St	7.5	A	7.7	A	0.2	N/A
21	East Anderson St and California St	3.8	A	3.9	A	0.1	N/A
22	East Anderson St and South Stanislaus St	0.9	A	1	A	0.1	N/A
23	East Anderson St and Aurora St	0.4	A	0.4	A	0	N/A
24	East Charter Way and California St	12.7	B	14.6	B	1.9	N/A
25	East Charter Way and South Stanislaus St	6.5	A	29.7	C	23.2	A to C
26	East Charter Way and Aurora St	1	A	1.1	A	0.1	N/A
27	East Charter Way and South Airport Way	21.4	C	25.2	C	3.8	N/A
28	East Charter Way and South Wilson Way	21.9	C	25	C	3.1	N/A

Table 5-4 summarizes and compares the intersection LOS results in the 2045 No Action Alternative with the Existing Conditions (2019) for the PM peak hour. All intersections operate at an acceptable LOS under the 2045 No Action Alternative PM conditions, except for the following intersections:

- East Lafayette Street and North Stanislaus Street (#8) – This intersection is anticipated to operate at LOS F during PM peak hour
- East Lafayette Street and South Airport Way (#10) – This intersection is anticipated to operate at LOS F during the PM peak hour

Table 5-4: Existing and 2045 No Action Alternative PM Intersection LOS Comparison

		EXISTING (PM)		2045 NO ACTION (PM)		DIFFERENCE	
		Delay	LOS	Delay	LOS	Delay	LOS
Intersection		(sec)		(sec)		Diff. (sec)	Change
1	South Stanislaus St and East Weber Ave	16.9	B	23.5	C	6.6	B to C
2	South Airport Way and East Weber Ave	14.5	B	27.8	C	13.3	B to C
3	South Stanislaus St and East Main St	8.8	A	9.2	A	0.4	N/A
4	South Airport Way and East Main St	7.8	A	10.1	B	2.3	A to B
5	South Stanislaus St and East Market St	8.3	A	8.7	A	0.4	N/A
6	South Airport Way and Market St	11.2	B	35.5	D	24.3	B to D
7	East Lafayette St and California St	18.3	B	20.7	C	2.4	B to C
8	East Lafayette St and South Stanislaus St	87.8	F	174.5	F	86.7	N/A
9	East Lafayette St and Aurora St	15.6	B	36.9	D	21.3	B to D
10	East Lafayette St and South Airport Way	117.6	F	560.7	F	443.1	N/A
11	South Wilson Way and East Church St	2	A	15.9	B	13.9	A to B
12	East Hazelton Ave and South San Joaquin St	8.9	A	9.6	A	0.7	N/A
13	East Hazelton Ave and South Sutter St	4.5	A	5.1	A	0.6	N/A

14	East Hazelton Ave and California St	9.3	A	10.3	B	1	A to B
15	East Hazelton Ave and South Stanislaus St	62.6	E	22.8	C	-39.8	E to C
16	East Hazelton Ave and Aurora St	9.7	A	11.3	B	1.6	A to B
17	East Hazelton Ave and South Airport Way	9.8	A	20.1	C	10.3	A to C
18	East Hazelton Ave and South Wilson Way	16	B	20.6	C	4.6	B to C
19	East Anderson St and South San Joaquin St	7.9	A	8.2	A	0.3	N/A
20	East Anderson St and South Sutter St	7.6	A	7.9	A	0.3	N/A
21	East Anderson St and California St	3.3	A	3.6	A	0.3	N/A
22	East Anderson St and South Stanislaus St	1.9	A	2.5	A	0.6	N/A
23	East Anderson St and Aurora St	1.5	A	1.6	A	0.1	N/A
24	East Charter Way and California St	18.4	B	23.1	C	4.7	B to C
25	East Charter Way and South Stanislaus St	95.5	F	205.8	F	110.3	N/A
26	East Charter Way and Aurora St	0.7	A	1.4	A	0.7	N/A
27	East Charter Way and South Airport Way	23.3	C	28.8	C	5.5	N/A
28	East Charter Way and South Wilson Way	24.2	C	27.4	C	3.2	N/A

5.5 Roadway conditions

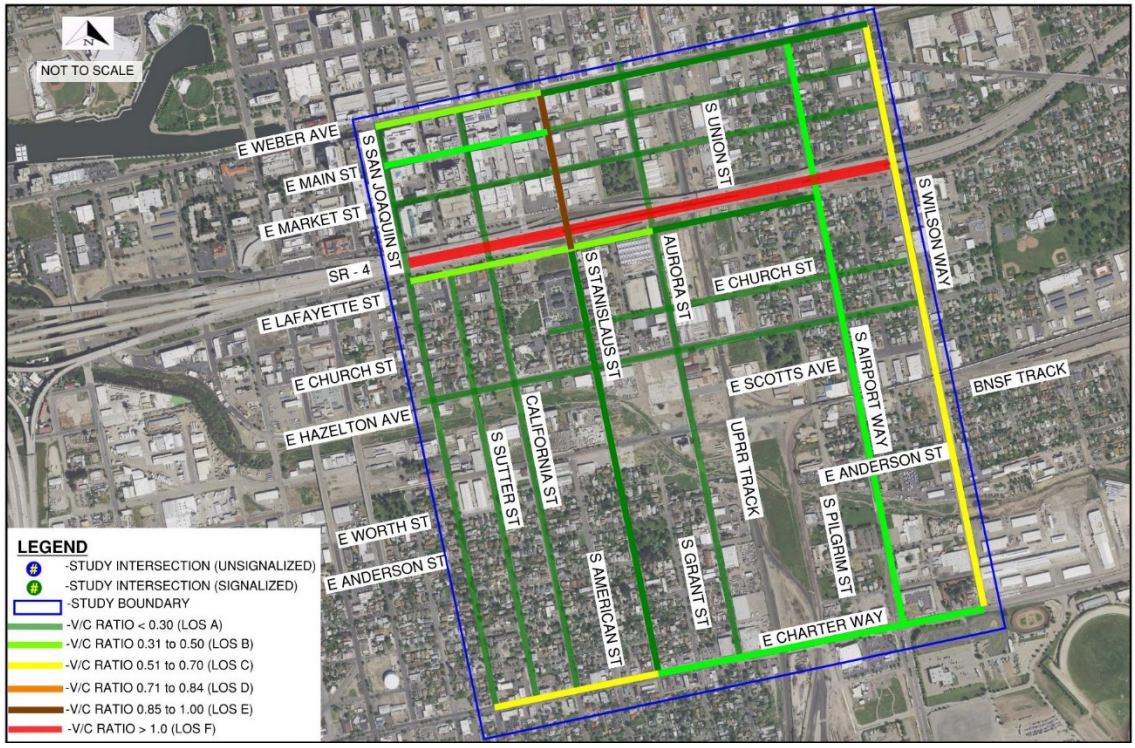
Roadway segment operations were analyzed for 2045 in the No Action Alternative Conditions. As with the assessment of the 2019 Existing Condition, roadway segments were evaluated using v/c ratios to measure the roadway performance, where a v/c ratio of 1.0 or above represents failure or LOS F.

With the exception of SR-4 (Crosstown Freeway), all of the roadway levels of service in the traffic study area are expected to perform at LOS E or better in the No Action Alternative condition. The resulting v/c ratios for roadways in the AM peak hour for the 2045 No Action Alternative condition are summarized in Table 5-5 and shown in Figure 5-5.

Table 5-5: 2045 No Action Alternative Condition AM Peak Roadway v/c ratio and LOS

Road	Location	Roadway Classification	V/C Ratio	LOS
East Weber Ave	Between South San Joaquin Street and South Stanislaus Street	Collector	0.32	B
East Main Street	Between South San Joaquin Street and South Stanislaus Street	Arterial	0.34	B
SR-4	Between South San Joaquin Street and South Wilson Way	Freeway	1.14	F
East Lafayette Street	Between South San Joaquin Street and South Aurora Street	Local	0.47	B
East Charter Way	Between South San Joaquin Street and South Stanislaus Street	Arterial	0.59	C
East Charter Way	Between South Stanislaus Street and South Wilson Way	Arterial	0.50	B
South Stanislaus Street	North of SR-4	Local	0.89	E
South Airport Way	Between East Weber Avenue and East Lafayette Street	Arterial	0.48	B
South Airport Way	Between East Lafayette Street and East Charter Way	Arterial	0.44	B
South Wilson Way	Between East Weber Avenue and East Church Street	Arterial	0.58	C
South Wilson Way	Between East Church Street and East Church Street	Arterial	0.56	C
All other Roadways	-	-	<0.30	A

Figure 5-5: 2045 No Action Alternative v/c Ratio and LOS, AM Peak Hour



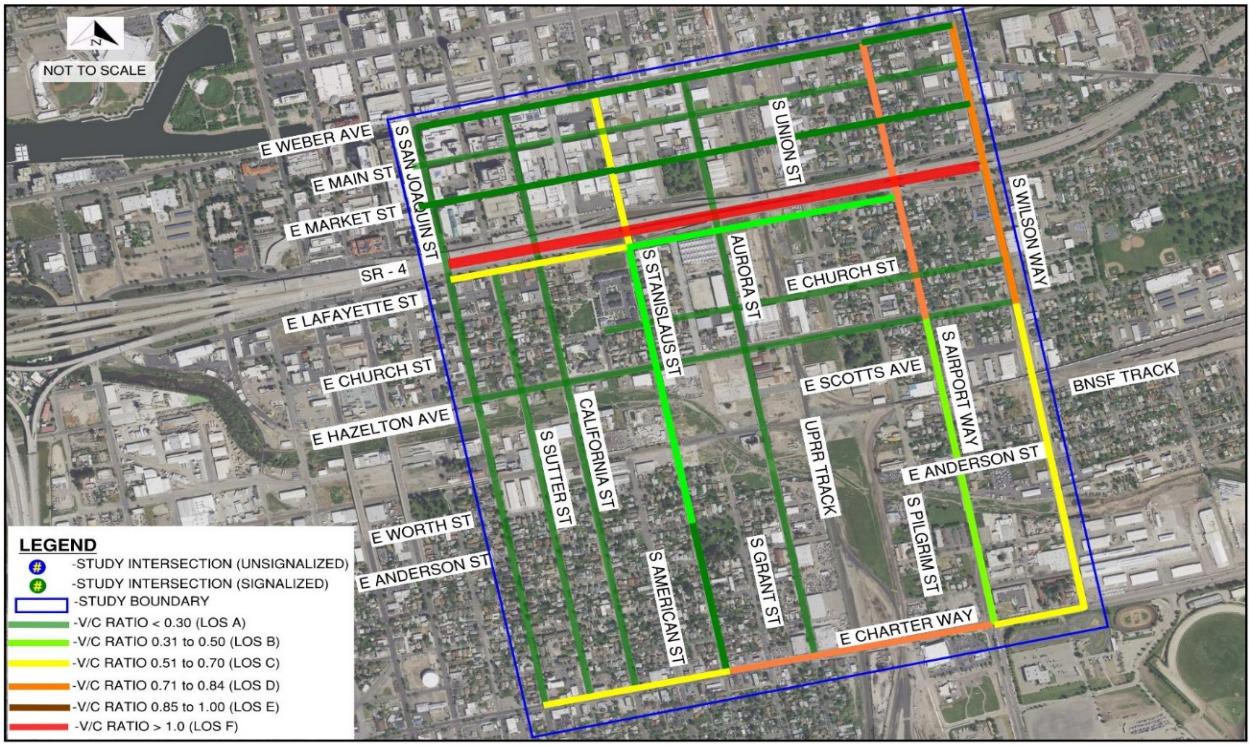
The resulting v/c ratios for roadways in the 2045 No Action Alternative condition PM peak hour are summarized in Table 5-6 and shown in Figure 5-6.

Table 5-6: 2045 No Action Alternative Condition PM Peak Roadway v/c ratio and LOS

Road	Location	Roadway Classification	V/C Ratio	LOS
SR-4	Between South San Joaquin Street and South Wilson Way	Freeway	1.10	F
East Lafayette Street	Between South San Joaquin Street and South Aurora Street	Local	0.63	C
East Lafayette Street	Between South Aurora Street and South Airport Way	Local	0.42	B
East Charter Way	Between South San Joaquin Street and South Aurora Street	Arterial	0.69	C
East Charter Way	Between Aurora Street and South Airport Way	Arterial	0.80	D
East Charter Way	Between South Airport Way and South Wilson Way	Arterial	0.63	C
South Stanislaus Street	North of SR-4	Local	0.56	C

Road	Location	Roadway Classification	V/C Ratio	LOS
South Stanislaus Street	Between SR-4 and East Anderson Street	Local	0.44	B
South Airport Way	Between East Weber Avenue and East Hazelton Street	Arterial	0.81	D
South Airport Way	Between East Hazelton Street and East Charter Way	Arterial	0.46	B
South Wilson Way	Between East Weber Avenue and East Hazelton Street	Arterial	0.81	D
South Wilson Way	Between East Hazelton Street and East Charter Way	Arterial	0.62	C
All other Roadways	-	-	<0.30	A

Figure 5-6: 2045 No Action Alternative v/c Ratio and LOS, PM Peak Hour



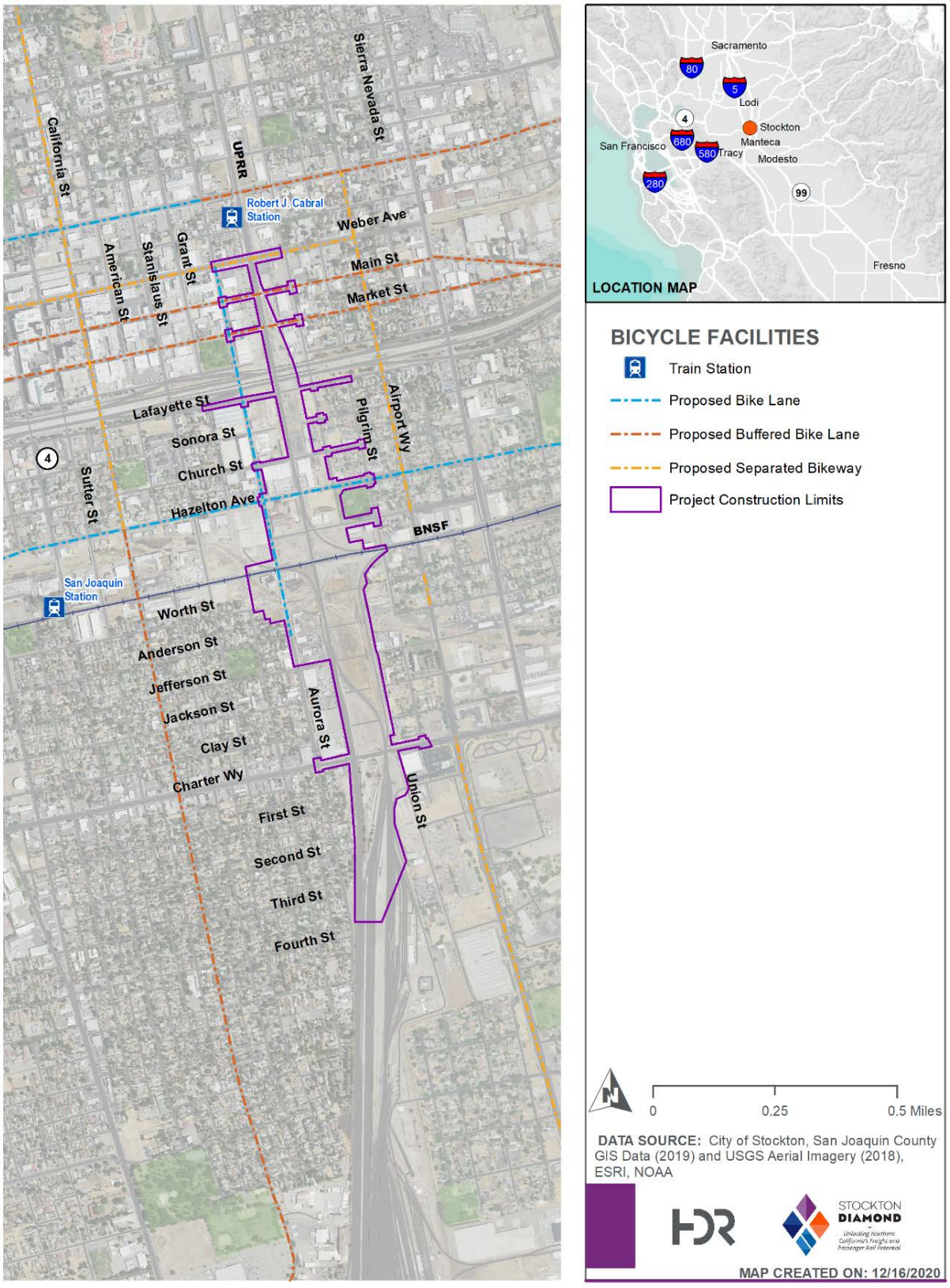
5.6 Pedestrian conditions

The No Action Alternative is not anticipated to change the existing intersection geometry, land uses, and sidewalks or crosswalks in the vicinity and would have no impacts on pedestrian activity. With the exception of pedestrian improvements planned by other, independent projects, existing approaches to the at grade crossings and ADA accessibility is anticipated to remain unchanged.

5.7 Bicycle conditions

The 2045 No Action Alternative condition are expected to include implementation of the City's proposed bicycle facilities in the traffic study area, as shown in Figure 5-7. These future facilities are planned for East Weber Avenue, East Main Street, East Market Street, East Hazelton Avenue, and South Aurora Street. These planned facilities are considered part of the No Action Alternative and would add to the existing bicycle infrastructure in and around the traffic study area.

Figure 5-7: Proposed No Action Alternative (2045) Bicycle Facilities in Traffic Study Area



5.8 Transit conditions

Public transit services expected to operate in the traffic study area by 2045 in the No Action Alternative will be similar to the services provided by the SJRTD in 2019 (Section 4, Existing Transit Conditions). While the expectation is that over time (2019 to 2045) the SJRTD will refine transit services (add routes, refine routes) in the traffic study area, they have yet to be determined. At a minimum, the expectation is that at least the 12 transit routes currently providing service in the traffic study area will be maintained into the future.

5.9 Freight conditions

The 2045 No Action Alternative freight conditions are expected to consider similar levels of trucking services and activity that were identified in existing conditions (Section 4.0, Existing Freight Conditions) in the traffic study area. As presented in existing conditions, the primary truck routes in the City of Stockton will remain focused primarily on the state highway system and major arterials, primarily on SR-99 and I-5 outside of the traffic study area, with SR-4 crossing through the traffic study area.

Truck route designations in the traffic study area will carry forward from existing conditions to the 2045 No Action Alternative. These will continue as designated city truck routes, county truck routes, flammable liquid-other routes, and truck routes from 7 am to 10 pm. It is expected that the designated truck routes will be the same into the future, including: City Truck Routes on South Airport Way, East Hazelton Avenue, East Lafayette Street, East Market Street, East Weber Ave, Aurora Street and South Union Street; Flammable Liquid-Other Routes on East Charter Way, South Wilson Way, and South Airport Way; and Truck Route–7 am to 10 pm on South Stanislaus Street.

6 Proposed Project 2045 Traffic Conditions Analysis

The following section presents the expected (2045) proposed Project traffic conditions analysis. This alternative considers the implementation and associated transportation impacts associated with all of the proposed components of the proposed Project.

6.1 Anticipated Roadway Closures and Traffic Redistribution

As a part of the proposed Project, permanent road closures are proposed for East Lafayette Street and East Church Street at the railroad crossings. These roadway closures were integrated with the proposed Project analysis. East Lafayette Street is being proposed for closure because of the multiple rail crossings with the at-grade main tracks and wye connection tracks (i.e., four proposed crossings within two blocks).

East Church Street requires closure because the proposed flyover structure would not reach its full elevation and, therefore, would not meet the required minimum vertical clearance for a vehicle

crossing. The crossing would not provide the minimum 16.5 feet of vertical clearance required by UP/BNSF joint guidelines for an undercrossing while still adhering to the American Association of State and Highway Transportation Officials' design criteria for change in grade for a local roadway.

Traffic on East Lafayette Street and East Church Street will use alternative routes as a result of road closures. The following assumptions were made to analyze East Lafayette traffic redistribution:

- 30 percent of traffic on East Lafayette Street (EB) will re-route to East Market Street with the remaining 70 percent re-routing to East Hazelton Avenue during both morning and afternoon peak hour
- 11 percent of the traffic on East Lafayette Street (WB) will re-route to East Main Street with the remaining 89 percent re-routing to East Hazelton Avenue during morning peak hour
- 16 percent of the traffic on East Lafayette Street (WB) will re-route to East Main Street with the remaining 84 percent re-routing to East Hazelton Avenue during afternoon peak hour

Figure 6-1 and Figure 6-2 show the morning peak hour traffic redistribution due to East Lafayette Street closure for eastbound and westbound direction respectively in the proposed Project analysis.

Figure 6-1: Proposed Project (2045) Eastbound Traffic Distribution in AM peak hour

Figure 6-2: Proposed Project (2045) Westbound Traffic Distribution in AM peak hour

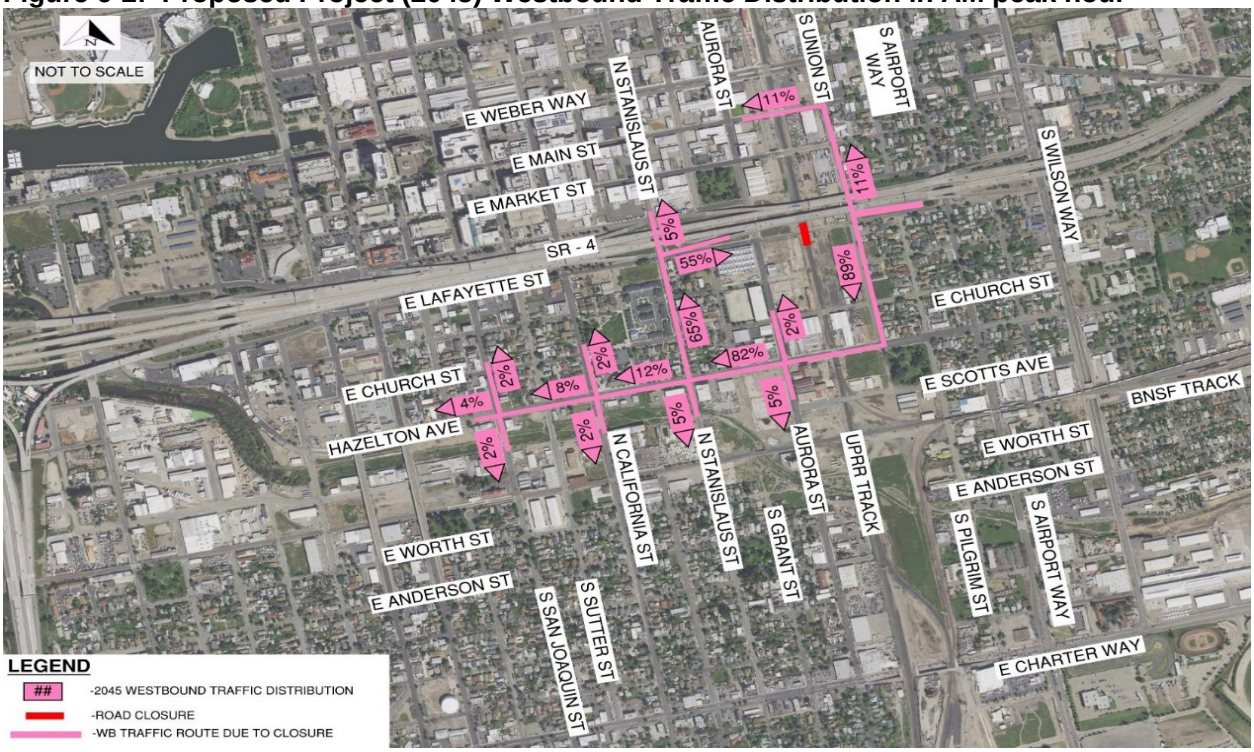


Figure 6-3 and Figure 6-4 show the afternoon peak hour traffic redistribution due to Lafayette Street closure for eastbound and westbound direction respectively in the proposed Project analysis.

Figure 6-3: Proposed Project (2045) Eastbound Traffic Distribution in PM peak hour

Figure 6-4: Proposed Project (2045) Westbound Traffic Distribution in PM peak hour

The following assumptions were made to analyze East Church Street traffic redistribution in the proposed Project analysis:

One hundred percent of the traffic on the East Church Street (eastbound and westbound) will re-route to East Hazelton Avenue during the proposed Project condition when East Church Street will be closed

Figure 6-5 shows the morning and afternoon peak hour traffic redistribution due to East Church Street closure for both eastbound and westbound direction in the proposed Project analysis.

6.2 Intersection Operations

The 2045 proposed Project volumes were generated by redistributing the 2045 No Action Alternative traffic for East Lafayette Street and East Church Street. Figure 6-6 illustrate the 2045 proposed Project morning (AM) and the 2045 afternoon (PM) peak hour turning movement volumes for each of the 28 intersections. In addition, the 2045 proposed Project morning (AM) and afternoon (PM) peak hour roadway volumes, prepared from the intersection turning movement volumes, are presented in Figure 6-7 and Figure 6-8.

Figure 6-5: Proposed Project (2045) Traffic Distribution AM and PM peak hour due to Church Street Closure

Figure 6-6:. 2045 Proposed Project AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections

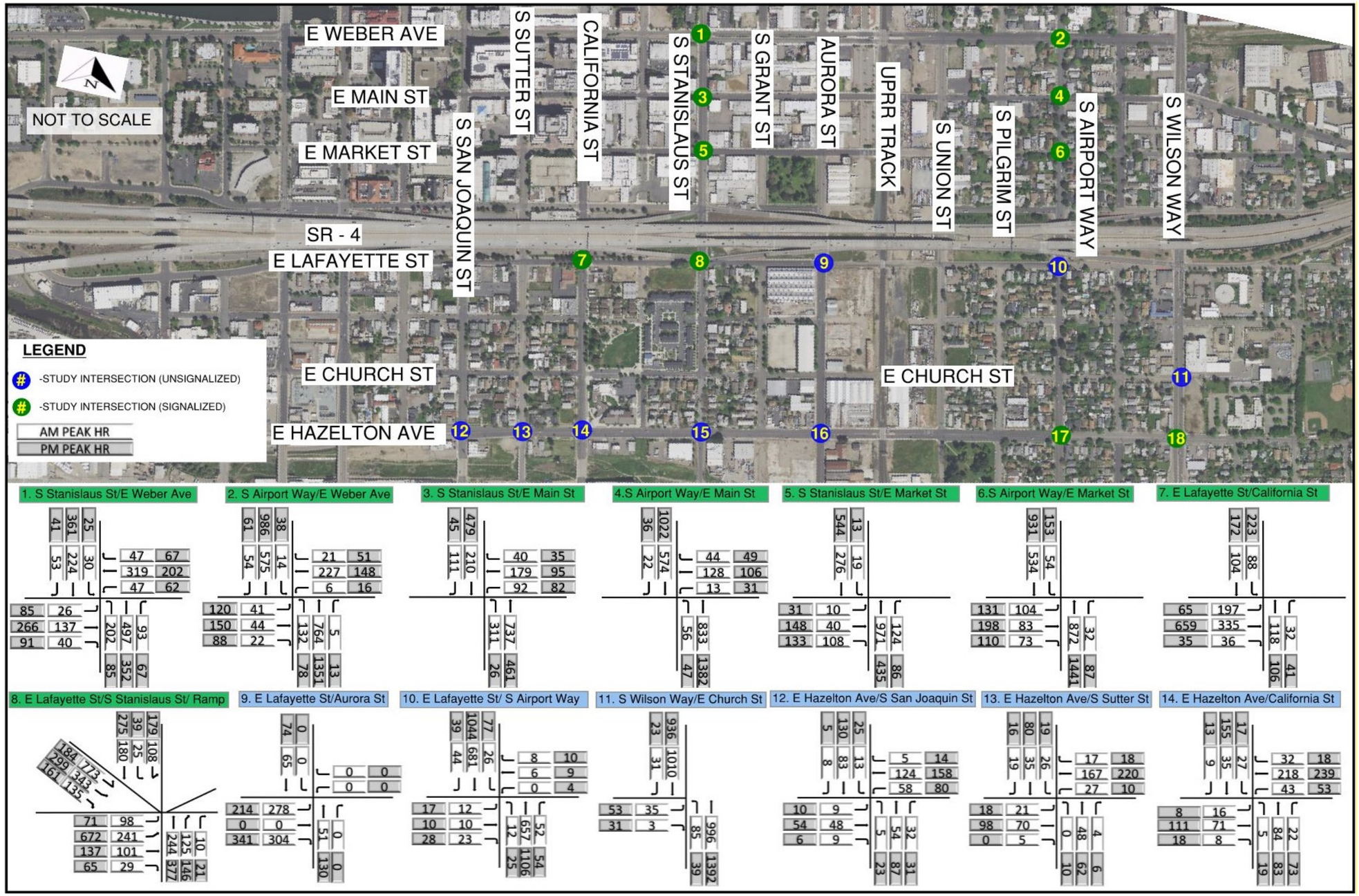


Figure 6-6: 2045 Proposed Project AM and PM Peak Hour Turning Movement Volumes for Study Area Intersections (continued)

