Appendix C:
Traffic Impact Analysis

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KUNZMAN ASSOCIATES, INC.

DOWNTOWN HEMET SPECIFIC PLAN

TRAFFIC IMPACT ANALYSIS

December 9, 2016

Traffic Engineering | Transportation Planning | Parking | Noise/Vibration | Expert Witness
Air Quality | Global Climate Change | Health Risk Assessment

DOWNTOWN HEMET SPECIFIC PLAN

TRAFFIC IMPACT ANALYSIS

December 9, 2016

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JN 6616

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I. FINDINGS

This section summarizes the existing traffic conditions, project traffic impacts, and the proposed mitigation measures. The City of Hemet is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

A. Site Location and Study Area

The study area is located in the City of Hemet. The following study area intersections were selected through consultation with City of Hemet staff:

Palm Avenue (NS) at:
- Devonshire Avenue (EW) - #1
- Florida Avenue (EW) - #2
- Acacia Avenue (EW) - #3

Gilbert Street (NS) at:
- Devonshire Avenue (EW) - #4
- Florida Avenue (EW) - #5
- Acacia Avenue (EW) - #6

State Street (NS) at:
- Menlo Avenue (EW) - #7
- Oakland Avenue (EW) - #8
- Devonshire Avenue (EW) - #9
- Latham Avenue (EW) - #10
- Florida Avenue (EW) - #11
- Kimball Avenue (EW) - #12
- Acacia Avenue (EW) - #13

Buena Vista Street (NS) at:
- Devonshire Avenue (EW) - #14
- Florida Avenue (EW) - #15
- Acacia Avenue (EW) - #16

Santa Fe Street (NS) at:
- Florida Avenue (EW) - #17
- Acacia Avenue (EW) - #18

San Jacinto Street (NS) at:
- Florida Avenue (EW) - #19

B. Definition of Deficiency and Significant Impact

As required by the City of Hemet, this report analyzes the traffic impacts of the proposed project in accordance with the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide. The following definitions of deficiencies and significant impacts have been developed in accordance with the City of Hemet requirements.

Definition of Deficiency

The definition of an intersection deficiency has been obtained from the City of Hemet General Plan, which states that peak hour intersection operations of Level of Service D or better are generally acceptable. Therefore, any intersection operating at Level of Service E or F will be considered deficient.

Definition of Significant Impact

An impact is considered significant if the project-related traffic causes an intersection to move from an acceptable Level of Service to an unacceptable Level of Service. If a significant impact occurs, mitigation is required to bring the intersection back to an acceptable Level of Service, or to no-project conditions if the intersection is projected to operate an unacceptable Level of Service for no-project conditions.

C. Existing Traffic Conditions

1. The proposed Downtown Hemet Specific Plan area is located in the central portion of the City of Hemet and is bounded by Oakland Avenue to the north, Acacia Avenue to the south, Gilbert Street to the west, and Santa Fe Street to the east.

2. Existing north-south roadways in the project study area include Palm Avenue, Gilbert Street, State Street, Buena Vista Street, Santa Fe Street, and San Jacinto Street. Existing east-west roadways in the project study area include Menlo Avenue, Oakland Avenue, Devonshire Avenue, Latham Avenue, Florida Avenue, Kimball Avenue, and Acacia Avenue.

3. The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions, except for the following study area intersection that currently operates at an unacceptable Level of Service during the evening peak hour:

   Gilbert Street (NS) at:
   Acacia Avenue (EW) - #6

D. Traffic Impacts

1. The Downtown Hemet Specific Plan proposes to update the land use of 12 different areas throughout the downtown core. This study analyzes the potential traffic impacts of those land use changes.

2. The land use changes identified in the Downtown Hemet Specific Plan are projected to result in approximately 5,297 more daily vehicle trips, 305 more during the morning peak hour and 691 more during the evening peak hour.

3. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

   Palm Avenue (NS) at:
   Acacia Avenue (EW) - #3

   Gilbert Street (NS) at:
   Acacia Avenue (EW) - #6

   State Street (NS) at:
   Kimball Avenue (EW) - #12

   The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions, with improvements.

4. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout Without Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

   Palm Avenue (NS) at:
   Acacia Avenue (EW) - #3

   State Street (NS) at:
   Menlo Avenue (EW) - #7
   Kimball Avenue (EW) - #12
   Acacia Avenue (EW) - #13

5. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout With Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

   Palm Avenue (NS) at:
   Acacia Avenue (EW) - #3

   Gilbert Street (NS) at:
   Devonshire Avenue (EW) - #4
   Acacia Avenue (EW) - #6

State Street (NS) at:

Menlo Avenue (EW) - #7
Kimball Avenue (EW) - #12
Acacia Avenue (EW) - #13

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout With Project traffic conditions, with improvements.

II. PROJECT DESCRIPTION

This section discusses the project location and proposed project. Figure 1 shows the project study area and Figure 2 illustrates the proposed Specific Plan zoning.

A. Location

The proposed Downtown Hemet Specific Plan area is located in the central portion of the City of Hemet and is bounded by Oakland Avenue to the north, Acacia Avenue to the south, Gilbert Street to the west, and Santa Fe Street to the east.

B. Downtown Hemet Specific Plan

The Downtown Hemet Specific Plan is a City-initiated Specific Plan that demonstrates a clear vision for the future of Downtown Hemet, and is an economic development tool to facilitate development. The Specific Plan is a comprehensive planning document and regulatory tool for implementing the City of Hemet 2030 General Plan and guiding development in the Downtown through customized land use regulations and recommendations for public realm improvements.

In June 2016, Metrolink began commuter rail service along the 91/Perris Valley Line with four new stations in the Cities of Riverside, Moreno Valley and Perris. A principal concept in the Downtown Hemet Specific Plan is the expectation that a new transit mobility hub in Downtown will connect to the Perris station with bus rapid transit (BRT) in the short term, and ultimately, rail transit will extend into Downtown Hemet. This will spur new economic opportunities, transformative development, and jobs and housing around the new transit mobility hub. Therefore, the Specific Plan promotes transit oriented development and principles, including mixed use development and pedestrian connectivity to the transit mobility hub and around Downtown, which fosters active transportation and reduces vehicles miles traveled.

This study analyzes the potential traffic impacts of the land use changes proposed as part of the proposed Specific Plan.

Figure 1
Project Study Area

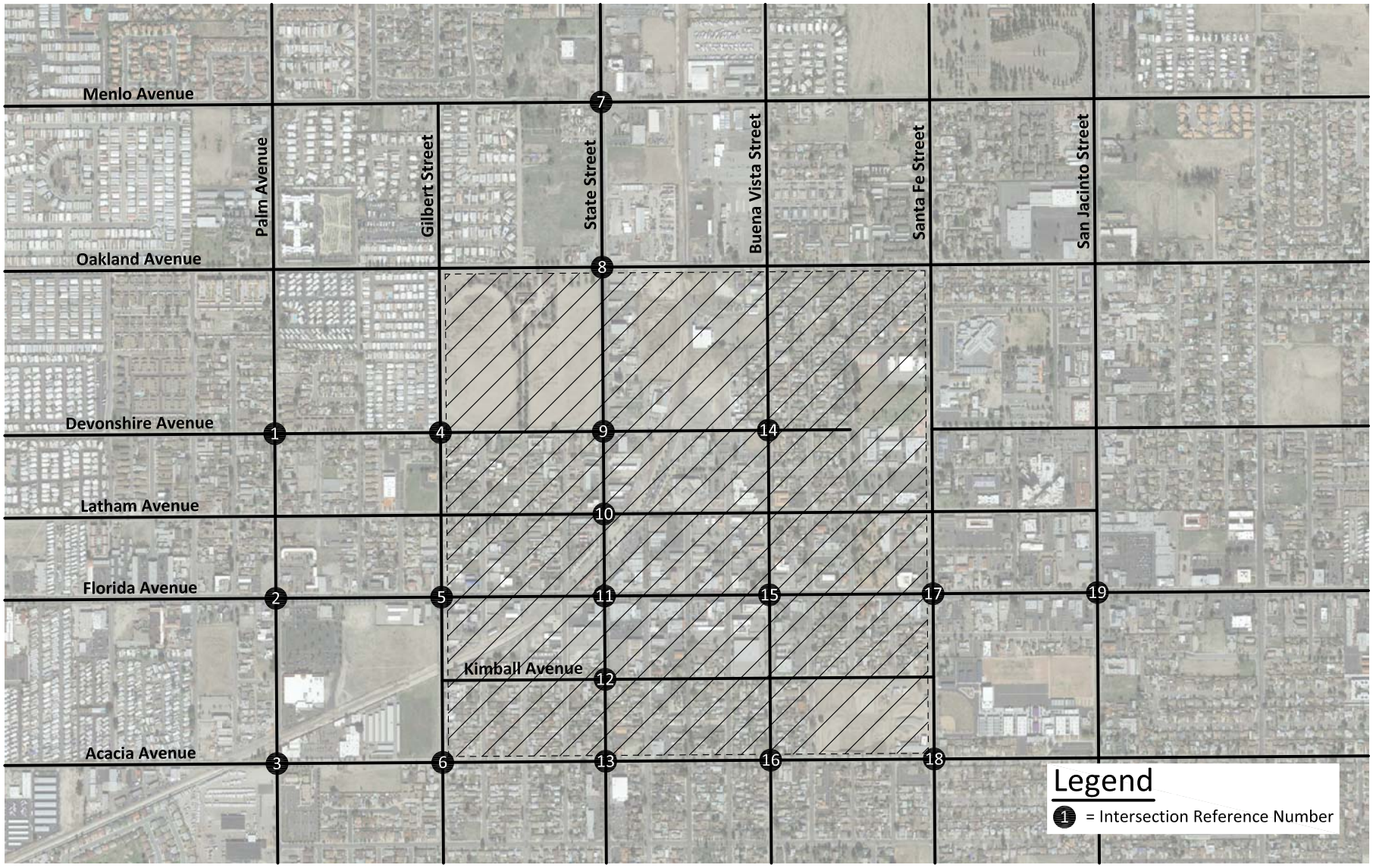

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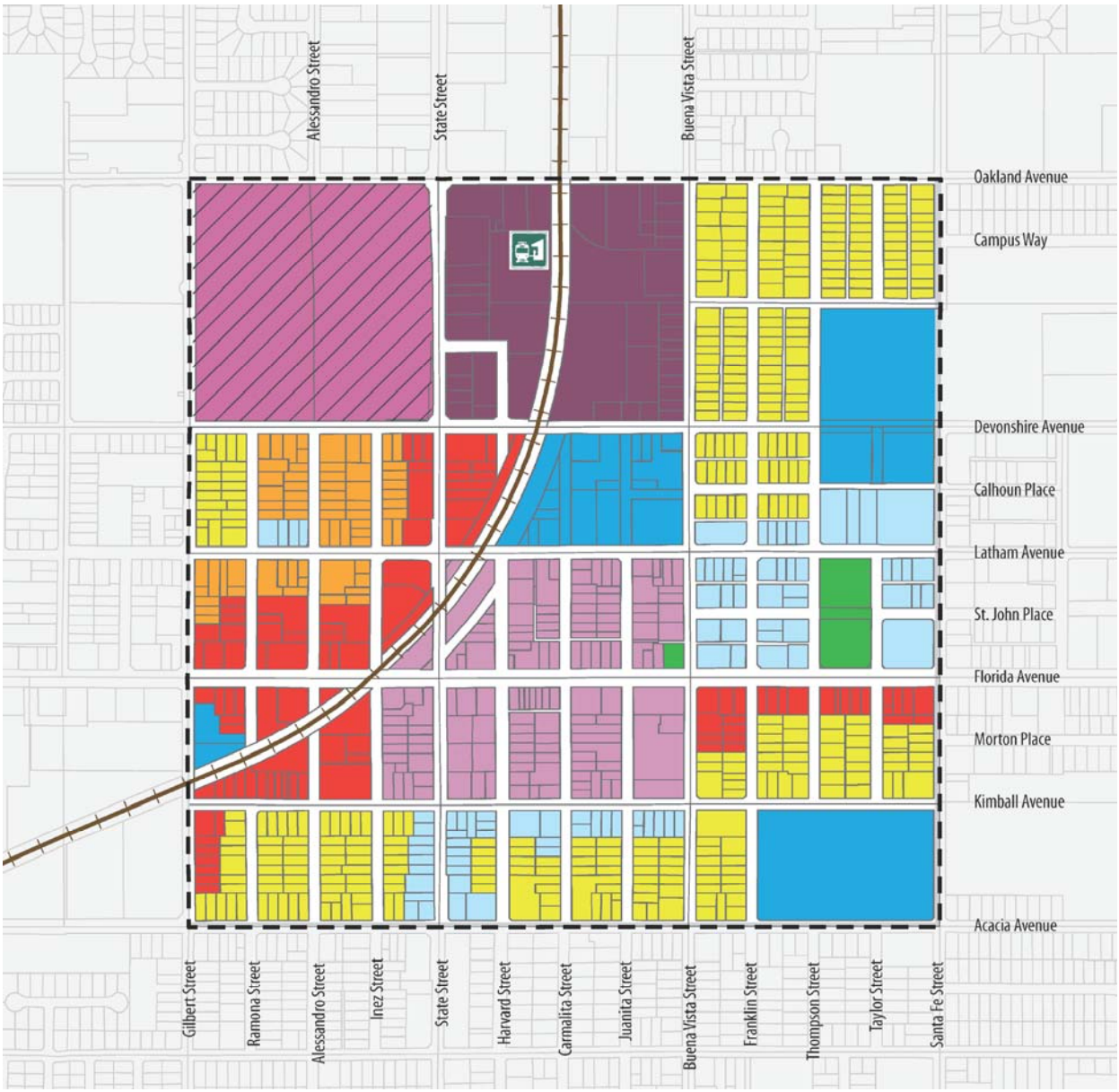
Figure 2
Proposed Specific Plan Zones



Legend

- Specific Plan Boundary
- BNSF Railway
- Future Transit Mobility Hub *(approximate location)*
- Downtown Village (DV)
- Transit Oriented District (TOD)
- Hemet Stock Farm (HSF) - PCD*
- Office Professional - Mixed Use (OP-MU)
- Downtown Commercial (DC)
- Single Family Residential (SFR)
- Mixed Residential (MR)
- Institutional (I)
- Open Space - Recreation (OS-R)

*Requires a Planned Community Development Application

Source: City of Hemet

III. EXISTING TRAFFIC CONDITIONS

The traffic conditions as they exist today are discussed below and illustrated on Figures 3 to 10.

A. Surrounding Street System

Existing north-south roadways in the project study area include Palm Avenue, Gilbert Street, State Street, Buena Vista Street, Santa Fe Street, and San Jacinto Street. Existing east-west roadways in the project study area include Menlo Avenue, Oakland Avenue, Devonshire Avenue, Latham Avenue, Florida Avenue, Kimball Avenue, and Acacia Avenue.

Palm Avenue: This north-south two lane undivided to two lane divided roadway is classified as a Collector on the City of Hemet General Plan Circulation Element. It currently carries approximately 6,700 to 9,700 vehicles per day in the study area.

Gilbert Street: This north-south two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 1,400 to 4,000 vehicles per day in the study area.

State Street: This north-south two lane undivided to four lane divided roadway is classified as a Divided Secondary A north of Devonshire Avenue, as a Modified Secondary between Devonshire Avenue and Florida Avenue, and as a Secondary south of Devonshire Avenue on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 10,800 to 19,900 vehicles per day in the study area.

Buena Vista Street: This north-south two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 5,500 to 6,300 vehicles per day in the study area.

Santa Fe Street: This north-south two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 3,800 to 5,200 vehicles per day in the study area.

San Jacinto Street: This north-south two lane undivided to four lane divided roadway is classified as a Divided Secondary-B roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 11,300 to 18,200 vehicles per day in the study area.

Menlo Avenue: This east-west two lane undivided roadway is classified as a Divided Secondary-B roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 9,900 to 12,100 vehicles per day in the study area.

Oakland Avenue: This east-west two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 4,900 to 6,500 vehicles per day in the study area.

Devonshire Avenue: This east-west two lane undivided roadway is classified as a Modified Express Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 1,500 to 6,700 vehicles per day in the study area.

Latham Avenue: This east-west two lane undivided to two lane divided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 6,100 to 8,600 vehicles per day in the study area.

Florida Avenue: This east-west four lane divided roadway is classified as a Divided Secondary-A west of State Street and east of Buena Vista Street; and as a Modified Divided Secondary-A between State Street and Buena vista Street on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 27,100 to 30,300 vehicles per day in the study area.

Kimball Avenue: This east-west two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 1,200 to 1,700 vehicles per day in the study area.

Acacia Avenue: This east-west two lane undivided roadway is classified as a Collector on the Downtown Hemet Specific Plan Circulation Element. It currently carries approximately 7,900 to 11,300 vehicles per day in the study area.

B. Existing Travel Lanes and Intersection Controls

Figure 3 identifies the Existing roadway conditions for study area roadways. The number of through lanes for existing roadways, existing intersection controls, and the intersection lane geometry is identified on Figure 3.

C. Existing Average Daily Traffic Volumes

Figure 4 depicts the Existing average daily traffic volumes. Existing average daily traffic volumes have been obtained from the Traffic Volumes on California State Highways (latest available; 2014) by the California Department of Transportation or factored from peak hour counts (see Appendix C) made for Kunzman Associates, Inc. in November 2016 using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 13.7 = Leg Volume

This ratio was developed by comparing PM peak hour volumes to average daily traffic volumes in the City of Hemet General Plan Circulation Element Update Transportation Study prepared by Urban Crossroads, Inc.

D. Existing Intersection Delay

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method (see Appendix D). To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Existing delay and Level of Service for intersections in the vicinity of the project are shown in Table 1. Existing delay is based upon manual peak hour intersection turning movement counts obtained by Kunzman Associates, Inc. in November 2016 (see Figures 5 and 6). Traffic count worksheets are provided in Appendix C.

There are two peak hours in a weekday. The morning peak hour is between 7:00 AM and 9:00 AM, and the evening peak hour is between 4:00 PM and 6:00 PM. The actual peak hour within the two hour interval is the four consecutive 15 minute periods with the highest total volume when all movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume.

The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions, except for the following study area intersection that currently operates at an unacceptable Level of Service during the evening peak hour:

Gilbert Street (NS) at:
Acacia Avenue (EW) - #6

Existing delay worksheets are provided in Appendix D.

E. Planned Transportation Improvements and Relationship to Specific Plan

Figure 7 shows the proposed Downtown Hemet Specific Plan Circulation Element network. This figure shows the nature and extent of roadways that are needed to adequately serve the ultimate development of the land uses proposed in the Specific Plan.

F. Pedestrian Facilities

Existing pedestrian facilities in the study area are shown on Figure 12.

G. Bicycle Circulation

Within Downtown Hemet, currently, there are bicycle lanes on Oakland Avenue (eastbound only) and bicycle routes on Buena Vista Street. The Specific Plan bicycle network is consistent with the bicycle network identified in the General Plan and it proposes modifications to support the City's Complete Streets initiative. The proposed Downtown Hemet Specific Plan Bicycle Circulation Plan is shown on Figure 8.

1. Class I Bike Paths

Class I Bike Paths provide a separated right-of-way for the exclusive use of bicycles and pedestrians with vehicular cross-flow minimized. The right-of-way for Class I Bikeways may be substantial, separated from roadways by landscaped strips or other barriers, and they are often planned along waterways, rail rights-of-way or utility corridors. A Class I bike path is proposed adjacent to the railroad right-of-way from Gilbert Street to Oakland Avenue and eventually beyond Downtown Hemet.

2. Class II Bike Lanes

A Class II Bike Lane is a striped lane for one-way bicycle travel on a street or highway. They have special signage and pavement markings to delineate the right-of-way assigned to bicyclists. The City's General Plan Class II bike lanes will remain at the following locations:

- Oakland Avenue between Gilbert Street and Buena Vista Street
- Devonshire Avenue between Gilbert Street and Santa Fe Street
- Florida Avenue between Gilbert Street and Santa Fe Street
- State Street between Oakland Avenue and Devonshire Avenue

In addition to the City's General Plan, Class II bike lanes are proposed at the following locations:

- Oakland Avenue from Buena Vista Street to Santa Fe Street
- Santa Fe Street from Oakland Avenue to Acacia Avenue
- State Street between Devonshire Avenue and Florida Avenue

3. Class III Bike Routes

Class III Bike Routes have signage designating the routes but no on-street bicycle lane striping or markings on the street. The City's General Plan Class III bike routes would remain at the following locations:

- Gilbert Street between Oakland Avenue and Acacia Avenue
- Buena Vista Street between Devonshire Avenue and Acacia Avenue

In addition to the City's General Plan, Class III bike routes are proposed at the following locations:

- Buena Vista Street from Oakland Avenue to Devonshire Avenue
- Acacia Avenue between Gilbert Street and Santa Fe Street

H. Transit Service

1. Bus

The Riverside Transit Agency provides bus transit service within the City of Hemet, including the downtown area. The Riverside Transit Agency currently uses the Hemet Valley Mall, located at the Florida Avenue/Kirby Street intersection west of the study area, as a hub for all routes serving Hemet and for regional connections. Transit primarily serves the following roadways within the study area:

- East-west: Florida Avenue and Latham Avenue
- North-south: State Street and Buena Vista Street

The existing bus routes provided within the study area are shown on Figure 9.

In coordination with RTA, a future Downtown Hemet Transit Mobility Hub is planned to be developed on City owned property, in conjunction with a future planned Metrolink stop. The Riverside Transit Agency (RTA) has expressed a strong interest in the pursuit of grant funding and master planning, as well as the possibility of cooperating with the City of Hemet to possibly reconfigure their bus lines to connect with a possible future transit center.

2. Rail

Metrolink began weekday commuter rail service along the 91/Perris Valley Line in June 2016 with four new stations in the Cities of Riverside, Moreno Valley and Perris. This new service, which is constructed along the existing San Jacinto Branch Line (SJBL), will bring commuter rail 24 miles south of Downtown Riverside to south Perris providing extended and broader access to Southern California's commuter rail network for residents in Menifee, Murrieta, Temecula, San Jacinto, Hemet, and other nearby communities.