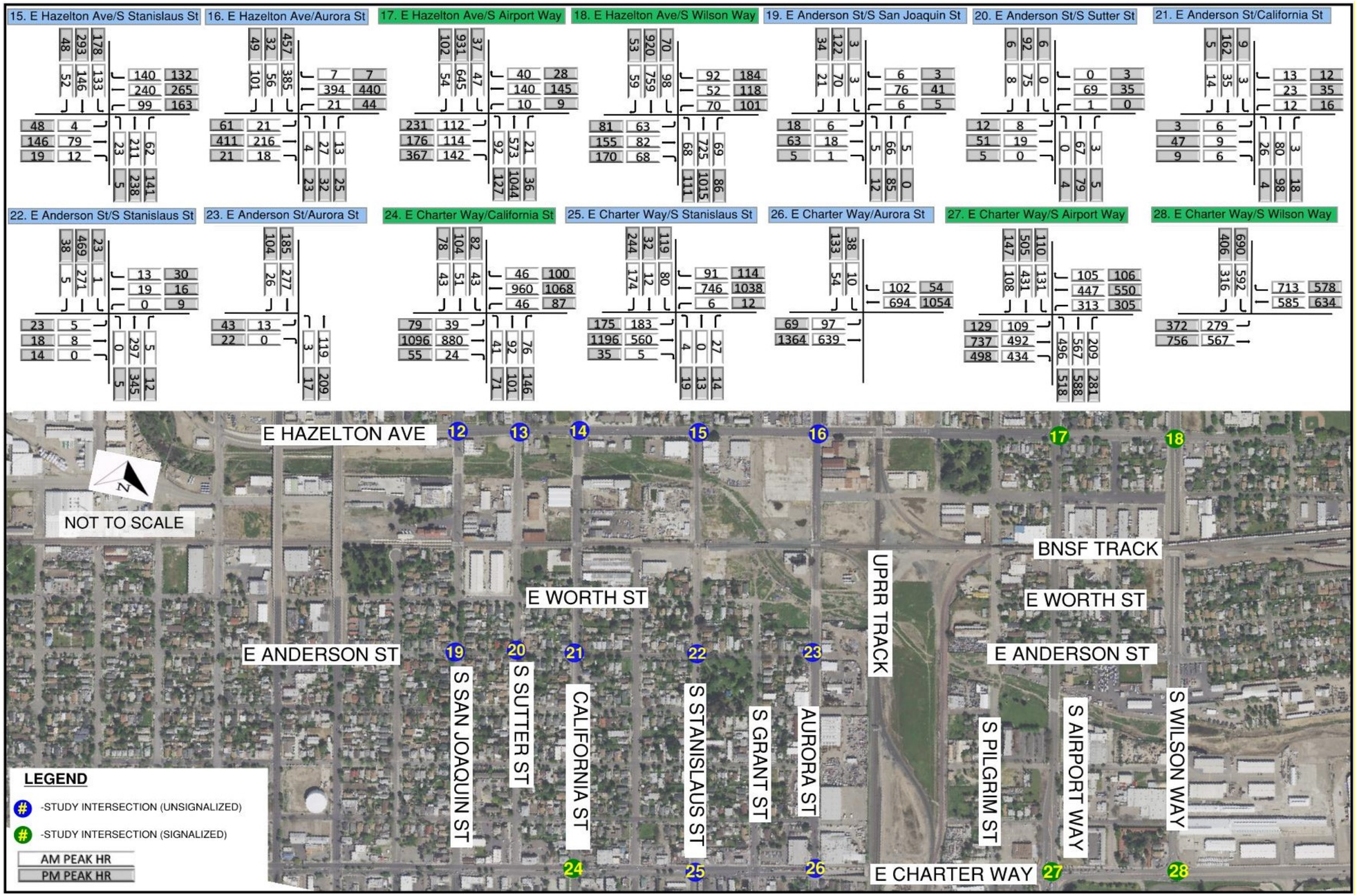


Figure 6-7: 2045 Proposed Project AM Peak Hour Roadway Volumes in the Study Area

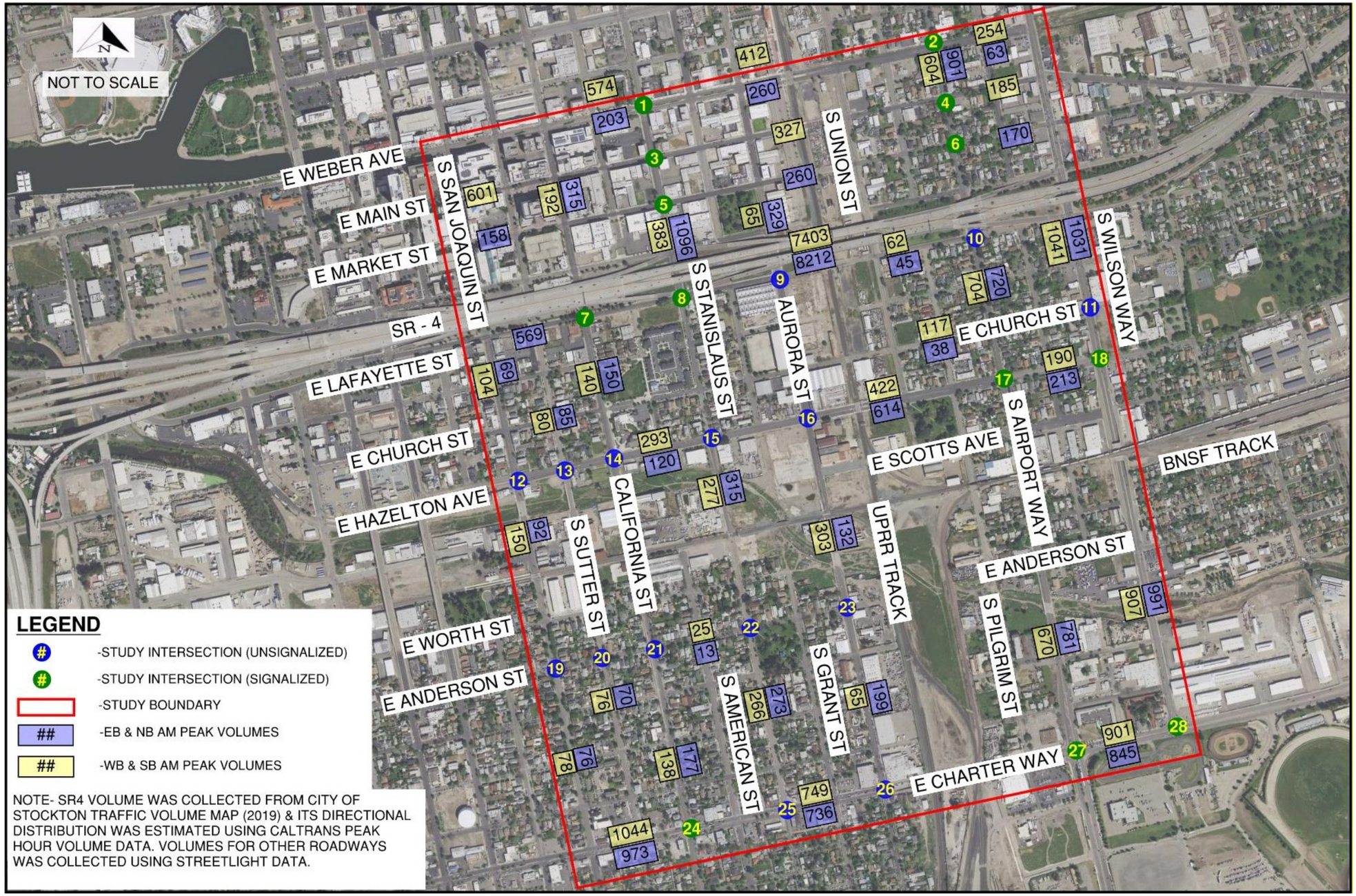
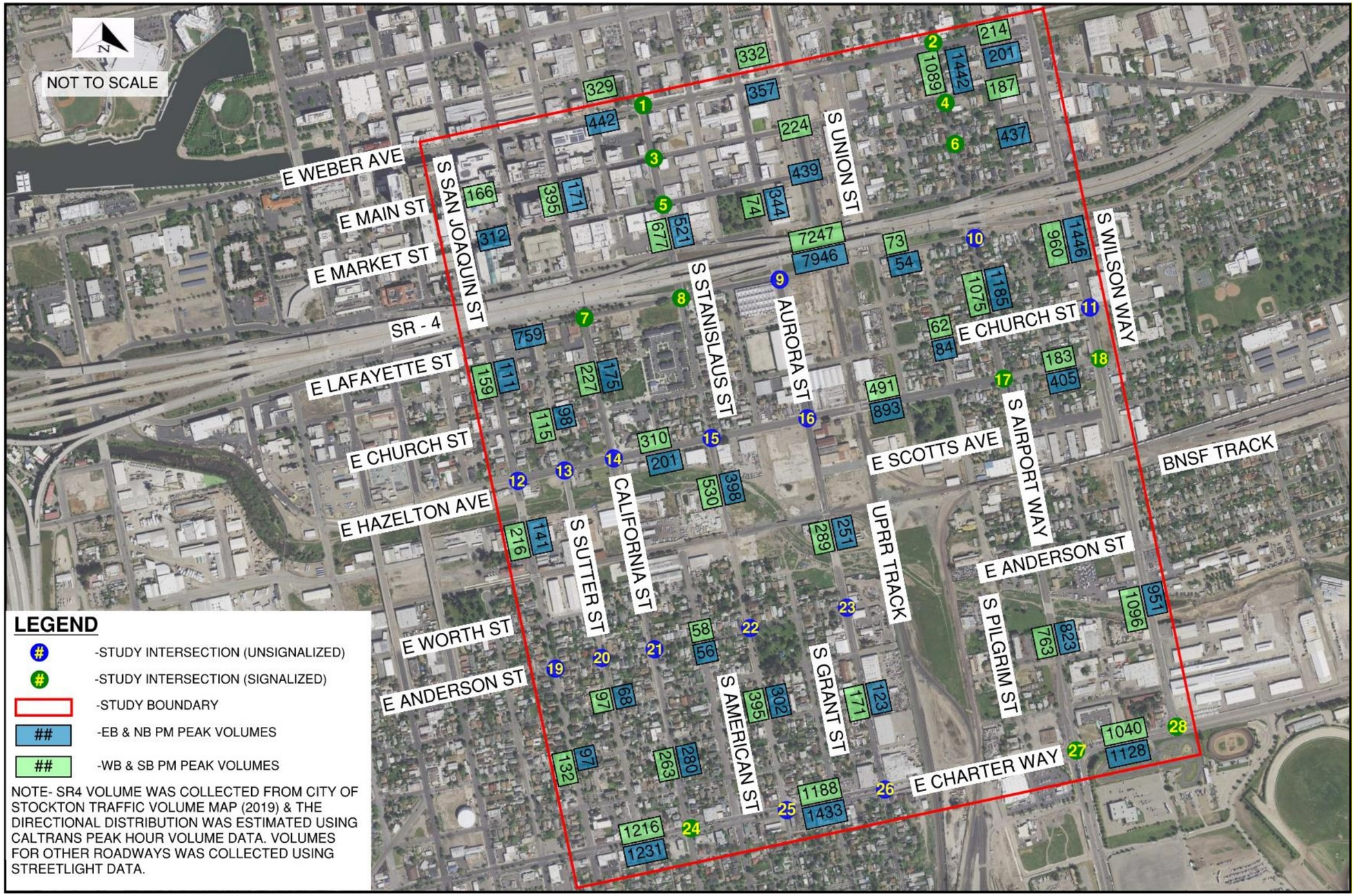


Figure 6-8: 2045 Proposed Project PM Peak Hour Roadway Volumes in the Study Area



2045 proposed Project intersection operations were analyzed for the traffic study area intersections. Identical to the assessment of the 2019 Existing Conditions and 2045 No Action Alternative Conditions, intersection operations in for the proposed Project were evaluated for the AM and PM peak hours. LOS analysis was conducted according to procedures outlined in the 2010 Highway Capacity Manual using Synchro 10 traffic analysis software per City and County standards. As discussed in Section 4, *Existing Traffic Conditions Analysis*, LOS E or better represents the acceptable LOS in City of Stockton.

Table 6-1 and Table 6-2 summarizes and compares the intersection LOS results in the 2045 No Action Alternative with the 2045 proposed Project for the AM and PM peak hours respectively. All intersections operate at an acceptable LOS in the 2045 proposed Project Conditions in the AM and PM peak hours except for East Lafayette Street and North Stanislaus Street (#8). This intersection operates at LOS F (note, this intersection was LOS in both the Existing 2019 and 2045 No Action Alternative analysis).

The intersections of East Lafayette Street and South Airport Way (#10) and East Lafayette Street and South Aurora Street (#9) are expected to improve LOS as a result of the closure of the East Lafayette Street at-grade crossing of the UP tracks.

Table 6-1: 2045 No Action Alternative and 2045 Proposed Project Intersection LOS Results Comparison, AM Peak Hour

		2045 NO Action (AM)		2045 Proposed Project (AM)		DIFFERENCE	
		Delay	LOS	Delay	LOS	Delay	LOS
Intersection		(sec)		(sec)		Diff. (sec)	Change
1	South Stanislaus St and East	24.2	C	24.2	C	0	N/A
2	South Airport Way and East Weber	14.2	B	14.2	B	0	N/A
3	South Stanislaus St and East Main	17.3	B	17.5	B	0.2	N/A
4	South Airport Way and East Main	11	B	11	B	0	N/A
5	South Stanislaus St and East	13.9	B	14.3	B	0.4	N/A
6	South Airport Way and Market St	10.2	B	11.1	B	0.9	N/A
7	East Lafayette St and California St	17.8	B	17.8	B	0	N/A
8	East Lafayette St and South Stanislaus St	319	F	319.8	F	0.8	N/A
9	East Lafayette St and Aurora St	16.8	B	10.6	B	-6.2	N/A
10	East Lafayette St and South Airport	32.1	C	1.5	A	-30.6	C to A
11	South Wilson Way and East	5.7	A	5.7	A	0	N/A
12	East Hazelton Ave and South San	8.7	A	8.7	A	0	N/A
13	East Hazelton Ave and South	4.5	A	4.5	A	0	N/A
14	East Hazelton Ave and California	9.1	A	9.1	A	0	N/A
15	East Hazelton Ave and South	13	B	16.8	B	3.8	N/A
16	East Hazelton Ave and Aurora St	9.5	A	31.1	C	21.6	A to C
17	East Hazelton Ave and South	17.1	B	18.6	B	1.5	N/A
18	East Hazelton Ave and South	16.3	B	16.3	B	0	N/A
19	East Anderson St and South San	7.9	A	7.9	A	0	N/A
20	East Anderson St and South Sutter	7.7	A	7.7	A	0	N/A
21	East Anderson St and California St	3.9	A	3.9	A	0	N/A
22	East Anderson St and South	1	A	1	A	0	N/A
23	East Anderson St and Aurora St	0.4	A	0.4	A	0	N/A
24	East Charter Way and California St	14.6	B	14.6	B	0	N/A
25	East Charter Way and South	29.7	C	29.7	C	0	N/A
26	East Charter Way and Aurora St	1.1	A	1.1	A	0	N/A

27	East Charter Way and South Airport Way	25.2	C	25.2	C	0	N/A
28	East Charter Way and South Wilson Way	25	C	25	C	0	N/A

Table 6-2: 2045 No Action Alternative and 2045 Proposed Project Intersection LOS Results Comparison, PM Peak Hour

		2045 No Action (PM)		2045 Proposed Project (PM)		DIFFERENCE	
		Delay	LOS	Delay	LOS	Delay	LOS
Intersection		(sec)		(sec)		Diff. (sec)	Change
1	North Stanislaus St and Weber St	23.5	C	23.5	C	0	N/A
2	Airport Way and Weber St	27.8	C	27.8	C	0	N/A
3	North Stanislaus St and East Main St	9.2	A	9.3	A	0.1	N/A
4	Airport Way and Main St	10.1	B	10.1	B	0	N/A
5	North Stanislaus St and East Market St	8.7	A	8.7	A	0	N/A
6	Airport Way and Market St	35.5	D	40.5	D	5	N/A
7	Lafayette Street and North California Street	20.7	C	20.7	C	0	N/A
8	Lafayette Street and North Stanislaus Street	174.5	F	178.3	F	3.8	N/A
9	Lafayette Street and Aurora Street	36.9	D	10.7	B	-26.2	D to B
10	Lafayette Street and South Airport Way	560.7	F	55.4	E	-505.3	F to E
11	South Wilson Way and Church Street	15.9	B	15.9	B	0	N/A
12	Hazelton Avenue and South San Joaquin Street	9.6	A	9.6	A	0	N/A
13	Hazelton Avenue and South Sutter Street	5.1	A	5.1	A	0	N/A

14	Hazelton Avenue and North California Street	10.3	B	10.3	B	0	N/A
15	Hazelton Avenue and North Stanislaus Street	22.8	C	60	E	37.2	C to E
16	Hazelton Avenue and Aurora Street	11.3	B	49.4	D	38.1	B to D
17	Hazelton Avenue and South Airport Way	20.1	C	27.8	C	7.7	N/A
18	Hazelton Avenue and South Wilson Way	20.6	C	20.6	C	0	N/A
19	East Anderson Street and South San Joaquin Street	8.2	A	8.2	A	0	N/A
20	East Anderson Street and South Sutter Street	7.9	A	7.9	A	0	N/A
21	East Anderson Street and North California Street	3.6	A	3.6	A	0	N/A
22	East Anderson Street and North Stanislaus Street	2.5	A	2.5	A	0	N/A
23	East Anderson Street and Aurora Street	1.6	A	1.6	A	0	N/A
24	East Charter Way and North California Street	23.1	C	23.1	F	0	N/A
25	East Charter Way and North Stanislaus Street	0.9	F	0.9	A	0	N/A
26	East Charter Way and Aurora Street	1.4	A	1.4	A	0	N/A
27	East Charter Way and South Airport Way	28.8	C	28.8	C	0	N/A
28	East Charter Way and South Wilson Way	27.4	C	27.4	C	0	N/A

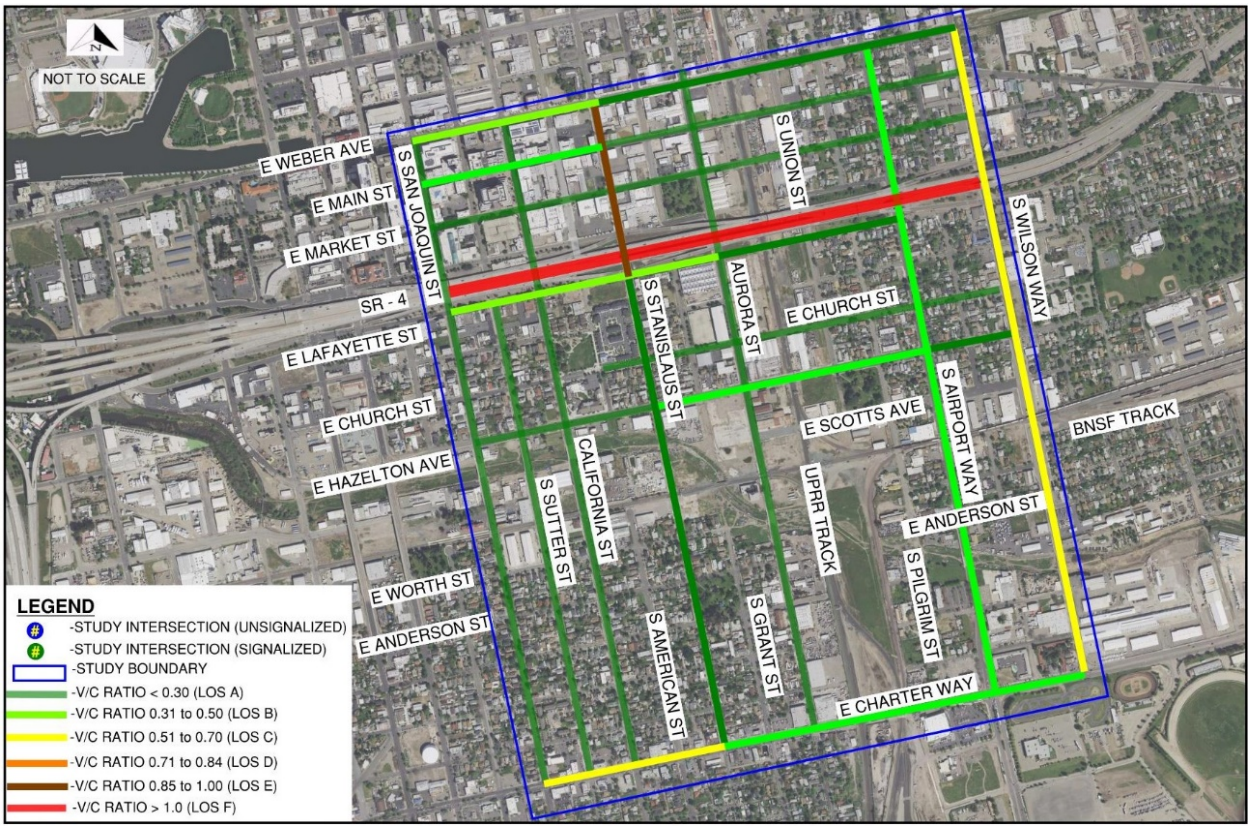
6.3 Roadway Conditions

Similar to 2045 No Action Alternative, with the exception of SR-4 (Crosstown Freeway), all of the roadway levels of service in the traffic study area is expected to perform at LOS E or better. The resulting v/c ratios for roadways in AM peak hour for the 2045 proposed Project are summarized in Table 6-3 and shown in Figure 6-9.

Table 6-3: 2045 Proposed Project AM Peak Hour Roadway v/c ratio and LOS

Road	Location	Roadway Classification	V/C Ratio	LOS
East Webber Ave	Between South San Joaquin Street and South Stanislaus Street	Collector	0.32	B
East Main Street	Between South San Joaquin Street and South Stanislaus Street	Arterial	0.34	B
SR-4	Between South San Joaquin Street and South Wilson Way	Freeway	1.14	F
East Lafayette Street	Between South San Joaquin Street and South Aurora Street	Local	0.47	B
East Charter Way	Between South San Joaquin Street and South Stanislaus Street	Arterial	0.59	C
East Charter Way	Between South Stanislaus Street and South Wilson Way	Arterial	0.50	B
South Stanislaus Street	North of SR-4	Local	0.91	E
South Airport Way	Between East Weber Avenue and East Lafayette Street	Arterial	0.40	B
South Airport Way	Between East Lafayette Street and East Charter Way	Arterial	0.44	B
South Wilson Way	Between East Weber Avenue and East Church Street	Arterial	0.58	C
South Wilson Way	Between East Church Street and East Church Street	Arterial	0.56	C
All other Roadways	-	-	<0.30	A

Figure 6-9: 2045 Proposed Project v/c Ratio and LOS, AM Peak Hour



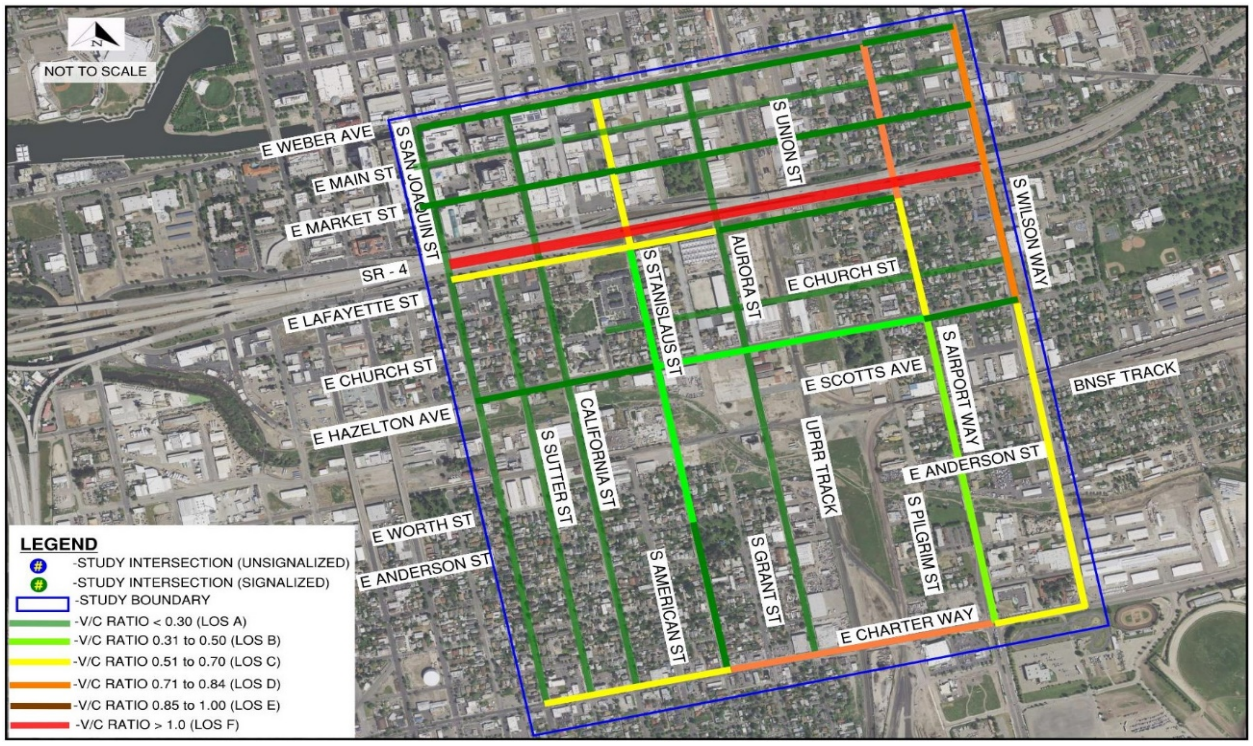
The resulting v/c ratios for roadways in proposed Project PM peak hour is summarized in Table 6-4 and shown in Figure 6-10**.**

Table 6-4: 2045 Proposed Project PM Peak Roadway v/c ratio and LOS

Road	Location	Roadway Classification	V/C Ratio	LOS
SR-4	Between South San Joaquin Street and South Wilson Way	Freeway	1.1	F
East Lafayette Street	Between South San Joaquin Street and South Aurora Street	Local	0.63	C
East Charter Way	Between South San Joaquin Street and South Aurora Street	Arterial	0.69	C
East Charter Way	Between Aurora Street and South Airport Way	Arterial	0.8	D
East Charter Way	Between South Airport Way and South Wilson Way	Arterial	0.63	C

Road	Location	Roadway Classification	V/C Ratio	LOS
South Stanislaus Street	North of SR-4	Local	0.56	C
South Stanislaus Street	Between SR-4 and East Anderson Street	Local	0.44	B
South Airport Way	Between East Weber Avenue and East Lafayette Street	Arterial	0.81	D
South Airport Way	Between East Lafayette Street and East Hazelton Street	Arterial	0.67	C
South Airport Way	Between East Hazelton Street and East Charter Way	Arterial	0.46	B
South Wilson Way	Between East Weber Avenue and East Hazelton Street	Arterial	0.81	D
South Wilson Way	Between East Hazelton Street and East Charter Way	Arterial	0.62	C
All other Roadways	-	-	<0.30	A

Figure 6-10: 2045 Proposed Project v/c Ratio and LOS, PM Peak Hour



6.4 Pedestrian Conditions

The proposed projects will make crossing and sidewalk improvements at Weber Avenue, Main Street, Market Street, Hazelton Avenue, Scotts Avenue, and Charter Way. The proposed Project would also upgrade roadway-rail at-grade crossing infrastructure, to include sidewalks and ADA ramps.

6.5 Bicycle Conditions

The 2045 proposed Project conditions are expected to include implementation of the City's proposed bicycle facilities in the traffic study area (also shown above in Section 5.0, Figure 19). These future facilities are planned for East Weber Avenue, East Main Street, East Market Street, East Hazelton Avenue, and South Aurora Street funded through Measure K. According to adopted plans, these proposed bicycle facilities are anticipated to be implemented before the proposed Project and therefore, short temporary detours may be needed during construction of the proposed Project on Main Street, Market Street, Lafayette Street, and Hazelton Avenue.

6.6 Transit conditions

Public transit services expected to operate in the traffic study area by 2045 in the proposed Project will be similar to the services provided by the SJRTD in 2019 (Section 4.0, Existing Transit Conditions). Near the 2045 proposed Project Alternative, transit routes are on San Joaquin Street

(315, 510), Airport Way (44), and Charter Way (49). The 2045 proposed Project Alternative would have no impacts on existing transit routes except on Charter Way (Route 49). In the long term, Route 49 will remain on Charter Way. During construction, however, the proposed Project will include construction of two new bridges across Charter Way, with a portion of an existing bridge expected to be demolished. Temporary closures, detours, or narrowing to two lanes on Charter Way may be necessary (temporarily) during construction. Mitigation measures include preparing a traffic management plan and coordination with SJRTD and transit riders to notify them of construction implications.

6.7 Freight conditions

The 2045 proposed Project freight conditions are expected to consider similar levels of trucking services and activity that were identified in existing conditions (Section 4.0, Existing Freight Conditions) in the traffic study area. As presented in existing conditions, the primary truck routes in the City of Stockton will remain focused primarily on the state highway system and major arterials, primarily on SR-99 and I-5 outside of the traffic study area, with SR-4 crossing through the traffic study area.

Truck route designations in the traffic study area will carry forward from existing conditions in the proposed Project. These will continue as designated city truck routes, county truck routes, flammable liquid-other routes, and truck routes from 7 am to 10 pm. It is expected that the designated truck routes will be the same into the future, including: City Truck Routes on South Airport Way, East Hazelton Avenue, East Lafayette Street, East Market Street, East Weber Ave, Aurora Street and South Union Street; Flammable Liquid-Other Routes on East Charter Way, South Wilson Way, and South Airport Way; and Truck Route–7 am to 10 pm on South Stanislaus Street.

6.8 Traffic Delay due to trains

Train occupancies represent the total amount of time within each peak hour when the road is unavailable to automobile traffic at highway-rail grade crossings while trains pass. This includes the minimum activation time of warning devices at the crossing (i.e., bells, flashing light signals, and gates), prior warning time, and the time it takes for the grade crossing warning devices to recover after the passing of a train. Based on the train occupancy times and assumptions regarding number of trains per peak hour, average individual vehicle delays were calculated using Synchro 10 software.

The 2019 Existing Conditions included 2 freight trains and 3 passenger trains for both AM and PM peak hours, including:

- 1 Diamond Route (rail traffic going through the diamond north south) freight train for each morning and afternoon peak hours
- 1 NE connector route freight train for each morning and afternoon peak hours

- 1 Altamont Corridor Express passenger train (Diamond Route) for each morning and afternoon peak hours
- 2 Amtrak passenger train (NE connector Route) for each morning and afternoon peak hours

The 2045 No Action Alternative and 2045 proposed Project Conditions were estimated to include 3 passenger and 3 freight trains at these locations for both peak hours, including:

- 2 diamond route freight train for each morning and afternoon peak hours
- 1 NE connector route freight train for each morning and afternoon peak hours
- 1 Altamont Corridor Express passenger train (Diamond Route) for each morning and afternoon peak hours
- 2 Amtrak passenger train (NE connector Route) for each morning and afternoon peak hours

Table 6-5 and Table 6-6 summarize AM and PM peak hour delay per auto (in seconds) caused by trains at each of the railroad crossings for the 2019 Existing, 2045 No Action Alternative, and 2045 proposed Project conditions. The delay per auto in the 2045 No Action Alternative are expected to be higher than 2019 existing conditions due to the increase in train occupancy times (including potential number of trains and length of trains anticipated in the future) and the growth in rail traffic demand. For example, as shown below (Table 6-5), over the course of an hour, each auto traveling eastbound on East Weber Avenue will have approximately 18 seconds of delay in 2019 existing AM peak hour. Also shown is a comparison of the average auto delay for 2045 No Action and proposed Project conditions, which show reduced delay in the AM Peak hour from 2045 No Action Alternative to Proposed Project conditions.

Similar, 2045 No Action Alternative to proposed Project analysis are shown for the PM peak hour (Table 6-6), including nominal increases in average auto delays at the East Weber, East Main, and East Market locations, reduced delay at East Hazelton Avenue and East Scotts, and eliminated delay at the two locations with road closures.

Table 6-5: Morning Peak Hour Average Individual Vehicle Delay, all Conditions

Road Name/RR Crossing	Direction	2019 Existing AM	2045 No Action AM	2045 Proposed Project AM
		Delay (sec)	Delay (sec)	Delay (sec)
East Weber Avenue/UP	EB	18.2	33.4	33.4
	WB	26.5	37.8	37.8
East Main Street/UP	WB	18.1	29.6	29.8
East Market Street/UP	EB	16.3	28.4	29.4
East Lafayette Street/UP	EB	20.0	34.9	-
	WB	16.8	29.3	-
East Church Street/UP	EB	24.8	40.4	-
	WB	25.8	42.1	-
East Hazelton Avenue/UP	EB	25.7	41.8	34.6
	WB	27.8	43.3	34.7
East Scotts Avenue/UP	EB	24.9	40.7	30.5
	WB	26.3	43.0	32.2

Table 6-6: Afternoon Peak Hour Average Individual Vehicle Delay, all Conditions

Road Name/RR Crossing	Direction	2019 Existing PM	2045 No Action PM	2045 Proposed Project PM
		Delay (sec)	Delay (sec)	Delay (sec)
East Weber Avenue/UP	EB	20.8	36.3	36.3
	WB	24.5	35.3	35.3
East Main Street/UP	WB	16.5	28.9	29.0
East Market Street/UP	EB	16.9	29.5	31.0
East Lafayette Street/UP	EB	21.9	38.3	-
	WB	16.3	28.5	-
East Church Street/UP	EB	25.4	41.4	-
	WB	25.1	40.9	-
East Hazelton Avenue/UP	EB	27.4	44.6	38.9
	WB	29.7	44.7	38.1
East Scotts Avenue/UP	EB	25.8	42.0	31.5
	WB	25.4	41.4	31.0

Attachment 1 – Synchro Reports

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	106	36	246	156	384	23	173
Future Volume (vph)	20	106	36	246	156	384	23	173
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		15.0		15.0	20.2	20.2		20.2
Actuated g/C Ratio		0.33		0.33	0.45	0.45		0.45
v/c Ratio		0.34		0.67	0.31	0.69		0.38
Control Delay		11.0		19.3	11.7	18.8		11.3
Queue Delay		0.0		0.0	0.0	0.0		0.0
Total Delay		11.0		19.3	11.7	18.8		11.3
LOS		B		B	B	B		B
Approach Delay		11.0		19.3		17.0		11.3
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 45.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	32	34	5	175	102	590	11	444
Future Volume (vph)	32	34	5	175	102	590	11	444
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	14.7	14.7	14.7	14.7		62.9		62.9
Actuated g/C Ratio	0.17	0.17	0.17	0.17		0.72		0.72
v/c Ratio	0.26	0.18	0.02	0.66		0.38		0.23
Control Delay	34.8	22.8	28.4	43.1		5.9		4.7
Queue Delay	0.0	0.0	0.0	0.0		0.4		0.0
Total Delay	34.8	22.8	28.4	43.1		6.3		4.7
LOS	C	C	C	D		A		A
Approach Delay		27.5		42.7		6.3		4.7
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	138	240	569	162
Future Volume (vph)	138	240	569	162
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.23		0.70	0.17
Control Delay	14.7		8.4	6.4
Queue Delay	0.0		0.0	0.0
Total Delay	14.7		8.4	6.4
LOS	B		A	A
Approach Delay	14.7		8.4	6.4
Approach LOS	B		A	A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 91.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	99	43	643	443
Future Volume (vph)	99	43	643	443
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.19		0.39	0.23
Control Delay	21.2		8.3	6.9
Queue Delay	0.0		0.6	0.0
Total Delay	21.2		9.0	6.9
LOS	C		A	A
Approach Delay	21.2		9.0	6.9
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 76.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	31	750	15	213
Future Volume (vph)	31	750	15	213
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.12	0.55		0.17
Control Delay	6.5	13.3		9.4
Queue Delay	0.0	0.0		0.0
Total Delay	6.5	13.3		9.4
LOS	A	B		A
Approach Delay	6.5	13.3		9.4
Approach LOS	A	B		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	47	643	42	412
Future Volume (vph)	47	643	42	412
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	48.0	48.0	48.0
Minimum Split (s)	27.0	53.0	53.0	53.0
Total Split (s)	27.0	53.0	53.0	53.0
Total Split (%)	33.8%	66.3%	66.3%	66.3%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	48.0		48.0
Actuated g/C Ratio	0.28	0.60		0.60
v/c Ratio	0.15	0.37		0.29
Control Delay	15.6	8.7		8.4
Queue Delay	0.0	0.0		0.0
Total Delay	15.6	8.7		8.4
LOS	B	A		A
Approach Delay	15.6	8.7		8.4
Approach LOS	B	A		A

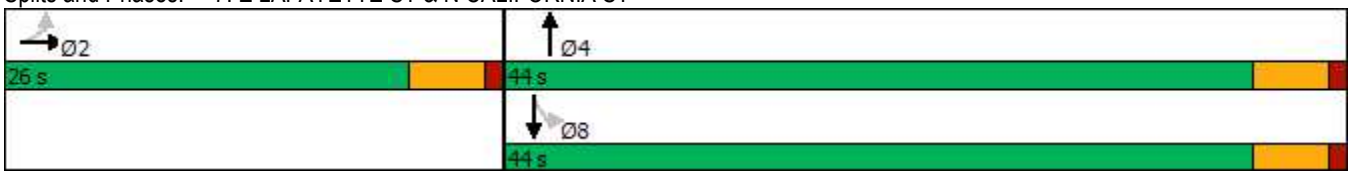
Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	259	91	68	80
Future Volume (vph)	259	91	68	80
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	16.0	20.0	20.0
Minimum Split (s)	26.0	21.0	26.0	26.0
Total Split (s)	26.0	44.0	44.0	44.0
Total Split (%)	37.1%	62.9%	62.9%	62.9%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	21.0	39.0		39.0
Actuated g/C Ratio	0.30	0.56		0.56
v/c Ratio	0.49	0.07		0.11
Control Delay	21.7	5.8		7.6
Queue Delay	0.0	0.0		0.0
Total Delay	21.7	5.8		7.6
LOS	C	A		A
Approach Delay	21.7	5.8		7.6
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 41.7%	ICU Level of Service A
Analysis Period (min) 15	

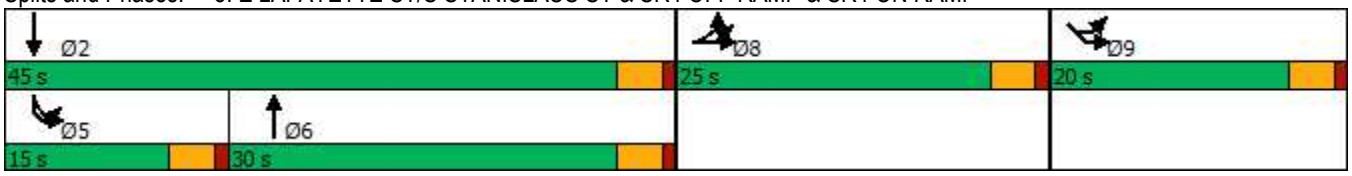
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	183	95	183	19	139	583	333
Future Volume (vph)	183	95	183	19	139	583	333
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	15.2	15.2	29.8	9.6	41.1	16.0	16.0
Actuated g/C Ratio	0.18	0.18	0.35	0.11	0.49	0.19	0.19
v/c Ratio	0.65	0.64	0.45	0.55	0.17	1.89	1.25
Control Delay	42.3	41.0	26.8	46.9	13.6	435.2	168.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	41.0	26.8	46.9	13.6	435.2	168.3
LOS	D	D	C	D	B	F	F
Approach Delay		41.7	26.8		27.7		329.4
Approach LOS		D	C		C		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 84.4	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.89	
Intersection Signal Delay: 192.2	Intersection LOS: F
Intersection Capacity Utilization 74.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	130	330	65	91	0	12	0	39	6	4	50	0
Future Vol, veh/h	130	330	65	91	0	12	0	39	6	4	50	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	141	359	71	99	0	13	0	42	7	4	54	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.8	9.5	8.9	9.1
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	100%	0%	7%
Vol Thru, %	87%	0%	84%	0%	0%	93%
Vol Right, %	13%	0%	16%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	130	395	91	12	54
LT Vol	0	130	0	91	0	4
Through Vol	39	0	330	0	0	50
RT Vol	6	0	65	0	12	0
Lane Flow Rate	49	141	429	99	13	59
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.074	0.213	0.575	0.161	0.017	0.09
Departure Headway (Hd)	5.45	5.436	4.818	5.864	4.654	5.526
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	654	660	747	609	765	646
Service Time	3.509	3.174	2.556	3.618	2.408	3.583
HCM Lane V/C Ratio	0.075	0.214	0.574	0.163	0.017	0.091
HCM Control Delay	8.9	9.6	13.9	9.8	7.5	9.1
HCM Lane LOS	A	A	B	A	A	A
HCM 95th-tile Q	0.2	0.8	3.7	0.6	0.1	0.3

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	81	52	99	0	5	6	9	507	6	3	526	34
Future Vol, veh/h	81	52	99	0	5	6	9	507	6	3	526	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	57	108	0	5	7	10	551	7	3	572	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	895	1175	305	896	1190	279	609	0	0	558	0	0
Stage 1	597	597	-	575	575	-	-	-	-	-	-	-
Stage 2	298	578	-	321	615	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	235	190	691	235	186	718	966	-	-	1009	-	-
Stage 1	456	490	-	470	501	-	-	-	-	-	-	-
Stage 2	686	499	-	665	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	224	186	691	149	182	718	966	-	-	1009	-	-
Mov Cap-2 Maneuver	224	186	-	149	182	-	-	-	-	-	-	-
Stage 1	449	488	-	463	493	-	-	-	-	-	-	-
Stage 2	662	492	-	494	478	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.3	17.1	0.2	0
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	966	-	-	207	691	182	718	1009	-	-
HCM Lane V/C Ratio	0.01	-	-	0.698	0.156	0.03	0.009	0.003	-	-
HCM Control Delay (s)	8.8	0.1	-	54.9	11.2	25.4	10.1	8.6	0	-
HCM Lane LOS	A	A	-	F	B	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	4.4	0.5	0.1	0	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	2	66	769	780	24
Future Vol, veh/h	27	2	66	769	780	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	2	72	836	848	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1423	437	874	0	-	0
Stage 1	861	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	127	567	768	-	-	-
Stage 1	374	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	105	567	768	-	-	-
Mov Cap-2 Maneuver	105	-	-	-	-	-
Stage 1	309	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	49.8	1.5	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	768	-	111	-	-
HCM Lane V/C Ratio	0.093	-	0.284	-	-
HCM Control Delay (s)	10.2	0.8	49.8	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	37	7	45	96	4	4	42	25	10	64	6
Future Vol, veh/h	7	37	7	45	96	4	4	42	25	10	64	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	40	8	49	104	4	4	46	27	11	70	7
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8	8.6	7.9	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	16%	0%	27%	0%	48%	0%	24%	0%
Vol Thru, %	84%	46%	73%	73%	52%	92%	76%	84%
Vol Right, %	0%	54%	0%	27%	0%	8%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	46	26	26	93	52	42	38
LT Vol	4	0	7	0	45	0	10	0
Through Vol	21	21	19	19	48	48	32	32
RT Vol	0	25	0	7	0	4	0	6
Lane Flow Rate	27	50	28	28	101	57	46	41
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.04	0.066	0.04	0.038	0.147	0.078	0.067	0.058
Departure Headway (Hd)	5.243	4.781	5.235	4.904	5.239	4.942	5.269	5.039
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	684	750	685	731	685	726	681	712
Service Time	2.966	2.504	2.961	2.63	2.961	2.664	2.991	2.761
HCM Lane V/C Ratio	0.039	0.067	0.041	0.038	0.147	0.079	0.068	0.058
HCM Control Delay	8.2	7.8	8.2	7.8	8.9	8.1	8.4	8.1
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1	0.5	0.3	0.2	0.2

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	54	4	21	129	13	0	37	3	20	27	15
Future Vol, veh/h	16	54	4	21	129	13	0	37	3	20	27	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	59	4	23	140	14	0	40	3	22	29	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	63	0	0	226	295	32	277	290	77
Stage 1	-	-	-	-	-	-	95	95	-	193	193	-
Stage 2	-	-	-	-	-	-	131	200	-	84	97	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1424	-	-	1538	-	-	710	615	1035	654	619	968
Stage 1	-	-	-	-	-	-	901	815	-	790	740	-
Stage 2	-	-	-	-	-	-	859	735	-	915	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1538	-	-	658	598	1035	606	602	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	658	598	-	606	602	-
Stage 1	-	-	-	-	-	-	890	805	-	781	728	-
Stage 2	-	-	-	-	-	-	798	723	-	856	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	1	11.3	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	618	1424	-	-	1538	-	-	664
HCM Lane V/C Ratio	0.07	0.012	-	-	0.015	-	-	0.101
HCM Control Delay (s)	11.3	7.6	0	-	7.4	0	-	11
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	55	6	33	156	25	4	65	17	21	27	7
Future Vol, veh/h	12	55	6	33	156	25	4	65	17	21	27	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	60	7	36	170	27	4	71	18	23	29	8
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.2	8.7	8.4	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	30%	0%	30%	0%	61%	0%
Vol Thru, %	89%	66%	70%	82%	70%	76%	39%	66%
Vol Right, %	0%	34%	0%	18%	0%	24%	0%	34%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	50	40	34	111	103	35	21
LT Vol	4	0	12	0	33	0	21	0
Through Vol	33	33	28	28	78	78	14	14
RT Vol	0	17	0	6	0	25	0	7
Lane Flow Rate	40	54	43	36	121	112	38	22
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.06	0.077	0.063	0.051	0.173	0.151	0.059	0.032
Departure Headway (Hd)	5.421	5.124	5.308	5.03	5.16	4.841	5.707	5.161
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	661	699	675	712	696	741	627	693
Service Time	3.153	2.856	3.043	2.764	2.887	2.568	3.442	2.895
HCM Lane V/C Ratio	0.061	0.077	0.064	0.051	0.174	0.151	0.061	0.032
HCM Control Delay	8.5	8.3	8.4	8	9	8.4	8.8	8.1
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.2	0.6	0.5	0.2	0.1

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱			↰↑↱			↰	↱		↰	↱
Traffic Vol, veh/h	3	61	9	71	173	41	18	163	48	35	113	40
Future Vol, veh/h	3	61	9	71	173	41	18	163	48	35	113	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	66	10	77	188	45	20	177	52	38	123	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	233	0	0	76	0	0	387	464	38	493	447	117
Stage 1	-	-	-	-	-	-	77	77	-	365	365	-
Stage 2	-	-	-	-	-	-	310	387	-	128	82	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1332	-	-	1521	-	-	546	494	1026	459	505	913
Stage 1	-	-	-	-	-	-	923	830	-	627	622	-
Stage 2	-	-	-	-	-	-	675	608	-	862	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1332	-	-	1521	-	-	398	464	1026	293	475	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	398	464	-	293	475	-
Stage 1	-	-	-	-	-	-	921	828	-	626	586	-
Stage 2	-	-	-	-	-	-	479	573	-	642	824	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.9	16.7	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	456	1026	1332	-	-	1521	-	-	414	913
HCM Lane V/C Ratio	0.431	0.051	0.002	-	-	0.051	-	-	0.389	0.048
HCM Control Delay (s)	18.8	8.7	7.7	0	-	7.5	0.1	-	19.1	9.1
HCM Lane LOS	C	A	A	A	-	A	A	-	C	A
HCM 95th %tile Q(veh)	2.1	0.2	0	-	-	0.2	-	-	1.8	0.1

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	99	14	11	220	3	3	21	10	8	43	78
Future Vol, veh/h	16	99	14	11	220	3	3	21	10	8	43	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	108	15	12	239	3	3	23	11	9	47	85
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

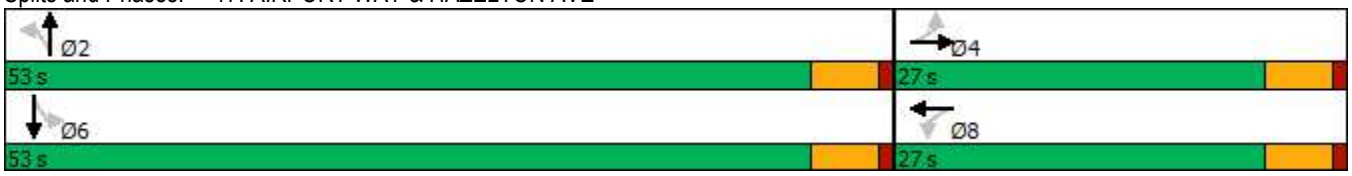
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	8.5	9	8.2	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	9%	24%	0%	9%	0%	6%
Vol Thru, %	62%	76%	78%	91%	97%	33%
Vol Right, %	29%	0%	22%	0%	3%	60%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	66	64	121	113	129
LT Vol	3	16	0	11	0	8
Through Vol	21	50	50	110	110	43
RT Vol	10	0	14	0	3	78
Lane Flow Rate	37	71	69	132	123	140
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.05	0.105	0.097	0.187	0.173	0.178
Departure Headway (Hd)	4.885	5.319	5.041	5.129	5.065	4.559
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	731	672	709	698	707	787
Service Time	2.93	3.064	2.785	2.87	2.806	2.592
HCM Lane V/C Ratio	0.051	0.106	0.097	0.189	0.174	0.178
HCM Control Delay	8.2	8.7	8.3	9.1	8.9	8.6
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.7	0.6	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	22	71	8	108	71	442	53	566
Future Volume (vph)	22	71	8	108	71	442	53	566
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	32.0	32.0	32.0	32.0
Total Split (s)	27.0	27.0	27.0	27.0	53.0	53.0	53.0	53.0
Total Split (%)	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%	66.3%	66.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	11.8	11.8	11.8	11.8		51.0		51.0
Actuated g/C Ratio	0.16	0.16	0.16	0.16		0.70		0.70
v/c Ratio	0.12	0.23	0.04	0.28		0.32		0.36
Control Delay	25.6	17.0	24.0	20.7		5.2		5.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	25.6	17.0	24.0	20.7		5.2		5.3
LOS	C	B	C	C		A		A
Approach Delay		18.4		20.9		5.2		5.3
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 72.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

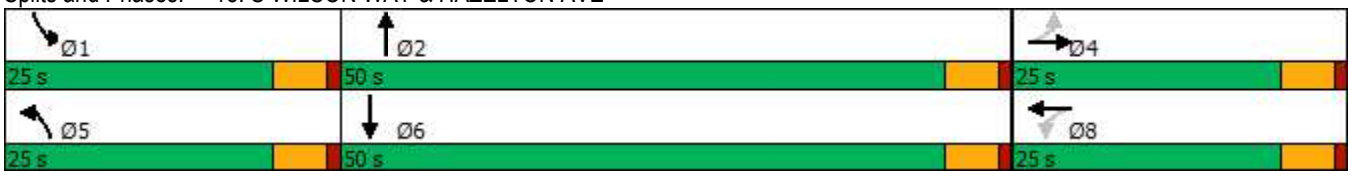
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	49	47	54	40	52	559	75	586
Future Volume (vph)	49	47	54	40	52	559	75	586
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		9.5		9.5	7.9	16.8	8.6	17.3
Actuated g/C Ratio		0.21		0.21	0.18	0.38	0.19	0.39
v/c Ratio		0.28		0.30	0.18	0.50	0.24	0.51
Control Delay		14.0		12.8	23.6	13.9	23.0	13.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.0		12.8	23.6	13.9	23.0	13.4
LOS		B		B	C	B	C	B
Approach Delay		14.0		12.8		14.7		14.5
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 44.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 43.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	14	1	5	59	5	4	51	4	2	54	16
Future Vol, veh/h	5	14	1	5	59	5	4	51	4	2	54	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	15	1	5	64	5	4	55	4	2	59	17
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	7.5	7.7	7.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	25%	7%	7%	0%
Vol Thru, %	86%	86%	70%	86%	93%	63%
Vol Right, %	0%	14%	5%	7%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	30	20	69	29	43
LT Vol	4	0	5	5	2	0
Through Vol	26	26	14	59	27	27
RT Vol	0	4	1	5	0	16
Lane Flow Rate	32	32	22	75	32	47
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.043	0.041	0.026	0.089	0.042	0.058
Departure Headway (Hd)	4.814	4.651	4.373	4.268	4.773	4.477
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	737	762	823	845	743	792
Service Time	2.591	2.428	2.375	2.268	2.547	2.252
HCM Lane V/C Ratio	0.043	0.042	0.027	0.089	0.043	0.059
HCM Control Delay	7.8	7.6	7.5	7.7	7.8	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.3	0.1	0.2

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	15	0	1	53	0	0	52	2	0	58	6
Future Vol, veh/h	6	15	0	1	53	0	0	52	2	0	58	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	16	0	1	58	0	0	57	2	0	63	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.6	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	29%	2%	0%
Vol Thru, %	96%	71%	98%	91%
Vol Right, %	4%	0%	0%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	21	54	64
LT Vol	0	6	1	0
Through Vol	52	15	53	58
RT Vol	2	0	0	6
Lane Flow Rate	59	23	59	70
Geometry Grp	1	1	1	1
Degree of Util (X)	0.067	0.027	0.068	0.079
Departure Headway (Hd)	4.106	4.259	4.177	4.063
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	865	831	849	874
Service Time	2.166	2.335	2.245	2.121
HCM Lane V/C Ratio	0.068	0.028	0.069	0.08
HCM Control Delay	7.5	7.5	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.3

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	5	7	5	9	18	10	20	62	2	2	27	11
Future Vol, veh/h	5	7	5	9	18	10	20	62	2	2	27	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	8	5	10	20	11	22	67	2	2	29	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	127	152	21	135	157	35	41	0	0	69	0	0
Stage 1	39	39	-	112	112	-	-	-	-	-	-	-
Stage 2	88	113	-	23	45	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	834	739	1051	823	734	1030	1567	-	-	1530	-	-
Stage 1	971	862	-	881	802	-	-	-	-	-	-	-
Stage 2	910	801	-	992	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	798	727	1051	802	722	1030	1567	-	-	1530	-	-
Mov Cap-2 Maneuver	798	727	-	802	722	-	-	-	-	-	-	-
Stage 1	956	861	-	868	790	-	-	-	-	-	-	-
Stage 2	865	789	-	977	856	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.7	1.7	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	823	807	1530	-	-
HCM Lane V/C Ratio	0.014	-	-	0.022	0.05	0.001	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.7	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	6	0	0	15	10	0	229	4	1	209	4
Future Vol, veh/h	4	6	0	0	15	10	0	229	4	1	209	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	0	0	16	11	0	249	4	1	227	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	496	484	229	486	484	251	231	0	0	253	0	0
Stage 1	231	231	-	251	251	-	-	-	-	-	-	-
Stage 2	265	253	-	235	233	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	484	483	810	492	483	788	1337	-	-	1312	-	-
Stage 1	772	713	-	753	699	-	-	-	-	-	-	-
Stage 2	740	698	-	768	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	465	483	810	487	483	788	1337	-	-	1312	-	-
Mov Cap-2 Maneuver	465	483	-	487	483	-	-	-	-	-	-	-
Stage 1	772	712	-	753	699	-	-	-	-	-	-	-
Stage 2	713	698	-	760	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	11.6	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1337	-	-	476	571	1312	-	-
HCM Lane V/C Ratio	-	-	-	0.023	0.048	0.001	-	-
HCM Control Delay (s)	0	-	-	12.7	11.6	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	0	2	92	214	20
Future Vol, veh/h	10	0	2	92	214	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	0	2	100	233	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	244	255	0	-	0
Stage 1	244	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	649	795	1310	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	648	795	1310	-	-	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	920	-	-	-	-	-

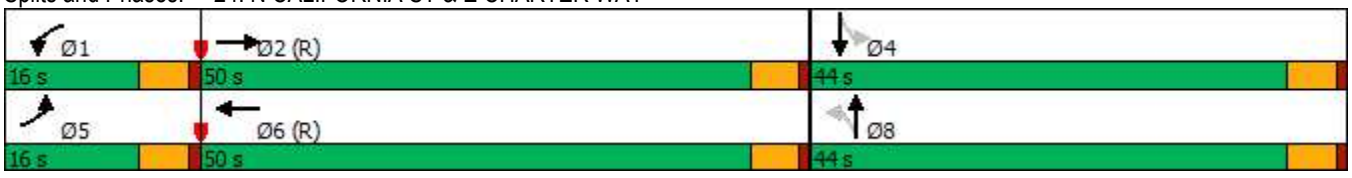
Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1310	-	648	-	-
HCM Lane V/C Ratio	0.002	-	0.017	-	-
HCM Control Delay (s)	7.8	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	679	36	741	31	71	33	40
Future Volume (vph)	30	679	36	741	31	71	33	40
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	16.0	50.0	16.0	50.0	44.0	44.0	44.0	44.0
Total Split (%)	14.5%	45.5%	14.5%	45.5%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	7.6	81.6	7.9	81.9		9.9		9.9
Actuated g/C Ratio	0.07	0.74	0.07	0.74		0.09		0.09
v/c Ratio	0.27	0.31	0.31	0.34		0.58		0.45
Control Delay	53.5	6.3	54.0	6.4		37.5		37.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	53.5	6.3	54.0	6.4		37.5		37.1
LOS	D	A	D	A		D		D
Approach Delay		8.3		8.5		37.5		37.1
Approach LOS		A		A		D		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY



Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	141	432	4	5	576	70	3	0	21	62	9	134
Future Vol, veh/h	141	432	4	5	576	70	3	0	21	62	9	134
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	153	470	4	5	626	76	3	0	23	67	10	146

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	702	0	0	474	0	0	1106	1490	237	1215	1454	351
Stage 1	-	-	-	-	-	-	778	778	-	674	674	-
Stage 2	-	-	-	-	-	-	328	712	-	541	780	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	891	-	-	1084	-	-	165	123	764	137	129	645
Stage 1	-	-	-	-	-	-	355	405	-	410	452	-
Stage 2	-	-	-	-	-	-	659	434	-	493	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	1084	-	-	103	101	764	115	106	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	101	-	115	106	-
Stage 1	-	-	-	-	-	-	294	335	-	339	450	-
Stage 2	-	-	-	-	-	-	497	432	-	396	335	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.1	13.8	37.8
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	103	764	891	-	-	1084	-	-	114	645
HCM Lane V/C Ratio	0.032	0.03	0.172	-	-	0.005	-	-	0.677	0.226
HCM Control Delay (s)	41.1	9.9	9.9	-	-	8.3	-	-	86	12.2
HCM Lane LOS	E	A	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.1	0.1	0.6	-	-	0	-	-	3.5	0.9

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	493	536	79	8	42
Future Vol, veh/h	75	493	536	79	8	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	536	583	86	9	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	669	0	-	0	1058	335
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	917	-	-	-	220	661
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	192	661
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	622	-

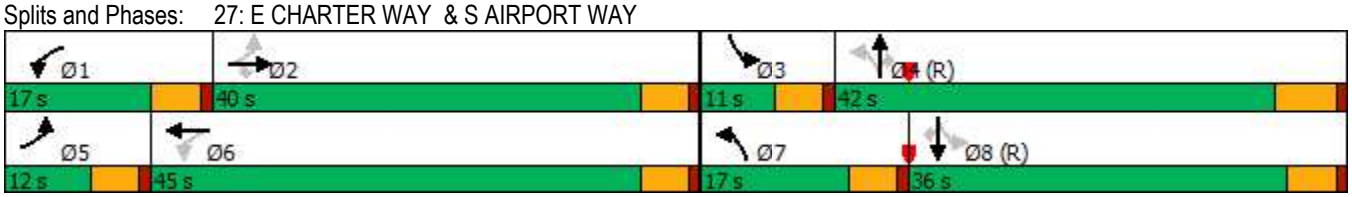
Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	917	-	-	-	661
HCM Lane V/C Ratio	0.089	-	-	-	0.069
HCM Control Delay (s)	9.3	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	84	380	335	242	345	383	437	161	102	333	83
Future Volume (vph)	84	380	335	242	345	383	437	161	102	333	83
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	45.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	12.0	40.0	40.0	17.0	45.0	17.0	42.0	42.0	11.0	36.0	36.0
Total Split (%)	10.9%	36.4%	36.4%	15.5%	40.9%	15.5%	38.2%	38.2%	10.0%	32.7%	32.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	43.7	37.7	37.7	50.9	43.0	47.9	36.2	36.2	37.3	31.5	31.5
Actuated g/C Ratio	0.40	0.34	0.34	0.46	0.39	0.44	0.33	0.33	0.34	0.29	0.29
v/c Ratio	0.12	0.34	0.47	0.31	0.34	0.50	0.41	0.28	0.17	0.36	0.16
Control Delay	16.5	28.2	5.2	17.7	23.6	22.3	30.0	5.7	19.3	32.6	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	28.2	5.2	17.7	23.6	22.3	30.0	5.7	19.3	32.6	0.6
LOS	B	C	A	B	C	C	C	A	B	C	A
Approach Delay		17.4			21.4		23.0			24.8	
Approach LOS		B			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 21.4	Intersection LOS: C
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

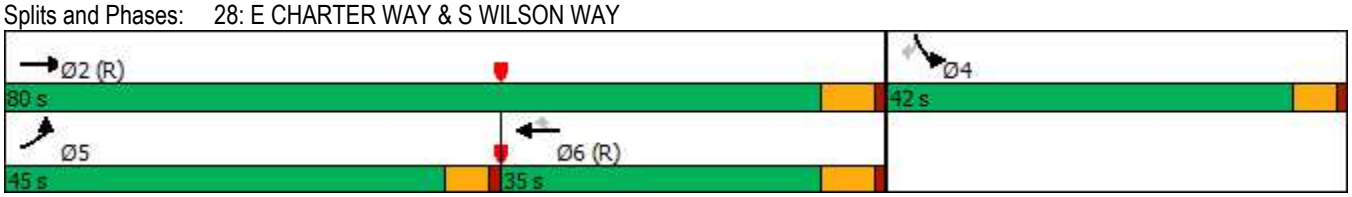
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	215	437	452	550	457	244
Future Volume (vph)	215	437	452	550	457	244
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	24.1	82.1	52.9	52.9	28.9	28.9
Actuated g/C Ratio	0.20	0.67	0.43	0.43	0.24	0.24
v/c Ratio	0.67	0.20	0.32	0.58	0.61	0.46
Control Delay	54.2	8.4	25.6	5.0	44.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	8.4	25.6	5.0	44.2	6.6
LOS	D	A	C	A	D	A
Approach Delay		23.5	14.3		31.1	
Approach LOS		C	B		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	205	48	156	66	272	19	279
Future Volume (vph)	66	205	48	156	66	272	19	279
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	28.0	28.0	28.0	28.0
Total Split (s)	70.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		18.3		18.3	25.3	25.3		25.3
Actuated g/C Ratio		0.34		0.34	0.47	0.47		0.47
v/c Ratio		0.74		0.56	0.15	0.47		0.49
Control Delay		23.9		17.3	11.2	13.5		14.0
Queue Delay		0.0		0.0	0.0	0.0		0.0
Total Delay		23.9		17.3	11.2	13.5		14.0
LOS		C		B	B	B		B
Approach Delay		23.9		17.3		13.1		14.0
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 53.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	93	116	12	114	60	1043	29	761
Future Volume (vph)	93	116	12	114	60	1043	29	761
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	75.0	75.0	75.0	75.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	14.8	14.8	14.8	14.8		70.4		70.4
Actuated g/C Ratio	0.16	0.16	0.16	0.16		0.74		0.74
v/c Ratio	0.68	0.68	0.11	0.57		0.55		0.40
Control Delay	60.9	44.7	35.7	41.5		7.1		5.5
Queue Delay	0.0	0.0	0.0	0.0		1.3		0.0
Total Delay	60.9	44.7	35.7	41.5		8.4		5.5
LOS	E	D	D	D		A		A
Approach Delay		50.1		41.1		8.4		5.5
Approach LOS		D		D		A		A

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 95.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	73	20	356	370
Future Volume (vph)	73	20	356	370
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.15		0.27	0.27
Control Delay	13.2		5.4	10.1
Queue Delay	0.0		0.0	0.0
Total Delay	13.2		5.4	10.1
LOS	B		A	B
Approach Delay	13.2		5.4	10.1
Approach LOS	B		A	B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.27	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	82	36	1067	789
Future Volume (vph)	82	36	1067	789
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.19		0.63	0.42
Control Delay	20.5		5.2	8.4
Queue Delay	0.0		0.0	0.7
Total Delay	20.5		5.2	9.1
LOS	C		A	A
Approach Delay	20.5		5.2	9.1
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	114	336	10	420
Future Volume (vph)	114	336	10	420
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.22	0.25		0.30
Control Delay	9.4	9.8		6.3
Queue Delay	0.0	0.0		0.0
Total Delay	9.4	9.8		6.3
LOS	A	A		A
Approach Delay	9.4	9.8		6.3
Approach LOS	A	A		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 8.3	Intersection LOS: A
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	130	1013	118	719
Future Volume (vph)	130	1013	118	719
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	58.0		58.0
Actuated g/C Ratio	0.24	0.64		0.64
v/c Ratio	0.31	0.55		0.71
Control Delay	26.0	9.9		9.0
Queue Delay	0.0	0.0		0.0
Total Delay	26.0	9.9		9.0
LOS	C	A		A
Approach Delay	26.0	9.9		9.0
Approach LOS	C	A		A

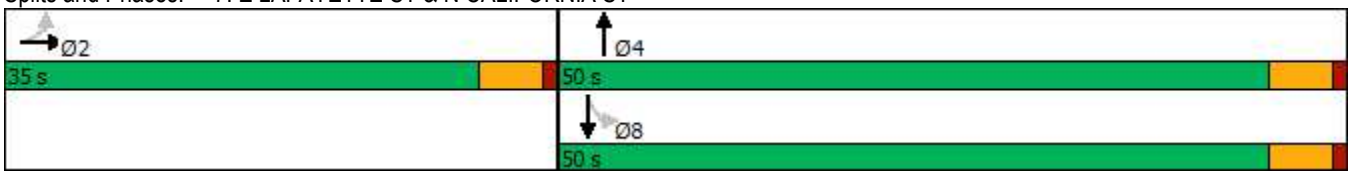
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 127.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	509	82	172	133
Future Volume (vph)	509	82	172	133
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	20.0	20.0	20.0
Minimum Split (s)	25.0	25.0	25.0	25.0
Total Split (s)	35.0	50.0	50.0	50.0
Total Split (%)	41.2%	58.8%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	30.0	45.0		45.0
Actuated g/C Ratio	0.35	0.53		0.53
v/c Ratio	0.55	0.07		0.26
Control Delay	24.0	7.2		11.6
Queue Delay	0.0	0.0		0.0
Total Delay	24.0	7.2		11.6
LOS	C	A		B
Approach Delay	24.0	7.2		11.6
Approach LOS	C	A		B