At this point there are no short-term plans to extend Metrolink beyond south Perris, although the extension to Hemet is part of their long-range plan. In the absence of immediate plans for a rail extension along this RCTC-owned SJBL corridor, if funding can be made available, the feasibility of other alternative interim services can be evaluated to facilitate access and connections to Perris South Station. These include bus rapid transit (BRT), diesel multiple unit (DMU), and bicycle and pedestrian link facilities.

I. Neighborhood Electric Vehicles

Neighborhood electric vehicles (NEVs), also known as Low-Speed Vehicles (LSVs), are four wheeled motor vehicles that reach a speed of more than 20 miles per hour (mph) but not more than 25 mph within one mile on a paved level roadway. Their gross vehicle weight rating is less than 3,000 pounds. They are actually a motor vehicle requiring a 17-digit conforming vehicle identification number, registration, insurance, and the operator's valid California driver license. NEV/LSVs can travel on streets posted more than 35 miles per hour if an NEV lane is provided. Within the study area, the following roadways are designated as "Backbone Low Speed Connectors" that could potentially facilitate NEV operations:

- Devonshire Avenue
- Latham Avenue
- Kimball Avenue
- Acacia Avenue
- Gilbert Street
- Buena Vista Street
- Santa Fe Street

Table 1

Existing Intersection Delay and Level of Service

Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:																
Devonshire Avenue (EW) - #1	Hemet	AWS	0	1	0	0	1	0	0.5	0.5	d	0	1	0	11.1-B	14.0-B
Florida Avenue (EW) - #2	Hemet	TS	1	1	1	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	19.7-B	20.1-C
Acacia Avenue (EW) - #3	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	1	1	17.8-C	29.9-D
Gilbert Street (NS) at:																
Devonshire Avenue (EW) - #4	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	11.9-B	13.3-B
Florida Avenue (EW) - #5	Hemet	TS	0.5	0.5	d	0	1	0	1	2	d	1	1.5	0.5	8.2-A	8.3-A
Acacia Avenue (EW) - #6	Hemet	AWS	0.5	0.5	d	0	1	0	0	1	0	0	1	0	13.3-B	94.1-F
State Street (NS) at:																
Menlo Avenue (EW) - #7	Hemet	TS	1	1.5	0.5	1	1.5	0.5	0	1	0	0.5	0.5	1	30.8-C	38.2-D
Oakland Avenue (EW) - #8	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	0.5	0.5	1	0.5	0.5	19.2-B	20.0-C
Devonshire Avenue (EW) - #9	Hemet	TS	1	1.5	0.5	1	2	1	1	0.5	0.5	1	1	1	20.6-C	20.4-C
Latham Avenue (EW) - #10	Hemet	TS	1	2	1	1	1.5	0.5	1	0.5	0.5	1	1	1	21.6-C	21.7-C
Florida Avenue (EW) - #11	Hemet	TS	1	1.5	0.5	1	1	1	1	1.5	0.5	1	2	d	15.5-B	18.2-B
Kimball Avenue (EW) - #12	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	14.3-B	20.7-C
Acacia Avenue (EW) - #13	Hemet	TS	1	1	d	1	1	d	0.5	0.5	d	0	1	0	24.8-C	29.2-C
Buena Vista Street (NS) at:																
Devonshire Avenue (EW) - #14	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	9.1-A	10.0-A
Florida Avenue (EW) - #15	Hemet	TS	1	0.5	0.5	1	1	d	1	1.5	0.5	1	2	d	15.1-B	12.9-B
Acacia Avenue (EW) - #16	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	16.2-C	14.9-B
Santa Fe Street (NS) at:																
Florida Avenue (EW) - #17	Hemet	TS	1	0.5	0.5	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	14.8-B	13.7-B
Acacia Avenue (EW) - #18	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	14.4-B	13.7-B
San Jacinto Street (NS) at:																
Florida Avenue (EW) - #19	Hemet	TS	1	1.5	0.5	1.5	0.5	1	1	1.5	0.5	1	2	1	29.2-C	33.6-C

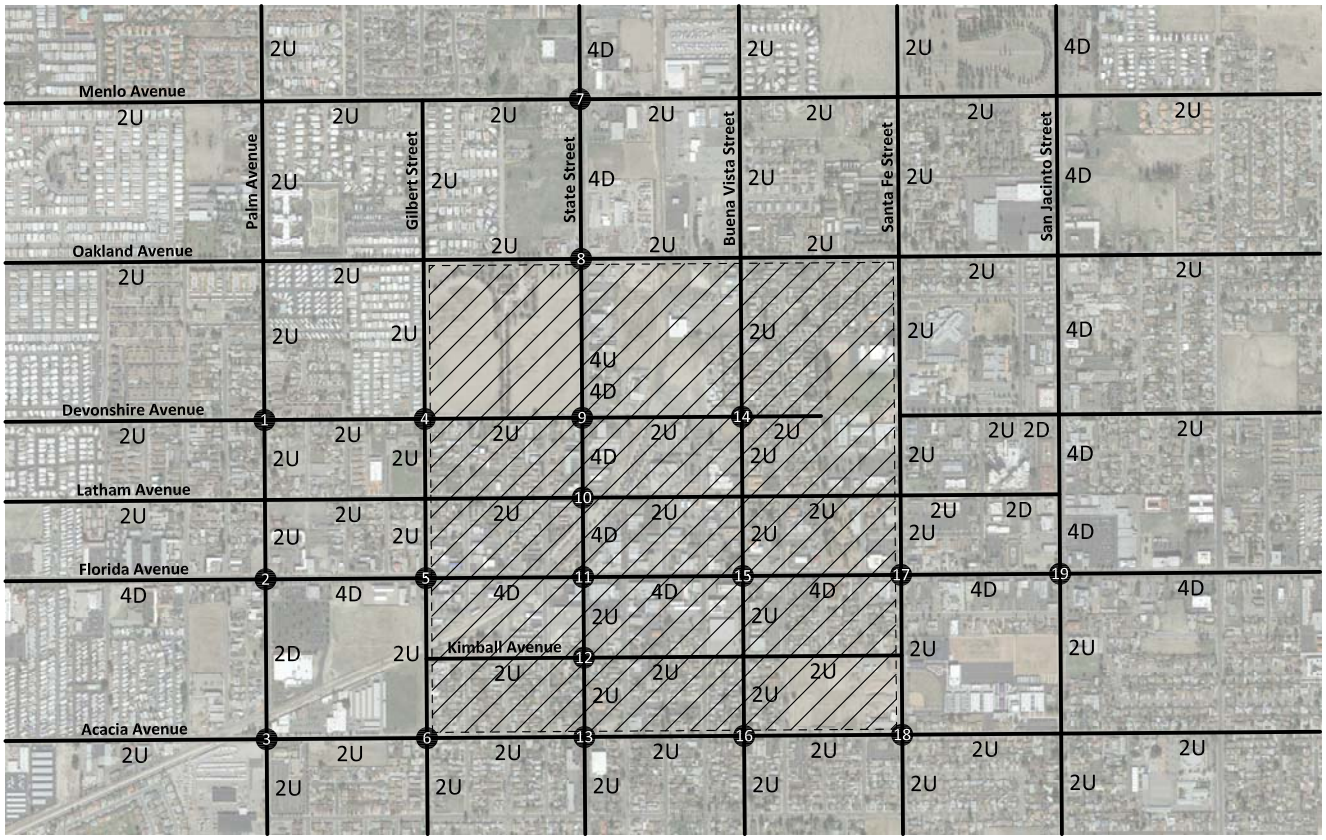
[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

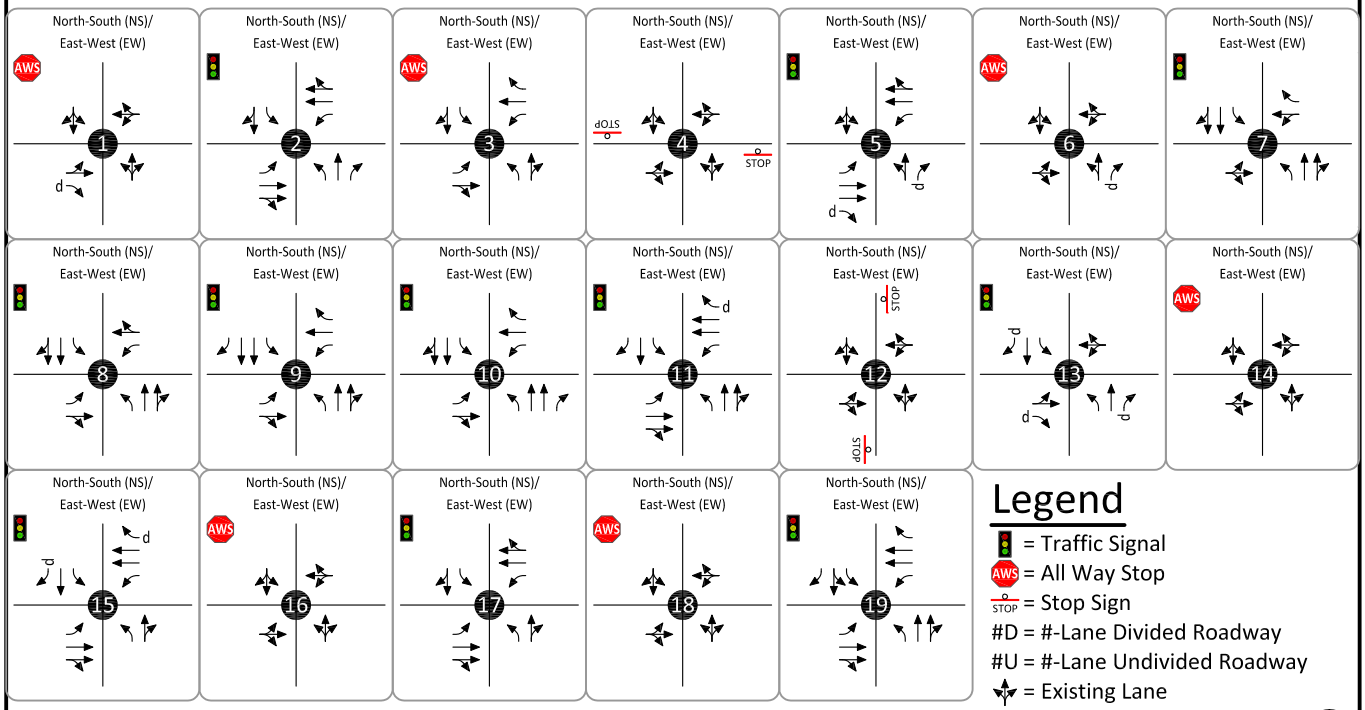
L = Left; T = Through; R = Right; d = De Facto Right Turn Lane;**BOLD** = Improvement

[2] Delay and level of service has been calculated using the following analysis software: Vistro, Version 4.00-00 (2015) for signalized and all-way stop controlled intersections and HCS 2010 6.80 (2016) for two-way stop controlled intersections. Per the Highway Capacity Manual, overall intersection delay and Level of Service are shown for intersections with traffi signal or all way stop control. For intersections with cross street stop control, the average delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

Figure 3
Existing Through Travel Lanes and Intersection Controls





Legend

- = Traffic Signal
- AWS = All Way Stop
- STOP = Stop Sign
- #D = #-Lane Divided Roadway
- #U = #-Lane Undivided Roadway
- = Existing Lane
- d = De Facto Right Turn Lane

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Figure 4
Existing Average Daily Traffic Volumes

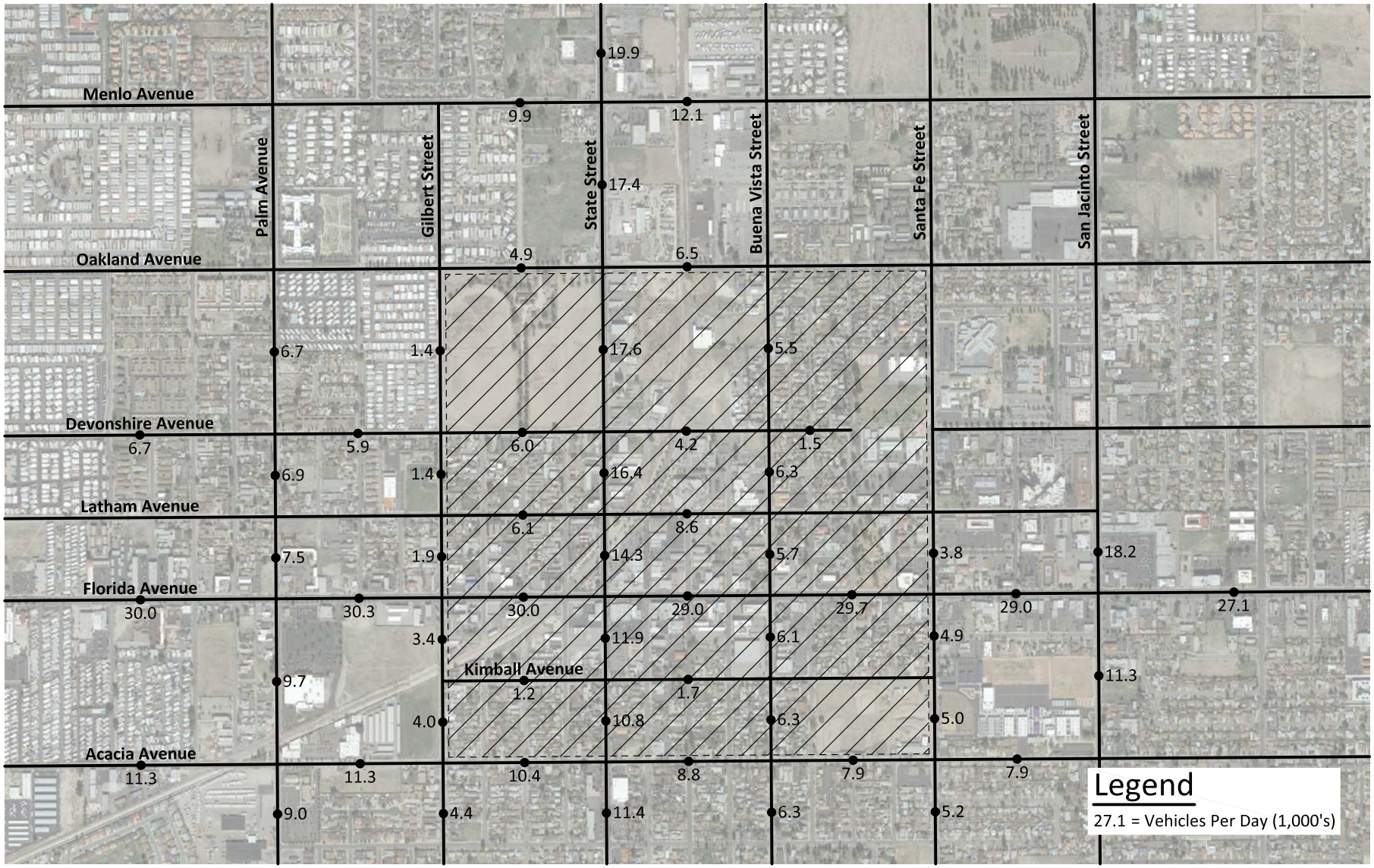

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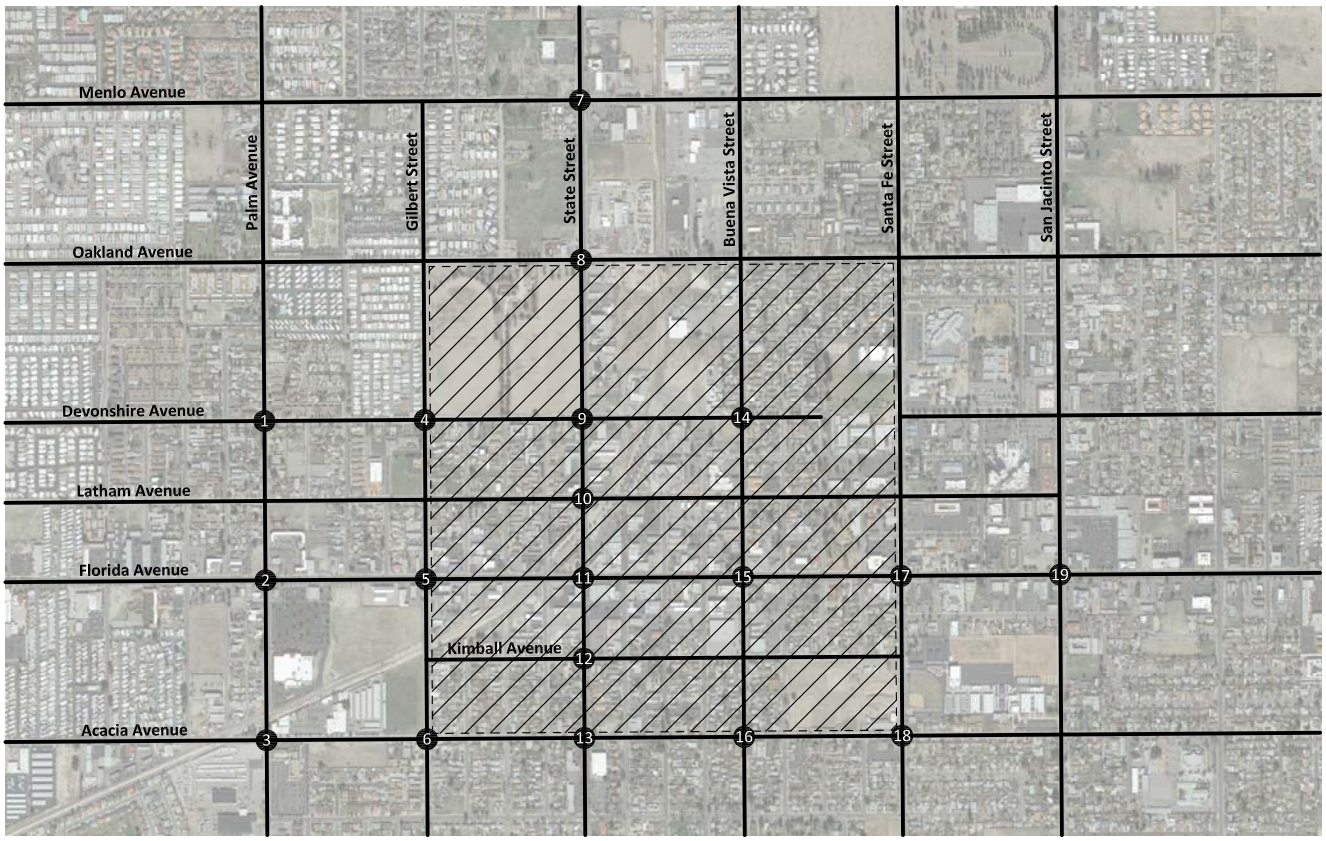
Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes



Palm Avenue (NS)/ Devonshire Avenue (EW)

10	171	24
9	103	9
15	195	24
14	165	3

Palm Avenue (NS)/ Florida Avenue (EW)

23	151	21
19	746	50
14	620	66
80	139	108

Palm Avenue (NS)/ Acacia Avenue (EW)

30	131	78
138	221	60
45	186	54
76	182	68

Gilbert Street (NS)/ Devonshire Avenue (EW)

3	29	4
8	99	13
4	208	10
6	34	6

Gilbert Street (NS)/ Florida Avenue (EW)

15	33	6
17	833	47
14	718	42
39	37	44

Gilbert Street (NS)/ Acacia Avenue (EW)

66	54	7
18	230	17
29	150	36
90	89	18

State Street (NS)/ Menlo Avenue (EW)

56	424	130
154	187	48
72	212	18
24	473	27

State Street (NS)/ Oakland Avenue (EW)

9	389	39
48	159	28
24	145	21
15	471	48

State Street (NS)/ Devonshire Avenue (EW)

36	401	51
23	48	12
58	126	47
29	443	13

State Street (NS)/ Latham Avenue (EW)

0	0	0
0	0	0
0	0	0
0	0	0

State Street (NS)/ Florida Avenue (EW)

88	210	70
67	744	46
100	580	16
39	284	70

State Street (NS)/ Kimball Avenue (EW)

11	263	13
16	18	5
10	8	3
3	358	7

State Street (NS)/ Acacia Avenue (EW)

19	230	23
30	207	22
14	134	28
27	331	26

Buena Vista Street (NS)/ Devonshire Avenue (EW)

35	133	4
1	13	2
35	45	89
35	160	2

Buena Vista Street (NS)/ Florida Avenue (EW)

27	90	27
15	863	36
19	648	15
39	174	47

Buena Vista Street (NS)/ Acacia Avenue (EW)

12	138	13
9	241	30
15	149	8
12	286	29

Santa Fe Street (NS)/ Florida Avenue (EW)

48	66	16
31	833	50
42	609	24
37	133	49

Santa Fe Street (NS)/ Acacia Avenue (EW)