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 41.7%	ICU Level of Service A
Analysis Period (min) 15	

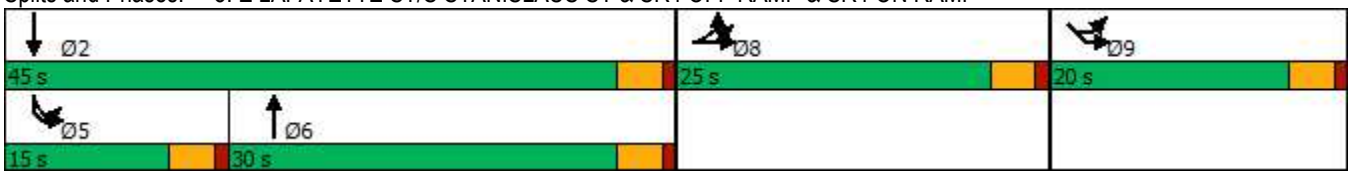
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	514	128	288	30	212	124	321
Future Volume (vph)	514	128	288	30	212	124	321
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	21.0	21.0	26.1	10.9	41.0	16.0	16.0
Actuated g/C Ratio	0.23	0.23	0.29	0.12	0.46	0.18	0.18
v/c Ratio	1.01	0.99	0.92	0.86	0.27	0.43	1.31
Control Delay	83.9	79.9	58.3	73.5	16.3	37.8	193.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.9	79.9	58.3	73.5	16.3	37.8	193.5
LOS	F	E	E	E	B	D	F
Approach Delay		81.9	58.3		41.6		154.6
Approach LOS		F	E		D		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.31	
Intersection Signal Delay: 87.8	Intersection LOS: F
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	52	425	37	51	0	10	0	100	17	10	57	0
Future Vol, veh/h	52	425	37	51	0	10	0	100	17	10	57	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	57	462	40	55	0	11	0	109	18	11	62	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	18.4	9.3	9.9	9.5
HCM LOS	C	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	100%	0%	15%
Vol Thru, %	85%	0%	92%	0%	0%	85%
Vol Right, %	15%	0%	8%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	117	52	462	51	10	67
LT Vol	0	52	0	51	0	10
Through Vol	100	0	425	0	0	57
RT Vol	17	0	37	0	10	0
Lane Flow Rate	127	57	502	55	11	73
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.193	0.089	0.71	0.096	0.015	0.115
Departure Headway (Hd)	5.476	5.65	5.09	6.253	5.038	5.685
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	649	630	703	577	715	623
Service Time	3.562	3.418	2.858	3.953	2.738	3.782
HCM Lane V/C Ratio	0.196	0.09	0.714	0.095	0.015	0.117
HCM Control Delay	9.9	9	19.5	9.6	7.8	9.5
HCM Lane LOS	A	A	C	A	A	A
HCM 95th-tile Q	0.7	0.3	5.9	0.3	0	0.4

Intersection	
Int Delay, s/veh	117.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	135	80	175	3	7	8	19	854	10	14	806	30
Future Vol, veh/h	135	80	175	3	7	8	19	854	10	14	806	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	87	190	3	8	9	21	928	11	15	876	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1433	1904	455	1488	1915	470	909	0	0	939	0	0
Stage 1	923	923	-	976	976	-	-	-	-	-	-	-
Stage 2	510	981	-	512	939	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 95	~ 68	552	86	67	540	745	-	-	726	-	-
Stage 1	290	347	-	270	327	-	-	-	-	-	-	-
Stage 2	514	326	-	513	341	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 78	~ 61	552	-	60	540	745	-	-	726	-	-
Mov Cap-2 Maneuver	~ 78	~ 61	-	-	60	-	-	-	-	-	-	-
Stage 1	273	332	-	254	308	-	-	-	-	-	-	-
Stage 2	464	307	-	238	327	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 643.5		0.5	0.4
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	745	-	-	71	552	-	540	726	-	-
HCM Lane V/C Ratio	0.028	-	-	3.291	0.345	-	0.016	0.021	-	-
HCM Control Delay (s)	10	0.3	$	1155.2	14.9	-	11.8	10.1	0.2	-
HCM Lane LOS	A	A	-	F	B	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	24	1.5	-	0	0.1	-	-

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

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	24	30	1075	723	18
Future Vol, veh/h	41	24	30	1075	723	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	26	33	1168	786	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1446	403	806	0	-	0
Stage 1	796	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	122	597	814	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	597	814	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	358	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	46.3	0.7	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	814	-	155	-	-
HCM Lane V/C Ratio	0.04	-	0.456	-	-
HCM Control Delay (s)	9.6	0.5	46.3	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	-	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	42	5	62	122	11	18	67	24	19	100	4
Future Vol, veh/h	8	42	5	62	122	11	18	67	24	19	100	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	46	5	67	133	12	20	73	26	21	109	4
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.5	9.3	8.5	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	35%	0%	28%	0%	50%	0%	28%	0%
Vol Thru, %	65%	58%	72%	81%	50%	85%	72%	93%
Vol Right, %	0%	42%	0%	19%	0%	15%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	58	29	26	123	72	69	54
LT Vol	18	0	8	0	62	0	19	0
Through Vol	34	34	21	21	61	61	50	50
RT Vol	0	24	0	5	0	11	0	4
Lane Flow Rate	56	62	32	28	134	78	75	59
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.087	0.088	0.049	0.041	0.204	0.112	0.115	0.087
Departure Headway (Hd)	5.564	5.094	5.557	5.283	5.501	5.14	5.507	5.316
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	643	701	642	675	651	696	650	673
Service Time	3.31	2.84	3.311	3.037	3.244	2.883	3.251	3.06
HCM Lane V/C Ratio	0.087	0.088	0.05	0.041	0.206	0.112	0.115	0.088
HCM Control Delay	8.8	8.3	8.6	8.3	9.7	8.5	9	8.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.2	0.1	0.8	0.4	0.4	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	76	0	8	170	14	8	48	5	15	62	12
Future Vol, veh/h	14	76	0	8	170	14	8	48	5	15	62	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	83	0	9	185	15	9	52	5	16	67	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	83	0	0	257	331	42	309	324	100
Stage 1	-	-	-	-	-	-	113	113	-	211	211	-
Stage 2	-	-	-	-	-	-	144	218	-	98	113	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1370	-	-	1512	-	-	675	587	1019	620	592	936
Stage 1	-	-	-	-	-	-	880	801	-	771	726	-
Stage 2	-	-	-	-	-	-	844	721	-	898	801	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1370	-	-	1512	-	-	598	576	1019	566	581	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	598	576	-	566	581	-
Stage 1	-	-	-	-	-	-	870	792	-	763	721	-
Stage 2	-	-	-	-	-	-	749	716	-	825	792	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.3	11.7	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	1370	-	-	1512	-	-	609
HCM Lane V/C Ratio	0.111	0.011	-	-	0.006	-	-	0.159
HCM Control Delay (s)	11.7	7.7	0	-	7.4	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.6

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	86	14	41	177	14	15	64	56	13	120	10
Future Vol, veh/h	6	86	14	41	177	14	15	64	56	13	120	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	93	15	45	192	15	16	70	61	14	130	11
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	9.6	8.9	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	32%	0%	12%	0%	32%	0%	18%	0%
Vol Thru, %	68%	36%	88%	75%	68%	86%	82%	86%
Vol Right, %	0%	64%	0%	25%	0%	14%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	88	49	57	130	103	73	70
LT Vol	15	0	6	0	41	0	13	0
Through Vol	32	32	43	43	89	89	60	60
RT Vol	0	56	0	14	0	14	0	10
Lane Flow Rate	51	96	53	62	141	111	79	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.083	0.139	0.084	0.094	0.219	0.165	0.126	0.117
Departure Headway (Hd)	5.825	5.215	5.669	5.434	5.603	5.347	5.735	5.545
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	610	681	626	653	636	665	621	641
Service Time	3.605	2.995	3.456	3.221	3.379	3.123	3.515	3.325
HCM Lane V/C Ratio	0.084	0.141	0.085	0.095	0.222	0.167	0.127	0.119
HCM Control Delay	9.1	8.8	9	8.8	10	9.2	9.4	9.1
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.5	0.3	0.3	0.8	0.6	0.4	0.4

Intersection	
Int Delay, s/veh	62.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	113	15	123	197	65	4	184	109	47	226	37
Future Vol, veh/h	37	113	15	123	197	65	4	184	109	47	226	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	123	16	134	214	71	4	200	118	51	246	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	285	0	0	139	0	0	709	764	70	760	737	143
Stage 1	-	-	-	-	-	-	211	211	-	518	518	-
Stage 2	-	-	-	-	-	-	498	553	-	242	219	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1274	-	-	1442	-	-	321	332	978	295	344	879
Stage 1	-	-	-	-	-	-	771	726	-	509	531	-
Stage 2	-	-	-	-	-	-	523	513	-	740	721	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1274	-	-	1442	-	-	84	285	978	101	295	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	285	-	101	295	-
Stage 1	-	-	-	-	-	-	745	701	-	492	472	-
Stage 2	-	-	-	-	-	-	213	456	-	449	696	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	2.6	35	196.1
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	271	978	1274	-	-	1442	-	-	222	879
HCM Lane V/C Ratio	0.754	0.121	0.032	-	-	0.093	-	-	1.337	0.046
HCM Control Delay (s)	50	9.2	7.9	0.1	-	7.8	0.2	-	221.4	9.3
HCM Lane LOS	F	A	A	A	-	A	A	-	F	A
HCM 95th %tile Q(veh)	5.5	0.4	0.1	-	-	0.3	-	-	16.2	0.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	227	16	31	293	4	18	25	19	14	25	38
Future Vol, veh/h	47	227	16	31	293	4	18	25	19	14	25	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	247	17	34	318	4	20	27	21	15	27	41
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

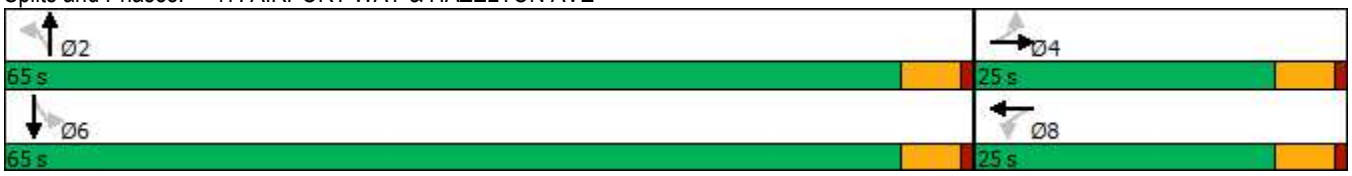
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.8	9.9	9.2	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	29%	0%	17%	0%	18%
Vol Thru, %	40%	71%	88%	83%	97%	32%
Vol Right, %	31%	0%	12%	0%	3%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	161	130	178	151	77
LT Vol	18	47	0	31	0	14
Through Vol	25	114	114	147	147	25
RT Vol	19	0	16	0	4	38
Lane Flow Rate	67	174	141	193	164	84
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.102	0.263	0.203	0.286	0.237	0.123
Departure Headway (Hd)	5.44	5.432	5.198	5.331	5.225	5.279
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	653	656	686	669	682	673
Service Time	3.524	3.203	2.968	3.1	2.993	3.359
HCM Lane V/C Ratio	0.103	0.265	0.206	0.288	0.24	0.125
HCM Control Delay	9.2	10.2	9.3	10.2	9.6	9.1
HCM Lane LOS	A	B	A	B	A	A
HCM 95th-tile Q	0.3	1.1	0.8	1.2	0.9	0.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	47	113	7	112	98	806	51	841
Future Volume (vph)	47	113	7	112	98	806	51	841
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	31.0	31.0	31.0	31.0
Total Split (s)	25.0	25.0	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	11.9	11.9	11.9	11.9		60.1		60.1
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.73		0.73
v/c Ratio	0.29	0.55	0.07	0.30		0.59		0.52
Control Delay	35.6	17.7	30.6	27.5		7.3		6.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	35.6	17.7	30.6	27.5		7.3		6.1
LOS	D	B	C	C		A		A
Approach Delay		20.1		27.7		7.3		6.1
Approach LOS		C		C		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 9.8	Intersection LOS: A
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

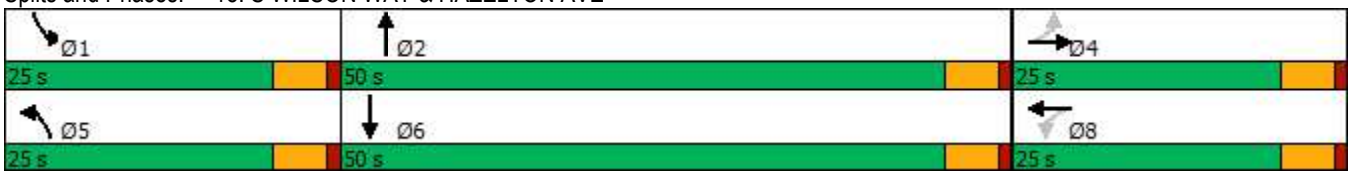
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	62	65	78	91	85	784	54	710
Future Volume (vph)	62	65	78	91	85	784	54	710
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		11.5		11.5	9.3	25.9	8.2	22.2
Actuated g/C Ratio		0.21		0.21	0.17	0.46	0.15	0.40
v/c Ratio		0.46		0.54	0.31	0.57	0.23	0.58
Control Delay		14.3		16.0	28.7	14.1	29.3	16.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		14.3		16.0	28.7	14.1	29.3	16.3
LOS		B		B	C	B	C	B
Approach Delay		14.3		16.0		15.4		17.2
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 55.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	49	4	4	32	2	9	66	0	2	94	26
Future Vol, veh/h	14	49	4	4	32	2	9	66	0	2	94	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	53	4	4	35	2	10	72	0	2	102	28
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8	7.8	8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	29%	0%	21%	11%	4%	0%
Vol Thru, %	71%	100%	73%	84%	96%	64%
Vol Right, %	0%	0%	6%	5%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	44	67	38	49	73
LT Vol	9	0	14	4	2	0
Through Vol	22	44	49	32	47	47
RT Vol	0	0	4	2	0	26
Lane Flow Rate	34	48	73	41	53	79
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.047	0.065	0.091	0.052	0.073	0.102
Departure Headway (Hd)	5.059	4.913	4.496	4.515	4.907	4.637
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	710	731	800	796	734	778
Service Time	2.774	2.628	2.508	2.53	2.607	2.337
HCM Lane V/C Ratio	0.048	0.066	0.091	0.052	0.072	0.102
HCM Control Delay	8	8	8	7.8	8	7.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.2	0.2	0.3

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	39	4	0	27	2	3	61	4	5	71	5
Future Vol, veh/h	9	39	4	0	27	2	3	61	4	5	71	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	42	4	0	29	2	3	66	4	5	77	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.6	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	17%	0%	6%
Vol Thru, %	90%	75%	93%	88%
Vol Right, %	6%	8%	7%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	52	29	81
LT Vol	3	9	0	5
Through Vol	61	39	27	71
RT Vol	4	4	2	5
Lane Flow Rate	74	57	32	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.066	0.037	0.101
Departure Headway (Hd)	4.127	4.226	4.216	4.119
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	859	835	835	862
Service Time	2.197	2.315	2.312	2.184
HCM Lane V/C Ratio	0.086	0.068	0.038	0.102
HCM Control Delay	7.6	7.6	7.5	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.1	0.3

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	2	36	7	12	27	9	3	76	14	7	125	4
Future Vol, veh/h	2	36	7	12	27	9	3	76	14	7	125	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	8	13	29	10	3	83	15	8	136	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	258	70	201	253	49	140	0	0	98	0	0
Stage 1	154	154	-	97	97	-	-	-	-	-	-	-
Stage 2	62	104	-	104	156	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	722	645	978	739	649	1009	1441	-	-	1493	-	-
Stage 1	833	769	-	899	814	-	-	-	-	-	-	-
Stage 2	942	808	-	890	768	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	686	640	978	695	644	1009	1441	-	-	1493	-	-
Mov Cap-2 Maneuver	686	640	-	695	644	-	-	-	-	-	-	-
Stage 1	831	764	-	897	812	-	-	-	-	-	-	-
Stage 2	897	806	-	833	763	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	10.5	0.2	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1441	-	-	678	705	1493	-	-
HCM Lane V/C Ratio	0.002	-	-	0.072	0.074	0.005	-	-
HCM Control Delay (s)	7.5	0	-	10.7	10.5	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	18	14	11	7	12	23	4	266	9	18	362	29
Future Vol, veh/h	18	14	11	7	12	23	4	266	9	18	362	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	15	12	8	13	25	4	289	10	20	393	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	770	756	409	765	767	294	425	0	0	299	0	0
Stage 1	449	449	-	302	302	-	-	-	-	-	-	-
Stage 2	321	307	-	463	465	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	318	337	642	320	332	745	1134	-	-	1262	-	-
Stage 1	589	572	-	707	664	-	-	-	-	-	-	-
Stage 2	691	661	-	579	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	292	329	642	297	324	745	1134	-	-	1262	-	-
Mov Cap-2 Maneuver	292	329	-	297	324	-	-	-	-	-	-	-
Stage 1	587	560	-	704	661	-	-	-	-	-	-	-
Stage 2	652	658	-	541	551	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	13.7	0.1	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1134	-	-	354	459	1262	-	-
HCM Lane V/C Ratio	0.004	-	-	0.132	0.099	0.016	-	-
HCM Control Delay (s)	8.2	0	-	16.7	13.7	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	17	13	161	143	80
Future Vol, veh/h	33	17	13	161	143	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	18	14	175	155	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	402	199	242	0	-	0
Stage 1	199	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	604	842	1324	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	597	842	1324	-	-	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	831	-	-	-	-	-

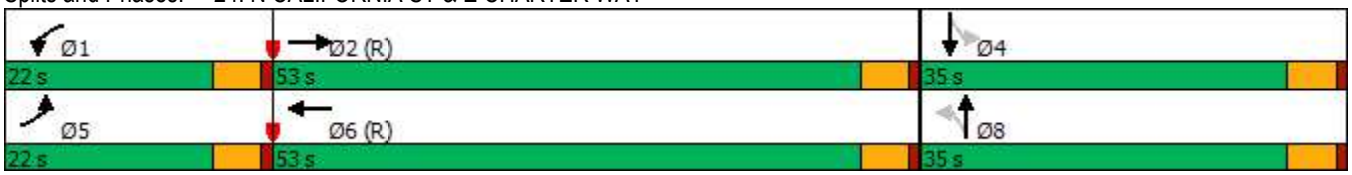
Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1324	-	663	-	-
HCM Lane V/C Ratio	0.011	-	0.082	-	-
HCM Control Delay (s)	7.7	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	847	67	824	55	78	63	80
Future Volume (vph)	61	847	67	824	55	78	63	80
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	22.0	53.0	22.0	53.0	35.0	35.0	35.0	35.0
Total Split (%)	20.0%	48.2%	20.0%	48.2%	31.8%	31.8%	31.8%	31.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	9.5	74.5	9.9	74.9		12.8		12.8
Actuated g/C Ratio	0.09	0.68	0.09	0.68		0.12		0.12
v/c Ratio	0.43	0.43	0.46	0.44		0.69		0.73
Control Delay	55.8	10.3	56.0	10.1		34.2		48.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	55.8	10.3	56.0	10.1		34.2		48.0
LOS	E	B	E	B		C		D
Approach Delay		13.2		13.3		34.2		48.0
Approach LOS		B		B		C		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY



Intersection	
Int Delay, s/veh	95.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	135	923	27	9	801	88	15	10	11	92	25	188
Future Vol, veh/h	135	923	27	9	801	88	15	10	11	92	25	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	1003	29	10	871	96	16	11	12	100	27	204

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	967	0	0	1032	0	0	1781	2299	516	1740	2265	484
Stage 1	-	-	-	-	-	-	1312	1312	-	939	939	-
Stage 2	-	-	-	-	-	-	469	987	-	801	1326	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	708	-	-	669	-	-	52	38	504	~ 56	40	529
Stage 1	-	-	-	-	-	-	167	227	-	284	341	-
Stage 2	-	-	-	-	-	-	544	324	-	344	223	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	708	-	-	669	-	-	~ 7	30	504	~ 33	31	529
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 7	30	-	~ 33	31	-
Stage 1	-	-	-	-	-	-	132	180	-	225	336	-
Stage 2	-	-	-	-	-	-	302	319	-	250	177	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1	$ 1058.8	$ 597.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	10	504	708	-	-	669	-	-	33	529
HCM Lane V/C Ratio	2.717	0.024	0.207	-	-	0.015	-	-	3.854	0.386
HCM Control Delay (s)	$ 1519.2	12.3	11.4	-	-	10.5	-	-	$ 1531.7	16
HCM Lane LOS	F	B	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	4.4	0.1	0.8	-	-	0	-	-	15	1.8

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1053	814	42	0	103
Future Vol, veh/h	0	1053	814	42	0	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1145	885	46	0	112

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	466
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	543
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	543
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

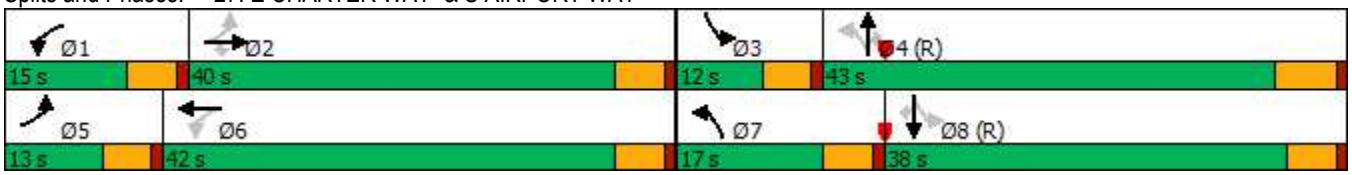
Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	543
HCM Lane V/C Ratio	-	-	-	0.206
HCM Control Delay (s)	-	-	-	13.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	99	569	385	235	424	400	454	217	85	390	114
Future Volume (vph)	99	569	385	235	424	400	454	217	85	390	114
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	42.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	13.0	40.0	40.0	15.0	42.0	17.0	43.0	43.0	12.0	38.0	38.0
Total Split (%)	11.8%	36.4%	36.4%	13.6%	38.2%	15.5%	39.1%	39.1%	10.9%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.5	36.1	36.1	47.5	38.6	50.0	39.9	39.9	39.5	33.5	33.5
Actuated g/C Ratio	0.39	0.33	0.33	0.43	0.35	0.45	0.36	0.36	0.36	0.30	0.30
v/c Ratio	0.17	0.53	0.57	0.41	0.45	0.54	0.38	0.33	0.13	0.39	0.22
Control Delay	17.9	32.4	11.7	19.9	27.9	21.4	27.8	5.5	17.8	31.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	32.4	11.7	19.9	27.9	21.4	27.8	5.5	17.8	31.7	6.1
LOS	B	C	B	B	C	C	C	A	B	C	A
Approach Delay		23.4			25.4		20.9			24.8	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

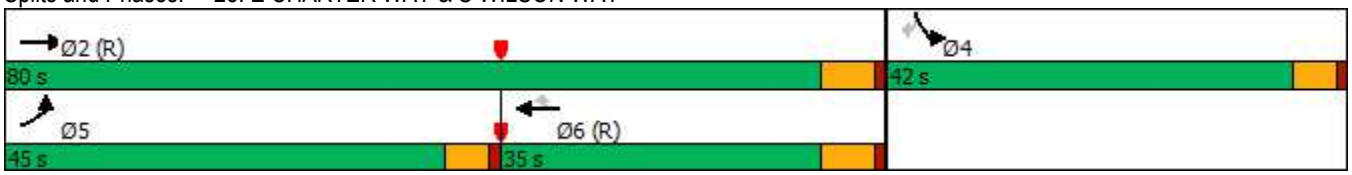
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	287	584	489	447	533	314
Future Volume (vph)	287	584	489	447	533	314
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	29.5	78.7	44.2	44.2	32.3	32.3
Actuated g/C Ratio	0.24	0.65	0.36	0.36	0.26	0.26
v/c Ratio	0.73	0.28	0.41	0.55	0.64	0.51
Control Delay	52.4	10.3	32.8	5.8	42.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	10.3	32.8	5.8	42.6	6.2
LOS	D	B	C	A	D	A
Approach Delay		24.1	19.9		29.1	
Approach LOS		C	B		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	137	47	319	202	497	30	224
Future Volume (vph)	26	137	47	319	202	497	30	224
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	20.4	20.4		20.4
Actuated g/C Ratio		0.39		0.39	0.41	0.41		0.41
v/c Ratio		0.38		0.75	0.53	0.98		0.69
Control Delay		10.7		20.9	20.3	51.6		25.1
Queue Delay		0.0		0.0	0.0	0.0		0.0
Total Delay		10.7		20.9	20.3	51.6		25.1
LOS		B		C	C	D		C
Approach Delay		10.7		20.9		43.6		25.1
Approach LOS		B		C		D		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 50	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	44	6	227	132	764	14	575
Future Volume (vph)	41	44	6	227	132	764	14	575
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	16.8	16.8	16.8	16.8		61.1		61.1
Actuated g/C Ratio	0.19	0.19	0.19	0.19		0.70		0.70
v/c Ratio	0.39	0.20	0.03	0.76		0.55		0.31
Control Delay	40.8	22.2	28.0	47.3		8.5		5.8
Queue Delay	0.0	0.0	0.0	0.0		0.7		0.0
Total Delay	40.8	22.2	28.0	47.3		9.2		5.8
LOS	D	C	C	D		A		A
Approach Delay		29.4		46.9		9.2		5.8
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.9	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	179	311	737	210
Future Volume (vph)	179	311	737	210
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.29		0.93	0.21
Control Delay	15.7		21.4	6.6
Queue Delay	0.0		0.0	0.0
Total Delay	15.7		21.4	6.6
LOS	B		C	A
Approach Delay	15.7		21.4	6.6
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	128	56	833	574
Future Volume (vph)	128	56	833	574
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.25		0.52	0.30
Control Delay	22.1		9.8	7.4
Queue Delay	0.0		1.2	0.0
Total Delay	22.1		11.1	7.4
LOS	C		B	A
Approach Delay	22.1		11.1	7.4
Approach LOS	C		B	A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	40	971	19	276
Future Volume (vph)	40	971	19	276
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.15	0.71		0.22
Control Delay	6.2	16.2		9.7
Queue Delay	0.0	0.0		0.0
Total Delay	6.2	16.2		9.7
LOS	A	B		A
Approach Delay	6.2	16.2		9.7
Approach LOS	A	B		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	61	833	54	534
Future Volume (vph)	61	833	54	534
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	48.0	48.0	48.0
Minimum Split (s)	27.0	53.0	53.0	53.0
Total Split (s)	27.0	53.0	53.0	53.0
Total Split (%)	33.8%	66.3%	66.3%	66.3%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	48.0		48.0
Actuated g/C Ratio	0.28	0.60		0.60
v/c Ratio	0.19	0.47		0.40
Control Delay	15.4	9.8		9.4
Queue Delay	0.0	0.0		0.0
Total Delay	15.4	9.8		9.4
LOS	B	A		A
Approach Delay	15.4	9.8		9.4
Approach LOS	B	A		A

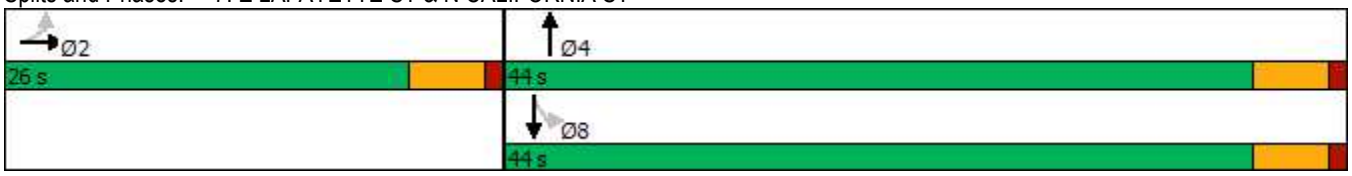
Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	335	118	88	104
Future Volume (vph)	335	118	88	104
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	16.0	20.0	20.0
Minimum Split (s)	26.0	21.0	26.0	26.0
Total Split (s)	26.0	44.0	44.0	44.0
Total Split (%)	37.1%	62.9%	62.9%	62.9%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	21.0	39.0		39.0
Actuated g/C Ratio	0.30	0.56		0.56
v/c Ratio	0.63	0.09		0.15
Control Delay	24.3	5.8		7.8
Queue Delay	0.0	0.0		0.0
Total Delay	24.3	5.8		7.8
LOS	C	A		A
Approach Delay	24.3	5.8		7.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

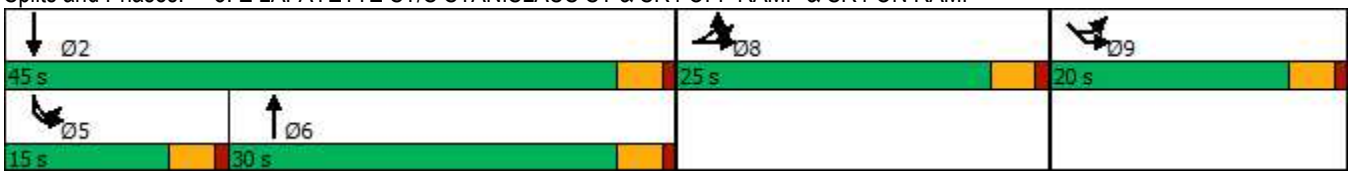
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	237	123	237	25	180	755	431
Future Volume (vph)	237	123	237	25	180	755	431
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	17.4	17.4	26.8	10.2	41.1	16.0	16.0
Actuated g/C Ratio	0.20	0.20	0.31	0.12	0.48	0.18	0.18
v/c Ratio	0.75	0.74	0.66	0.69	0.22	2.50	1.67
Control Delay	47.1	45.7	34.7	55.4	14.9	706.7	340.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	45.7	34.7	55.4	14.9	706.7	340.4
LOS	D	D	C	E	B	F	F
Approach Delay		46.4	34.7		32.1		561.5
Approach LOS		D	C		C		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 86.5	
Natural Cycle: 125	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.50	
Intersection Signal Delay: 319.0	Intersection LOS: F
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	168	427	84	118	0	16	0	51	8	5	65	0
Future Vol, veh/h	168	427	84	118	0	16	0	51	8	5	65	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	183	464	91	128	0	17	0	55	9	5	71	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	19.4	10.5	9.7	9.9
HCM LOS	C	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	100%	0%	7%
Vol Thru, %	86%	0%	84%	0%	0%	93%
Vol Right, %	14%	0%	16%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	168	511	118	16	70
LT Vol	0	168	0	118	0	5
Through Vol	51	0	427	0	0	65
RT Vol	8	0	84	0	16	0
Lane Flow Rate	64	183	555	128	17	76
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.105	0.284	0.767	0.22	0.024	0.126
Departure Headway (Hd)	5.87	5.592	4.973	6.186	4.973	5.939
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	604	639	722	575	710	597
Service Time	3.97	3.359	2.74	3.986	2.772	4.035
HCM Lane V/C Ratio	0.106	0.286	0.769	0.223	0.024	0.127
HCM Control Delay	9.7	10.6	22.3	10.8	7.9	9.9
HCM Lane LOS	A	B	C	B	A	A
HCM 95th-tile Q	0.4	1.2	7.3	0.8	0.1	0.4