30	103	24
45	236	21
34	136	18
16	194	39

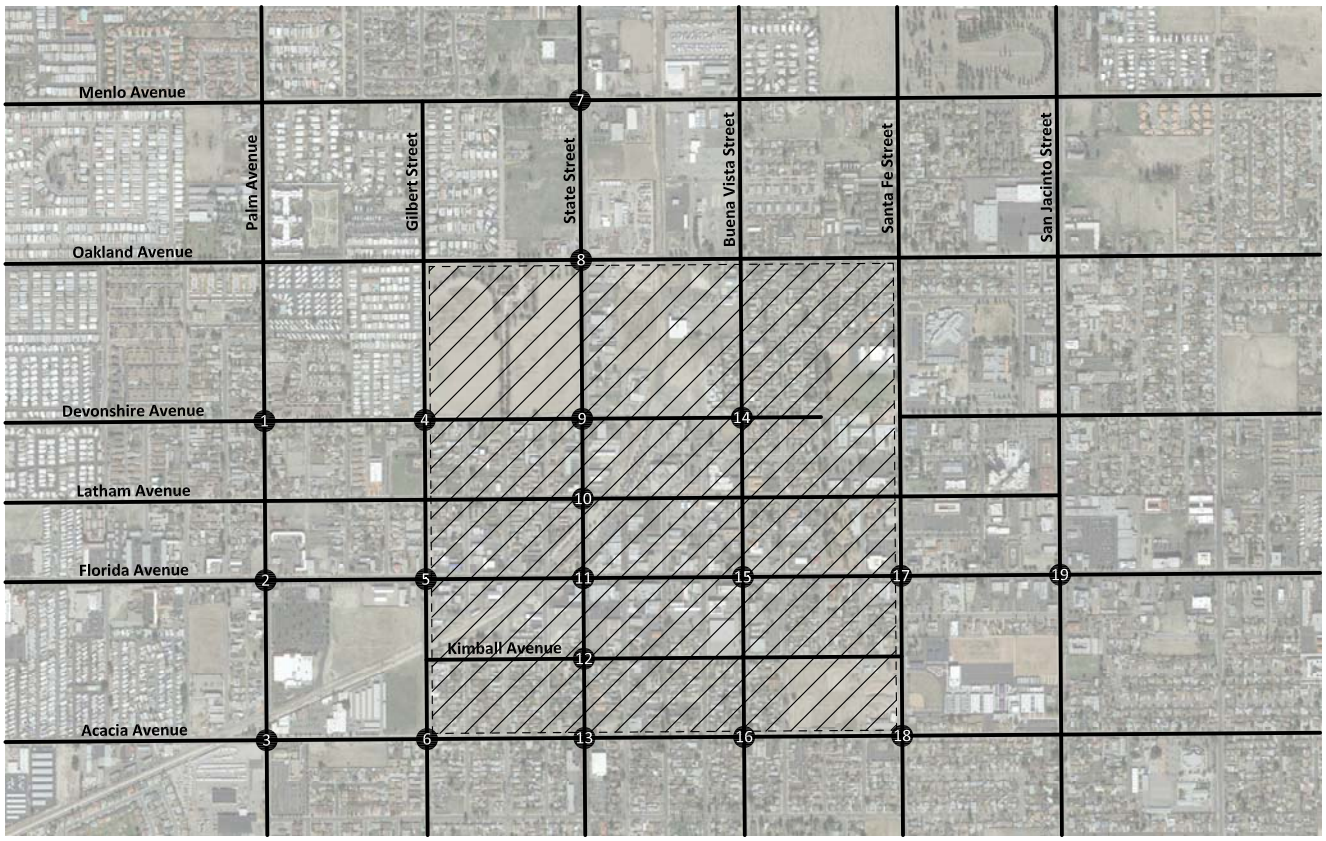
San Jacinto Street (NS)/ Florida Avenue (EW)

128	167	110
164	741	100
149	451	41
65	291	60

Legend

1 = Intersection Reference Number

Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes

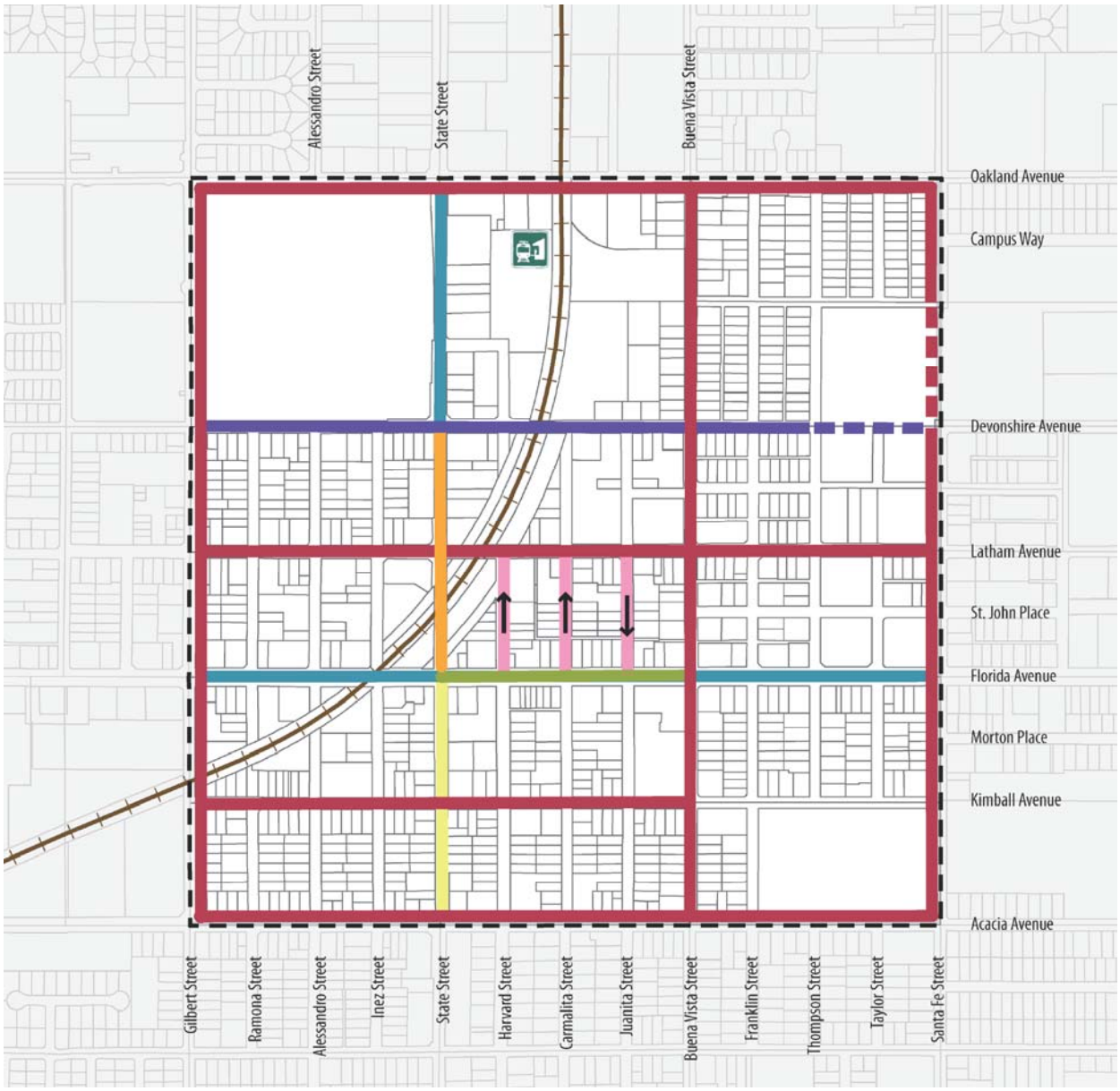


Intersection	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1 Palm Avenue (NS)/ Devonshire Avenue (EW)	23	210	13	14	183	10	22	199	33	32	209	12
2 Palm Avenue (NS)/ Florida Avenue (EW)	45	185	34	19	24	882	48	83	64	83	210	80
3 Palm Avenue (NS)/ Acacia Avenue (EW)	20	214	52	85	260	42	53	322	92	81	204	23
4 Gilbert Street (NS)/ Devonshire Avenue (EW)	5	23	3	13	188	7	9	216	4	11	46	8
5 Gilbert Street (NS)/ Florida Avenue (EW)	26	31	8	12	1003	37	20	1078	49	39	44	49
6 Gilbert Street (NS)/ Acacia Avenue (EW)	42	93	16	20	293	19	18	388	45	41	104	22
7 State Street (NS)/ Menlo Avenue (EW)	85	538	134	131	244	46	52	259	52	34	509	66
8 State Street (NS)/ Oakland Avenue (EW)	20	558	49	49	170	44	13	107	25	24	581	54
9 State Street (NS)/ Devonshire Avenue (EW)	54	542	35	46	79	16	81	107	55	50	520	16
10 State Street (NS)/ Latham Avenue (EW)	28	473	98	109	186	60	59	133	20	17	411	39
11 State Street (NS)/ Florida Avenue (EW)	133	318	116	63	819	81	134	920	51	54	282	79
12 State Street (NS)/ Kimball Avenue (EW)	11	395	31	28	25	7	8	28	5	8	373	3
13 State Street (NS)/ Acacia Avenue (EW)	20	344	41	32	215	37	30	273	49	40	323	41
14 Buena Vista Street (NS)/ Devonshire Avenue (EW)	27	144	5	5	42	4	54	43	76	62	167	10
15 Buena Vista Street (NS)/ Florida Avenue (EW)	39	151	49	24	958	74	32	1023	25	33	124	41
16 Buena Vista Street (NS)/ Acacia Avenue (EW)	29	206	16	17	227	30	26	264	29	16	164	18
17 Santa Fe Street (NS)/ Florida Avenue (EW)	53	85	22	21	912	54	19	1012	44	40	77	61
18 Santa Fe Street (NS)/ Acacia Avenue (EW)	27	160	17	24	226	24	22	251	23	24	113	35
19 San Jacinto Street (NS)/ Florida Avenue (EW)	229	226	243	113	646	97	212	811	68	67	303	65

Legend

1 = Intersection Reference Number

Figure 7
Downtown Hemet Specific Plan Circulation Element Roadway Network



Legend

- Specific Plan Boundary
- Rail Right-of-Way/ Future Transit Line
- Future Transit Mobility Hub *(approximate location)*
- Divided Secondary - A
- Modified Divided Secondary - A
- Secondary
- Modified Secondary
- Collector
- Modified Express Collector
- Local Collector

Source: City of Hemet

Figure 8
Existing Pedestrian Facilities

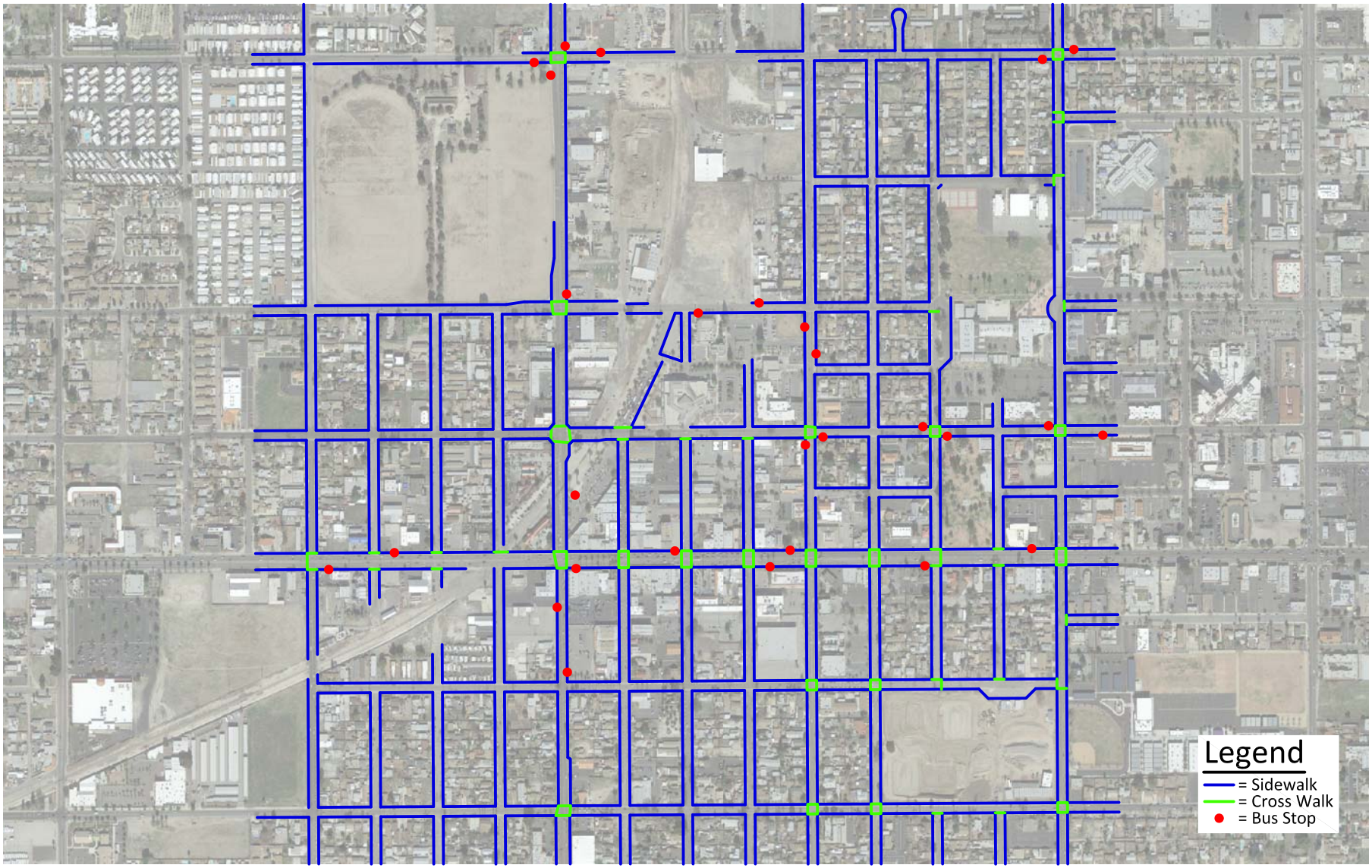


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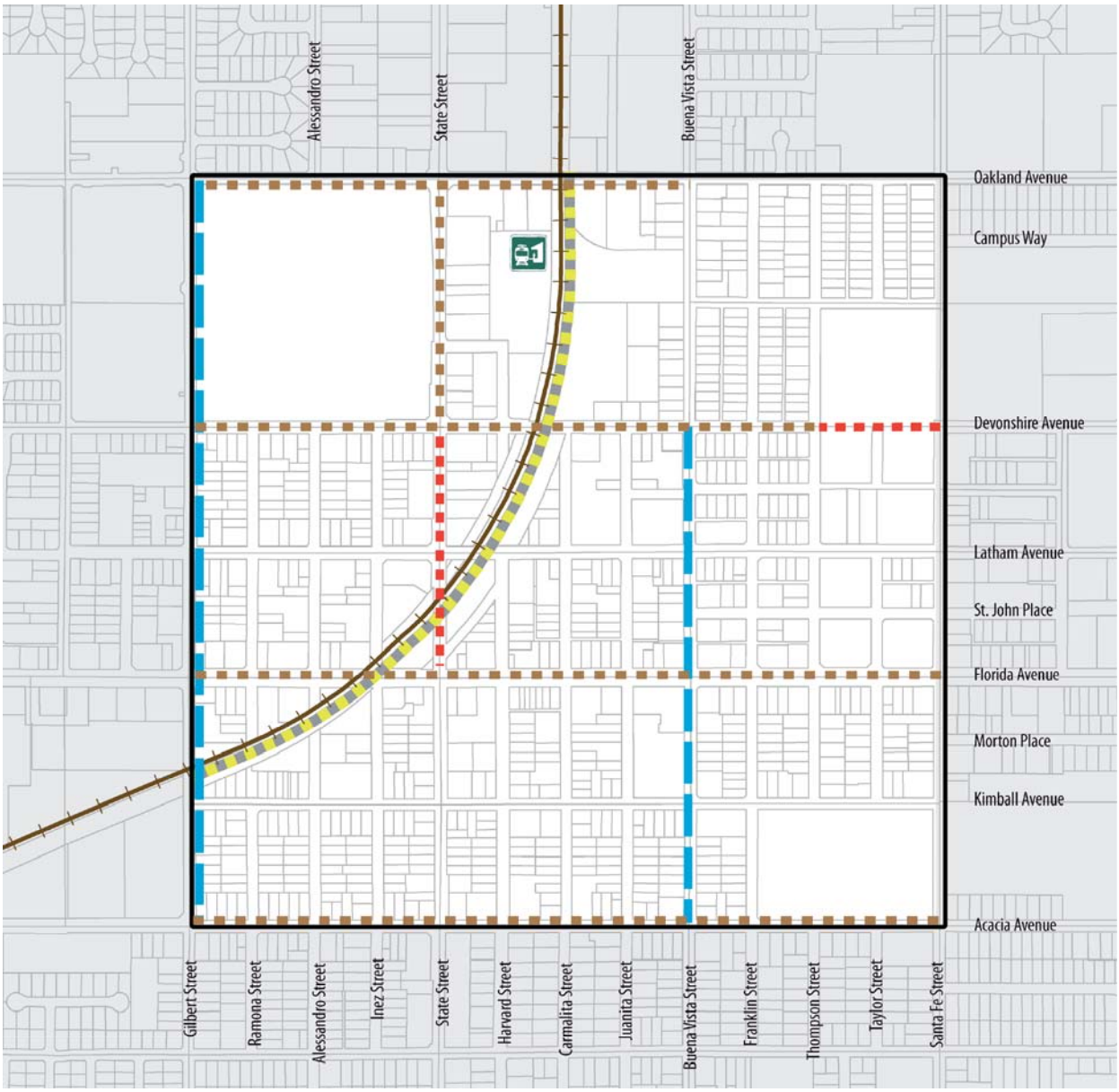
Figure 9
Downtown Hemet Specific Plan Bicycle Circulation Plan



Legend

- Specific Plan Boundary
- Rail Right-of-Way/ Future Transit Line
- Future Transit Station (*approximate location*)

General Plan Bicycle Facilities

- Class II - Bike Lane
- Class III - Bike Route

Proposed Specific Plan Bicycle Facilites

- Class I - Bike Path
- Class II - Bike Lane - Connection

Source: City of Hemet

Figure 10
Riverside Transit Agency System Map

Legend

Route Number	Point of Interest	Interstate
Route Path	Medical Facility	State Highway
Commuter Routing	Transfer Point	Main Road
Alternate Routing	Metrolink Station	Water

Source: Riverside Transit Agency

IV. PROJECT TRAFFIC

This study analyzes the potential traffic impacts of the land use changes proposed as part of the Downtown Hemet Specific Plan.

A. Trip Generation

The trips generated by the project are determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the trip generation rates by the land use quantities, the traffic volumes are determined. Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012.

1. Existing Land Use Trip Generation

The existing land uses proposed to be changed as part of the Downtown Hemet Specific Plan are Industrial, School, Low Density Residential, and Medium Density Residential.

The Industrial land use designation allows a floor area ratio (FAR) of 0.60, which means 60% of the site can be occupied by buildings. To estimate the trip generation potential, the specific existing land use was assumed to be General Heavy Industrial.

To estimate the trip generation potential of the school land use, the specific existing land use was assumed to be Junior/Community College.

The Low Density Residential land use designation allows seven dwelling units per acre. To estimate the trip generation potential, the specific existing land use was assumed to be Single-Family Detached Residential.

The Medium Density Residential land use designation allows 25 dwelling units per acre. To estimate the trip generation potential, the specific existing land use was assumed to be Apartments.

As shown in Table 2, the existing land use zoning has the potential to generate approximately 2,221 daily vehicle trips, 217 of which would occur during the morning peak hour and 245 of which would occur during the evening peak hour.

2. Proposed Land Use Trip Generation

The land uses proposed as part of the Downtown Hemet Specific Plan are Community Commercial, Office Professional, Low Density Residential, and Medium Density Residential.

The Community Commercial land use designation allows a floor area ratio (FAR) of 0.40, which means 40% of the site can be occupied by buildings. To estimate the trip generation potential, the specific existing land use was assumed to be Shopping Center.

The Office Professional land use designation allows a floor area ratio (FAR) of 0.60, which means 60% of the site can be occupied by buildings. To estimate the trip generation potential, the specific existing land use was assumed to be General Office.

The Low Density Residential land use designation allows seven dwelling units per acre. To estimate the trip generation potential, the specific existing land use was assumed to be Single-Family Detached Residential.

The Medium Density Residential land use designation allows 25 dwelling units per acre. To estimate the trip generation potential, the specific existing land use was assumed to be Apartments.

As shown in Table 2, the proposed land use zoning has the potential to generate approximately 7,518 daily vehicle trips, 522 of which would occur during the morning peak hour and 936 of which would occur during the evening peak hour.

3. Trip Generation Comparison

The land use changes identified in the Downtown Hemet Specific Plan are projected to result in approximately 5,297 more daily vehicle trips, 305 more during the morning peak hour and 691 more during the evening peak hour.

B. Trip Distribution

Figures 11 through 22 show the directional distributions of the trips for the existing land uses that are proposed to be changed. Figures 23 through 34 show the directional distributions of the trips for the proposed land uses. To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

C. Trip Assignment

Based on the identified trip generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 35. Morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figures 36 to 37, respectively.

D. Modal Split

The traffic reducing potential of public transit has not been considered in this report. Essentially the traffic projections are conservative in that public transit might be able to reduce the traffic volumes.

Table 2

Project Trip Generation[1]

Traffic Analysis Zone	Land Use	Quantity	Units[2]	Peak Hour Morning Inbound	Morning Outbound	Morning Total	Evening Inbound	Evening Outbound	Evening Total	Daily
	Trips Generated									
	Existing Land Use - Industrial	36.852	TSF	30	4	34	4	31	35	257
1	Proposed Land Use - Community Commercial	24.568	TSF	15	9	24	44	47	91	1,049
	Subtotal			-15	+5	-10	+40	+16	+56	+792
	Existing Land Use - Industrial	55.408	TSF	45	6	51	6	47	53	386
2	Proposed Land Use - Low Density Residential	15	DU	3	8	11	9	6	15	143
	Subtotal			-42	+2	-40	+3	-41	-38	-243
	Existing Land Use - Medium Density Residential	27	DU	3	11	14	11	6	17	180
3	Proposed Land Use - Community Commercial	18.644	TSF	11	7	18	33	36	69	796
	Subtotal			+8	-4	+4	+22	+30	+52	+616
	Existing Land Use - Medium Density Residential	12	DU	1	5	6	5	3	8	80
4	Proposed Land Use - Community Commercial	8.015	TSF	5	3	8	14	15	30	342
	Subtotal			+4	-2	+2	+9	+12	+22	+262
	Existing Land Use - School	10.287	TSF	23	8	31	15	11	26	283
5	Proposed Land Use - Community Commercial	16.030	TSF	10	6	15	29	31	59	684
	Subtotal			-13	-2	-16	+14	+20	+33	+401
	Existing Land Use - Medium Density Residential	34	DU	3	14	17	14	7	21	226
6	Proposed Land Use - Community Commercial	23.522	TSF	14	9	23	42	45	87	1,004
	Subtotal			+11	-5	+6	+28	+38	+66	+778
	Existing Land Use - Low Density Residential	21	DU	4	12	16	13	8	21	200
7	Proposed Land Use - Medium Density Residential	74	DU	8	30	38	30	16	46	492
	Subtotal			+4	+18	+22	+17	+8	+25	+292
	Existing Land Use - Low Density Residential	4	DU	1	2	3	3	1	4	38
8	Proposed Land Use - Office Professional	14.113	TSF	35	5	40	16	78	94	296
	Subtotal			+34	+3	+37	+13	+77	+90	+258
	Existing Land Use - Low Density Residential	24	DU	5	14	19	15	9	24	228
9	Proposed Land Use - Medium Density Residential	87	DU	9	35	44	35	19	54	579
	Subtotal			+4	+21	+25	+20	+10	+30	+351
	Existing Land Use - Low Density Residential	5	DU	1	3	4	3	2	5	48
10	Proposed Land Use - Office Professional	20.125	TSF	47	6	53	17	84	101	388
	Subtotal			+46	+3	+49	+14	+82	+96	+340
	Existing Land Use - Low Density Residential	13	DU	2	7	9	8	5	13	124
11	Proposed Land Use - Office Professional	48.874	TSF	95	13	108	23	111	134	762
	Subtotal			+93	+6	+99	+15	+106	+121	+638
	Existing Land Use - Low Density Residential	18	DU	3	10	13	11	7	18	171
12	Proposed Land Use - Office Professional	68.215	TSF	124	17	141	26	129	155	982
	Subtotal			+121	+7	+128	+15	+122	+137	+811
	Subtotal - Existing Land Uses			121	96	217	108	137	245	2,221
	Subtotal - Proposed Land Uses			375	147	522	318	618	936	7,518
	Total			+254	+51	+305	+210	+481	+691	+5,297

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, Land Use Codes 110, 210, 220, 540, 710, and 820.

[2] TSF = Thousand Square Feet; DU = Dwelling Units

Figure 11
Traffic Analysis Zone 1 Existing Trip Distribution (Industrial)

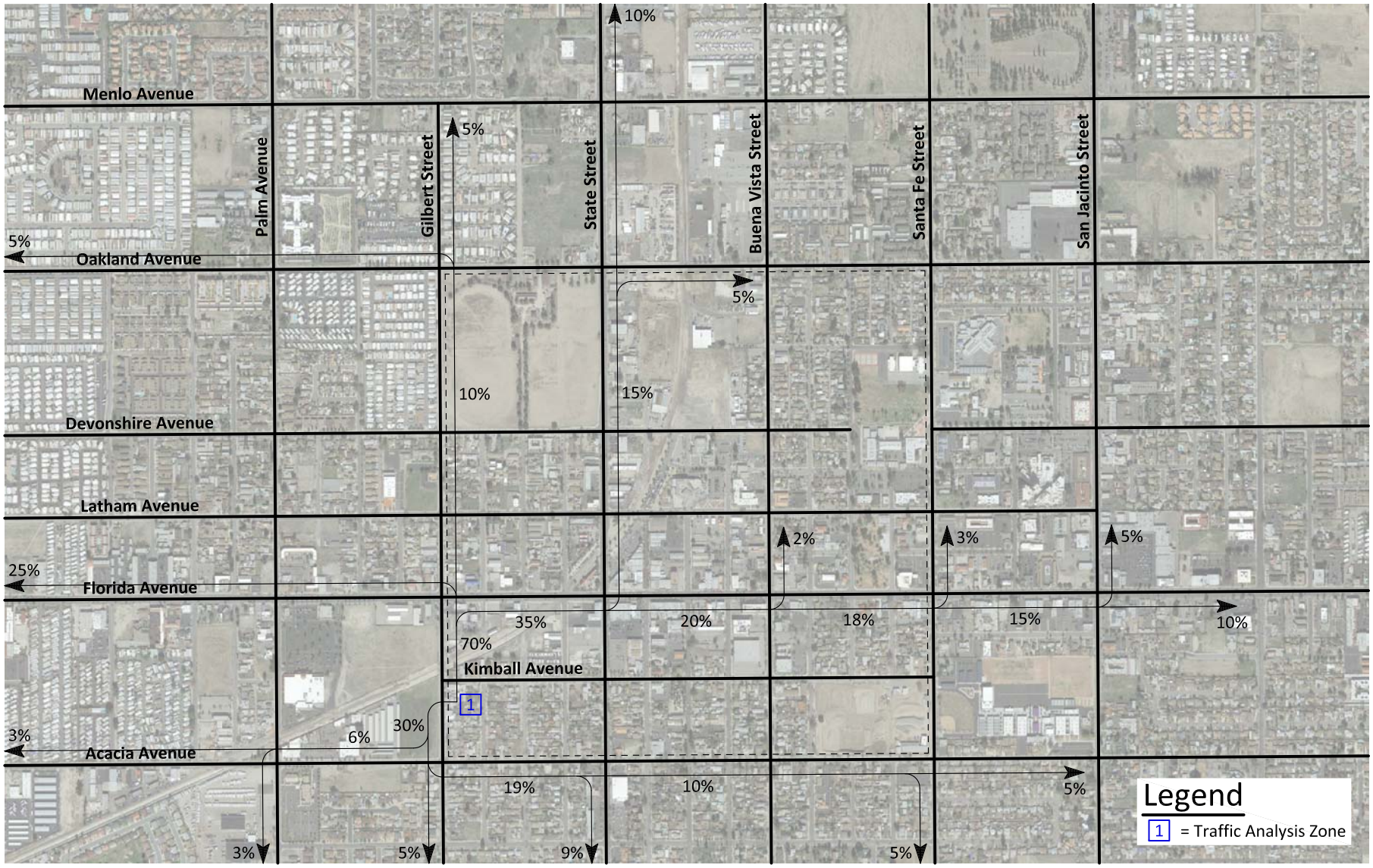


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Figure 12
Traffic Analysis Zone 2 Existing Trip Distribution (Industrial)

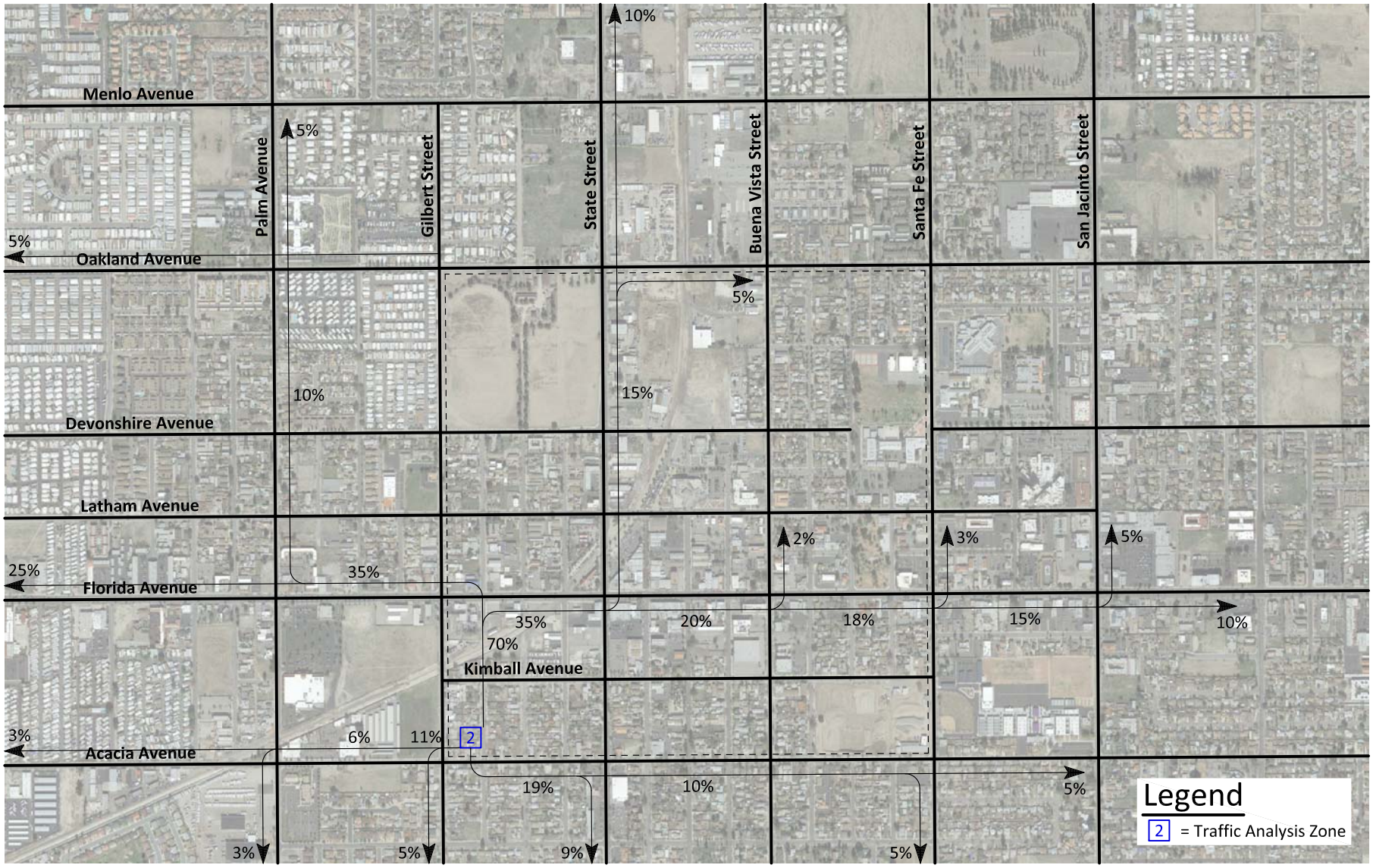

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Figure 13
Traffic Analysis Zone 3 Existing Trip Distribution (Medium Density Residential)

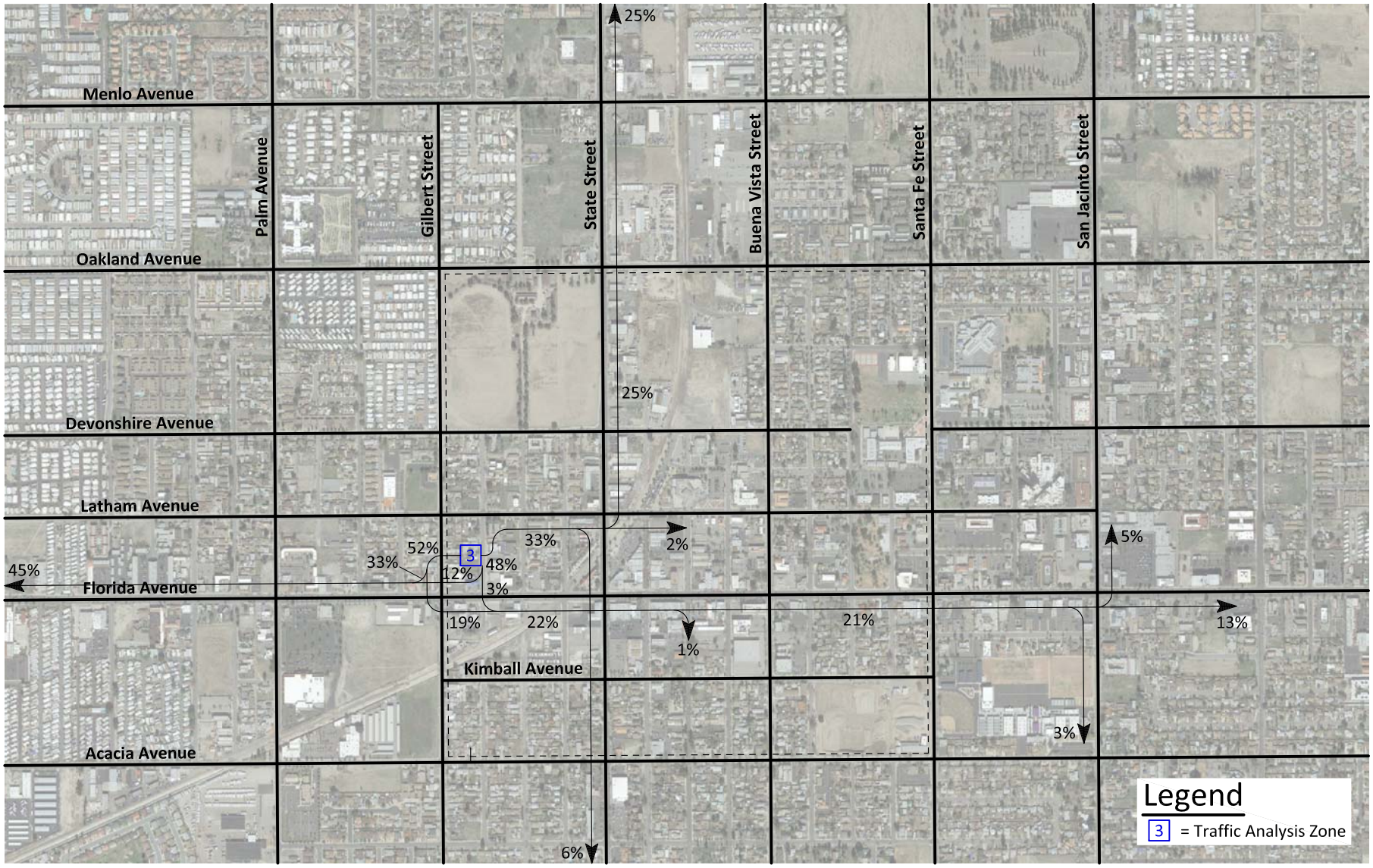

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Figure 14
Traffic Analysis Zone 4 Existing Trip Distribution (Medium Density Residential)

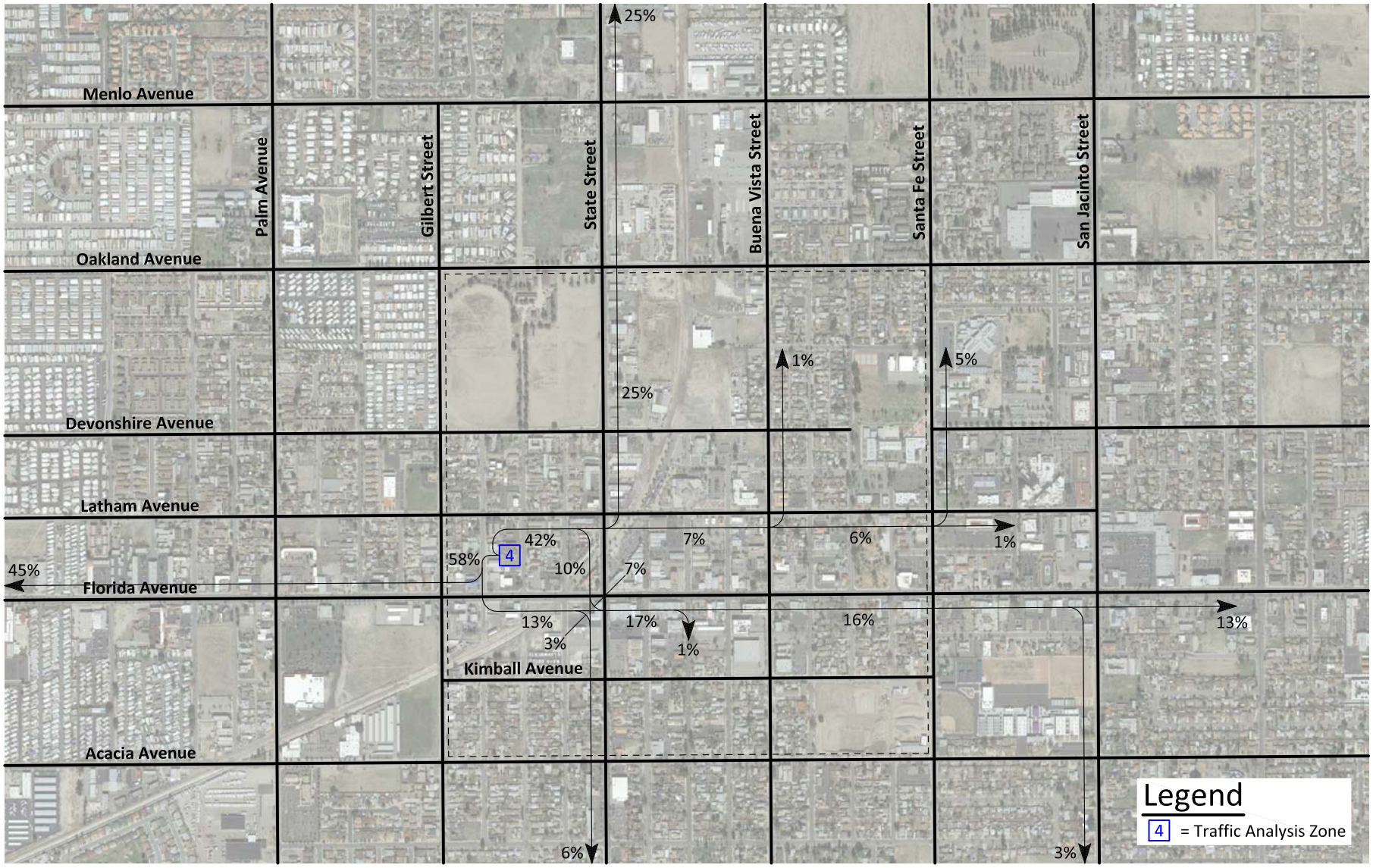

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Figure 15
Traffic Analysis Zone 5 Existing Trip Distribution (School)

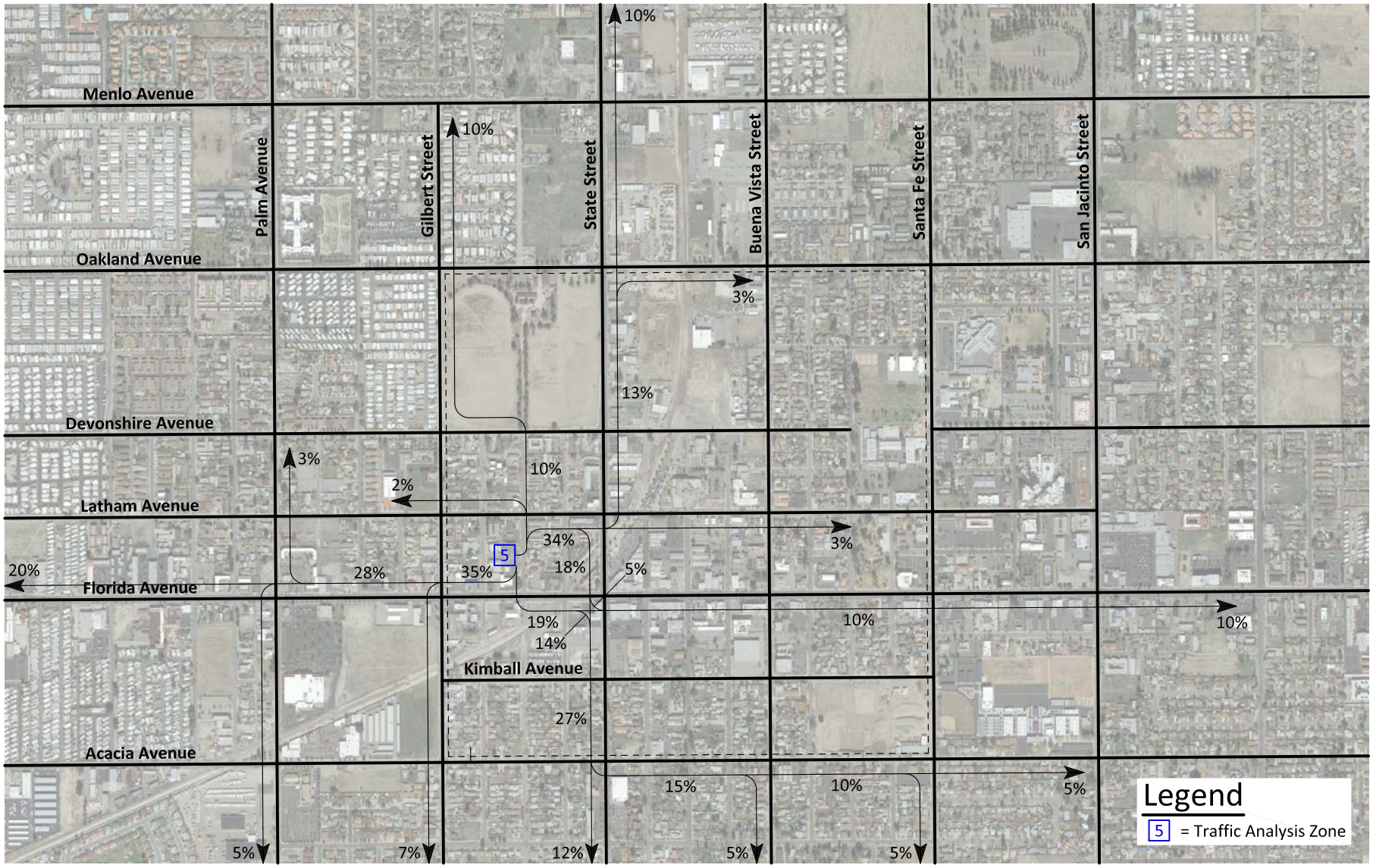

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Figure 16
Traffic Analysis Zone 6 Existing Trip Distribution (Medium Density Residential)