Intersection	
Int Delay, s/veh	32.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	105	67	128	0	6	8	12	657	8	4	681	44
Future Vol, veh/h	105	67	128	0	6	8	12	657	8	4	681	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	73	139	0	7	9	13	714	9	4	740	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1159	1521	394	1160	1541	362	788	0	0	723	0	0
Stage 1	772	772	-	745	745	-	-	-	-	-	-	-
Stage 2	387	749	-	415	796	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	151	117	605	151	114	635	827	-	-	875	-	-
Stage 1	358	407	-	372	419	-	-	-	-	-	-	-
Stage 2	608	417	-	585	397	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	113	605	55	110	635	827	-	-	875	-	-
Mov Cap-2 Maneuver	139	113	-	55	110	-	-	-	-	-	-	-
Stage 1	349	404	-	362	408	-	-	-	-	-	-	-
Stage 2	575	406	-	366	394	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	181.8	23.2	0.3	0.1
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	827	-	-	128	605	110	635	875	-	-
HCM Lane V/C Ratio	0.016	-	-	1.461	0.23	0.059	0.014	0.005	-	-
HCM Control Delay (s)	9.4	0.1	-$	307.7	12.7	39.8	10.7	9.1	0	-
HCM Lane LOS	A	A	-	F	B	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	12.8	0.9	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	3	85	996	1010	31
Future Vol, veh/h	35	3	85	996	1010	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	3	92	1083	1098	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1841	566	1132	0	-	0
Stage 1	1115	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	67	467	613	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	42	467	613	-	-	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	171	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	249.2	2.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	613	-	45	-	-
HCM Lane V/C Ratio	0.151	-	0.918	-	-
HCM Control Delay (s)	11.9	1.9	249.2	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	3.7	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	48	9	58	124	5	5	54	32	13	83	8
Future Vol, veh/h	9	48	9	58	124	5	5	54	32	13	83	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	52	10	63	135	5	5	59	35	14	90	9
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	9	8.3	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	16%	0%	27%	0%	48%	0%	24%	0%
Vol Thru, %	84%	46%	73%	73%	52%	93%	76%	84%
Vol Right, %	0%	54%	0%	27%	0%	7%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	59	33	33	120	67	55	50
LT Vol	5	0	9	0	58	0	13	0
Through Vol	27	27	24	24	62	62	42	42
RT Vol	0	32	0	9	0	5	0	8
Lane Flow Rate	35	64	36	36	130	73	59	54
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.053	0.089	0.054	0.051	0.195	0.103	0.09	0.078
Departure Headway (Hd)	5.441	4.98	5.424	5.095	5.388	5.093	5.461	5.227
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	657	718	659	701	665	703	655	684
Service Time	3.18	2.72	3.168	2.838	3.125	2.83	3.201	2.967
HCM Lane V/C Ratio	0.053	0.089	0.055	0.051	0.195	0.104	0.09	0.079
HCM Control Delay	8.5	8.2	8.5	8.1	9.4	8.4	8.7	8.4
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.2	0.2	0.7	0.3	0.3	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	70	5	27	167	17	0	48	4	26	35	19
Future Vol, veh/h	21	70	5	27	167	17	0	48	4	26	35	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	76	5	29	182	18	0	52	4	28	38	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	81	0	0	293	383	41	359	376	100
Stage 1	-	-	-	-	-	-	125	125	-	249	249	-
Stage 2	-	-	-	-	-	-	168	258	-	110	127	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1370	-	-	1515	-	-	637	549	1021	572	554	936
Stage 1	-	-	-	-	-	-	866	792	-	733	699	-
Stage 2	-	-	-	-	-	-	817	693	-	883	790	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1370	-	-	1515	-	-	571	527	1021	511	532	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	571	527	-	511	532	-
Stage 1	-	-	-	-	-	-	850	778	-	720	684	-
Stage 2	-	-	-	-	-	-	738	678	-	806	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	1	12.3	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	1370	-	-	1515	-	-	584
HCM Lane V/C Ratio	0.103	0.017	-	-	0.019	-	-	0.149
HCM Control Delay (s)	12.3	7.7	0	-	7.4	0.1	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.5

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	71	8	43	202	32	5	84	22	27	35	9
Future Vol, veh/h	16	71	8	43	202	32	5	84	22	27	35	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	77	9	47	220	35	5	91	24	29	38	10
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.6	9.4	8.8	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	31%	0%	30%	0%	61%	0%
Vol Thru, %	89%	66%	69%	82%	70%	76%	39%	66%
Vol Right, %	0%	34%	0%	18%	0%	24%	0%	34%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	64	52	44	144	133	45	27
LT Vol	5	0	16	0	43	0	27	0
Through Vol	42	42	36	36	101	101	18	18
RT Vol	0	22	0	8	0	32	0	9
Lane Flow Rate	51	70	56	47	157	145	48	29
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.081	0.104	0.086	0.069	0.231	0.201	0.08	0.043
Departure Headway (Hd)	5.676	5.379	5.531	5.245	5.322	5.002	5.979	5.433
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	629	664	645	680	673	716	597	656
Service Time	3.431	3.135	3.288	3.002	3.067	2.748	3.739	3.193
HCM Lane V/C Ratio	0.081	0.105	0.087	0.069	0.233	0.203	0.08	0.044
HCM Control Delay	8.9	8.8	8.8	8.4	9.7	9	9.3	8.4
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3	0.2	0.9	0.7	0.3	0.1

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	79	12	92	224	53	23	211	62	45	146	52
Future Vol, veh/h	4	79	12	92	224	53	23	211	62	45	146	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	86	13	100	243	58	25	229	67	49	159	57
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.5	13.1	13.7	12.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	10%	0%	9%	0%	45%	0%	24%	0%
Vol Thru, %	90%	0%	91%	77%	55%	68%	76%	0%
Vol Right, %	0%	100%	0%	23%	0%	32%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	62	44	52	204	165	191	52
LT Vol	23	0	4	0	92	0	45	0
Through Vol	211	0	40	40	112	112	146	0
RT Vol	0	62	0	12	0	53	0	52
Lane Flow Rate	254	67	47	56	222	179	208	57
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.463	0.108	0.093	0.107	0.413	0.311	0.387	0.092
Departure Headway (Hd)	6.549	5.787	7.066	6.853	6.7	6.242	6.707	5.875
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	547	615	504	519	534	574	534	606
Service Time	4.32	3.558	4.857	4.643	4.468	4.01	4.482	3.65
HCM Lane V/C Ratio	0.464	0.109	0.093	0.108	0.416	0.312	0.39	0.094
HCM Control Delay	14.9	9.3	10.6	10.5	14.1	11.8	13.7	9.3
HCM Lane LOS	B	A	B	B	B	B	B	A
HCM 95th-tile Q	2.4	0.4	0.3	0.4	2	1.3	1.8	0.3

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	128	18	14	285	4	4	27	13	10	56	101
Future Vol, veh/h	21	128	18	14	285	4	4	27	13	10	56	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	139	20	15	310	4	4	29	14	11	61	110
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

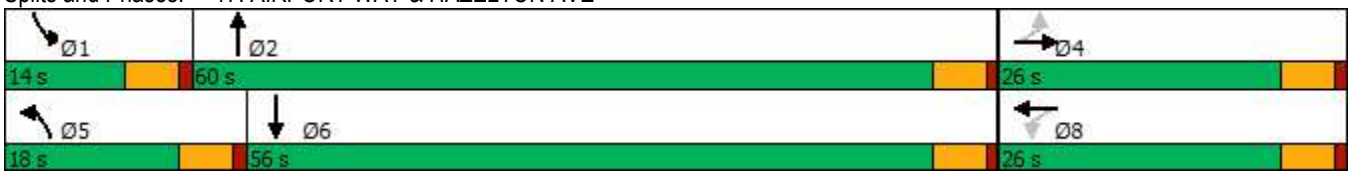
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.1	9.8	8.7	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	9%	25%	0%	9%	0%	6%
Vol Thru, %	61%	75%	78%	91%	97%	34%
Vol Right, %	30%	0%	22%	0%	3%	60%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	85	82	157	147	167
LT Vol	4	21	0	14	0	10
Through Vol	27	64	64	143	143	56
RT Vol	13	0	18	0	4	101
Lane Flow Rate	48	92	89	170	159	182
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.069	0.143	0.131	0.252	0.233	0.244
Departure Headway (Hd)	5.231	5.57	5.29	5.332	5.267	4.841
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	678	639	672	669	677	737
Service Time	3.315	3.347	3.067	3.101	3.036	2.903
HCM Lane V/C Ratio	0.071	0.144	0.132	0.254	0.235	0.247
HCM Control Delay	8.7	9.3	8.9	9.9	9.6	9.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.4	1	0.9	1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	28	92	10	140	92	573	69	733
Future Volume (vph)	28	92	10	140	92	573	69	733
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	10.0	4.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	9.0	31.0	9.0	31.0
Total Split (s)	26.0	26.0	26.0	26.0	18.0	60.0	14.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	18.0%	60.0%	14.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	11.9	11.9	11.9	11.9	10.0	55.9	8.1	54.2
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.11	0.63	0.09	0.61
v/c Ratio	0.19	0.34	0.07	0.42	0.51	0.31	0.47	0.43
Control Delay	37.7	24.3	34.8	32.4	47.1	8.9	49.8	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	24.3	34.8	32.4	47.1	8.9	49.8	11.1
LOS	D	C	C	C	D	A	D	B
Approach Delay		26.5		32.5		14.0		14.3
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 88.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

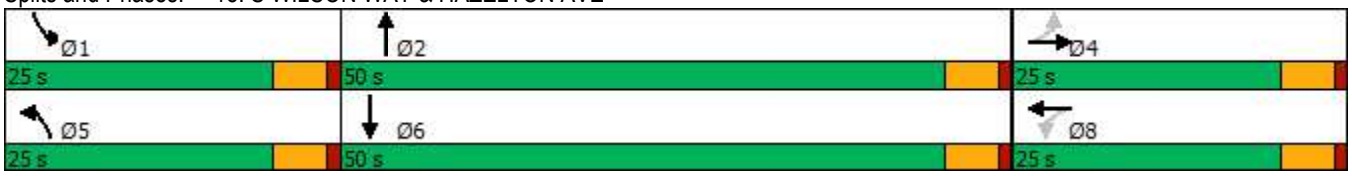
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	60	70	52	68	725	98	759
Future Volume (vph)	63	60	70	52	68	725	98	759
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		10.4		10.4	8.7	22.0	9.8	25.7
Actuated g/C Ratio		0.19		0.19	0.16	0.40	0.18	0.47
v/c Ratio		0.40		0.43	0.27	0.61	0.34	0.54
Control Delay		17.8		16.4	28.8	16.3	28.2	13.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		17.8		16.4	28.8	16.3	28.2	13.5
LOS		B		B	C	B	C	B
Approach Delay		17.8		16.4		17.3		15.1
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 54.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	18	1	6	76	6	5	66	5	3	70	21
Future Vol, veh/h	6	18	1	6	76	6	5	66	5	3	70	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	20	1	7	83	7	5	72	5	3	76	23
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	7.7	8	7.9	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	24%	7%	8%	0%
Vol Thru, %	87%	87%	72%	86%	92%	62%
Vol Right, %	0%	13%	4%	7%	0%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	38	25	88	38	56
LT Vol	5	0	6	6	3	0
Through Vol	33	33	18	76	35	35
RT Vol	0	5	1	6	0	21
Lane Flow Rate	41	41	27	96	41	61
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.057	0.055	0.034	0.116	0.057	0.078
Departure Headway (Hd)	4.981	4.823	4.505	4.378	4.94	4.637
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	723	747	797	822	729	777
Service Time	2.683	2.525	2.518	2.388	2.641	2.338
HCM Lane V/C Ratio	0.057	0.055	0.034	0.117	0.056	0.079
HCM Control Delay	8	7.8	7.7	8	7.9	7.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.1	0.4	0.2	0.3

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	19	0	1	69	0	0	67	3	0	75	8
Future Vol, veh/h	8	19	0	1	69	0	0	67	3	0	75	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	21	0	1	75	0	0	73	3	0	82	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.8	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	30%	1%	0%
Vol Thru, %	96%	70%	99%	90%
Vol Right, %	4%	0%	0%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	27	70	83
LT Vol	0	8	1	0
Through Vol	67	19	69	75
RT Vol	3	0	0	8
Lane Flow Rate	76	29	76	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.036	0.09	0.103
Departure Headway (Hd)	4.161	4.445	4.247	4.119
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	810	831	859
Service Time	2.245	2.445	2.338	2.199
HCM Lane V/C Ratio	0.09	0.036	0.091	0.105
HCM Control Delay	7.7	7.6	7.8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.3

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	9	6	12	23	13	26	80	3	3	35	14
Future Vol, veh/h	6	9	6	12	23	13	26	80	3	3	35	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	10	7	13	25	14	28	87	3	3	38	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	164	198	27	175	204	45	53	0	0	90	0	0
Stage 1	52	52	-	145	145	-	-	-	-	-	-	-
Stage 2	112	146	-	30	59	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	785	697	1042	771	691	1015	1551	-	-	1503	-	-
Stage 1	954	851	-	843	776	-	-	-	-	-	-	-
Stage 2	881	775	-	983	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	740	682	1042	746	676	1015	1551	-	-	1503	-	-
Mov Cap-2 Maneuver	740	682	-	746	676	-	-	-	-	-	-	-
Stage 1	936	849	-	827	761	-	-	-	-	-	-	-
Stage 2	824	760	-	964	843	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	1.8	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1551	-	-	776	763	1503	-	-
HCM Lane V/C Ratio	0.018	-	-	0.029	0.068	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.8	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	0	0	19	13	0	297	5	1	271	5
Future Vol, veh/h	5	8	0	0	19	13	0	297	5	1	271	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	9	0	0	21	14	0	323	5	1	295	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	643	628	298	630	628	326	300	0	0	328	0	0
Stage 1	300	300	-	326	326	-	-	-	-	-	-	-
Stage 2	343	328	-	304	302	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	400	741	394	400	715	1261	-	-	1232	-	-
Stage 1	709	666	-	687	648	-	-	-	-	-	-	-
Stage 2	672	647	-	705	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	363	400	741	387	400	715	1261	-	-	1232	-	-
Mov Cap-2 Maneuver	363	400	-	387	400	-	-	-	-	-	-	-
Stage 1	709	665	-	687	648	-	-	-	-	-	-	-
Stage 2	638	647	-	695	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	13	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1261	-	-	385	487	1232	-	-
HCM Lane V/C Ratio	-	-	-	0.037	0.071	0.001	-	-
HCM Control Delay (s)	0	-	-	14.7	13	7.9	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	3	119	277	26
Future Vol, veh/h	13	0	3	119	277	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	3	129	301	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	450	315	329	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	567	725	1231	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	725	1231	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	891	-	-	-	-	-

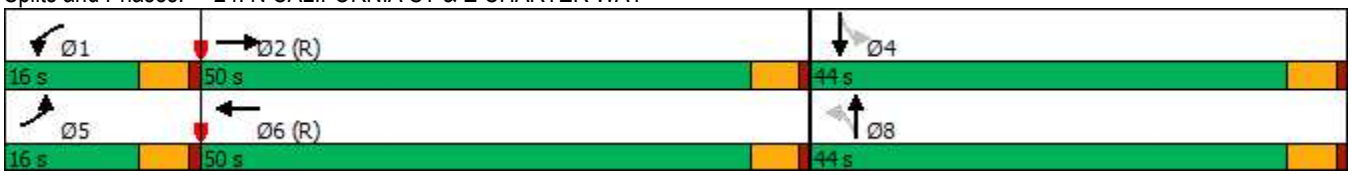
Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1231	-	565	-	-
HCM Lane V/C Ratio	0.003	-	0.025	-	-
HCM Control Delay (s)	7.9	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	880	46	960	41	92	43	51
Future Volume (vph)	39	880	46	960	41	92	43	51
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	16.0	50.0	16.0	50.0	44.0	44.0	44.0	44.0
Total Split (%)	14.5%	45.5%	14.5%	45.5%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	8.1	77.2	8.5	80.0		11.4		11.4
Actuated g/C Ratio	0.07	0.70	0.08	0.73		0.10		0.10
v/c Ratio	0.33	0.42	0.37	0.46		0.65		0.53
Control Delay	54.3	8.9	55.0	8.4		38.1		38.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	54.3	8.9	55.0	8.4		38.1		38.1
LOS	D	A	D	A		D		D
Approach Delay		10.7		10.4		38.1		38.1
Approach LOS		B		B		D		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY



Intersection	
Int Delay, s/veh	29.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	183	560	5	6	746	91	4	0	27	80	12	174
Future Vol, veh/h	183	560	5	6	746	91	4	0	27	80	12	174
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	199	609	5	7	811	99	4	0	29	87	13	189

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	910	0	0	614	0	0	1436	1934	307	1578	1887	455
Stage 1	-	-	-	-	-	-	1010	1010	-	875	875	-
Stage 2	-	-	-	-	-	-	426	924	-	703	1012	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	744	-	-	961	-	-	94	65	689	~ 74	70	552
Stage 1	-	-	-	-	-	-	257	316	-	310	365	-
Stage 2	-	-	-	-	-	-	577	346	-	394	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	744	-	-	961	-	-	40	47	689	~ 56	51	552
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	47	-	~ 56	51	-
Stage 1	-	-	-	-	-	-	188	232	-	227	362	-
Stage 2	-	-	-	-	-	-	363	344	-	276	231	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.1	22.8	200.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	40	689	744	-	-	961	-	-	55	552
HCM Lane V/C Ratio	0.109	0.043	0.267	-	-	0.007	-	-	1.818	0.343
HCM Control Delay (s)	105.7	10.5	11.6	-	-	8.8	-	-	$ 550.3	14.9
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.1	1.1	-	-	0	-	-	9.6	1.5

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	97	639	694	102	10	54
Future Vol, veh/h	97	639	694	102	10	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	695	754	111	11	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	865	0	-	0	1368	433
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	558	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	774	-	-	-	138	571
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	774	-	-	-	108	571
Mov Cap-2 Maneuver	-	-	-	-	108	-
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	537	-

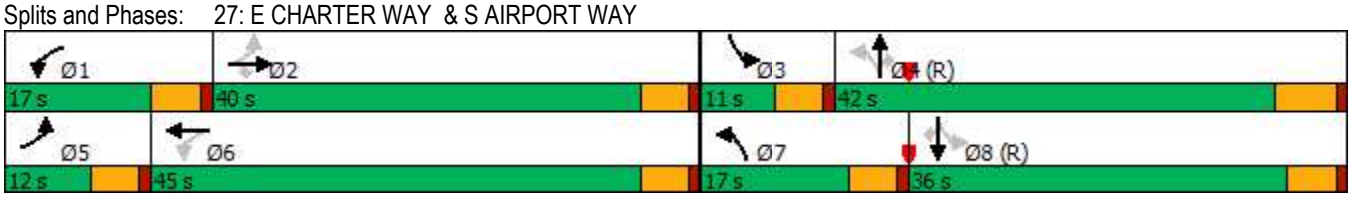
Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	774	-	-	-	571
HCM Lane V/C Ratio	0.136	-	-	-	0.103
HCM Control Delay (s)	10.4	-	-	-	12
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	109	492	434	313	447	496	567	209	131	431	108
Future Volume (vph)	109	492	434	313	447	496	567	209	131	431	108
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	45.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	12.0	40.0	40.0	17.0	45.0	17.0	42.0	42.0	11.0	36.0	36.0
Total Split (%)	10.9%	36.4%	36.4%	15.5%	40.9%	15.5%	38.2%	38.2%	10.0%	32.7%	32.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.8	36.5	36.5	51.2	40.7	48.0	36.1	36.1	36.9	31.0	31.0
Actuated g/C Ratio	0.39	0.33	0.33	0.47	0.37	0.44	0.33	0.33	0.34	0.28	0.28
v/c Ratio	0.19	0.46	0.66	0.46	0.47	0.73	0.53	0.36	0.26	0.47	0.21
Control Delay	17.1	30.8	17.5	19.2	26.6	27.6	32.1	9.7	20.1	34.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	30.8	17.5	19.2	26.6	27.6	32.1	9.7	20.1	34.6	2.2
LOS	B	C	B	B	C	C	C	A	C	C	A
Approach Delay		23.8			23.9		26.7			26.5	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

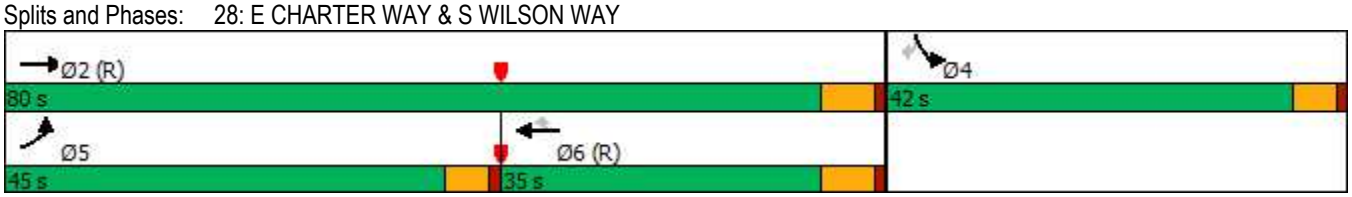
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	279	567	585	713	592	316
Future Volume (vph)	279	567	585	713	592	316
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	28.9	77.2	43.3	43.3	33.8	33.8
Actuated g/C Ratio	0.24	0.63	0.35	0.35	0.28	0.28
v/c Ratio	0.72	0.28	0.51	0.77	0.68	0.50
Control Delay	52.6	10.8	34.7	11.0	42.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	10.8	34.7	11.0	42.8	6.0
LOS	D	B	C	B	D	A
Approach Delay		24.5	21.7		30.0	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	NBT	SBT	Ø9
Lane Configurations			
Traffic Volume (vph)	677	809	
Future Volume (vph)	677	809	
Turn Type	NA	NA	
Protected Phases	2	6	9
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	26.0
Total Split (s)	34.0	34.0	26.0
Total Split (%)	56.7%	56.7%	43%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	28.6	28.6	
Actuated g/C Ratio	0.50	0.50	
v/c Ratio	0.41	0.49	
Control Delay	9.5	10.3	
Queue Delay	0.0	0.0	
Total Delay	9.5	10.3	
LOS	A	B	
Approach Delay	9.5	10.3	
Approach LOS	A	B	

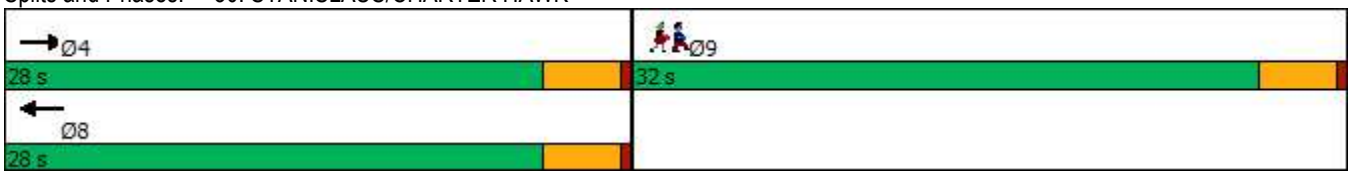
Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 56.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 25.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 29: LAFAYETTE/AIRPORT HAWK

Lane Group	EBT	WBT	Ø9
Lane Configurations			
Traffic Volume (vph)	667	843	
Future Volume (vph)	667	843	
Turn Type	NA	NA	
Protected Phases	4	8	9
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.0
Total Split (s)	28.0	28.0	32.0
Total Split (%)	46.7%	46.7%	53%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	20.8	20.8	
Actuated g/C Ratio	0.36	0.36	
v/c Ratio	0.56	0.71	
Control Delay	16.1	18.7	
Queue Delay	0.0	0.2	
Total Delay	16.1	19.0	
LOS	B	B	
Approach Delay	16.1	19.0	
Approach LOS	B	B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 57	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 26.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 30: STANISLAUS/CHARTER HAWK



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	266	62	202	85	352	25	361
Future Volume (vph)	85	266	62	202	85	352	25	361
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	28.0	28.0	28.0	28.0
Total Split (s)	70.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		25.9		25.9	25.5	25.5		25.5
Actuated g/C Ratio		0.42		0.42	0.41	0.41		0.41
v/c Ratio		0.81		0.61	0.29	0.61		0.72
Control Delay		25.6		17.1	18.5	20.8		26.4
Queue Delay		0.0		0.0	0.0	0.1		0.0
Total Delay		25.6		17.1	18.5	20.9		26.4
LOS		C		B	B	C		C
Approach Delay		25.6		17.1		20.5		26.4
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 61.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	120	150	16	148	78	1351	38	986
Future Volume (vph)	120	150	16	148	78	1351	38	986
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	75.0	75.0	75.0	75.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	18.2	18.2	18.2	18.2		70.0		70.0
Actuated g/C Ratio	0.19	0.19	0.19	0.19		0.71		0.71
v/c Ratio	0.90	0.75	0.15	0.63		0.81		0.57
Control Delay	93.9	47.9	37.1	43.0		14.5		8.4
Queue Delay	0.0	0.0	0.0	0.0		16.8		0.0
Total Delay	93.9	47.9	37.1	43.0		31.3		8.4
LOS	F	D	D	D		C		A
Approach Delay		63.3		42.6		31.3		8.4
Approach LOS		E		D		C		A

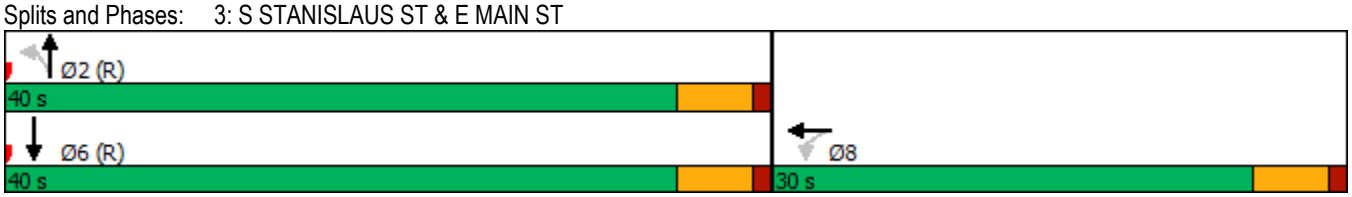
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 98.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 108.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	95	26	461	479
Future Volume (vph)	95	26	461	479
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.20		0.35	0.35
Control Delay	13.5		5.6	10.9
Queue Delay	0.0		0.0	0.0
Total Delay	13.5		5.6	10.9
LOS	B		A	B
Approach Delay	13.5		5.6	10.9
Approach LOS	B		A	B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST



Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	106	47	1382	1022
Future Volume (vph)	106	47	1382	1022
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.25		0.85	0.54
Control Delay	21.6		8.8	9.8
Queue Delay	0.0		0.0	1.4
Total Delay	21.6		8.8	11.2
LOS	C		A	B
Approach Delay	21.6		8.8	11.2
Approach LOS	C		A	B

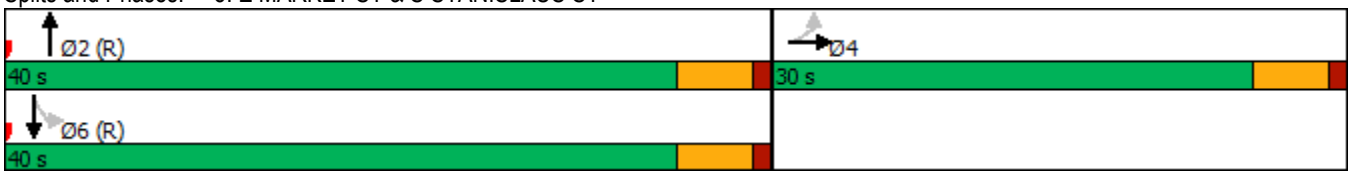
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	148	435	13	544
Future Volume (vph)	148	435	13	544
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.28	0.33		0.39
Control Delay	9.7	10.5		6.6
Queue Delay	0.0	0.0		0.0
Total Delay	9.7	10.5		6.6
LOS	A	B		A
Approach Delay	9.7	10.5		6.6
Approach LOS	A	B		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST



Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	168	1312	153	931
Future Volume (vph)	168	1312	153	931
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	58.0		58.0
Actuated g/C Ratio	0.24	0.64		0.64
v/c Ratio	0.40	0.72		1.46dl
Control Delay	27.7	12.9		66.8
Queue Delay	0.0	0.0		0.0
Total Delay	27.7	12.9		66.8
LOS	C	B		E
Approach Delay	27.7	12.9		66.8
Approach LOS	C	B		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 127.5%	ICU Level of Service H
Analysis Period (min) 15	

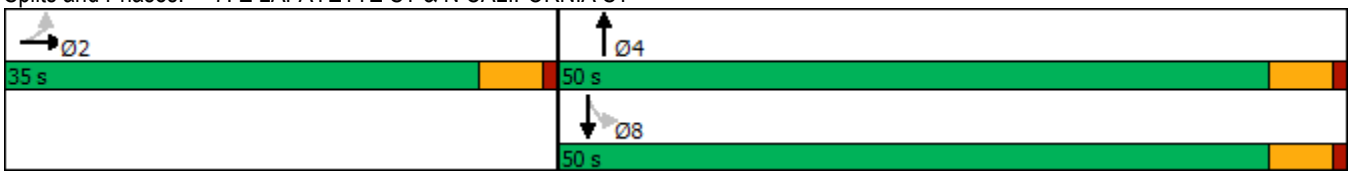
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	659	106	223	172
Future Volume (vph)	659	106	223	172
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	20.0	20.0	20.0
Minimum Split (s)	25.0	25.0	25.0	25.0
Total Split (s)	35.0	50.0	50.0	50.0
Total Split (%)	41.2%	58.8%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	30.0	45.0		45.0
Actuated g/C Ratio	0.35	0.53		0.53
v/c Ratio	0.71	0.09		0.34
Control Delay	27.6	7.2		12.5
Queue Delay	0.0	0.0		0.0
Total Delay	27.6	7.2		12.5
LOS	C	A		B
Approach Delay	27.6	7.2		12.5
Approach LOS	C	A		B

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

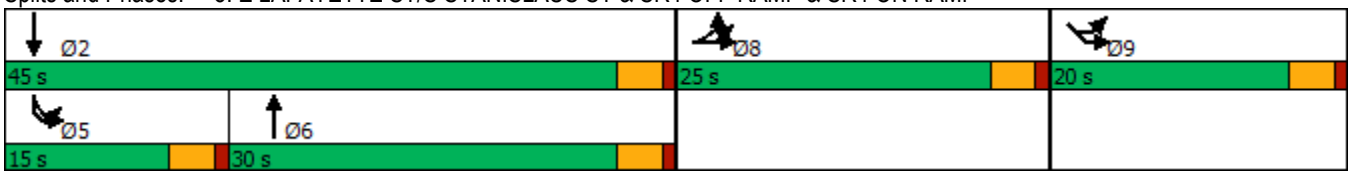
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	666	166	373	39	275	161	416
Future Volume (vph)	666	166	373	39	275	161	416
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	21.0	21.0	26.0	11.0	41.0	16.0	16.0
Actuated g/C Ratio	0.23	0.23	0.29	0.12	0.46	0.18	0.18
v/c Ratio	1.30	1.29	1.19	1.10	0.35	0.56	1.69
Control Delay	185.4	178.4	137.0	129.1	17.4	41.4	353.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	185.4	178.4	137.0	129.1	17.4	41.4	353.1
LOS	F	F	F	F	B	D	F
Approach Delay		181.9	137.0		66.8		275.2
Approach LOS		F	F		E		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.69	
Intersection Signal Delay: 174.5	Intersection LOS: F
Intersection Capacity Utilization 105.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	36.9
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	550	48	66	0	13	0	130	22	13	74	0
Future Vol, veh/h	67	550	48	66	0	13	0	130	22	13	74	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	598	52	72	0	14	0	141	24	14	80	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	49.3	10.3	11.6	10.8
HCM LOS	E	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	100%	0%	15%
Vol Thru, %	86%	0%	92%	0%	0%	85%
Vol Right, %	14%	0%	8%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	67	598	66	13	87
LT Vol	0	67	0	66	0	13
Through Vol	130	0	550	0	0	74
RT Vol	22	0	48	0	13	0
Lane Flow Rate	165	73	650	72	14	95
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.282	0.122	0.983	0.136	0.022	0.169
Departure Headway (Hd)	6.134	6.009	5.447	6.806	5.583	6.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	585	597	670	526	639	557
Service Time	4.186	3.739	3.177	4.56	3.337	4.476
HCM Lane V/C Ratio	0.282	0.122	0.97	0.137	0.022	0.171
HCM Control Delay	11.6	9.6	53.7	10.6	8.5	10.8
HCM Lane LOS	B	A	F	B	A	B
HCM 95th-tile Q	1.2	0.4	14.9	0.5	0.1	0.6