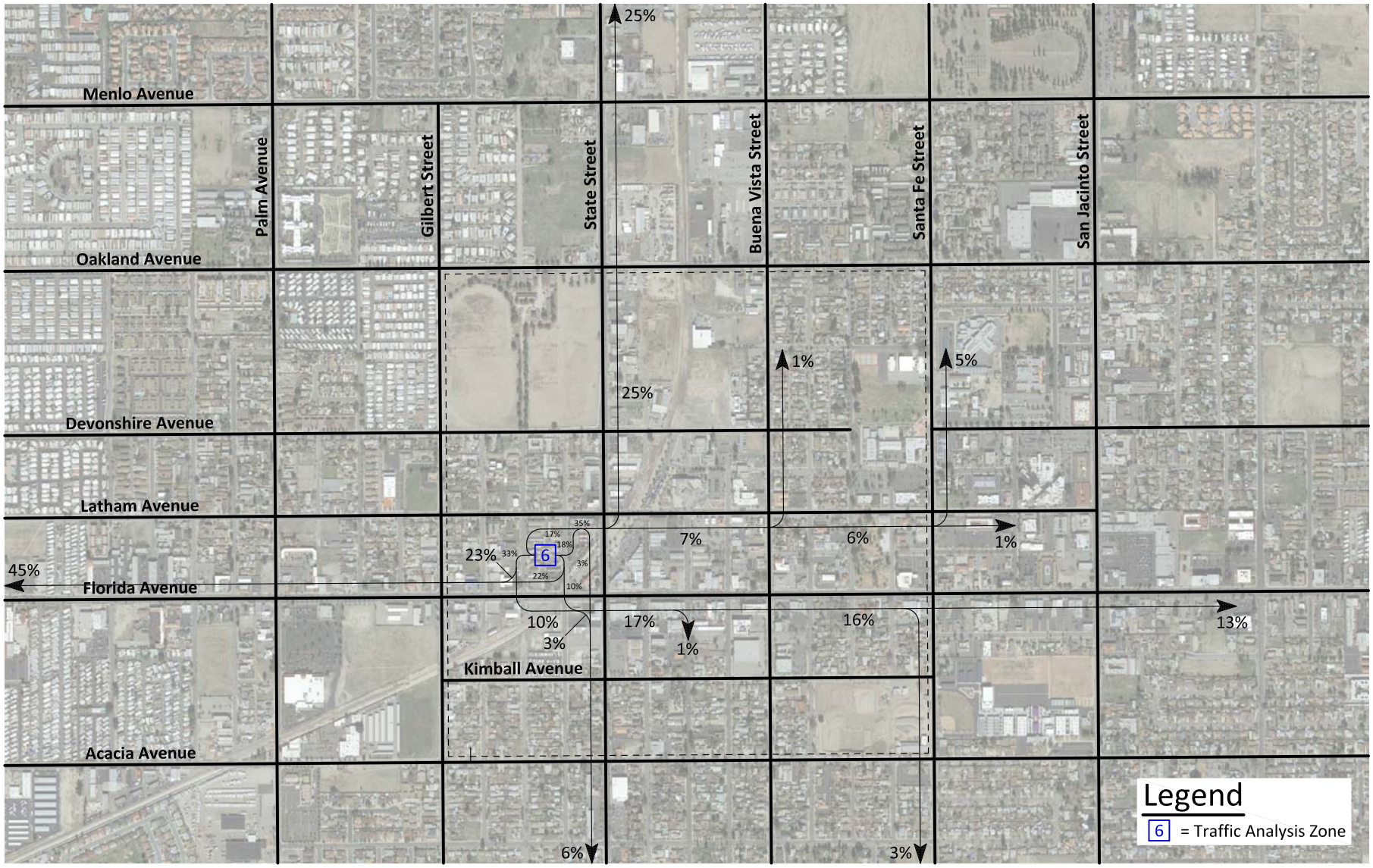

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Figure 17
Traffic Analysis Zone 7 Existing Trip Distribution (Low Density Residential)

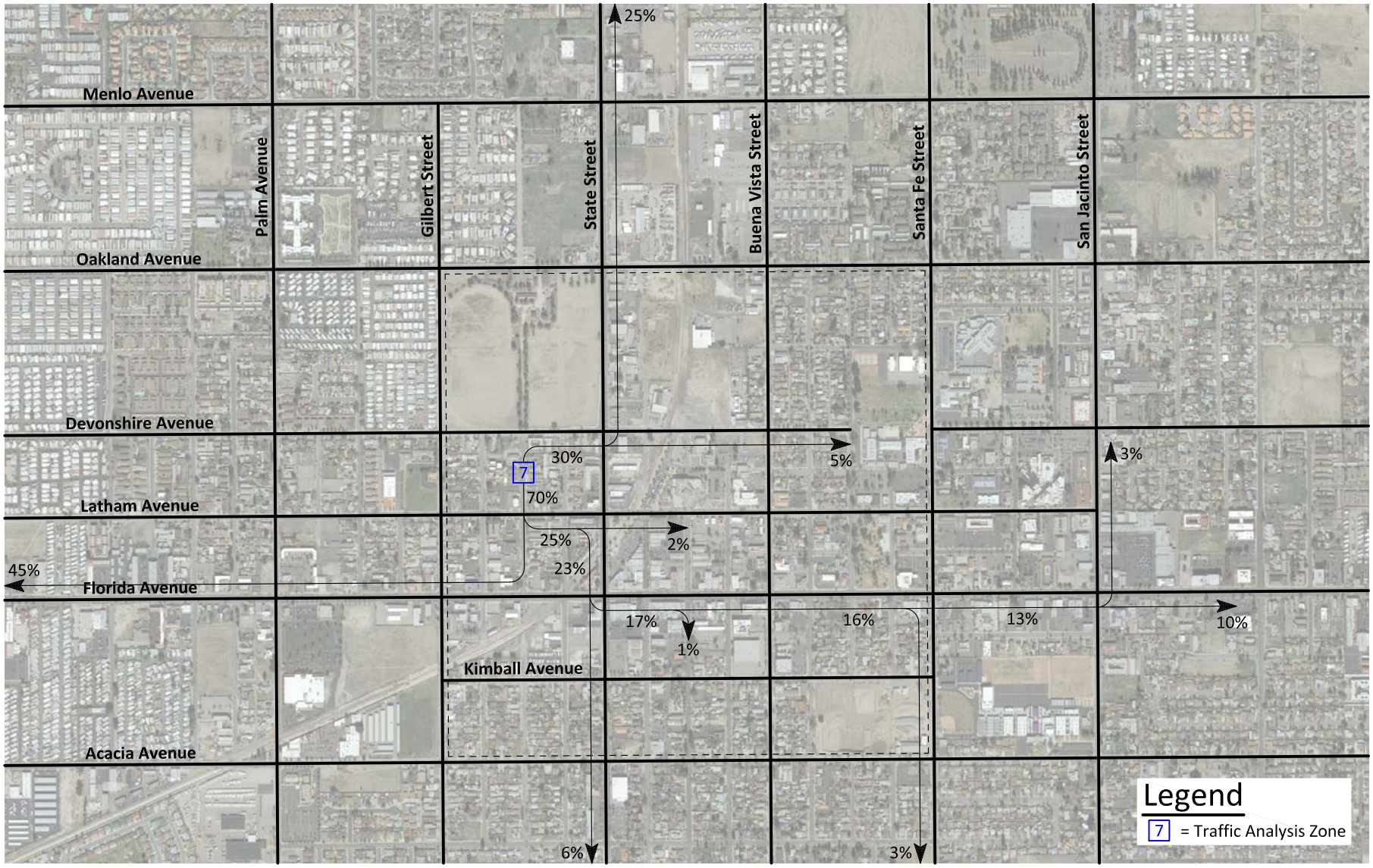

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Figure 18
Traffic Analysis Zone 8 Existing Trip Distribution (Low Density Residential)

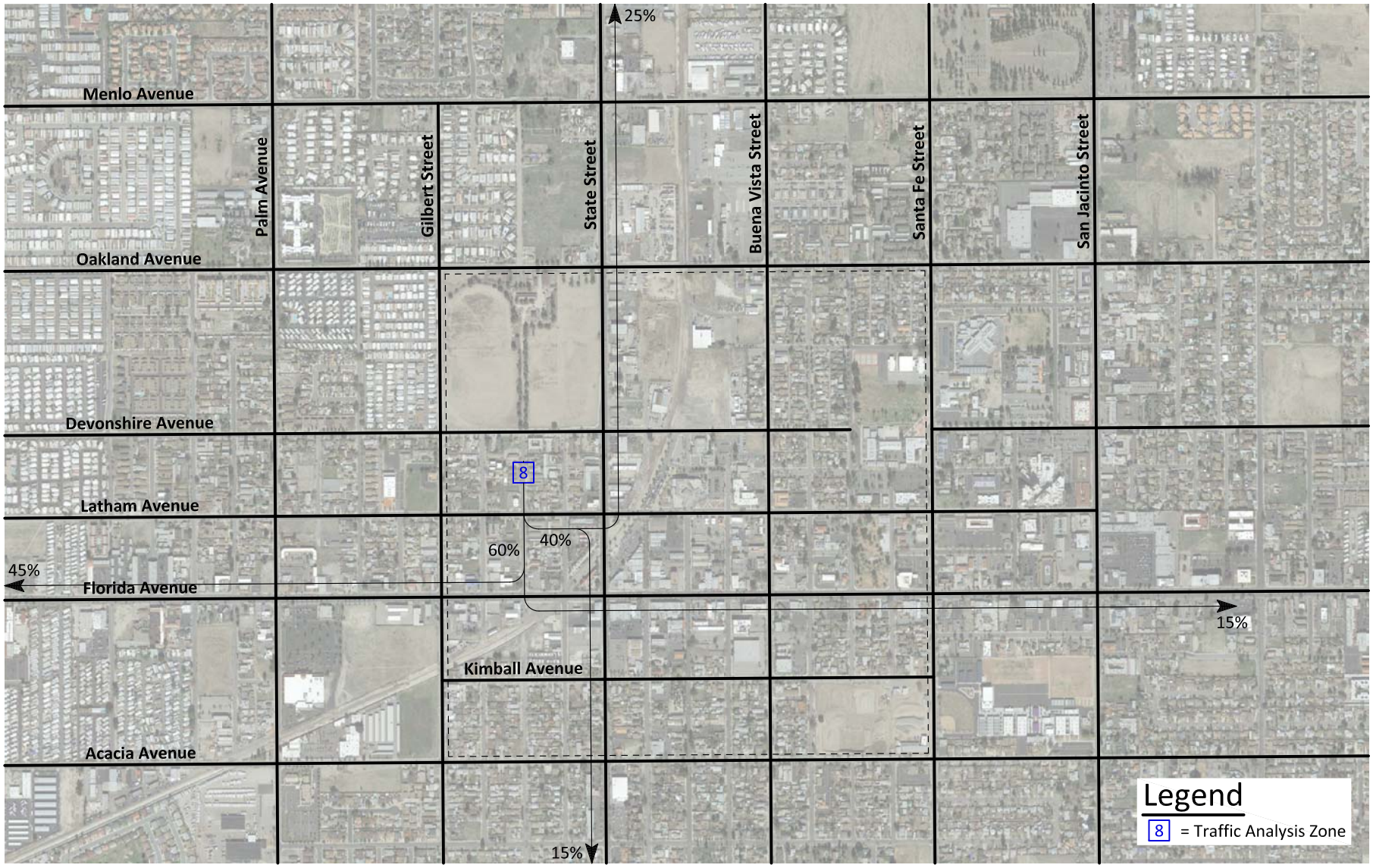

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Figure 19
Traffic Analysis Zone 9 Existing Trip Distribution (Low Density Residential)

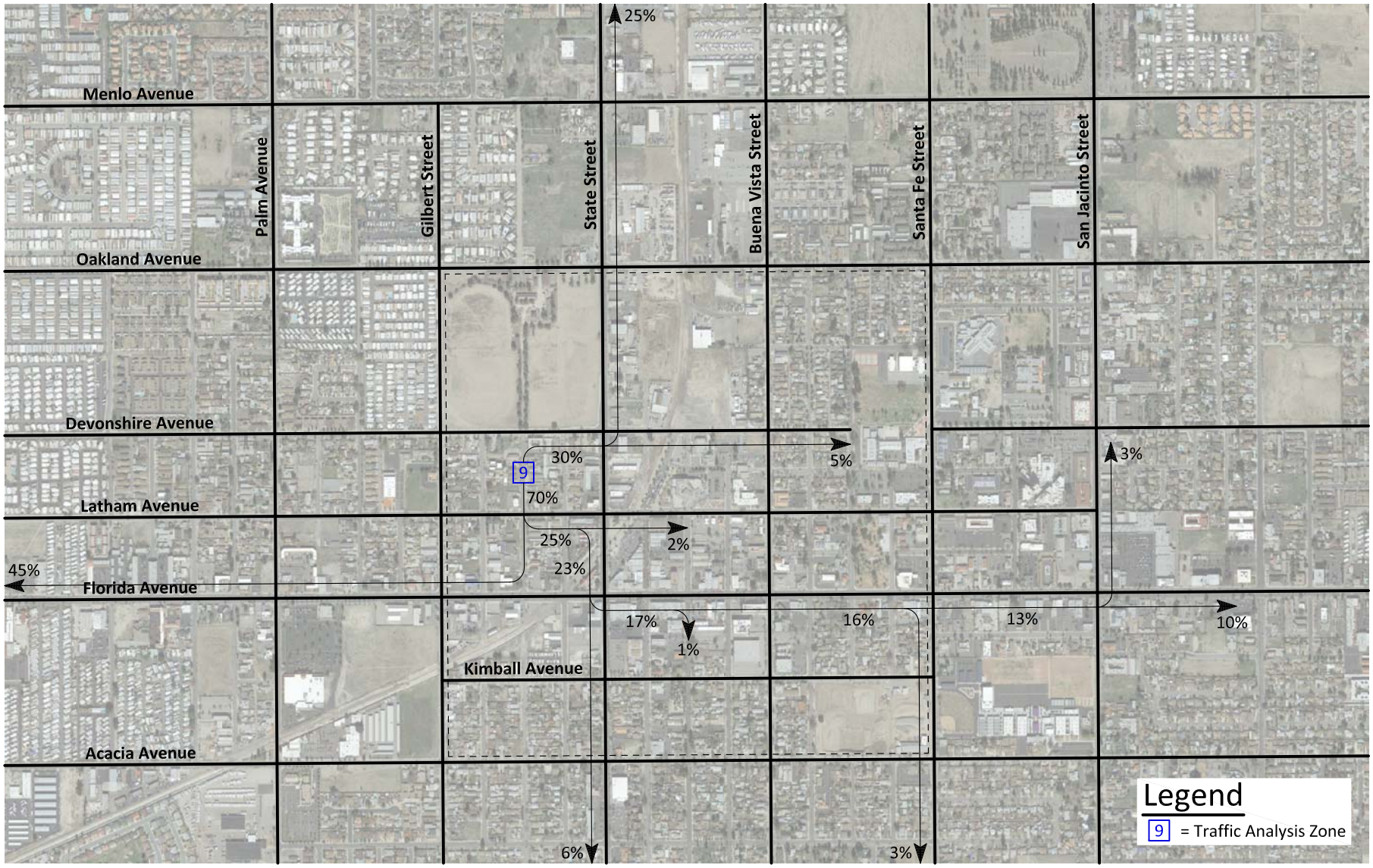

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Figure 20
Traffic Analysis Zone 10 Existing Trip Distribution (Low Density Residential)

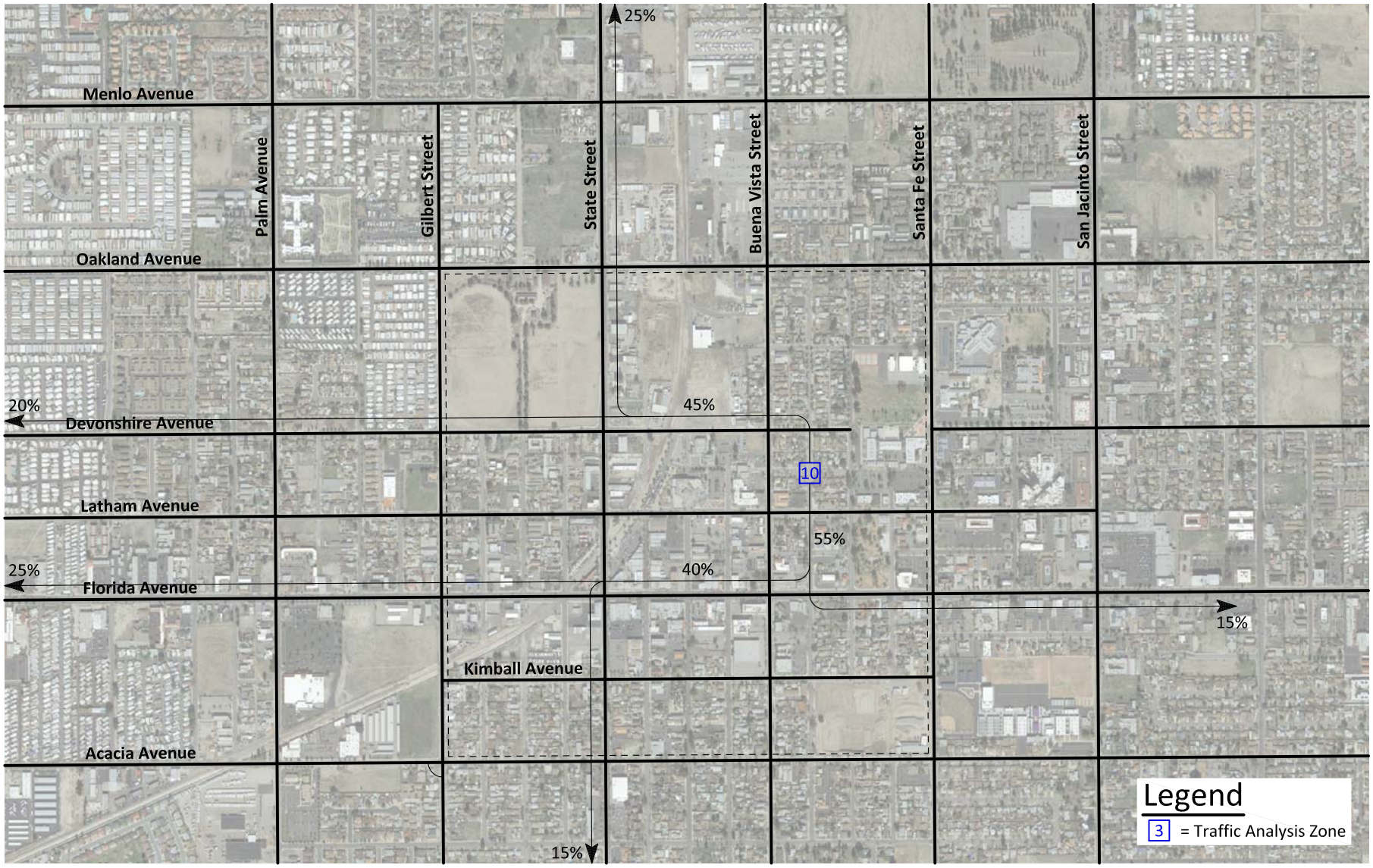

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Figure 21
Traffic Analysis Zone 11 Existing Trip Distribution (Low Density Residential)

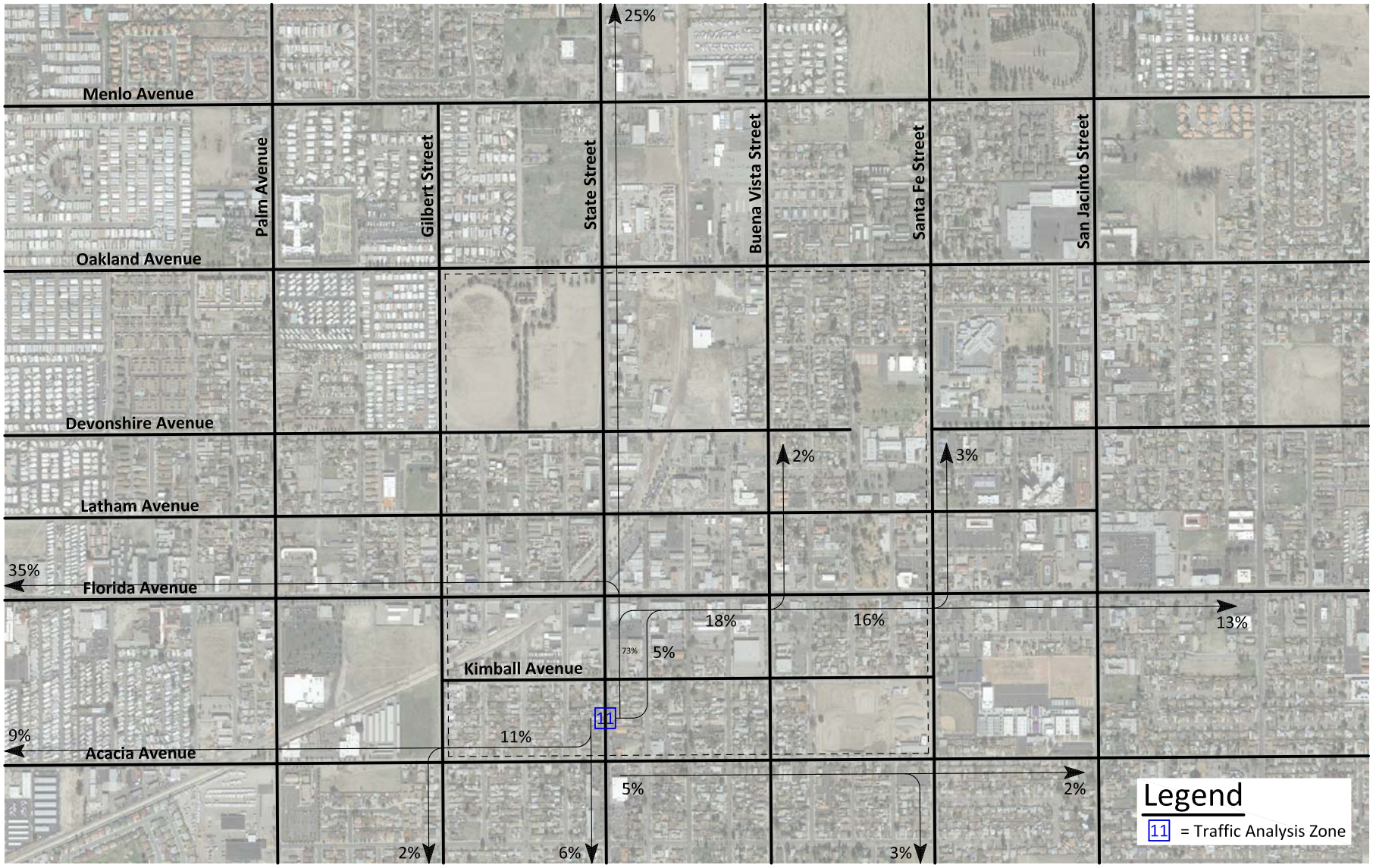

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Figure 22
Traffic Analysis Zone 12 Existing Trip Distribution (Low Density Residential)

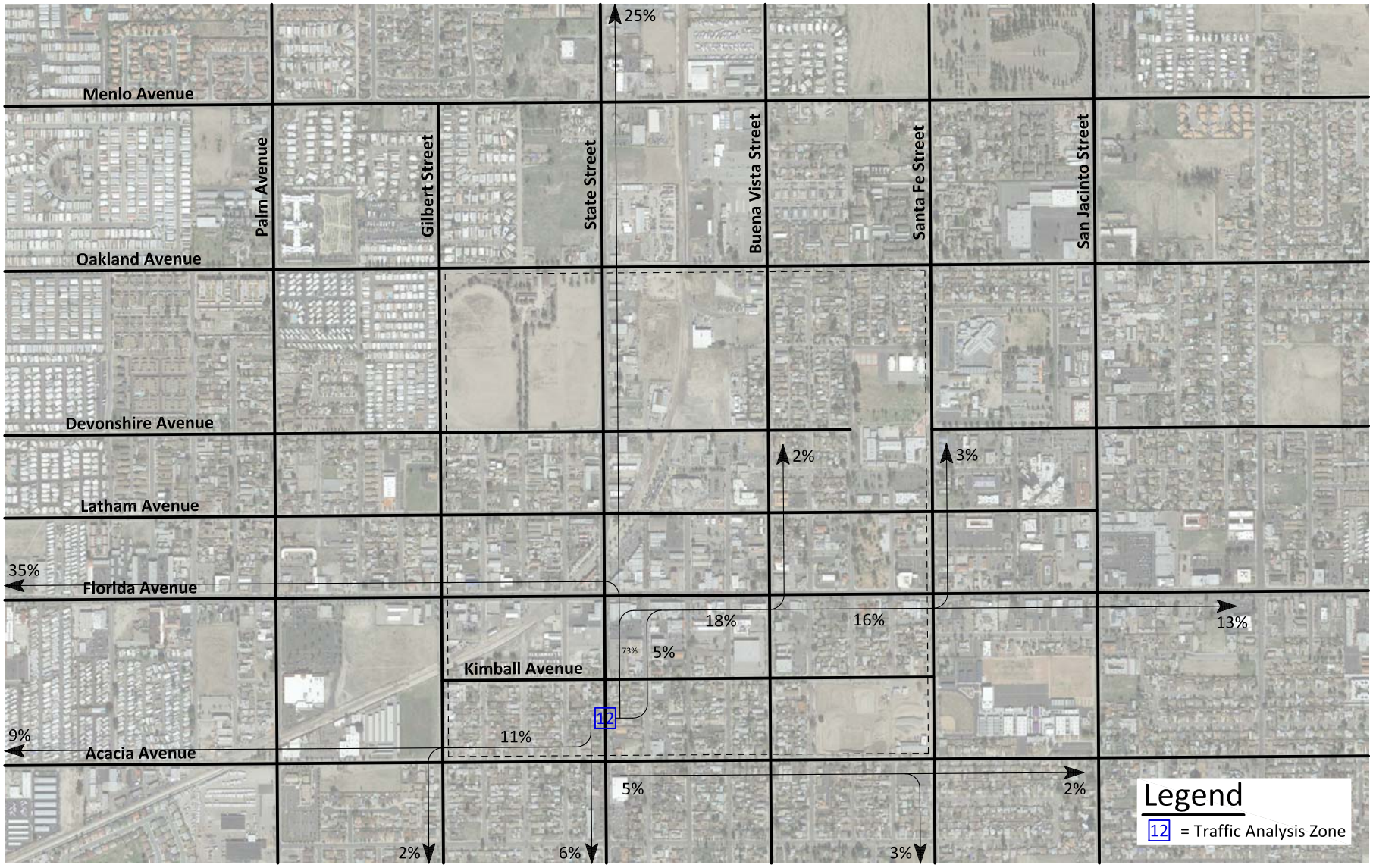

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Figure 23
Traffic Analysis Zone 1 Proposed Trip Distribution (Low Density Residential)

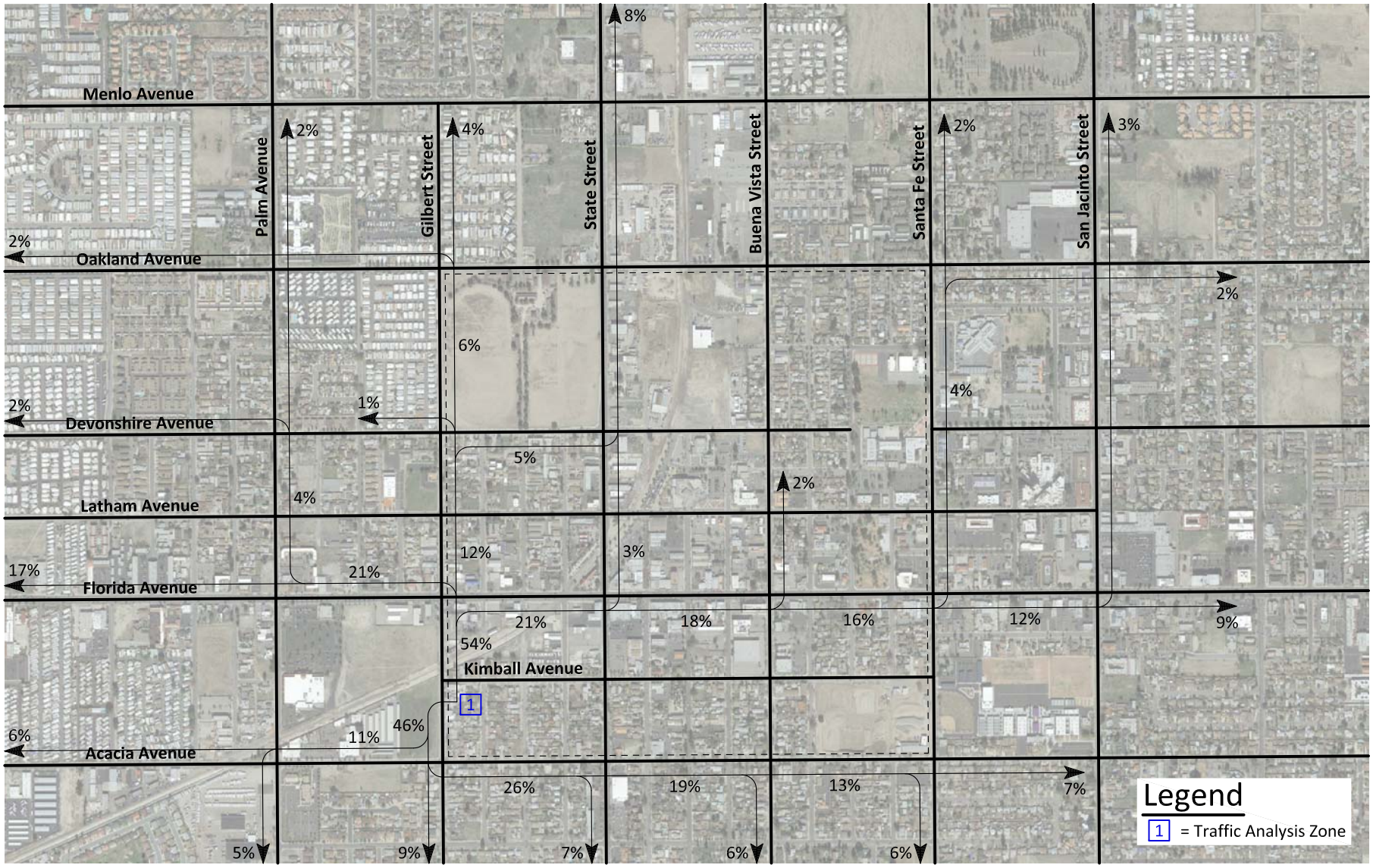

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Figure 24
Traffic Analysis Zone 2 Proposed Trip Distribution (Community Commercial)

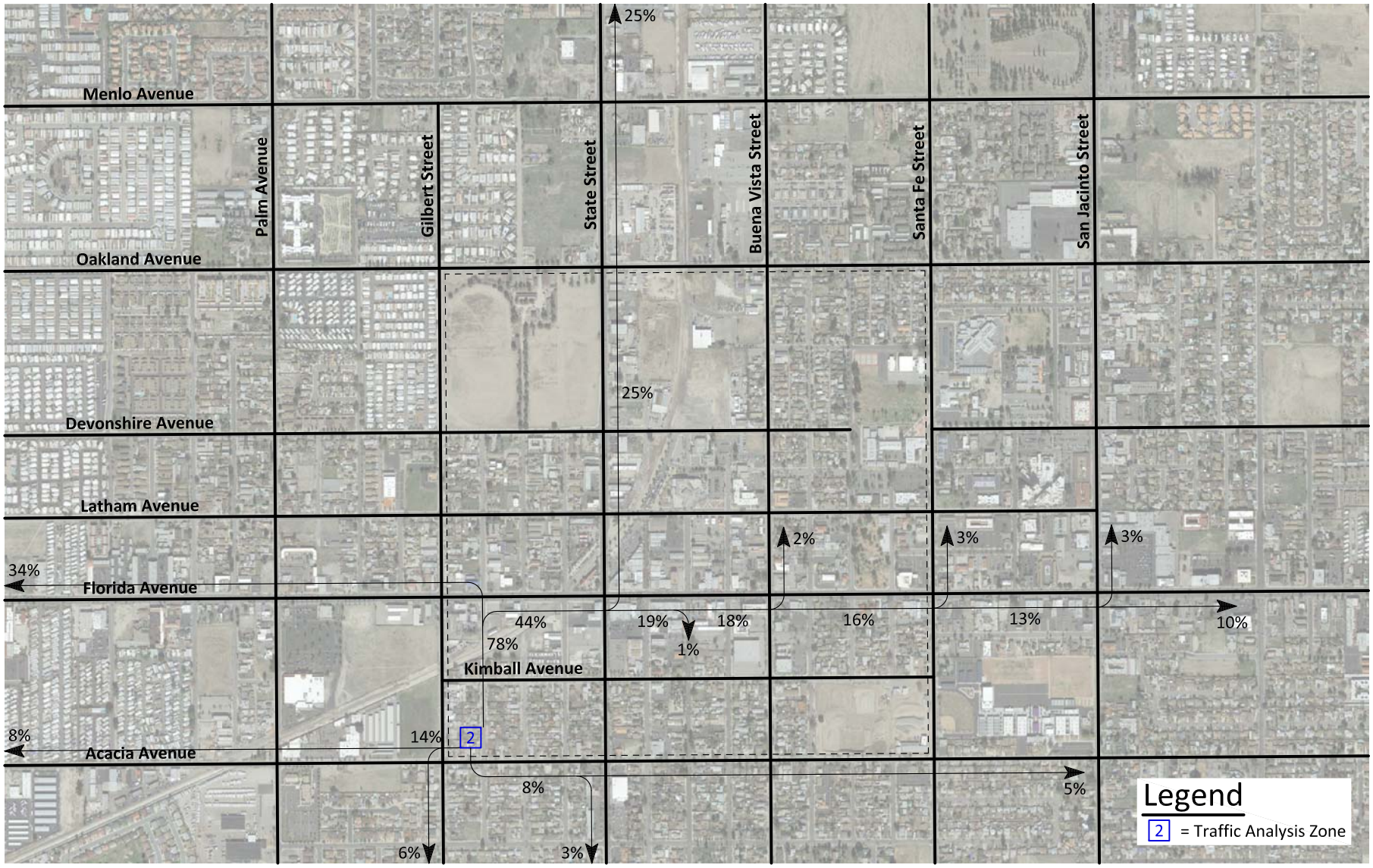

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Figure 25
Traffic Analysis Zone 3 Proposed Trip Distribution (Community Commercial)

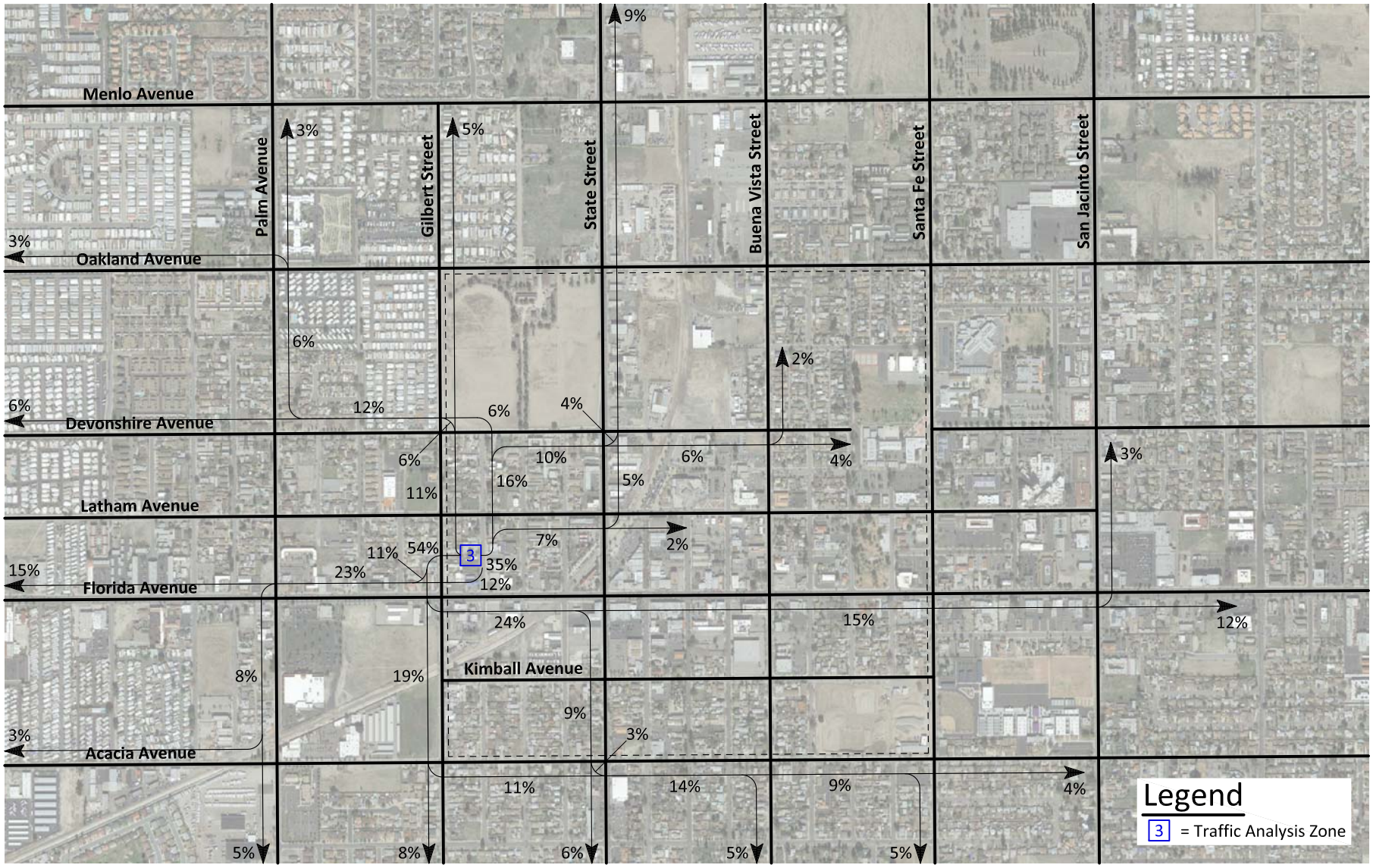

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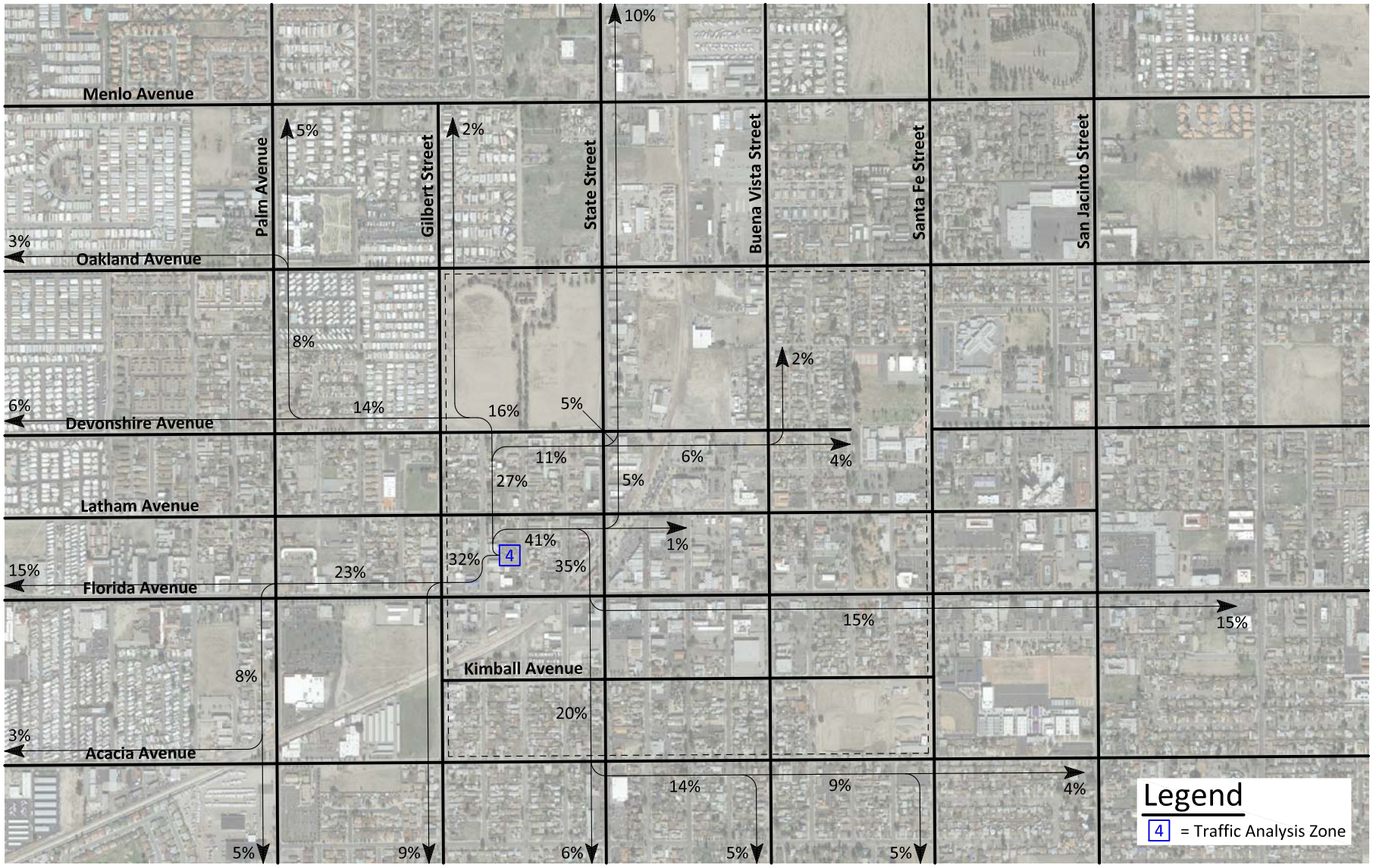
Figure 26
Traffic Analysis Zone 4 Proposed Trip Distribution (Community Commercial)



KUNZMAN ASSOCIATES, INC.