Intersection	
Int Delay, s/veh	560.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	175	104	227	4	9	10	25	1106	13	18	1044	39
Future Vol, veh/h	175	104	227	4	9	10	25	1106	13	18	1044	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	190	113	247	4	10	11	27	1202	14	20	1135	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1856	2466	589	1927	2480	608	1177	0	0	1216	0	0
Stage 1	1196	1196	-	1263	1263	-	-	-	-	-	-	-
Stage 2	660	1270	-	664	1217	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 45	~ 30	452	40	29	439	589	-	-	569	-	-
Stage 1	198	258	-	180	239	-	-	-	-	-	-	-
Stage 2	418	237	-	416	252	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 24	~ 23	452	-	22	439	589	-	-	569	-	-
Mov Cap-2 Maneuver	~ 24	~ 23	-	-	22	-	-	-	-	-	-	-
Stage 1	~ 170	231	-	154	205	-	-	-	-	-	-	-
Stage 2	333	203	-	87	226	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	3069.7		1	0.8
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	24	452	-	439	569	-	-
HCM Lane V/C Ratio	0.046	-	-	12.636	0.546	-	0.025	0.034	-	-
HCM Control Delay (s)	11.4	0.8	-	$ 5549.3	22.1	-	13.4	11.6	0.6	-
HCM Lane LOS	B	A	-	F	C	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	37.9	3.2	-	0.1	0.1	-	-

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

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	31	39	1392	936	23
Future Vol, veh/h	53	31	39	1392	936	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	34	42	1513	1017	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1871	521	1042	0	-	0
Stage 1	1030	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	64	500	663	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 39	500	663	-	-	-
Mov Cap-2 Maneuver	~ 39	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 429.4	2.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	663	-	59	-	-
HCM Lane V/C Ratio	0.064	-	1.548	-	-
HCM Control Delay (s)	10.8	2$	429.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	8.2	-	-

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

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	54	6	80	158	14	23	87	31	25	130	5
Future Vol, veh/h	10	54	6	80	158	14	23	87	31	25	130	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	59	7	87	172	15	25	95	34	27	141	5
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	10.1	9.1	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	35%	0%	27%	0%	50%	0%	28%	0%
Vol Thru, %	65%	58%	73%	82%	50%	85%	72%	93%
Vol Right, %	0%	42%	0%	18%	0%	15%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	75	37	33	159	93	90	70
LT Vol	23	0	10	0	80	0	25	0
Through Vol	44	44	27	27	79	79	65	65
RT Vol	0	31	0	6	0	14	0	5
Lane Flow Rate	72	81	40	36	173	101	98	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.117	0.121	0.065	0.056	0.275	0.151	0.157	0.118
Departure Headway (Hd)	5.84	5.371	5.858	5.593	5.729	5.369	5.775	5.584
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	609	661	605	633	622	662	616	637
Service Time	3.623	3.155	3.656	3.39	3.506	3.146	3.556	3.366
HCM Lane V/C Ratio	0.118	0.123	0.066	0.057	0.278	0.153	0.159	0.119
HCM Control Delay	9.4	8.9	9.1	8.7	10.7	9.1	9.6	9.1
HCM Lane LOS	A	A	A	A	B	A	A	A
HCM 95th-tile Q	0.4	0.4	0.2	0.2	1.1	0.5	0.6	0.4

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	98	0	10	220	18	10	62	6	19	80	16
Future Vol, veh/h	18	98	0	10	220	18	10	62	6	19	80	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	107	0	11	239	20	11	67	7	21	87	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	107	0	0	332	428	54	398	418	130
Stage 1	-	-	-	-	-	-	147	147	-	271	271	-
Stage 2	-	-	-	-	-	-	185	281	-	127	147	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1303	-	-	1482	-	-	598	518	1002	536	524	896
Stage 1	-	-	-	-	-	-	841	774	-	712	684	-
Stage 2	-	-	-	-	-	-	799	677	-	863	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1303	-	-	1482	-	-	501	505	1002	469	511	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	505	-	469	511	-
Stage 1	-	-	-	-	-	-	828	762	-	701	678	-
Stage 2	-	-	-	-	-	-	677	671	-	769	762	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.3	13.2	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	524	1303	-	-	1482	-	-	535
HCM Lane V/C Ratio	0.162	0.015	-	-	0.007	-	-	0.234
HCM Control Delay (s)	13.2	7.8	0	-	7.4	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.9

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	111	18	53	229	18	19	83	73	17	155	13
Future Vol, veh/h	8	111	18	53	229	18	19	83	73	17	155	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	121	20	58	249	20	21	90	79	18	168	14
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.7	10.9	9.9	10.2
HCM LOS	A	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	31%	0%	13%	0%	32%	0%	18%	0%
Vol Thru, %	69%	36%	87%	76%	68%	86%	82%	86%
Vol Right, %	0%	64%	0%	24%	0%	14%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	115	64	74	168	133	95	91
LT Vol	19	0	8	0	53	0	17	0
Through Vol	42	42	56	56	115	115	78	78
RT Vol	0	73	0	18	0	18	0	13
Lane Flow Rate	66	124	69	80	182	144	103	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.116	0.198	0.119	0.132	0.306	0.232	0.178	0.165
Departure Headway (Hd)	6.341	5.73	6.208	5.97	6.045	5.789	6.245	6.052
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	566	626	578	600	595	621	574	592
Service Time	4.079	3.467	3.946	3.709	3.776	3.52	3.983	3.79
HCM Lane V/C Ratio	0.117	0.198	0.119	0.133	0.306	0.232	0.179	0.166
HCM Control Delay	9.9	9.9	9.8	9.6	11.4	10.3	10.3	10
HCM Lane LOS	A	A	A	A	B	B	B	A
HCM 95th-tile Q	0.4	0.7	0.4	0.5	1.3	0.9	0.6	0.6

Intersection	
Intersection Delay, s/veh	28.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	146	19	159	255	84	5	238	141	61	293	48
Future Vol, veh/h	48	146	19	159	255	84	5	238	141	61	293	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	159	21	173	277	91	5	259	153	66	318	52
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	15.7	26.7	20.6	46.3
HCM LOS	C	D	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	2%	0%	40%	0%	55%	0%	17%	0%
Vol Thru, %	98%	0%	60%	79%	45%	60%	83%	0%
Vol Right, %	0%	100%	0%	21%	0%	40%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	141	121	92	287	212	354	48
LT Vol	5	0	48	0	159	0	61	0
Through Vol	238	0	73	73	128	128	293	0
RT Vol	0	141	0	19	0	84	0	48
Lane Flow Rate	264	153	132	100	311	230	385	52
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.623	0.33	0.337	0.247	0.744	0.512	0.899	0.11
Departure Headway (Hd)	8.49	7.753	9.234	8.876	8.601	8.025	8.414	7.6
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	425	464	389	405	424	451	431	473
Service Time	6.24	5.502	6.989	6.631	6.323	5.747	6.133	5.319
HCM Lane V/C Ratio	0.621	0.33	0.339	0.247	0.733	0.51	0.893	0.11
HCM Control Delay	24.3	14.3	16.6	14.5	32.5	18.9	51.1	11.3
HCM Lane LOS	C	B	C	B	D	C	F	B
HCM 95th-tile Q	4.1	1.4	1.5	1	6	2.8	9.6	0.4

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	294	21	40	380	5	23	32	25	18	32	49
Future Vol, veh/h	61	294	21	40	380	5	23	32	25	18	32	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	320	23	43	413	5	25	35	27	20	35	53
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

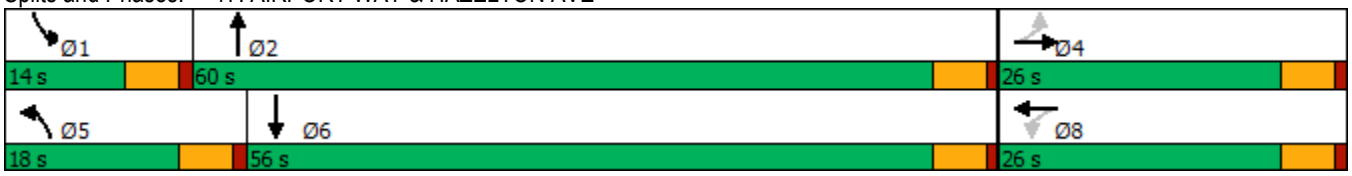
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.4	11.7	10.1	10.1
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	29%	0%	17%	0%	18%
Vol Thru, %	40%	71%	88%	83%	97%	32%
Vol Right, %	31%	0%	12%	0%	3%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	208	168	230	195	99
LT Vol	23	61	0	40	0	18
Through Vol	32	147	147	190	190	32
RT Vol	25	0	21	0	5	49
Lane Flow Rate	87	226	183	250	212	108
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.146	0.367	0.285	0.398	0.331	0.175
Departure Headway (Hd)	6.04	5.85	5.613	5.727	5.621	5.86
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	593	615	641	630	640	611
Service Time	4.083	3.581	3.344	3.457	3.351	3.901
HCM Lane V/C Ratio	0.147	0.367	0.285	0.397	0.331	0.177
HCM Control Delay	10.1	12	10.6	12.2	11.1	10.1
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.5	1.7	1.2	1.9	1.4	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	146	9	145	127	1044	66	1089
Future Volume (vph)	61	146	9	145	127	1044	66	1089
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	10.0	4.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	9.0	31.0	9.0	31.0
Total Split (s)	26.0	26.0	26.0	26.0	18.0	60.0	14.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	18.0%	60.0%	14.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	13.3	13.3	13.3	13.3	11.1	57.1	8.0	51.6
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.12	0.63	0.09	0.57
v/c Ratio	0.38	0.68	0.12	0.38	0.64	0.57	0.46	0.70
Control Delay	42.6	23.7	37.0	33.6	52.8	12.6	50.9	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	23.7	37.0	33.6	52.8	12.6	50.9	17.4
LOS	D	C	D	C	D	B	D	B
Approach Delay		26.2		33.8		16.8		19.2
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 91.1	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 20.1	Intersection LOS: C
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

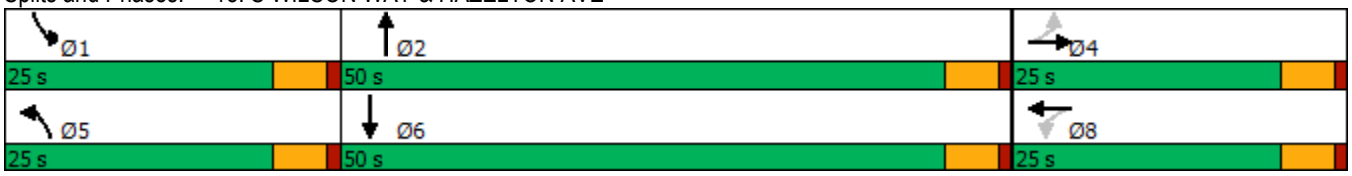
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	81	85	101	118	111	1015	70	920
Future Volume (vph)	81	85	101	118	111	1015	70	920
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		15.3		15.3	11.2	34.5	9.3	32.9
Actuated g/C Ratio		0.21		0.21	0.16	0.48	0.13	0.46
v/c Ratio		0.62		0.70	0.44	0.71	0.33	0.66
Control Delay		20.0		23.3	38.2	18.4	38.8	18.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		20.0		23.3	38.2	18.4	38.8	18.7
LOS		C		C	D	B	D	B
Approach Delay		20.0		23.3		20.2		20.1
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 71.7	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	63	5	5	41	3	12	85	0	3	122	34
Future Vol, veh/h	18	63	5	5	41	3	12	85	0	3	122	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	68	5	5	45	3	13	92	0	3	133	37
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.3	8.1	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	21%	10%	5%	0%
Vol Thru, %	70%	100%	73%	84%	95%	64%
Vol Right, %	0%	0%	6%	6%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	57	86	49	64	95
LT Vol	12	0	18	5	3	0
Through Vol	28	57	63	41	61	61
RT Vol	0	0	5	3	0	34
Lane Flow Rate	44	62	93	53	70	103
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	0.086	0.121	0.069	0.097	0.136
Departure Headway (Hd)	5.192	5.042	4.666	4.693	5.009	4.734
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	691	711	769	764	717	759
Service Time	2.915	2.766	2.687	2.718	2.731	2.455
HCM Lane V/C Ratio	0.064	0.087	0.121	0.069	0.098	0.136
HCM Control Delay	8.3	8.2	8.3	8.1	8.3	8.2
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2	0.3	0.5

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	51	5	0	35	3	4	79	5	6	92	6
Future Vol, veh/h	12	51	5	0	35	3	4	79	5	6	92	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	55	5	0	38	3	4	86	5	7	100	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.7	7.9	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	18%	0%	6%
Vol Thru, %	90%	75%	92%	88%
Vol Right, %	6%	7%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	68	38	104
LT Vol	4	12	0	6
Through Vol	79	51	35	92
RT Vol	5	5	3	6
Lane Flow Rate	96	74	41	113
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.091	0.051	0.135
Departure Headway (Hd)	4.302	4.438	4.437	4.287
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	810	810	841
Service Time	2.305	2.451	2.451	2.289
HCM Lane V/C Ratio	0.115	0.091	0.051	0.134
HCM Control Delay	7.9	7.9	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.2	0.5

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	3	47	9	16	35	12	4	98	18	9	162	5
Future Vol, veh/h	3	47	9	16	35	12	4	98	18	9	162	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	51	10	17	38	13	4	107	20	10	176	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	334	91	259	326	64	181	0	0	127	0	0
Stage 1	199	199	-	125	125	-	-	-	-	-	-	-
Stage 2	81	135	-	134	201	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	650	585	949	673	591	987	1392	-	-	1457	-	-
Stage 1	784	735	-	866	792	-	-	-	-	-	-	-
Stage 2	918	784	-	855	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	605	579	949	616	584	987	1392	-	-	1457	-	-
Mov Cap-2 Maneuver	605	579	-	616	584	-	-	-	-	-	-	-
Stage 1	782	729	-	863	790	-	-	-	-	-	-	-
Stage 2	860	782	-	781	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	11.3	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	617	642	1457	-	-
HCM Lane V/C Ratio	0.003	-	-	0.104	0.107	0.007	-	-
HCM Control Delay (s)	7.6	0	-	11.5	11.3	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	18	14	9	16	30	5	345	12	23	469	38
Future Vol, veh/h	23	18	14	9	16	30	5	345	12	23	469	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	20	15	10	17	33	5	375	13	25	510	41

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	998	979	531	990	993	382	551	0	0	388	0	0
Stage 1	581	581	-	392	392	-	-	-	-	-	-	-
Stage 2	417	398	-	598	601	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	223	250	548	225	245	665	1019	-	-	1170	-	-
Stage 1	499	500	-	633	606	-	-	-	-	-	-	-
Stage 2	613	603	-	489	489	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	194	241	548	200	236	665	1019	-	-	1170	-	-
Mov Cap-2 Maneuver	194	241	-	200	236	-	-	-	-	-	-	-
Stage 1	496	485	-	629	602	-	-	-	-	-	-	-
Stage 2	563	599	-	442	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.8	17.5	0.1	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1019	-	-	251	348	1170	-	-
HCM Lane V/C Ratio	0.005	-	-	0.238	0.172	0.021	-	-
HCM Control Delay (s)	8.6	0	-	23.8	17.5	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.6	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	22	17	209	185	104
Future Vol, veh/h	43	22	17	209	185	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	24	18	227	201	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	258	314	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	516	781	1246	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	507	781	1246	-	-	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	781	-	-	-	-	-

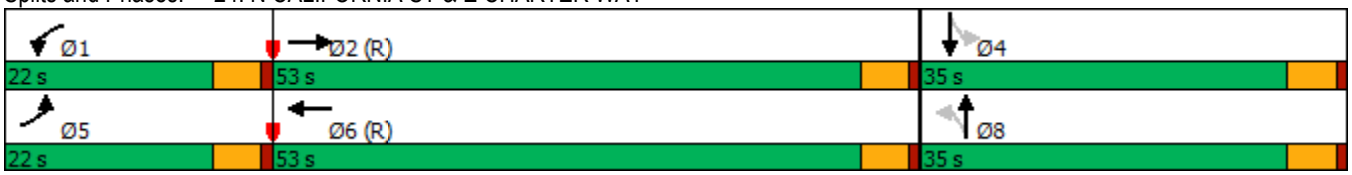
Approach	EB	NB	SB
HCM Control Delay, s	12.1	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1246	-	575	-	-
HCM Lane V/C Ratio	0.015	-	0.123	-	-
HCM Control Delay (s)	7.9	0	12.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	79	1096	87	1068	71	101	82	104
Future Volume (vph)	79	1096	87	1068	71	101	82	104
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	22.0	53.0	22.0	53.0	35.0	35.0	35.0	35.0
Total Split (%)	20.0%	48.2%	20.0%	48.2%	31.8%	31.8%	31.8%	31.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	10.7	66.6	11.2	69.4		17.2		17.2
Actuated g/C Ratio	0.10	0.61	0.10	0.63		0.16		0.16
v/c Ratio	0.50	0.63	0.53	0.61		0.72		0.79
Control Delay	56.5	16.9	56.7	15.9		31.6		50.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	56.5	16.9	56.7	15.9		31.6		50.3
LOS	E	B	E	B		C		D
Approach Delay		19.5		18.8		31.6		50.3
Approach LOS		B		B		C		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	175	1196	35	12	1038	114	19	13	14	119	32	244
Future Vol, veh/h	175	1196	35	12	1038	114	19	13	14	119	32	244
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	190	1300	38	13	1128	124	21	14	15	129	35	265

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1252	0	0	1338	0	0	2307	2977	669	2253	2934	626
Stage 1	-	-	-	-	-	-	1699	1699	-	1216	1216	-
Stage 2	-	-	-	-	-	-	608	1278	-	1037	1718	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	552	-	-	511	-	-	21	~ 14	400	~ 23	~ 15	427
Stage 1	-	-	-	-	-	-	96	146	-	192	252	-
Stage 2	-	-	-	-	-	-	450	235	-	247	143	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	552	-	-	511	-	-	-	~ 9	400	-	~ 10	427
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 9	-	-	~ 10	-
Stage 1	-	-	-	-	-	-	63	96	-	~ 126	246	-
Stage 2	-	-	-	-	-	-	143	229	-	133	94	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	400	552	-	-	511	-	-	-	427
HCM Lane V/C Ratio	-	0.038	0.345	-	-	0.026	-	-	-	0.621
HCM Control Delay (s)	-	14.4	14.9	-	-	12.2	-	-	-	26.3
HCM Lane LOS	-	B	B	-	-	B	-	-	-	D
HCM 95th %tile Q(veh)	-	0.1	1.5	-	-	0.1	-	-	-	4.1

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

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	1364	1054	54	38	133
Future Vol, veh/h	69	1364	1054	54	38	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	1483	1146	59	41	145

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1205	0	-	0	2068	603
Stage 1	-	-	-	-	1176	-
Stage 2	-	-	-	-	892	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	575	-	-	-	47	442
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	361	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	575	-	-	-	~ 12	442
Mov Cap-2 Maneuver	-	-	-	-	~ 12	-
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	361	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	17.1
HCM LOS			C

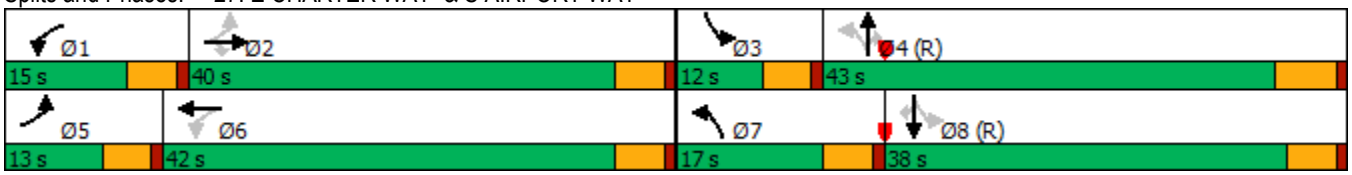
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	575	-	-	-	442
HCM Lane V/C Ratio	0.13	-	-	-	0.327
HCM Control Delay (s)	12.2	-	-	-	17.1
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.4

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	737	498	305	550	518	588	281	110	505	147
Future Volume (vph)	129	737	498	305	550	518	588	281	110	505	147
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	42.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	13.0	40.0	40.0	15.0	42.0	17.0	43.0	43.0	12.0	38.0	38.0
Total Split (%)	11.8%	36.4%	36.4%	13.6%	38.2%	15.5%	39.1%	39.1%	10.9%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.3	35.4	35.4	47.7	38.1	50.0	37.6	37.6	39.4	33.0	33.0
Actuated g/C Ratio	0.38	0.32	0.32	0.43	0.35	0.45	0.34	0.34	0.36	0.30	0.30
v/c Ratio	0.27	0.70	0.81	0.66	0.59	0.79	0.53	0.44	0.21	0.52	0.27
Control Delay	18.8	36.8	29.6	25.2	31.1	29.6	31.1	10.1	18.4	34.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	36.8	29.6	25.2	31.1	29.6	31.1	10.1	18.4	34.0	5.8
LOS	B	D	C	C	C	C	C	B	B	C	A
Approach Delay		32.5			29.2		26.3			26.3	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

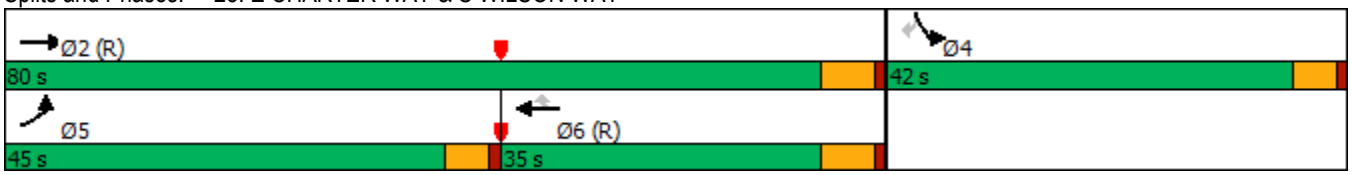
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	372	756	634	578	690	406
Future Volume (vph)	372	756	634	578	690	406
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	34.7	74.7	35.0	35.0	36.3	36.3
Actuated g/C Ratio	0.28	0.61	0.29	0.29	0.30	0.30
v/c Ratio	0.80	0.38	0.68	0.70	0.73	0.57
Control Delay	52.8	12.7	44.0	7.7	43.4	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	12.7	44.0	7.7	43.4	6.1
LOS	D	B	D	A	D	A
Approach Delay		25.9	26.7		29.6	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 27.4	Intersection LOS: C
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

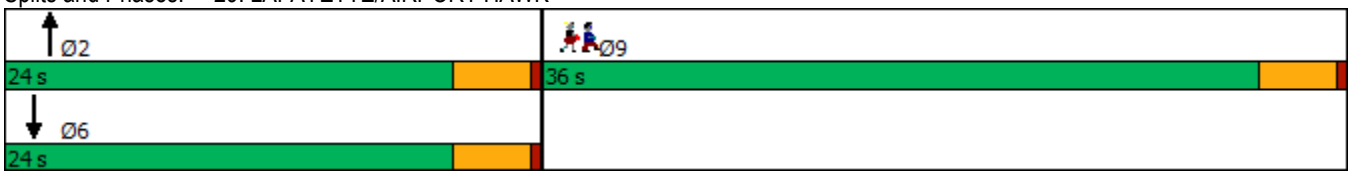
Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	NBT	SBT	Ø9
Lane Configurations			
Traffic Volume (vph)	1144	1275	
Future Volume (vph)	1144	1275	
Turn Type	NA	NA	
Protected Phases	2	6	9
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	29.0
Total Split (s)	24.0	24.0	36.0
Total Split (%)	40.0%	40.0%	60%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	20.0	20.0	
Actuated g/C Ratio	0.42	0.42	
v/c Ratio	0.84	0.94	
Control Delay	20.0	28.9	
Queue Delay	0.0	0.0	
Total Delay	20.0	28.9	
LOS	B	C	
Approach Delay	20.0	28.9	
Approach LOS	B	C	

Intersection Summary		
Cycle Length: 60		
Actuated Cycle Length: 48		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 24.7		Intersection LOS: C
Intersection Capacity Utilization 38.6%		ICU Level of Service A
Analysis Period (min) 15		

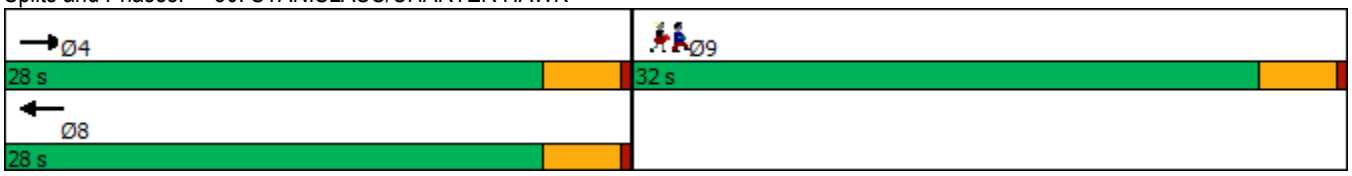
Splits and Phases: 29: LAFAYETTE/AIRPORT HAWK



Lane Group	EBT	WBT	Ø9
Lane Configurations			
Traffic Volume (vph)	1329	1164	
Future Volume (vph)	1329	1164	
Turn Type	NA	NA	
Protected Phases	4	8	9
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.0
Total Split (s)	28.0	28.0	32.0
Total Split (%)	46.7%	46.7%	53%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	24.0	24.0	
Actuated g/C Ratio	0.40	0.40	
v/c Ratio	1.02	0.89	
Control Delay	50.0	27.2	
Queue Delay	0.0	24.9	
Total Delay	50.0	52.2	
LOS	D	D	
Approach Delay	50.0	52.2	
Approach LOS	D	D	

Intersection Summary		
Cycle Length: 60		
Actuated Cycle Length: 60		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.02		
Intersection Signal Delay: 51.0		Intersection LOS: D
Intersection Capacity Utilization 40.1%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 30: STANISLAUS/CHARTER HAWK



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	137	47	319	202	497	30	224
Future Volume (vph)	26	137	47	319	202	497	30	224
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	20.4	20.4		20.4
Actuated g/C Ratio		0.39		0.39	0.41	0.41		0.41
v/c Ratio		0.38		0.75	0.53	0.87		0.69
Control Delay		10.7		20.9	20.3	31.9		25.1
Queue Delay		0.0		0.0	0.0	0.0		0.0
Total Delay		10.7		20.9	20.3	31.9		25.1
LOS		B		C	C	C		C
Approach Delay		10.7		20.9		28.9		25.1
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 50	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	44	6	227	132	764	14	575
Future Volume (vph)	41	44	6	227	132	764	14	575
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	16.8	16.8	16.8	16.8		61.1		61.1
Actuated g/C Ratio	0.19	0.19	0.19	0.19		0.70		0.70
v/c Ratio	0.39	0.20	0.03	0.76		0.55		0.31
Control Delay	40.8	22.2	28.0	47.3		8.5		5.8
Queue Delay	0.0	0.0	0.0	0.0		0.7		0.0
Total Delay	40.8	22.2	28.0	47.3		9.2		5.8
LOS	D	C	C	D		A		A
Approach Delay		29.4		46.9		9.2		5.8
Approach LOS		C		D		A		A

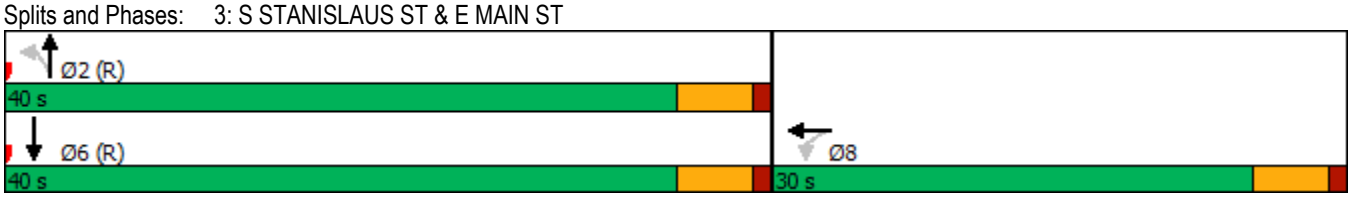
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.9	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	179	311	737	210
Future Volume (vph)	179	311	737	210
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.29		0.93	0.21
Control Delay	15.7		21.1	6.6
Queue Delay	0.0		0.0	0.0
Total Delay	15.7		21.1	6.6
LOS	B		C	A
Approach Delay	15.7		21.1	6.6
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST



Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	128	56	833	574
Future Volume (vph)	128	56	833	574
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.25		0.52	0.30
Control Delay	22.1		9.8	7.4
Queue Delay	0.0		1.2	0.0
Total Delay	22.1		11.1	7.4
LOS	C		B	A
Approach Delay	22.1		11.1	7.4
Approach LOS	C		B	A

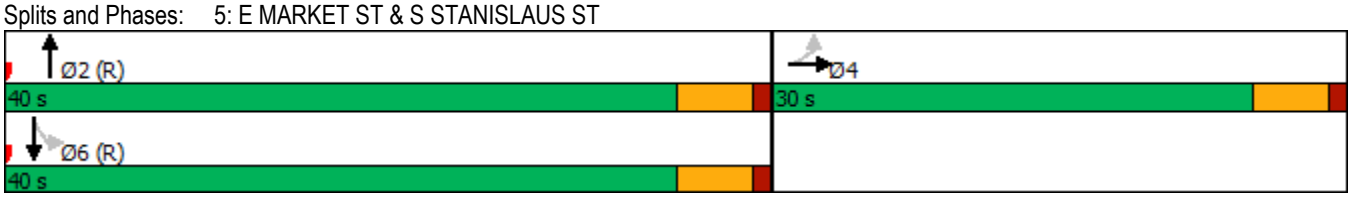
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	40	971	19	276
Future Volume (vph)	40	971	19	276
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.15	0.72		0.23
Control Delay	6.2	16.5		9.7
Queue Delay	0.0	0.2		0.0
Total Delay	6.2	16.8		9.7
LOS	A	B		A
Approach Delay	6.2	16.8		9.7
Approach LOS	A	B		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST



Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	83	872	54	534
Future Volume (vph)	83	872	54	534
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	48.0	48.0	48.0
Minimum Split (s)	27.0	53.0	53.0	53.0
Total Split (s)	27.0	53.0	53.0	53.0
Total Split (%)	33.8%	66.3%	66.3%	66.3%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	48.0		48.0
Actuated g/C Ratio	0.28	0.60		0.60
v/c Ratio	0.31	0.50		0.41
Control Delay	18.1	10.1		9.4
Queue Delay	0.0	0.0		0.0
Total Delay	18.1	10.1		9.4
LOS	B	B		A
Approach Delay	18.1	10.1		9.4
Approach LOS	B	B		A

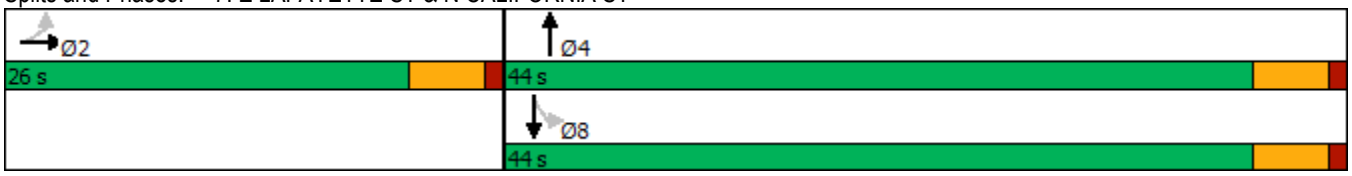
Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	335	118	88	104
Future Volume (vph)	335	118	88	104
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	16.0	20.0	20.0
Minimum Split (s)	26.0	21.0	26.0	26.0
Total Split (s)	26.0	44.0	44.0	44.0
Total Split (%)	37.1%	62.9%	62.9%	62.9%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	21.0	39.0		39.0
Actuated g/C Ratio	0.30	0.56		0.56
v/c Ratio	0.63	0.09		0.15
Control Delay	24.3	5.8		7.8
Queue Delay	0.0	0.0		0.0
Total Delay	24.3	5.8		7.8
LOS	C	A		A
Approach Delay	24.3	5.8		7.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