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Figure 27
Traffic Analysis Zone 5 Proposed Trip Distribution (Community Commercial)

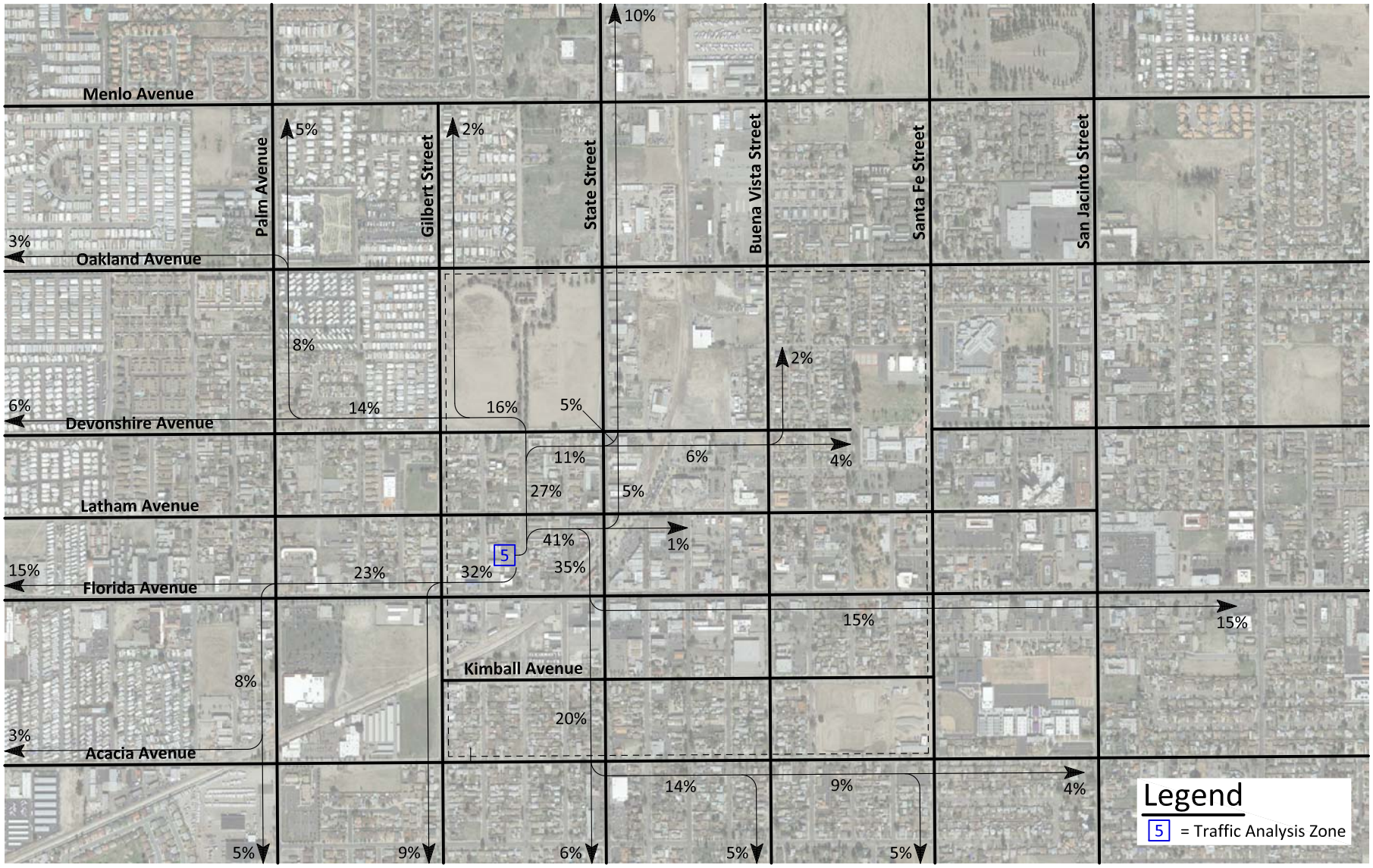

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Figure 28
Traffic Analysis Zone 6 Proposed Trip Distribution (Community Commercial)

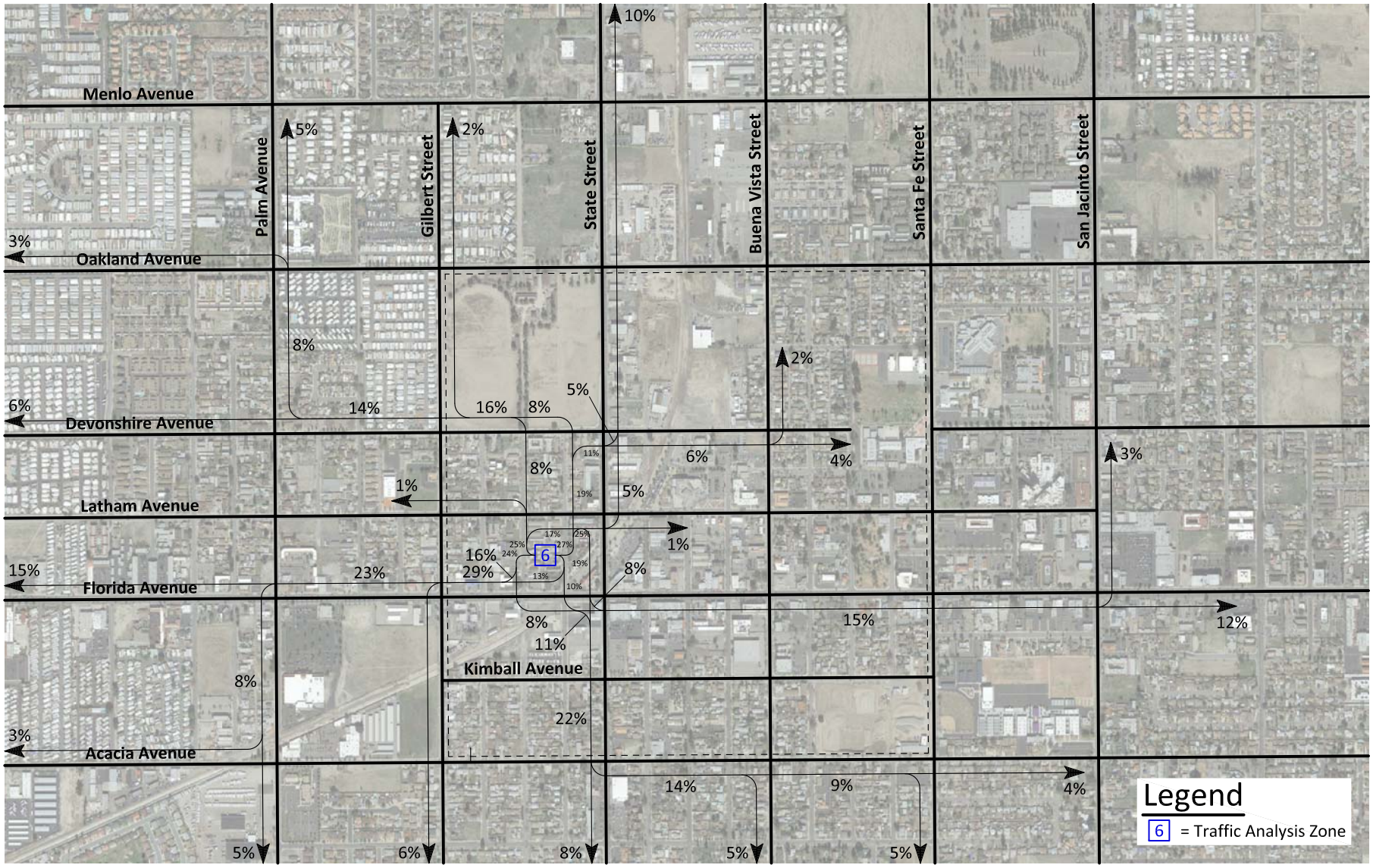

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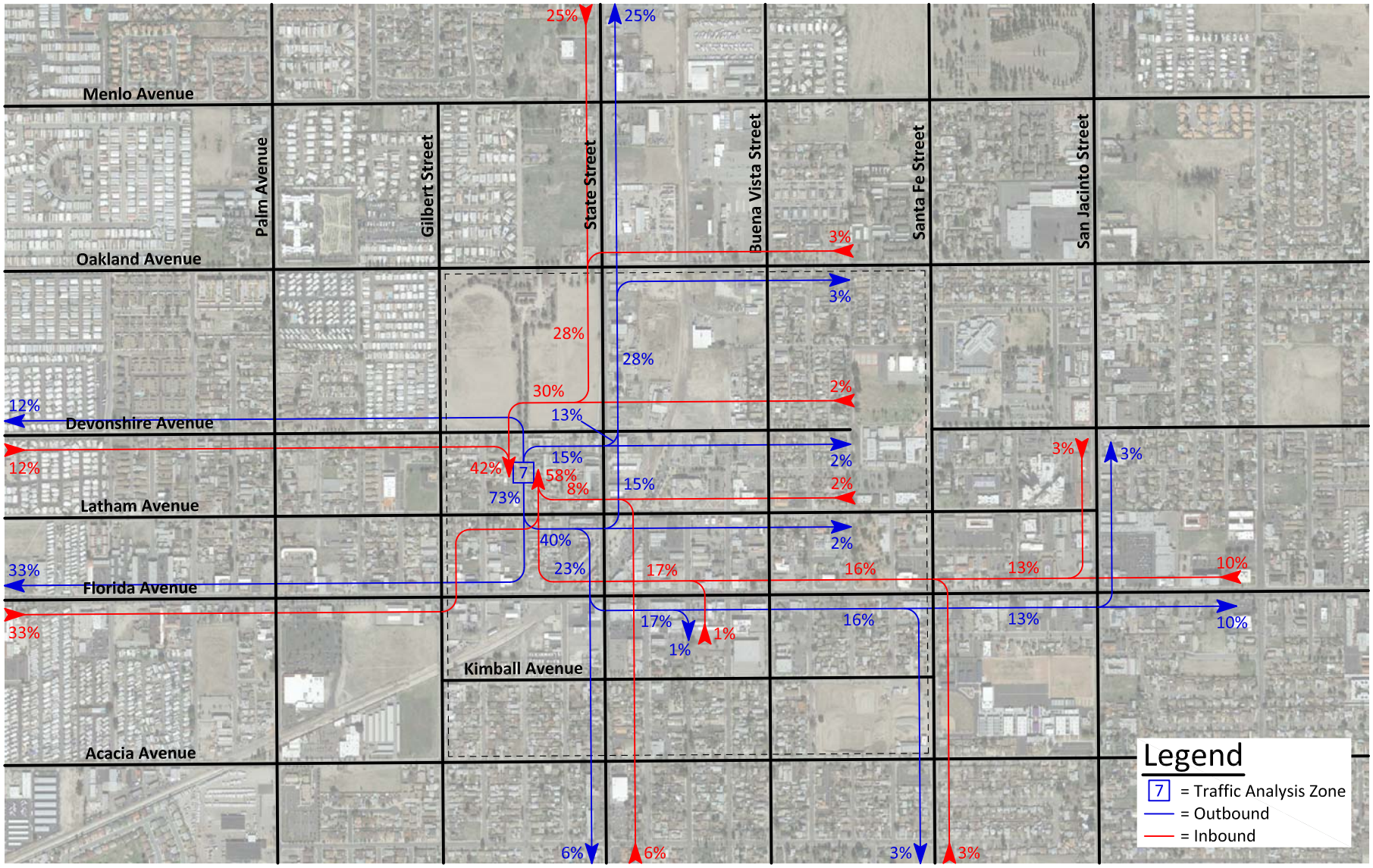
Figure 29
Traffic Analysis Zone 7 Proposed Trip Distribution (Medium Density Residential)



KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

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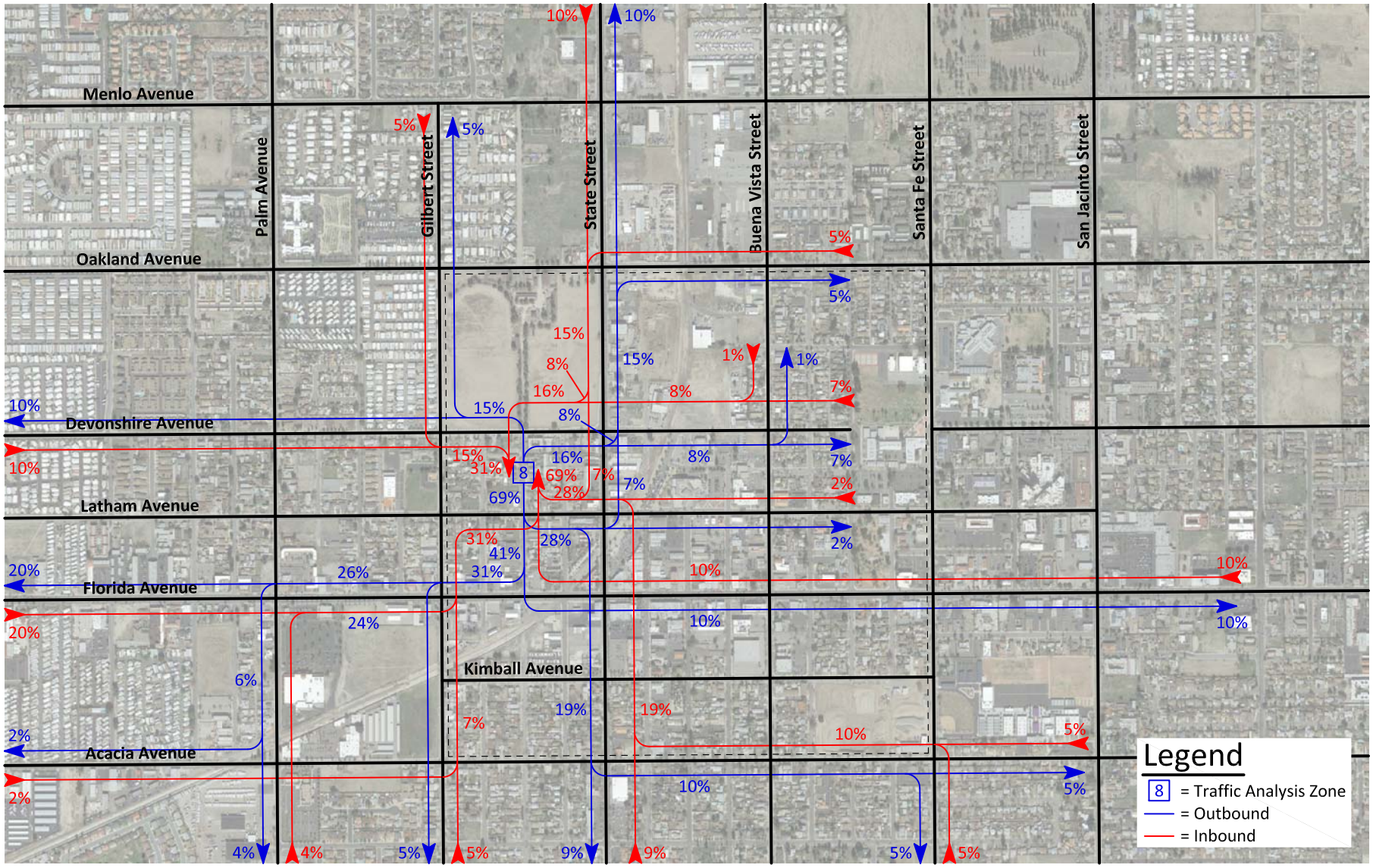
Figure 30
Traffic Analysis Zone 8 Proposed Trip Distribution (Office Professional)



KUNZMAN ASSOCIATES, INC.

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Figure 31
Traffic Analysis Zone 9 Proposed Trip Distribution (Medium Density Residential)

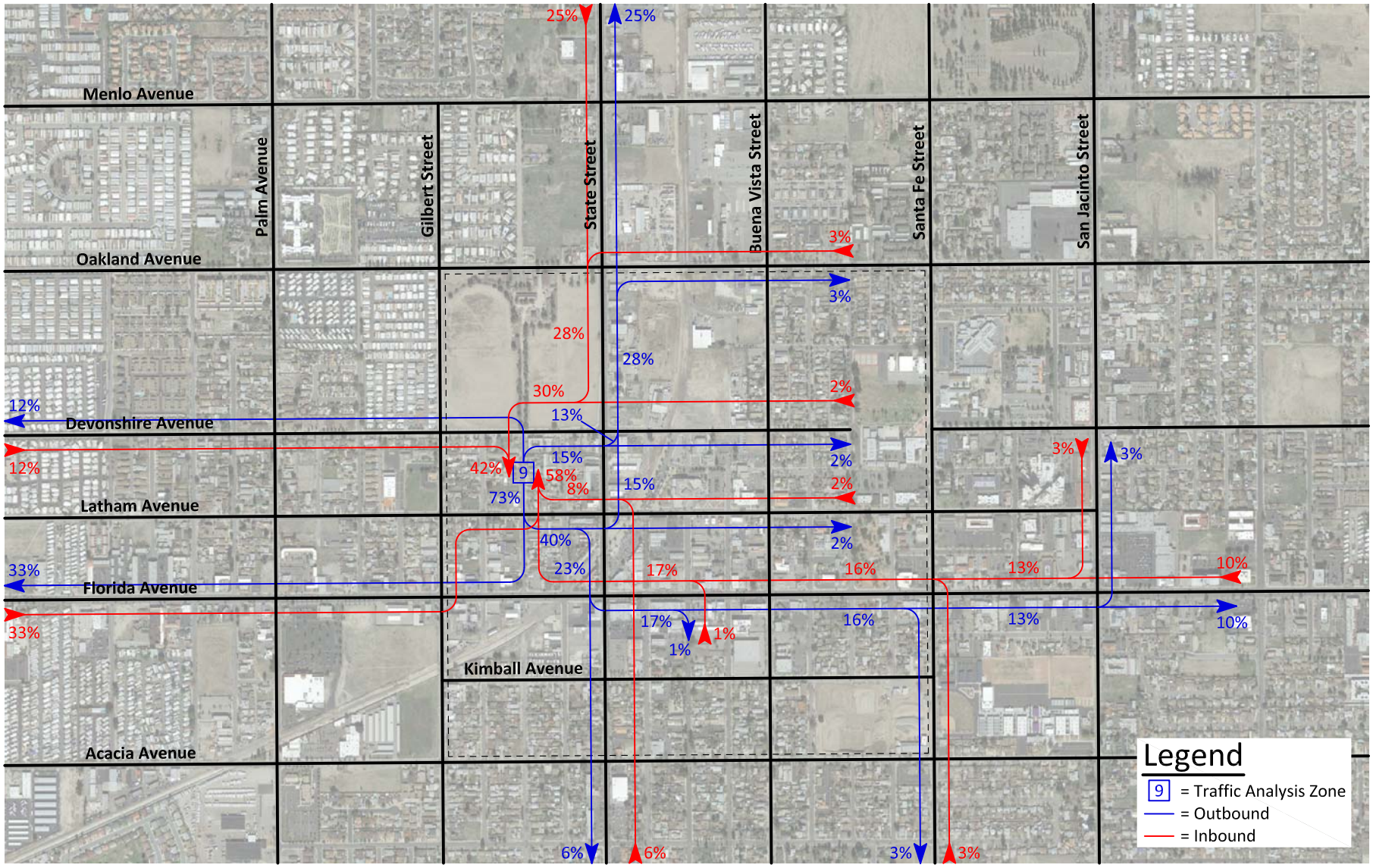

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Figure 32
Traffic Analysis Zone 10 Proposed Trip Distribution (Office Professional)

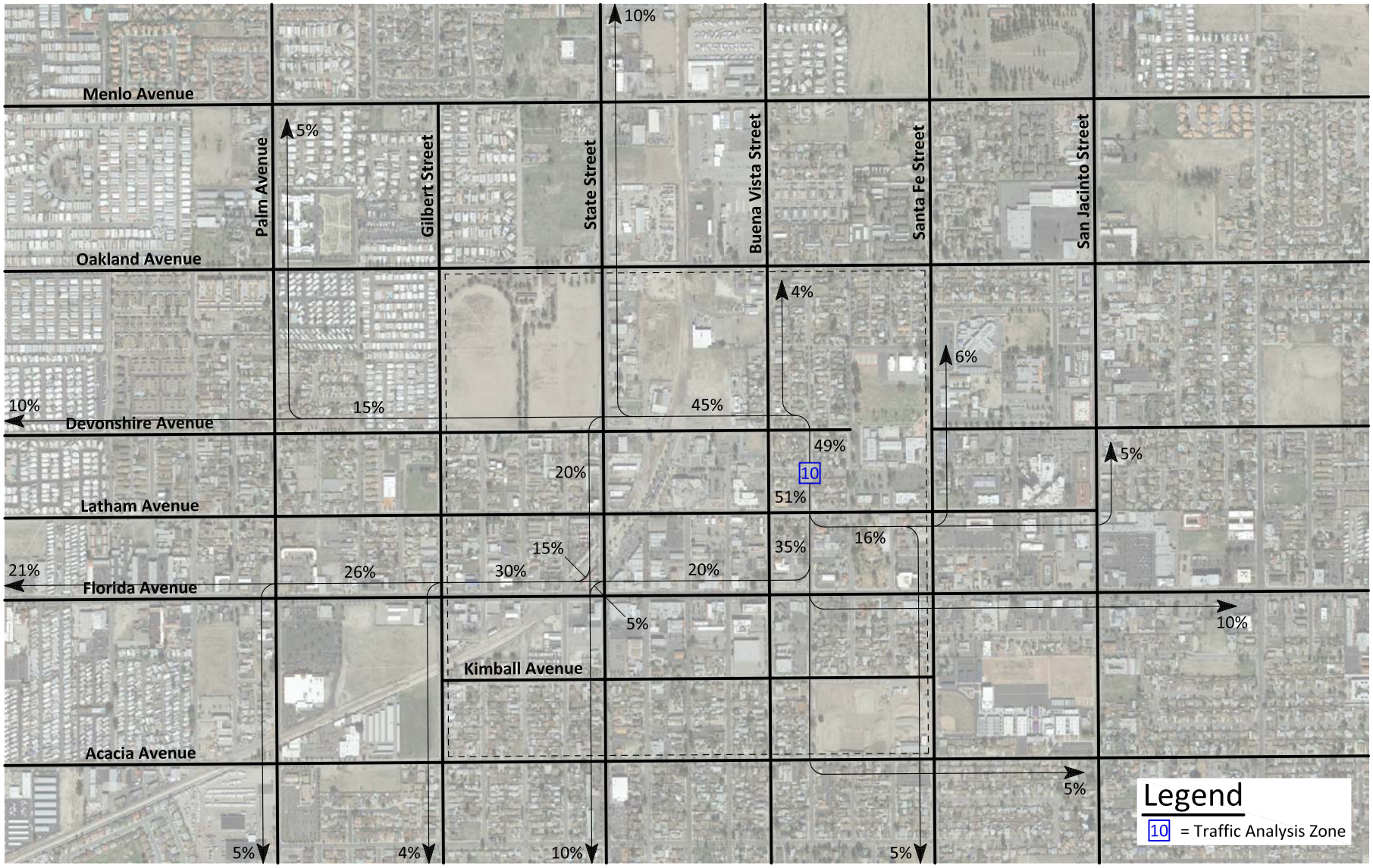

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Figure 33
Traffic Analysis Zone 11 Proposed Trip Distribution (Office Professional)