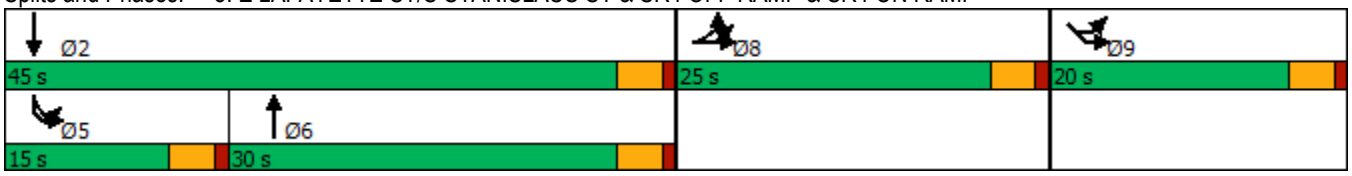
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	241	101	244	25	180	773	343
Future Volume (vph)	241	101	244	25	180	773	343
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	17.4	17.4	26.8	10.2	41.1	16.0	16.0
Actuated g/C Ratio	0.20	0.20	0.31	0.12	0.48	0.18	0.18
v/c Ratio	0.75	0.74	0.85	0.69	0.22	2.56	1.63
Control Delay	47.1	45.1	48.3	55.4	14.9	732.3	325.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	45.1	48.3	55.4	14.9	732.3	325.4
LOS	D	D	D	E	B	F	F
Approach Delay		46.1	48.3		32.1		576.7
Approach LOS		D	D		C		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 86.5	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.56	
Intersection Signal Delay: 319.8	Intersection LOS: F
Intersection Capacity Utilization 97.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	278	0	304	0	0	0	0	51	0	0	65	0
Future Vol, veh/h	278	0	304	0	0	0	0	51	0	0	65	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	302	0	330	0	0	0	0	55	0	0	71	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.9	0	8.8	8.9
HCM LOS	B	-	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%	0%	0%
Vol Thru, %	100%	0%	0%	100%	100%	100%
Vol Right, %	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	278	304	0	0	65
LT Vol	0	278	0	0	0	0
Through Vol	51	0	0	0	0	65
RT Vol	0	0	304	0	0	0
Lane Flow Rate	55	302	330	0	0	71
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.082	0.451	0.382	0	0	0.104
Departure Headway (Hd)	5.308	5.37	4.167	5.467	5.467	5.284
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	675	671	862	0	0	678
Service Time	3.339	3.095	1.891	3.213	3.213	3.314
HCM Lane V/C Ratio	0.081	0.45	0.383	0	0	0.105
HCM Control Delay	8.8	12.5	9.5	8.2	8.2	8.9
HCM Lane LOS	A	B	A	N	N	A
HCM 95th-tile Q	0.3	2.3	1.8	0	0	0.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	10	23	0	6	8	12	657	52	26	681	44
Future Vol, veh/h	12	10	23	0	6	8	12	657	52	26	681	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	11	25	0	7	9	13	714	57	28	740	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1207	1617	394	1201	1613	386	788	0	0	771	0	0
Stage 1	820	820	-	769	769	-	-	-	-	-	-	-
Stage 2	387	797	-	432	844	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	139	103	605	140	103	612	827	-	-	840	-	-
Stage 1	335	387	-	360	409	-	-	-	-	-	-	-
Stage 2	608	397	-	572	377	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	121	94	605	114	94	612	827	-	-	840	-	-
Mov Cap-2 Maneuver	121	94	-	114	94	-	-	-	-	-	-	-
Stage 1	326	364	-	350	398	-	-	-	-	-	-	-
Stage 2	573	386	-	500	354	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.2	26	0.2	0.6
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	827	-	-	107	605	94	612	840	-	-
HCM Lane V/C Ratio	0.016	-	-	0.223	0.041	0.069	0.014	0.034	-	-
HCM Control Delay (s)	9.4	0.1	-	48.1	11.2	46.1	11	9.4	0.3	-
HCM Lane LOS	A	A	-	E	B	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0.2	0	0.1	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	3	85	996	1010	31
Future Vol, veh/h	35	3	85	996	1010	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	3	92	1083	1098	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1841	566	1132	0	-	0
Stage 1	1115	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	67	467	613	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	42	467	613	-	-	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	171	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	249.2	2.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	613	-	45	-	-
HCM Lane V/C Ratio	0.151	-	0.918	-	-
HCM Control Delay (s)	11.9	1.9	249.2	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	3.7	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	48	9	58	124	5	5	54	32	13	83	8
Future Vol, veh/h	9	48	9	58	124	5	5	54	32	13	83	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	52	10	63	135	5	5	59	35	14	90	9
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.3	9	8.3	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	16%	0%	27%	0%	48%	0%	24%	0%
Vol Thru, %	84%	46%	73%	73%	52%	93%	76%	84%
Vol Right, %	0%	54%	0%	27%	0%	7%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	59	33	33	120	67	55	50
LT Vol	5	0	9	0	58	0	13	0
Through Vol	27	27	24	24	62	62	42	42
RT Vol	0	32	0	9	0	5	0	8
Lane Flow Rate	35	64	36	36	130	73	59	54
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.053	0.089	0.054	0.051	0.195	0.103	0.09	0.078
Departure Headway (Hd)	5.441	4.98	5.424	5.095	5.388	5.093	5.461	5.227
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	657	718	659	701	665	703	655	684
Service Time	3.18	2.72	3.168	2.838	3.125	2.83	3.201	2.967
HCM Lane V/C Ratio	0.053	0.089	0.055	0.051	0.195	0.104	0.09	0.079
HCM Control Delay	8.5	8.2	8.5	8.1	9.4	8.4	8.7	8.4
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.2	0.2	0.7	0.3	0.3	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	70	5	27	167	17	0	48	4	26	35	19
Future Vol, veh/h	21	70	5	27	167	17	0	48	4	26	35	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	76	5	29	182	18	0	52	4	28	38	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	81	0	0	293	383	41	359	376	100
Stage 1	-	-	-	-	-	-	125	125	-	249	249	-
Stage 2	-	-	-	-	-	-	168	258	-	110	127	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1370	-	-	1515	-	-	637	549	1021	572	554	936
Stage 1	-	-	-	-	-	-	866	792	-	733	699	-
Stage 2	-	-	-	-	-	-	817	693	-	883	790	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1370	-	-	1515	-	-	571	527	1021	511	532	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	571	527	-	511	532	-
Stage 1	-	-	-	-	-	-	850	778	-	720	684	-
Stage 2	-	-	-	-	-	-	738	678	-	806	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	1	12.3	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	1370	-	-	1515	-	-	584
HCM Lane V/C Ratio	0.103	0.017	-	-	0.019	-	-	0.149
HCM Control Delay (s)	12.3	7.7	0	-	7.4	0.1	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.5

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	71	8	43	202	32	5	84	22	27	35	9
Future Vol, veh/h	16	71	8	43	202	32	5	84	22	27	35	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	77	9	47	220	35	5	91	24	29	38	10
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.6	9.4	8.8	9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	31%	0%	30%	0%	61%	0%
Vol Thru, %	89%	66%	69%	82%	70%	76%	39%	66%
Vol Right, %	0%	34%	0%	18%	0%	24%	0%	34%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	64	52	44	144	133	45	27
LT Vol	5	0	16	0	43	0	27	0
Through Vol	42	42	36	36	101	101	18	18
RT Vol	0	22	0	8	0	32	0	9
Lane Flow Rate	51	70	56	47	157	145	48	29
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.081	0.104	0.086	0.069	0.231	0.201	0.08	0.043
Departure Headway (Hd)	5.676	5.379	5.531	5.245	5.322	5.002	5.979	5.433
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	629	664	645	680	673	716	597	656
Service Time	3.431	3.135	3.288	3.002	3.067	2.748	3.739	3.193
HCM Lane V/C Ratio	0.081	0.105	0.087	0.069	0.233	0.203	0.08	0.044
HCM Control Delay	8.9	8.8	8.8	8.4	9.7	9	9.3	8.4
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3	0.2	0.9	0.7	0.3	0.1

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	79	12	99	240	140	23	211	62	133	146	52
Future Vol, veh/h	4	79	12	99	240	140	23	211	62	133	146	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	86	13	108	261	152	25	229	67	145	159	57
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.5	16.4	16	19.6
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	10%	0%	9%	0%	45%	0%	48%	0%
Vol Thru, %	90%	0%	91%	77%	55%	46%	52%	0%
Vol Right, %	0%	100%	0%	23%	0%	54%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	62	44	52	219	260	279	52
LT Vol	23	0	4	0	99	0	133	0
Through Vol	211	0	40	40	120	120	146	0
RT Vol	0	62	0	12	0	140	0	52
Lane Flow Rate	254	67	47	56	238	283	303	57
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.514	0.122	0.104	0.12	0.479	0.52	0.62	0.101
Departure Headway (Hd)	7.268	6.501	7.922	7.707	7.239	6.623	7.363	6.404
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	551	452	465	498	545	491	560
Service Time	5.011	4.243	5.676	5.46	4.978	4.362	5.106	4.146
HCM Lane V/C Ratio	0.512	0.122	0.104	0.12	0.478	0.519	0.617	0.102
HCM Control Delay	17.5	10.2	11.6	11.5	16.5	16.4	21.4	9.9
HCM Lane LOS	C	B	B	B	C	C	C	A
HCM 95th-tile Q	2.9	0.4	0.3	0.4	2.6	3	4.1	0.3

Intersection	
Intersection Delay, s/veh	31.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	128	18	21	394	7	4	27	13	385	56	101
Future Vol, veh/h	21	128	18	21	394	7	4	27	13	385	56	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	139	20	23	428	8	4	29	14	418	61	110
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

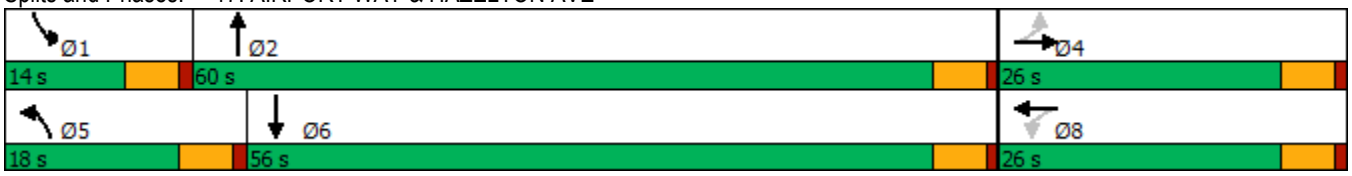
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12	15.4	10.8	50.8
HCM LOS	B	C	B	F

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	9%	25%	0%	10%	0%	71%
Vol Thru, %	61%	75%	78%	90%	97%	10%
Vol Right, %	30%	0%	22%	0%	3%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	85	82	218	204	542
LT Vol	4	21	0	21	0	385
Through Vol	27	64	64	197	197	56
RT Vol	13	0	18	0	7	101
Lane Flow Rate	48	92	89	237	222	589
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.094	0.196	0.182	0.466	0.431	0.957
Departure Headway (Hd)	7.051	7.644	7.358	7.073	6.999	5.85
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	509	471	489	512	517	613
Service Time	5.084	5.36	5.074	4.773	4.699	3.949
HCM Lane V/C Ratio	0.094	0.195	0.182	0.463	0.429	0.961
HCM Control Delay	10.8	12.2	11.7	15.8	14.9	50.8
HCM Lane LOS	B	B	B	C	B	F
HCM 95th-tile Q	0.3	0.7	0.7	2.4	2.1	13.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	112	114	10	140	92	573	47	645
Future Volume (vph)	112	114	10	140	92	573	47	645
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	10.0	4.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	9.0	31.0	9.0	31.0
Total Split (s)	26.0	26.0	26.0	26.0	18.0	60.0	14.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	18.0%	60.0%	14.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	15.1	15.1	15.1	15.1	10.1	57.6	7.6	52.9
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.11	0.64	0.08	0.58
v/c Ratio	0.63	0.44	0.07	0.35	0.51	0.31	0.34	0.40
Control Delay	50.7	17.6	33.5	29.6	48.9	9.5	48.1	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	17.6	33.5	29.6	48.9	9.5	48.1	12.5
LOS	D	B	C	C	D	A	D	B
Approach Delay		27.7		29.9		14.8		14.7
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 90.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

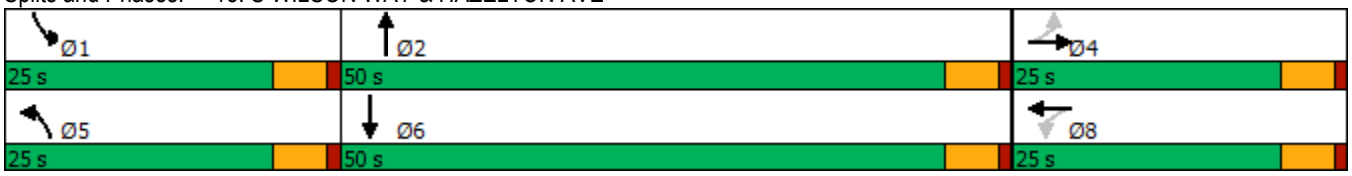
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	60	70	52	68	725	98	759
Future Volume (vph)	63	60	70	52	68	725	98	759
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		10.4		10.4	8.7	22.0	9.8	25.7
Actuated g/C Ratio		0.19		0.19	0.16	0.40	0.18	0.47
v/c Ratio		0.40		0.43	0.27	0.61	0.34	0.54
Control Delay		17.8		16.4	28.8	16.3	28.2	13.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		17.8		16.4	28.8	16.3	28.2	13.5
LOS		B		B	C	B	C	B
Approach Delay		17.8		16.4		17.3		15.1
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 54.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	18	1	6	76	6	5	66	5	3	70	21
Future Vol, veh/h	6	18	1	6	76	6	5	66	5	3	70	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	20	1	7	83	7	5	72	5	3	76	23
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	7.7	8	7.9	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	24%	7%	8%	0%
Vol Thru, %	87%	87%	72%	86%	92%	62%
Vol Right, %	0%	13%	4%	7%	0%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	38	25	88	38	56
LT Vol	5	0	6	6	3	0
Through Vol	33	33	18	76	35	35
RT Vol	0	5	1	6	0	21
Lane Flow Rate	41	41	27	96	41	61
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.057	0.055	0.034	0.116	0.057	0.078
Departure Headway (Hd)	4.981	4.823	4.505	4.378	4.94	4.637
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	723	747	797	822	729	777
Service Time	2.683	2.525	2.518	2.388	2.641	2.338
HCM Lane V/C Ratio	0.057	0.055	0.034	0.117	0.056	0.079
HCM Control Delay	8	7.8	7.7	8	7.9	7.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.1	0.4	0.2	0.3

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	19	0	1	69	0	0	67	3	0	75	8
Future Vol, veh/h	8	19	0	1	69	0	0	67	3	0	75	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	21	0	1	75	0	0	73	3	0	82	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.8	7.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	30%	1%	0%
Vol Thru, %	96%	70%	99%	90%
Vol Right, %	4%	0%	0%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	27	70	83
LT Vol	0	8	1	0
Through Vol	67	19	69	75
RT Vol	3	0	0	8
Lane Flow Rate	76	29	76	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.036	0.09	0.103
Departure Headway (Hd)	4.161	4.445	4.247	4.119
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	810	831	859
Service Time	2.245	2.445	2.338	2.199
HCM Lane V/C Ratio	0.09	0.036	0.091	0.105
HCM Control Delay	7.7	7.6	7.8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.1	0.3	0.3

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	9	6	12	23	13	26	80	3	3	35	14
Future Vol, veh/h	6	9	6	12	23	13	26	80	3	3	35	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	10	7	13	25	14	28	87	3	3	38	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	164	198	27	175	204	45	53	0	0	90	0	0
Stage 1	52	52	-	145	145	-	-	-	-	-	-	-
Stage 2	112	146	-	30	59	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	785	697	1042	771	691	1015	1551	-	-	1503	-	-
Stage 1	954	851	-	843	776	-	-	-	-	-	-	-
Stage 2	881	775	-	983	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	740	682	1042	746	676	1015	1551	-	-	1503	-	-
Mov Cap-2 Maneuver	740	682	-	746	676	-	-	-	-	-	-	-
Stage 1	936	849	-	827	761	-	-	-	-	-	-	-
Stage 2	824	760	-	964	843	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	1.8	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1551	-	-	776	763	1503	-	-
HCM Lane V/C Ratio	0.018	-	-	0.029	0.068	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.8	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	0	0	19	13	0	297	5	1	271	5
Future Vol, veh/h	5	8	0	0	19	13	0	297	5	1	271	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	9	0	0	21	14	0	323	5	1	295	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	643	628	298	630	628	326	300	0	0	328	0	0
Stage 1	300	300	-	326	326	-	-	-	-	-	-	-
Stage 2	343	328	-	304	302	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	400	741	394	400	715	1261	-	-	1232	-	-
Stage 1	709	666	-	687	648	-	-	-	-	-	-	-
Stage 2	672	647	-	705	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	363	400	741	387	400	715	1261	-	-	1232	-	-
Mov Cap-2 Maneuver	363	400	-	387	400	-	-	-	-	-	-	-
Stage 1	709	665	-	687	648	-	-	-	-	-	-	-
Stage 2	638	647	-	695	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	13	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1261	-	-	385	487	1232	-	-
HCM Lane V/C Ratio	-	-	-	0.037	0.071	0.001	-	-
HCM Control Delay (s)	0	-	-	14.7	13	7.9	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	3	119	277	26
Future Vol, veh/h	13	0	3	119	277	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	3	129	301	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	450	315	329	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	567	725	1231	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	725	1231	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	891	-	-	-	-	-

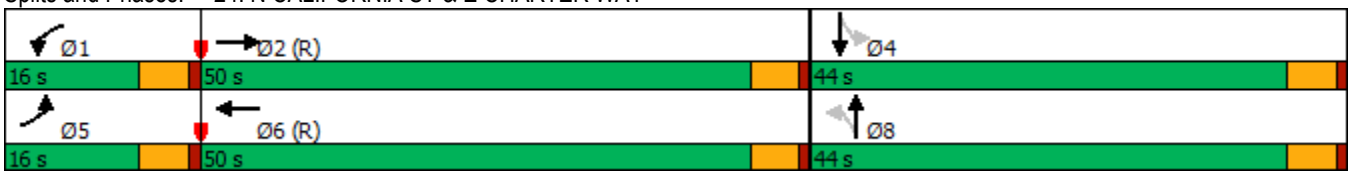
Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1231	-	565	-	-
HCM Lane V/C Ratio	0.003	-	0.025	-	-
HCM Control Delay (s)	7.9	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	880	46	960	41	92	43	51
Future Volume (vph)	39	880	46	960	41	92	43	51
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	16.0	50.0	16.0	50.0	44.0	44.0	44.0	44.0
Total Split (%)	14.5%	45.5%	14.5%	45.5%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	8.1	77.2	8.5	80.0		11.4		11.4
Actuated g/C Ratio	0.07	0.70	0.08	0.73		0.10		0.10
v/c Ratio	0.33	0.42	0.37	0.46		0.65		0.53
Control Delay	54.3	8.9	55.0	8.4		38.1		38.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	54.3	8.9	55.0	8.4		38.1		38.1
LOS	D	A	D	A		D		D
Approach Delay		10.7		10.4		38.1		38.1
Approach LOS		B		B		D		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY



Intersection	
Int Delay, s/veh	29.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	183	560	5	6	746	91	4	0	27	80	12	174
Future Vol, veh/h	183	560	5	6	746	91	4	0	27	80	12	174
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	199	609	5	7	811	99	4	0	29	87	13	189

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	910	0	0	614	0	0	1436	1934	307	1578	1887	455
Stage 1	-	-	-	-	-	-	1010	1010	-	875	875	-
Stage 2	-	-	-	-	-	-	426	924	-	703	1012	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	744	-	-	961	-	-	94	65	689	~ 74	70	552
Stage 1	-	-	-	-	-	-	257	316	-	310	365	-
Stage 2	-	-	-	-	-	-	577	346	-	394	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	744	-	-	961	-	-	40	47	689	~ 56	51	552
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	47	-	~ 56	51	-
Stage 1	-	-	-	-	-	-	188	232	-	227	362	-
Stage 2	-	-	-	-	-	-	363	344	-	276	231	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.1	22.8	200.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	40	689	744	-	-	961	-	-	55	552
HCM Lane V/C Ratio	0.109	0.043	0.267	-	-	0.007	-	-	1.818	0.343
HCM Control Delay (s)	105.7	10.5	11.6	-	-	8.8	-	-	$ 550.3	14.9
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.1	1.1	-	-	0	-	-	9.6	1.5

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	97	639	694	102	10	54
Future Vol, veh/h	97	639	694	102	10	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	695	754	111	11	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	865	0	-	0	1368	433
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	558	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	774	-	-	-	138	571
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	774	-	-	-	108	571
Mov Cap-2 Maneuver	-	-	-	-	108	-
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	537	-

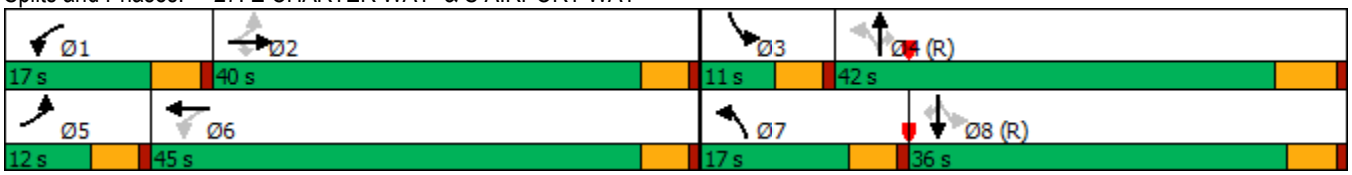
Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	774	-	-	-	571
HCM Lane V/C Ratio	0.136	-	-	-	0.103
HCM Control Delay (s)	10.4	-	-	-	12
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	109	492	434	313	447	496	567	209	131	431	108
Future Volume (vph)	109	492	434	313	447	496	567	209	131	431	108
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	45.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	12.0	40.0	40.0	17.0	45.0	17.0	42.0	42.0	11.0	36.0	36.0
Total Split (%)	10.9%	36.4%	36.4%	15.5%	40.9%	15.5%	38.2%	38.2%	10.0%	32.7%	32.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.8	36.5	36.5	51.2	40.7	48.0	36.1	36.1	36.9	31.0	31.0
Actuated g/C Ratio	0.39	0.33	0.33	0.47	0.37	0.44	0.33	0.33	0.34	0.28	0.28
v/c Ratio	0.19	0.46	0.66	0.46	0.47	0.73	0.53	0.36	0.26	0.47	0.21
Control Delay	17.1	30.8	17.5	19.2	26.6	27.6	32.1	9.7	20.1	34.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	30.8	17.5	19.2	26.6	27.6	32.1	9.7	20.1	34.6	2.2
LOS	B	C	B	B	C	C	C	A	C	C	A
Approach Delay		23.8			23.9		26.7			26.5	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

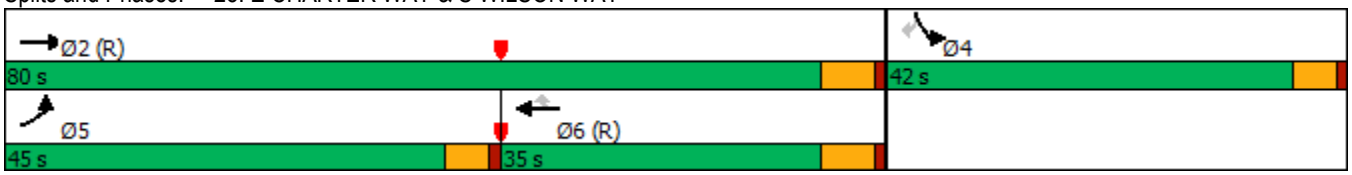
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	279	567	585	713	592	316
Future Volume (vph)	279	567	585	713	592	316
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	28.9	77.2	43.3	43.3	33.8	33.8
Actuated g/C Ratio	0.24	0.63	0.35	0.35	0.28	0.28
v/c Ratio	0.72	0.28	0.51	0.77	0.68	0.50
Control Delay	52.6	10.8	34.7	11.0	42.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	10.8	34.7	11.0	42.8	6.0
LOS	D	B	C	B	D	A
Approach Delay		24.5	21.7		30.0	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	NBT	SBT	Ø9
Lane Configurations			
Traffic Volume (vph)	721	721	
Future Volume (vph)	721	721	
Turn Type	NA	NA	
Protected Phases	2	6	9
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	26.0
Total Split (s)	34.0	34.0	26.0
Total Split (%)	56.7%	56.7%	43%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	27.3	27.3	
Actuated g/C Ratio	0.49	0.49	
v/c Ratio	0.45	0.45	
Control Delay	10.0	10.0	
Queue Delay	0.0	0.0	
Total Delay	10.0	10.0	
LOS	A	A	
Approach Delay	10.0	10.0	
Approach LOS	A	A	

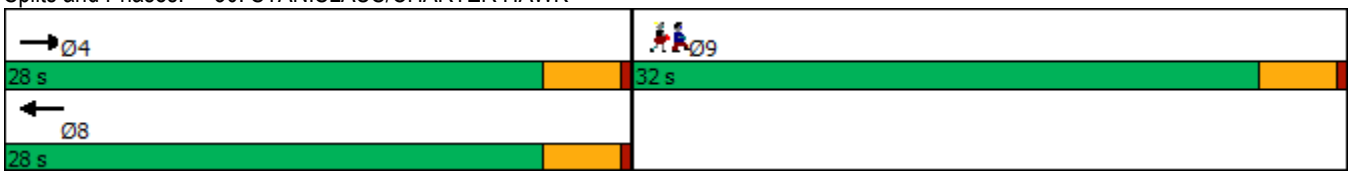
Intersection Summary		
Cycle Length: 60		
Actuated Cycle Length: 55.4		
Natural Cycle: 50		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.45		
Intersection Signal Delay: 10.0	Intersection LOS: A	
Intersection Capacity Utilization 23.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 29: LAFAYETTE/AIRPORT HAWK

Lane Group	EBT	WBT	Ø9
Lane Configurations			
Traffic Volume (vph)	667	843	
Future Volume (vph)	667	843	
Turn Type	NA	NA	
Protected Phases	4	8	9
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.0
Total Split (s)	28.0	28.0	32.0
Total Split (%)	46.7%	46.7%	53%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	20.8	20.8	
Actuated g/C Ratio	0.36	0.36	
v/c Ratio	0.56	0.71	
Control Delay	16.1	18.7	
Queue Delay	0.0	0.2	
Total Delay	16.1	19.0	
LOS	B	B	
Approach Delay	16.1	19.0	
Approach LOS	B	B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 57	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 26.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 30: STANISLAUS/CHARTER HAWK



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	266	62	202	85	352	25	361
Future Volume (vph)	85	266	62	202	85	352	25	361
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.0	29.0	29.0	29.0	28.0	28.0	28.0	28.0
Total Split (s)	70.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)		25.9		25.9	25.5	25.5		25.5
Actuated g/C Ratio		0.42		0.42	0.41	0.41		0.41
v/c Ratio		0.81		0.61	0.29	0.69		0.72
Control Delay		25.6		17.1	18.5	24.5		26.4
Queue Delay		0.0		0.0	0.0	0.0		0.0
Total Delay		25.6		17.1	18.5	24.5		26.4
LOS		C		B	B	C		C
Approach Delay		25.6		17.1		23.5		26.4
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 61.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: S STANISLAUS ST & E WEBER ST

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	120	150	16	148	78	1351	38	986
Future Volume (vph)	120	150	16	148	78	1351	38	986
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	25.0	25.0	33.0	33.0	33.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	75.0	75.0	75.0	75.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	Max	Max	Max	Max
Act Effct Green (s)	18.2	18.2	18.2	18.2		70.0		70.0
Actuated g/C Ratio	0.19	0.19	0.19	0.19		0.71		0.71
v/c Ratio	0.90	0.75	0.15	0.63		0.81		0.57
Control Delay	93.9	47.9	37.1	43.0		14.5		8.4
Queue Delay	0.0	0.0	0.0	0.0		16.8		0.0
Total Delay	93.9	47.9	37.1	43.0		31.3		8.4
LOS	F	D	D	D		C		A
Approach Delay		63.3		42.6		31.3		8.4
Approach LOS		E		D		C		A

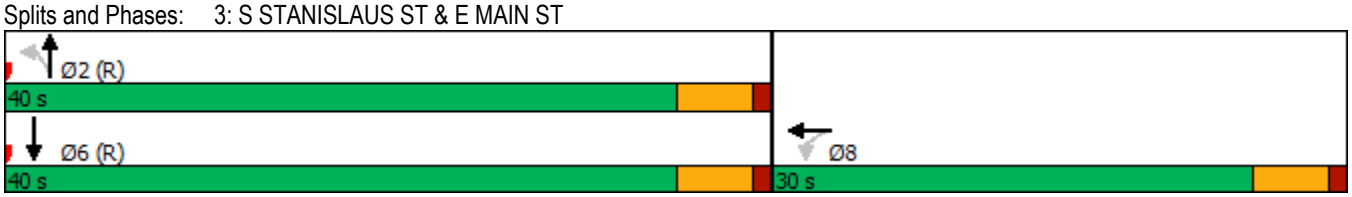
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 98.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 108.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: N AIRPORT WAY & E WEBER AVE

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	95	26	461	479
Future Volume (vph)	95	26	461	479
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0		35.0	35.0
Actuated g/C Ratio	0.36		0.50	0.50
v/c Ratio	0.20		0.35	0.35
Control Delay	13.5		5.7	10.9
Queue Delay	0.0		0.0	0.0
Total Delay	13.5		5.7	10.9
LOS	B		A	B
Approach Delay	13.5		5.7	10.9
Approach LOS	B		A	B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: S STANISLAUS ST & E MAIN ST



Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	106	47	1382	1022
Future Volume (vph)	106	47	1382	1022
Turn Type	NA	Perm	NA	NA
Protected Phases	8		2	6
Permitted Phases		2		
Detector Phase	8	2	2	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0		58.0	58.0
Actuated g/C Ratio	0.24		0.64	0.64
v/c Ratio	0.25		0.85	0.54
Control Delay	21.6		7.7	9.8
Queue Delay	0.0		0.0	1.4
Total Delay	21.6		7.7	11.2
LOS	C		A	B
Approach Delay	21.6		7.7	11.2
Approach LOS	C		A	B

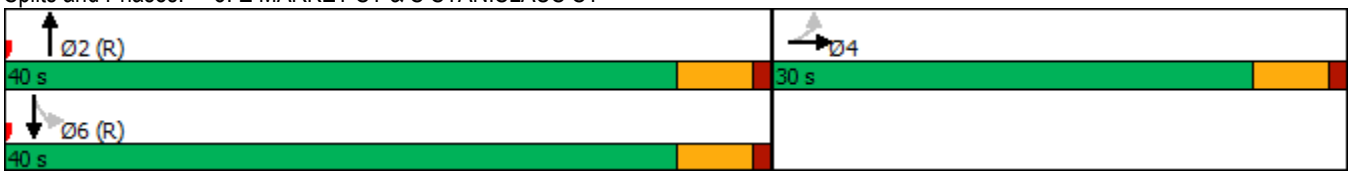
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: E MAIN ST & N AIRPORT WAY

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	148	435	13	544
Future Volume (vph)	148	435	13	544
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	25.0	35.0	35.0	35.0
Minimum Split (s)	30.0	40.0	40.0	40.0
Total Split (s)	30.0	40.0	40.0	40.0
Total Split (%)	42.9%	57.1%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	25.0	35.0		35.0
Actuated g/C Ratio	0.36	0.50		0.50
v/c Ratio	0.28	0.34		0.39
Control Delay	9.7	10.3		6.6
Queue Delay	0.0	0.0		0.0
Total Delay	9.7	10.3		6.6
LOS	A	B		A
Approach Delay	9.7	10.3		6.6
Approach LOS	A	B		A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: E MARKET ST & S STANISLAUS ST



Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	198	1441	153	931
Future Volume (vph)	198	1441	153	931
Turn Type	NA	NA	Perm	NA
Protected Phases	4	2		6
Permitted Phases			6	
Detector Phase	4	2	6	6
Switch Phase				
Minimum Initial (s)	22.0	58.0	58.0	58.0
Minimum Split (s)	27.0	63.0	63.0	63.0
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	22.0	58.0		58.0
Actuated g/C Ratio	0.24	0.64		0.64
v/c Ratio	0.59	0.78		1.91dl
Control Delay	30.4	14.7		80.9
Queue Delay	0.0	0.0		0.0
Total Delay	30.4	14.8		80.9
LOS	C	B		F
Approach Delay	30.4	14.8		80.9
Approach LOS	C	B		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Pretimed	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 127.5%	ICU Level of Service H
Analysis Period (min) 15	

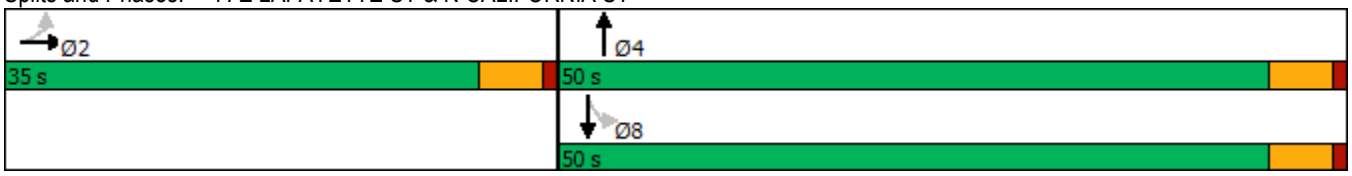
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 6: S AIRPORT WAY & E MARKET ST

Lane Group	EBT	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	659	106	223	172
Future Volume (vph)	659	106	223	172
Turn Type	NA	NA	Perm	NA
Protected Phases	2	4		8
Permitted Phases			8	
Detector Phase	2	4	8	8
Switch Phase				
Minimum Initial (s)	20.0	20.0	20.0	20.0
Minimum Split (s)	25.0	25.0	25.0	25.0
Total Split (s)	35.0	50.0	50.0	50.0
Total Split (%)	41.2%	58.8%	58.8%	58.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0		5.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effct Green (s)	30.0	45.0		45.0
Actuated g/C Ratio	0.35	0.53		0.53
v/c Ratio	0.71	0.09		0.34
Control Delay	27.6	7.2		12.5
Queue Delay	0.0	0.0		0.0
Total Delay	27.6	7.2		12.5
LOS	C	A		B
Approach Delay	27.6	7.2		12.5
Approach LOS	C	A		B

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 85	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

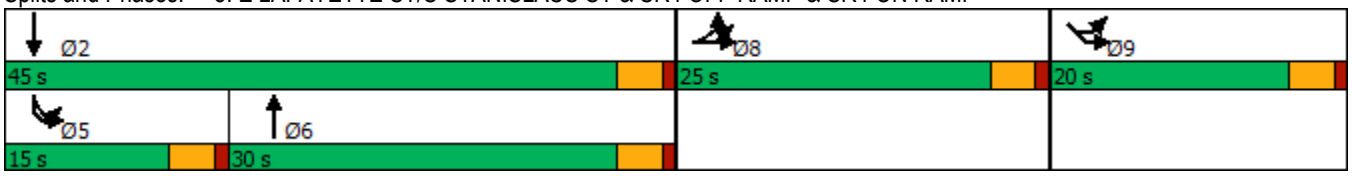
Splits and Phases: 7: E LAFAYETTE ST & N CALIFORNIA ST



Lane Group	EBL	EBT	NBT	SBL	SBT	SEL2	SEL
Lane Configurations							
Traffic Volume (vph)	672	137	377	39	275	184	299
Future Volume (vph)	672	137	377	39	275	184	299
Turn Type	Split	NA	NA	Prot	NA	Prot	Prot
Protected Phases	8	8	6	5	2	9	9
Permitted Phases							
Detector Phase	8	8	6	5	2	9	9
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	7.0	10.0	10.0	10.0
Minimum Split (s)	25.0	25.0	27.0	11.0	27.0	20.0	20.0
Total Split (s)	25.0	25.0	30.0	15.0	45.0	20.0	20.0
Total Split (%)	27.8%	27.8%	33.3%	16.7%	50.0%	22.2%	22.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead			
Lead-Lag Optimize?							
Recall Mode	None	None	Max	None	Max	None	None
Act Effct Green (s)	21.0	21.0	26.0	11.0	41.0	16.0	16.0
Actuated g/C Ratio	0.23	0.23	0.29	0.12	0.46	0.18	0.18
v/c Ratio	1.31	1.28	1.31	1.10	0.35	0.64	1.65
Control Delay	189.5	176.6	184.2	129.1	17.4	44.6	334.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	189.5	176.6	184.2	129.1	17.4	44.6	334.8
LOS	F	F	F	F	B	D	F
Approach Delay		183.1	184.2		66.8		251.9
Approach LOS		F	F		E		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.65	
Intersection Signal Delay: 178.3	Intersection LOS: F
Intersection Capacity Utilization 108.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: E LAFAYETTE ST/S STANISLAUS ST & SR4 OFF RAMP & SR4 ON RAMP



Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	214	0	341	0	0	0	0	130	0	0	74	0
Future Vol, veh/h	214	0	341	0	0	0	0	130	0	0	74	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	233	0	371	0	0	0	0	141	0	0	80	0
Number of Lanes	1	1	0	1	0	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.1	0	9.7	9.2
HCM LOS	B	-	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%	0%	0%
Vol Thru, %	100%	0%	0%	100%	100%	100%
Vol Right, %	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	214	341	0	0	74
LT Vol	0	214	0	0	0	0
Through Vol	130	0	0	0	0	74
RT Vol	0	0	341	0	0	0
Lane Flow Rate	141	233	371	0	0	80
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.208	0.363	0.454	0	0	0.12
Departure Headway (Hd)	5.29	5.619	4.413	5.74	5.74	5.381
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	677	640	812	0	0	663
Service Time	3.34	3.363	2.157	3.521	3.521	3.439
HCM Lane V/C Ratio	0.208	0.364	0.457	0	0	0.121
HCM Control Delay	9.7	11.6	10.8	8.5	8.5	9.2
HCM Lane LOS	A	B	B	N	N	A
HCM 95th-tile Q	0.8	1.7	2.4	0	0	0.4

Intersection	
Int Delay, s/veh	55.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	17	10	28	4	9	10	25	1106	54	77	1044	39
Future Vol, veh/h	17	10	28	4	9	10	25	1106	54	77	1044	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	11	30	4	10	11	27	1202	59	84	1135	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1984	2639	589	2027	2631	631	1177	0	0	1261	0	0
Stage 1	1324	1324	-	1286	1286	-	-	-	-	-	-	-
Stage 2	660	1315	-	741	1345	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	36	23	452	34	23	424	589	-	-	547	-	-
Stage 1	165	224	-	174	233	-	-	-	-	-	-	-
Stage 2	418	226	-	374	218	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 5	11	452	~ 1	11	424	589	-	-	547	-	-
Mov Cap-2 Maneuver	~ 5	11	-	~ 1	11	-	-	-	-	-	-	-
Stage 1	139	123	-	147	197	-	-	-	-	-	-	-
Stage 2	327	191	-	175	120	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	1442.9	$ 2176.3	1.1	3.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	6	452	3	424	547	-	-
HCM Lane V/C Ratio	0.046	-	-	4.891	0.067	4.71	0.026	0.153	-	-
HCM Control Delay (s)	11.4	0.9	$	2925.3	13.$	3839.9	13.7	12.8	2.5	-
HCM Lane LOS	B	A	-	F	B	F	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5.1	0.2	3.1	0.1	0.5	-	-

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

Intersection	
Int Delay, s/veh	15.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	31	39	1392	936	23
Future Vol, veh/h	53	31	39	1392	936	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	34	42	1513	1017	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1871	521	1042	0	-	0
Stage 1	1030	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	64	500	663	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 39	500	663	-	-	-
Mov Cap-2 Maneuver	~ 39	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	383	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 429.4	2.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	663	-	59	-	-
HCM Lane V/C Ratio	0.064	-	1.548	-	-
HCM Control Delay (s)	10.8	2$	429.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	8.2	-	-

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

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	54	6	80	158	14	23	87	31	25	130	5
Future Vol, veh/h	10	54	6	80	158	14	23	87	31	25	130	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	59	7	87	172	15	25	95	34	27	141	5
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	10.1	9.1	9.4
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	35%	0%	27%	0%	50%	0%	28%	0%
Vol Thru, %	65%	58%	73%	82%	50%	85%	72%	93%
Vol Right, %	0%	42%	0%	18%	0%	15%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	75	37	33	159	93	90	70
LT Vol	23	0	10	0	80	0	25	0
Through Vol	44	44	27	27	79	79	65	65
RT Vol	0	31	0	6	0	14	0	5
Lane Flow Rate	72	81	40	36	173	101	98	76
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.117	0.121	0.065	0.056	0.275	0.151	0.157	0.118
Departure Headway (Hd)	5.84	5.371	5.858	5.593	5.729	5.369	5.775	5.584
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	609	661	605	633	622	662	616	637
Service Time	3.623	3.155	3.656	3.39	3.506	3.146	3.556	3.366
HCM Lane V/C Ratio	0.118	0.123	0.066	0.057	0.278	0.153	0.159	0.119
HCM Control Delay	9.4	8.9	9.1	8.7	10.7	9.1	9.6	9.1
HCM Lane LOS	A	A	A	A	B	A	A	A
HCM 95th-tile Q	0.4	0.4	0.2	0.2	1.1	0.5	0.6	0.4

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	98	0	10	220	18	10	62	6	19	80	16
Future Vol, veh/h	18	98	0	10	220	18	10	62	6	19	80	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	107	0	11	239	20	11	67	7	21	87	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	107	0	0	332	428	54	398	418	130
Stage 1	-	-	-	-	-	-	147	147	-	271	271	-
Stage 2	-	-	-	-	-	-	185	281	-	127	147	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1303	-	-	1482	-	-	598	518	1002	536	524	896
Stage 1	-	-	-	-	-	-	841	774	-	712	684	-
Stage 2	-	-	-	-	-	-	799	677	-	863	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1303	-	-	1482	-	-	501	505	1002	469	511	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	505	-	469	511	-
Stage 1	-	-	-	-	-	-	828	762	-	701	678	-
Stage 2	-	-	-	-	-	-	677	671	-	769	762	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.3	13.2	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	524	1303	-	-	1482	-	-	535
HCM Lane V/C Ratio	0.162	0.015	-	-	0.007	-	-	0.234
HCM Control Delay (s)	13.2	7.8	0	-	7.4	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.9

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	111	18	53	229	18	19	83	73	17	155	13
Future Vol, veh/h	8	111	18	53	229	18	19	83	73	17	155	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	121	20	58	249	20	21	90	79	18	168	14
Number of Lanes	0	2	0	0	2	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.7	10.9	9.9	10.2
HCM LOS	A	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	31%	0%	13%	0%	32%	0%	18%	0%
Vol Thru, %	69%	36%	87%	76%	68%	86%	82%	86%
Vol Right, %	0%	64%	0%	24%	0%	14%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	115	64	74	168	133	95	91
LT Vol	19	0	8	0	53	0	17	0
Through Vol	42	42	56	56	115	115	78	78
RT Vol	0	73	0	18	0	18	0	13
Lane Flow Rate	66	124	69	80	182	144	103	98
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.116	0.198	0.119	0.132	0.306	0.232	0.178	0.165
Departure Headway (Hd)	6.341	5.73	6.208	5.97	6.045	5.789	6.245	6.052
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	566	626	578	600	595	621	574	592
Service Time	4.079	3.467	3.946	3.709	3.776	3.52	3.983	3.79
HCM Lane V/C Ratio	0.117	0.198	0.119	0.133	0.306	0.232	0.179	0.166
HCM Control Delay	9.9	9.9	9.8	9.6	11.4	10.3	10.3	10
HCM Lane LOS	A	A	A	A	B	B	B	A
HCM 95th-tile Q	0.4	0.7	0.4	0.5	1.3	0.9	0.6	0.6

Intersection	
Intersection Delay, s/veh	60
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	146	19	163	265	132	5	238	141	178	293	48
Future Vol, veh/h	48	146	19	163	265	132	5	238	141	178	293	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	159	21	177	288	143	5	259	153	193	318	52
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	16.8	31.1	22.2	136.9
HCM LOS	C	D	C	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	2%	0%	40%	0%	55%	0%	38%	0%
Vol Thru, %	98%	0%	60%	79%	45%	50%	62%	0%
Vol Right, %	0%	100%	0%	21%	0%	50%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	141	121	92	296	265	471	48
LT Vol	5	0	48	0	163	0	178	0
Through Vol	238	0	73	73	133	133	293	0
RT Vol	0	141	0	19	0	132	0	48
Lane Flow Rate	264	153	132	100	321	288	512	52
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.631	0.336	0.34	0.249	0.768	0.638	1.23	0.112
Departure Headway (Hd)	9.114	8.371	9.999	9.638	9.18	8.528	8.647	7.727
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	399	432	362	375	398	426	420	464
Service Time	6.814	6.071	7.699	7.338	6.88	6.228	6.389	5.468
HCM Lane V/C Ratio	0.662	0.354	0.365	0.267	0.807	0.676	1.219	0.112
HCM Control Delay	26.2	15.2	17.8	15.5	36.5	25.1	149.7	11.4
HCM Lane LOS	D	C	C	C	E	D	F	B
HCM 95th-tile Q	4.2	1.5	1.5	1	6.4	4.3	21	0.4

Intersection	
Intersection Delay, s/veh	49.4
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	294	21	44	440	7	23	32	25	457	32	49
Future Vol, veh/h	61	294	21	44	440	7	23	32	25	457	32	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	320	23	48	478	8	25	35	27	497	35	53
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	17.8	21.1	13.8	102.6
HCM LOS	C	C	B	F

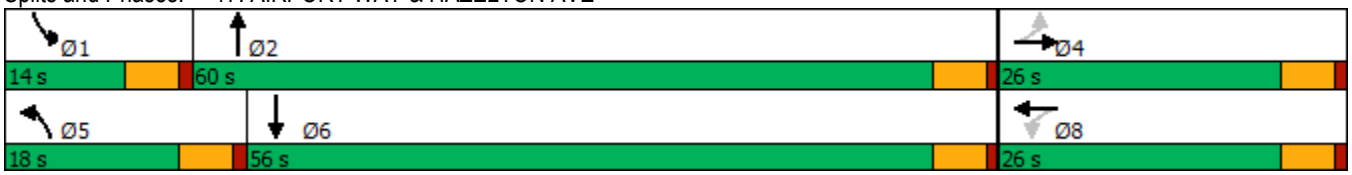
Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	29%	0%	17%	0%	85%
Vol Thru, %	40%	71%	88%	83%	97%	6%
Vol Right, %	31%	0%	12%	0%	3%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	208	168	264	227	538
LT Vol	23	61	0	44	0	457
Through Vol	32	147	147	220	220	32
RT Vol	25	0	21	0	7	49
Lane Flow Rate	87	226	183	287	247	585
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.197	0.498	0.39	0.612	0.519	1.121
Departure Headway (Hd)	8.647	8.436	8.192	8.176	8.067	6.903
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	430	442	445	449	526
Service Time	6.647	6.136	5.892	5.876	5.767	4.995
HCM Lane V/C Ratio	0.209	0.526	0.414	0.645	0.55	1.112
HCM Control Delay	13.8	19.2	16	22.9	19.1	102.6
HCM Lane LOS	B	C	C	C	C	F
HCM 95th-tile Q	0.7	2.7	1.8	4	2.9	19.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	231	176	9	145	127	1044	37	931
Future Volume (vph)	231	176	9	145	127	1044	37	931
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	10.0	4.0	10.0
Minimum Split (s)	24.0	24.0	24.0	24.0	9.0	31.0	9.0	31.0
Total Split (s)	26.0	26.0	26.0	26.0	18.0	60.0	14.0	56.0
Total Split (%)	26.0%	26.0%	26.0%	26.0%	18.0%	60.0%	14.0%	56.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	21.0	21.0	21.0	21.0	11.5	59.6	7.4	51.0
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.12	0.60	0.08	0.52
v/c Ratio	0.99	0.87dr	0.13	0.27	0.67	0.59	0.30	0.66
Control Delay	98.2	33.2	37.3	30.3	57.8	14.5	49.1	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.2	33.2	37.3	30.3	57.8	14.5	49.1	19.7
LOS	F	C	D	C	E	B	D	B
Approach Delay		50.7		30.7		19.1		20.7
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 98.6	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

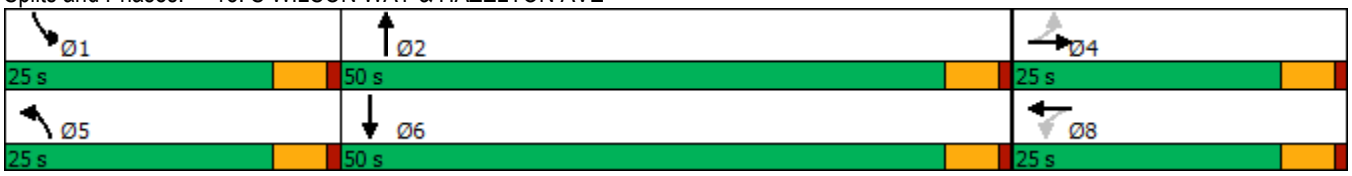
Splits and Phases: 17: AIRPORT WAY & HAZELTON AVE



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	81	85	101	118	111	1015	70	920
Future Volume (vph)	81	85	101	118	111	1015	70	920
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	25.0	25.0	9.0	9.0	9.0	27.0	9.0	33.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	50.0	25.0	50.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	50.0%	25.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	Min	None	Min	None	None
Act Effct Green (s)		15.3		15.3	11.2	34.5	9.3	32.9
Actuated g/C Ratio		0.21		0.21	0.16	0.48	0.13	0.46
v/c Ratio		0.62		0.70	0.44	0.71	0.33	0.66
Control Delay		20.0		23.3	38.2	18.4	38.8	18.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		20.0		23.3	38.2	18.4	38.8	18.7
LOS		C		C	D	B	D	B
Approach Delay		20.0		23.3		20.2		20.1
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 71.7	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: S WILSON WAY & HAZELTON AVE



Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	63	5	5	41	3	12	85	0	3	122	34
Future Vol, veh/h	18	63	5	5	41	3	12	85	0	3	122	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	68	5	5	45	3	13	92	0	3	133	37
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.3	8.1	8.2	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	30%	0%	21%	10%	5%	0%
Vol Thru, %	70%	100%	73%	84%	95%	64%
Vol Right, %	0%	0%	6%	6%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	57	86	49	64	95
LT Vol	12	0	18	5	3	0
Through Vol	28	57	63	41	61	61
RT Vol	0	0	5	3	0	34
Lane Flow Rate	44	62	93	53	70	103
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.063	0.086	0.121	0.069	0.097	0.136
Departure Headway (Hd)	5.192	5.042	4.666	4.693	5.009	4.734
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	691	711	769	764	717	759
Service Time	2.915	2.766	2.687	2.718	2.731	2.455
HCM Lane V/C Ratio	0.064	0.087	0.121	0.069	0.098	0.136
HCM Control Delay	8.3	8.2	8.3	8.1	8.3	8.2
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.4	0.2	0.3	0.5

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	51	5	0	35	3	4	79	5	6	92	6
Future Vol, veh/h	12	51	5	0	35	3	4	79	5	6	92	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	55	5	0	38	3	4	86	5	7	100	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.7	7.9	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	18%	0%	6%
Vol Thru, %	90%	75%	92%	88%
Vol Right, %	6%	7%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	68	38	104
LT Vol	4	12	0	6
Through Vol	79	51	35	92
RT Vol	5	5	3	6
Lane Flow Rate	96	74	41	113
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.091	0.051	0.135
Departure Headway (Hd)	4.302	4.438	4.437	4.287
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	810	810	841
Service Time	2.305	2.451	2.451	2.289
HCM Lane V/C Ratio	0.115	0.091	0.051	0.134
HCM Control Delay	7.9	7.9	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.2	0.5

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	3	47	9	16	35	12	4	98	18	9	162	5
Future Vol, veh/h	3	47	9	16	35	12	4	98	18	9	162	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	51	10	17	38	13	4	107	20	10	176	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	280	334	91	259	326	64	181	0	0	127	0	0
Stage 1	199	199	-	125	125	-	-	-	-	-	-	-
Stage 2	81	135	-	134	201	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	650	585	949	673	591	987	1392	-	-	1457	-	-
Stage 1	784	735	-	866	792	-	-	-	-	-	-	-
Stage 2	918	784	-	855	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	605	579	949	616	584	987	1392	-	-	1457	-	-
Mov Cap-2 Maneuver	605	579	-	616	584	-	-	-	-	-	-	-
Stage 1	782	729	-	863	790	-	-	-	-	-	-	-
Stage 2	860	782	-	781	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	11.3	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	617	642	1457	-	-
HCM Lane V/C Ratio	0.003	-	-	0.104	0.107	0.007	-	-
HCM Control Delay (s)	7.6	0	-	11.5	11.3	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	18	14	9	16	30	5	345	12	23	469	38
Future Vol, veh/h	23	18	14	9	16	30	5	345	12	23	469	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	20	15	10	17	33	5	375	13	25	510	41

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	998	979	531	990	993	382	551	0	0	388	0	0
Stage 1	581	581	-	392	392	-	-	-	-	-	-	-
Stage 2	417	398	-	598	601	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	223	250	548	225	245	665	1019	-	-	1170	-	-
Stage 1	499	500	-	633	606	-	-	-	-	-	-	-
Stage 2	613	603	-	489	489	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	194	241	548	200	236	665	1019	-	-	1170	-	-
Mov Cap-2 Maneuver	194	241	-	200	236	-	-	-	-	-	-	-
Stage 1	496	485	-	629	602	-	-	-	-	-	-	-
Stage 2	563	599	-	442	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.8	17.5	0.1	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1019	-	-	251	348	1170	-	-
HCM Lane V/C Ratio	0.005	-	-	0.238	0.172	0.021	-	-
HCM Control Delay (s)	8.6	0	-	23.8	17.5	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.6	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	22	17	209	185	104
Future Vol, veh/h	43	22	17	209	185	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	24	18	227	201	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	521	258	314	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	516	781	1246	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	507	781	1246	-	-	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1246	-	575	-	-
HCM Lane V/C Ratio	0.015	-	0.123	-	-
HCM Control Delay (s)	7.9	0	12.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	79	1096	87	1068	71	101	82	104
Future Volume (vph)	79	1096	87	1068	71	101	82	104
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	34.0	9.0	34.0	27.0	27.0	27.0	27.0
Total Split (s)	22.0	53.0	22.0	53.0	35.0	35.0	35.0	35.0
Total Split (%)	20.0%	48.2%	20.0%	48.2%	31.8%	31.8%	31.8%	31.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
Act Effct Green (s)	10.7	66.6	11.2	69.4		17.2		17.2
Actuated g/C Ratio	0.10	0.61	0.10	0.63		0.16		0.16
v/c Ratio	0.50	0.63	0.53	0.61		0.72		0.79
Control Delay	56.5	16.9	56.7	15.9		31.6		50.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	56.5	16.9	56.7	15.9		31.6		50.3
LOS	E	B	E	B		C		D
Approach Delay		19.5		18.8		31.6		50.3
Approach LOS		B		B		C		D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 98 (89%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: N CALIFORNIA ST & E CHARTER WAY

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	175	1196	35	12	1038	114	19	13	14	119	32	244
Future Vol, veh/h	175	1196	35	12	1038	114	19	13	14	119	32	244
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	55	-	-	-	-	100	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	190	1300	38	13	1128	124	21	14	15	129	35	265

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1252	0	0	1338	0	0	2307	2977	669	2253	2934	626
Stage 1	-	-	-	-	-	-	1699	1699	-	1216	1216	-
Stage 2	-	-	-	-	-	-	608	1278	-	1037	1718	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	552	-	-	511	-	-	21	~ 14	400	~ 23	~ 15	427
Stage 1	-	-	-	-	-	-	96	146	-	192	252	-
Stage 2	-	-	-	-	-	-	450	235	-	247	143	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	552	-	-	511	-	-	-	~ 9	400	-	~ 10	427
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 9	-	-	~ 10	-
Stage 1	-	-	-	-	-	-	63	96	-	~ 126	246	-
Stage 2	-	-	-	-	-	-	143	229	-	133	94	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	400	552	-	-	511	-	-	-	427
HCM Lane V/C Ratio	-	0.038	0.345	-	-	0.026	-	-	-	0.621
HCM Control Delay (s)	-	14.4	14.9	-	-	12.2	-	-	-	26.3
HCM Lane LOS	-	B	B	-	-	B	-	-	-	D
HCM 95th %tile Q(veh)	-	0.1	1.5	-	-	0.1	-	-	-	4.1

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

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	69	1364	1054	54	38	133
Future Vol, veh/h	69	1364	1054	54	38	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	1483	1146	59	41	145

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1205	0	-	0	2068	603
Stage 1	-	-	-	-	1176	-
Stage 2	-	-	-	-	892	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	575	-	-	-	47	442
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	361	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	575	-	-	-	~ 12	442
Mov Cap-2 Maneuver	-	-	-	-	~ 12	-
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	361	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	17.1
HCM LOS			C

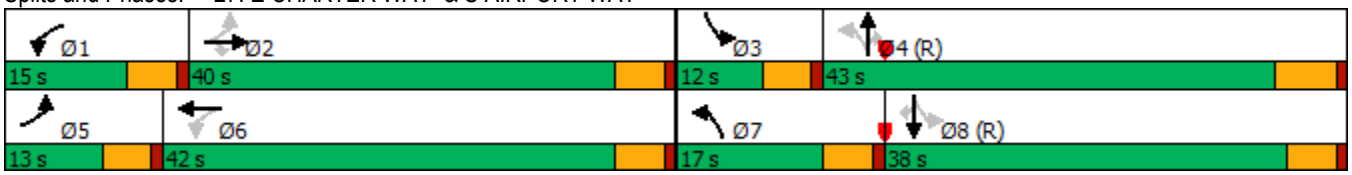
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	575	-	-	-	442
HCM Lane V/C Ratio	0.13	-	-	-	0.327
HCM Control Delay (s)	12.2	-	-	-	17.1
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.4

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

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	737	498	305	550	518	588	281	110	505	147
Future Volume (vph)	129	737	498	305	550	518	588	281	110	505	147
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6	7	4		3	8	
Permitted Phases	2		2	6		4		4	8		8
Detector Phase	5	2	2	1	6	7	4	4	3	8	8
Switch Phase											
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	40.0	40.0	9.0	42.0	9.0	40.0	40.0	9.0	36.0	36.0
Total Split (s)	13.0	40.0	40.0	15.0	42.0	17.0	43.0	43.0	12.0	38.0	38.0
Total Split (%)	11.8%	36.4%	36.4%	13.6%	38.2%	15.5%	39.1%	39.1%	10.9%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	42.3	35.4	35.4	47.7	38.1	50.0	37.6	37.6	39.4	33.0	33.0
Actuated g/C Ratio	0.38	0.32	0.32	0.43	0.35	0.45	0.34	0.34	0.36	0.30	0.30
v/c Ratio	0.27	0.70	0.81	0.66	0.59	0.79	0.53	0.44	0.21	0.52	0.27
Control Delay	18.8	36.8	29.6	25.2	31.1	29.6	31.1	10.1	18.4	34.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	36.8	29.6	25.2	31.1	29.6	31.1	10.1	18.4	34.0	5.8
LOS	B	D	C	C	C	C	C	B	B	C	A
Approach Delay		32.5			29.2		26.3			26.3	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 4:NBTL and 8:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

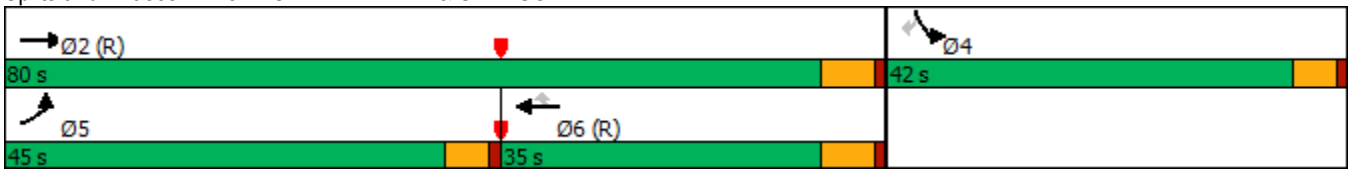
Splits and Phases: 27: E CHARTER WAY & S AIRPORT WAY



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	372	756	634	578	690	406
Future Volume (vph)	372	756	634	578	690	406
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	10.0	10.0	10.0	4.0	4.0
Minimum Split (s)	9.0	16.0	24.0	24.0	31.0	31.0
Total Split (s)	45.0	80.0	35.0	35.0	42.0	42.0
Total Split (%)	36.9%	65.6%	28.7%	28.7%	34.4%	34.4%
Yellow Time (s)	4.0	5.0	5.0	5.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0	6.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	34.7	74.7	35.0	35.0	36.3	36.3
Actuated g/C Ratio	0.28	0.61	0.29	0.29	0.30	0.30
v/c Ratio	0.80	0.38	0.68	0.70	0.73	0.57
Control Delay	52.8	12.7	44.0	7.7	43.4	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	12.7	44.0	7.7	43.4	6.1
LOS	D	B	D	A	D	A
Approach Delay		25.9	26.7		29.6	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 122	
Actuated Cycle Length: 122	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 27.4	Intersection LOS: C
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

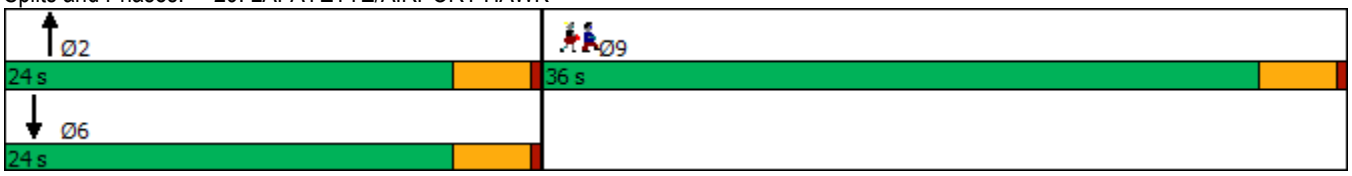
Splits and Phases: 28: E CHARTER WAY & S WILSON WAY



Lane Group	NBT	SBT	Ø9
Lane Configurations			
Traffic Volume (vph)	1185	1099	
Future Volume (vph)	1185	1099	
Turn Type	NA	NA	
Protected Phases	2	6	9
Permitted Phases			
Detector Phase	2	6	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	29.0
Total Split (s)	24.0	24.0	36.0
Total Split (%)	40.0%	40.0%	60%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	20.0	20.0	
Actuated g/C Ratio	0.42	0.42	
v/c Ratio	0.87	0.81	
Control Delay	21.9	18.3	
Queue Delay	0.0	0.0	
Total Delay	21.9	18.3	
LOS	C	B	
Approach Delay	21.9	18.3	
Approach LOS	C	B	

Intersection Summary		
Cycle Length: 60		
Actuated Cycle Length: 48		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.87		
Intersection Signal Delay: 20.2		Intersection LOS: C
Intersection Capacity Utilization 36.1%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 29: LAFAYETTE/AIRPORT HAWK



Lane Group	EBT	WBT	Ø9
Lane Configurations			
Traffic Volume (vph)	1329	1164	
Future Volume (vph)	1329	1164	
Turn Type	NA	NA	
Protected Phases	4	8	9
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.0
Total Split (s)	28.0	28.0	32.0
Total Split (%)	46.7%	46.7%	53%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	4.0	4.0	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	Ped
Act Effct Green (s)	24.0	24.0	
Actuated g/C Ratio	0.40	0.40	
v/c Ratio	1.02	0.89	
Control Delay	50.0	27.2	
Queue Delay	0.0	24.9	
Total Delay	50.0	52.2	
LOS	D	D	
Approach Delay	50.0	52.2	
Approach LOS	D	D	

Intersection Summary		
Cycle Length: 60		
Actuated Cycle Length: 60		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.02		
Intersection Signal Delay: 51.0		Intersection LOS: D
Intersection Capacity Utilization 40.1%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 30: STANISLAUS/CHARTER HAWK