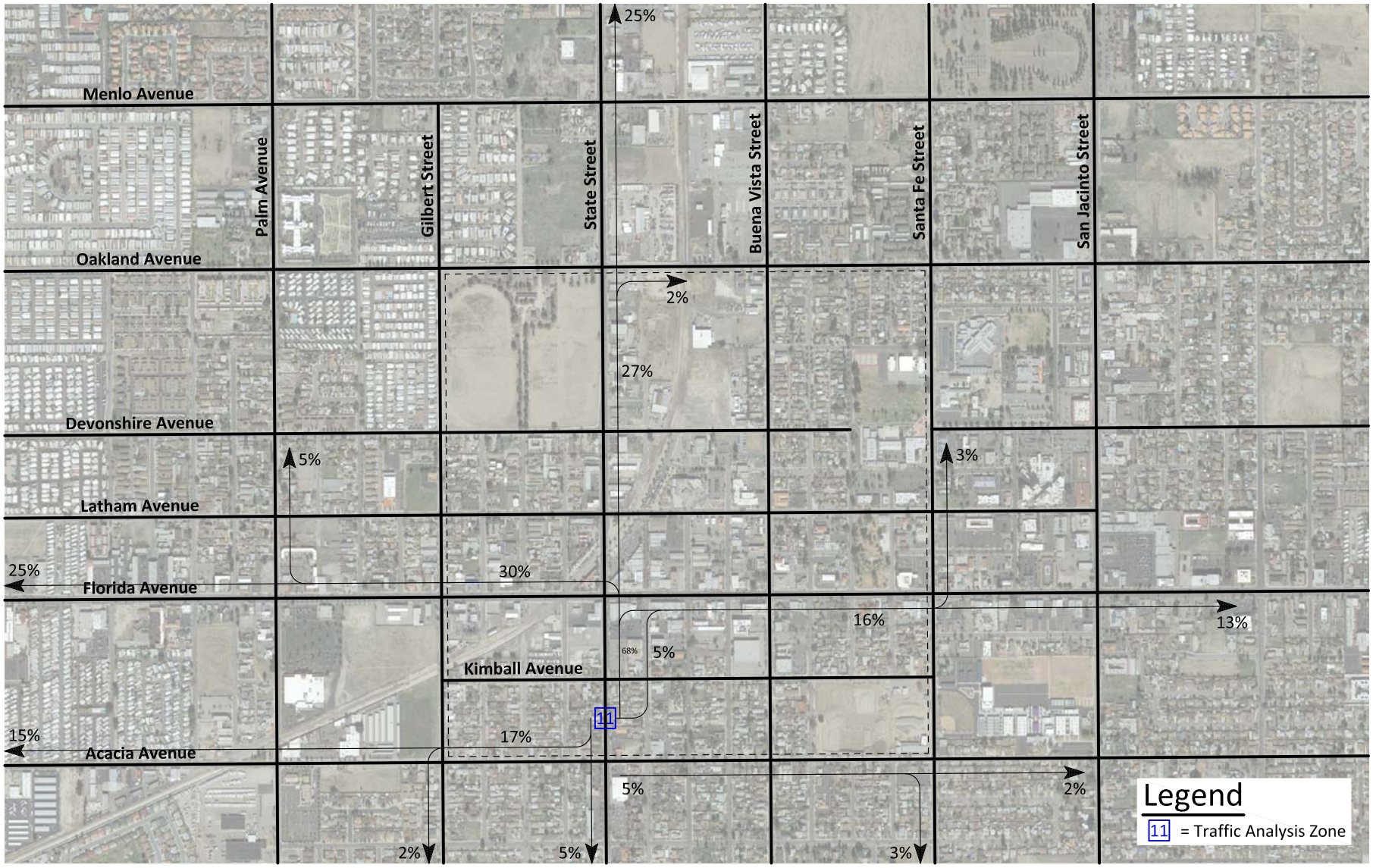

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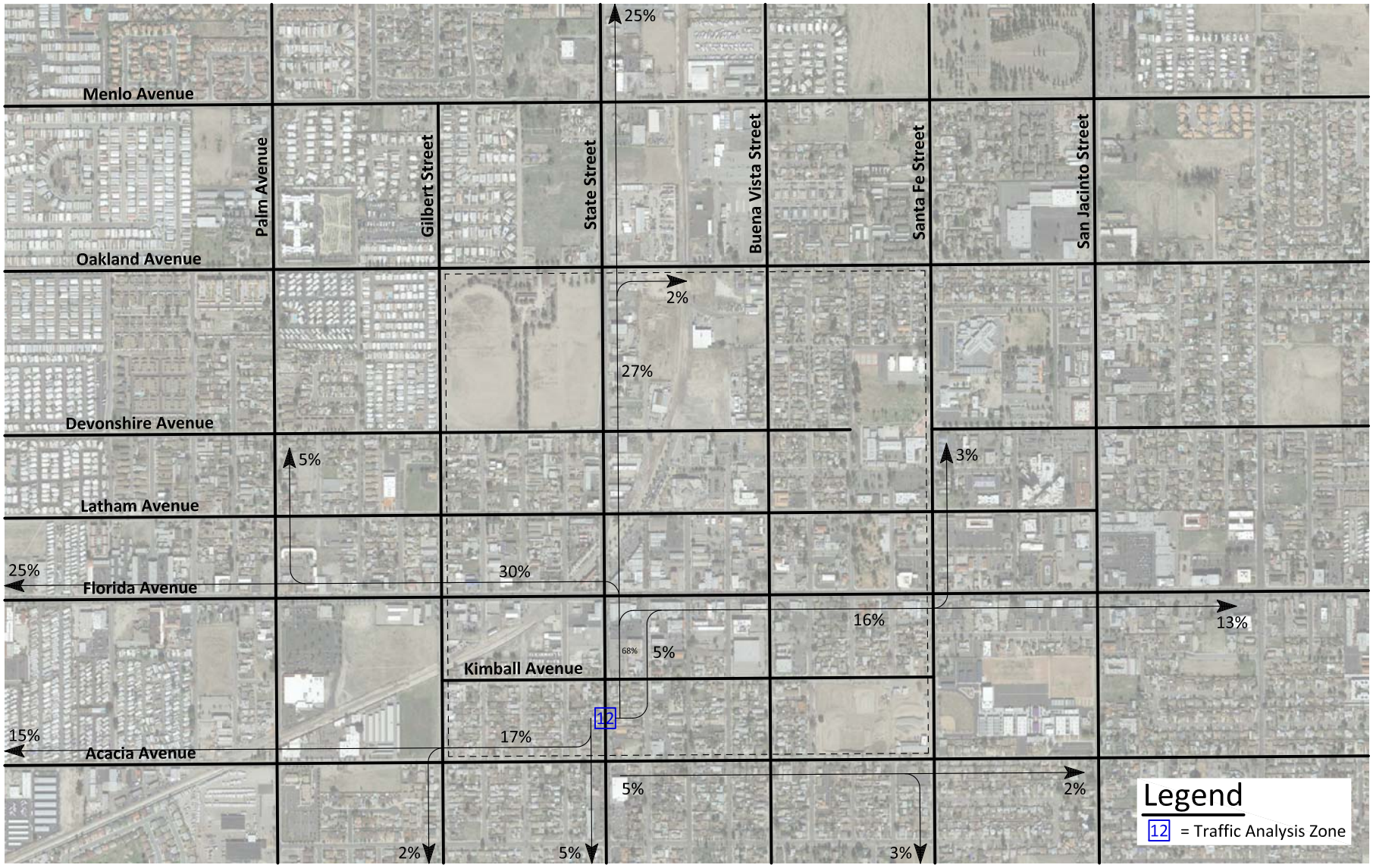
Figure 34
Traffic Analysis Zone 12 Proposed Trip Distribution (Office Professional)



KUNZMAN ASSOCIATES, INC.

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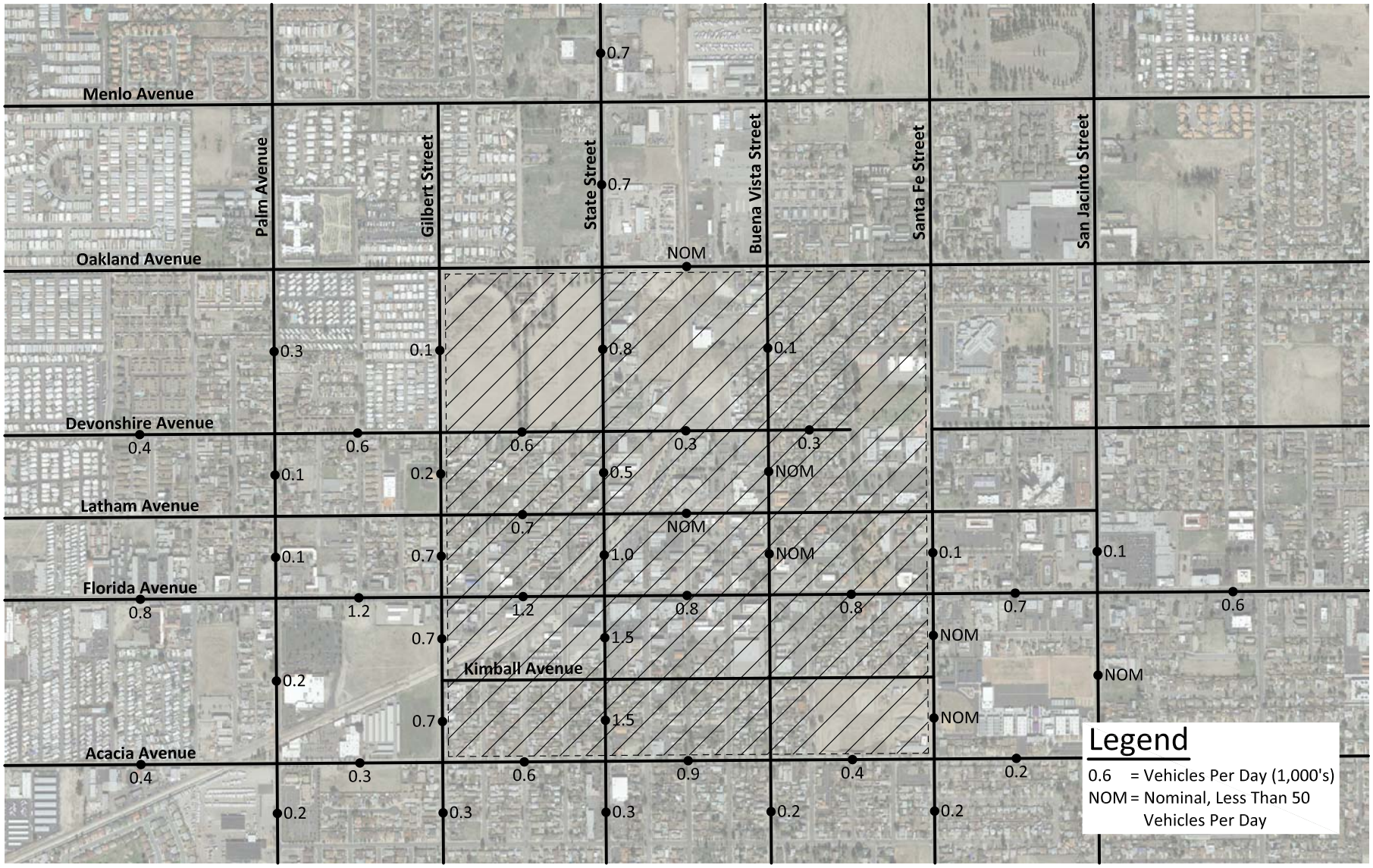
Figure 35
Project Average Daily Traffic Volumes



KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

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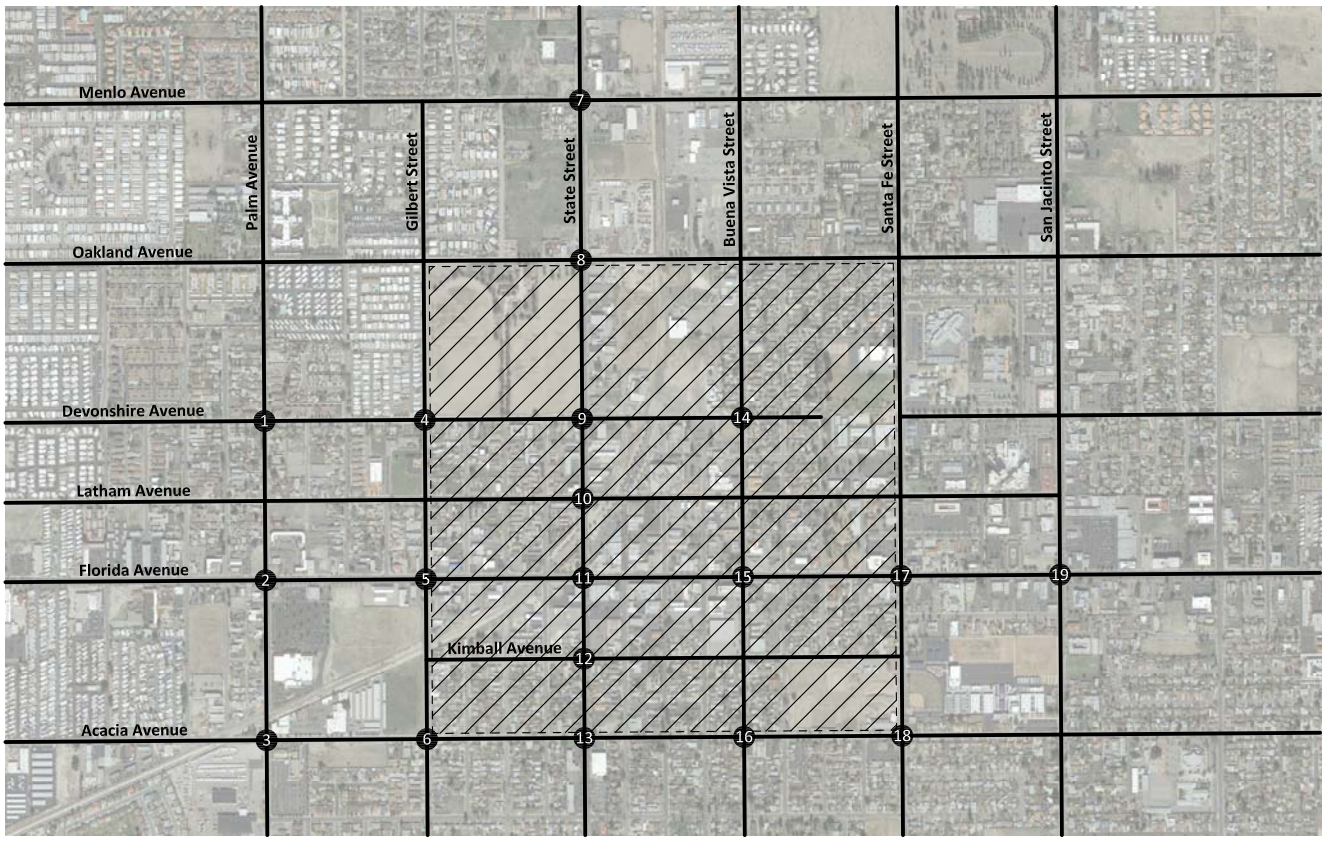
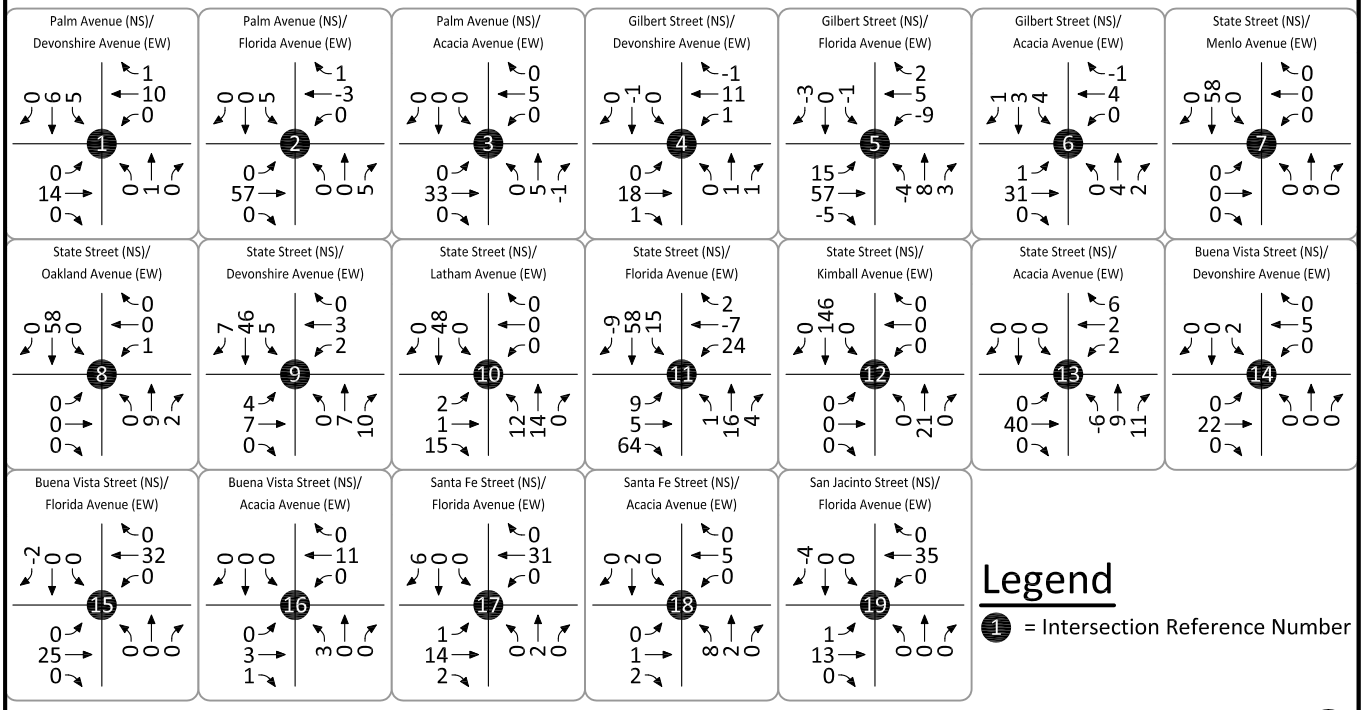
Figure 36
Project Morning Peak Hour Intersection Turning Movement Volumes



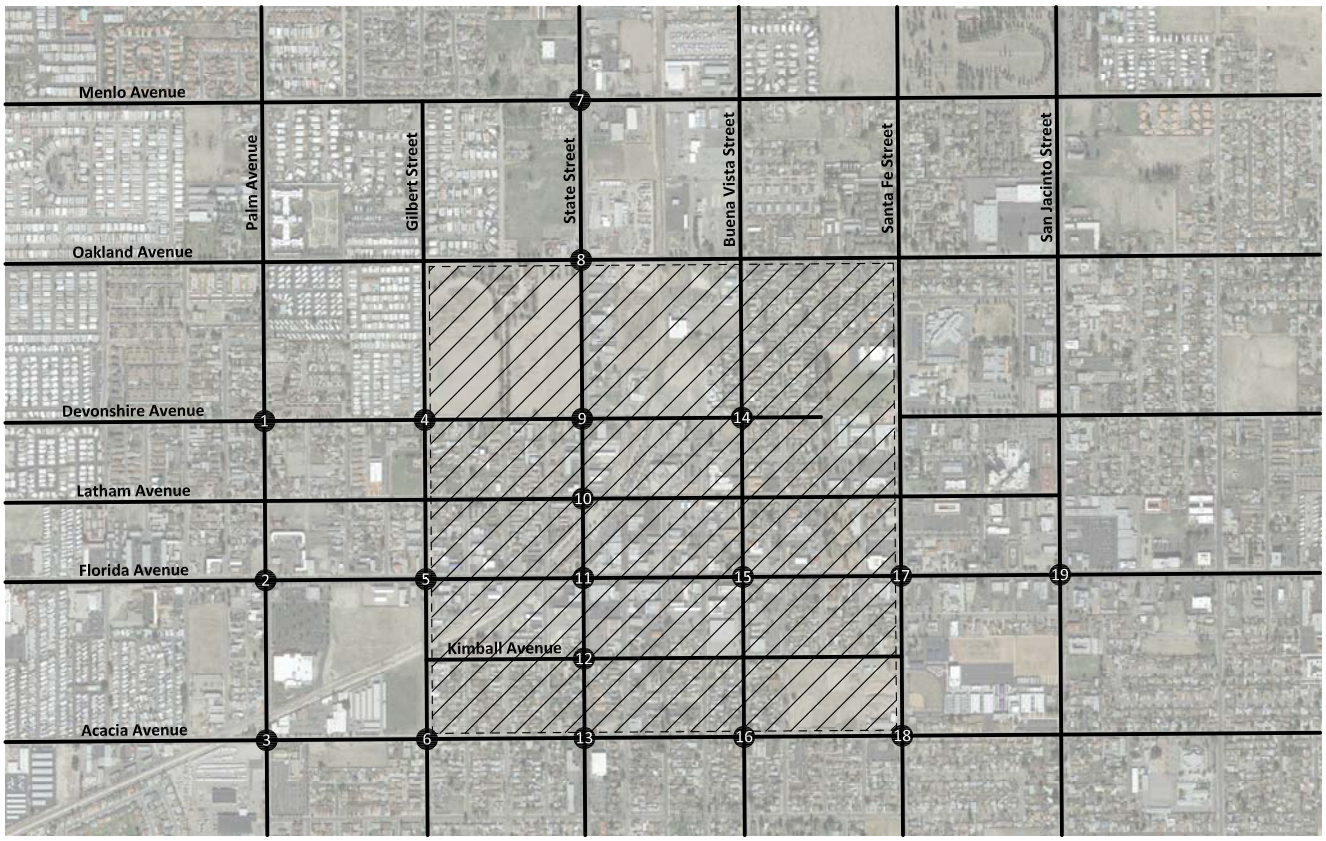


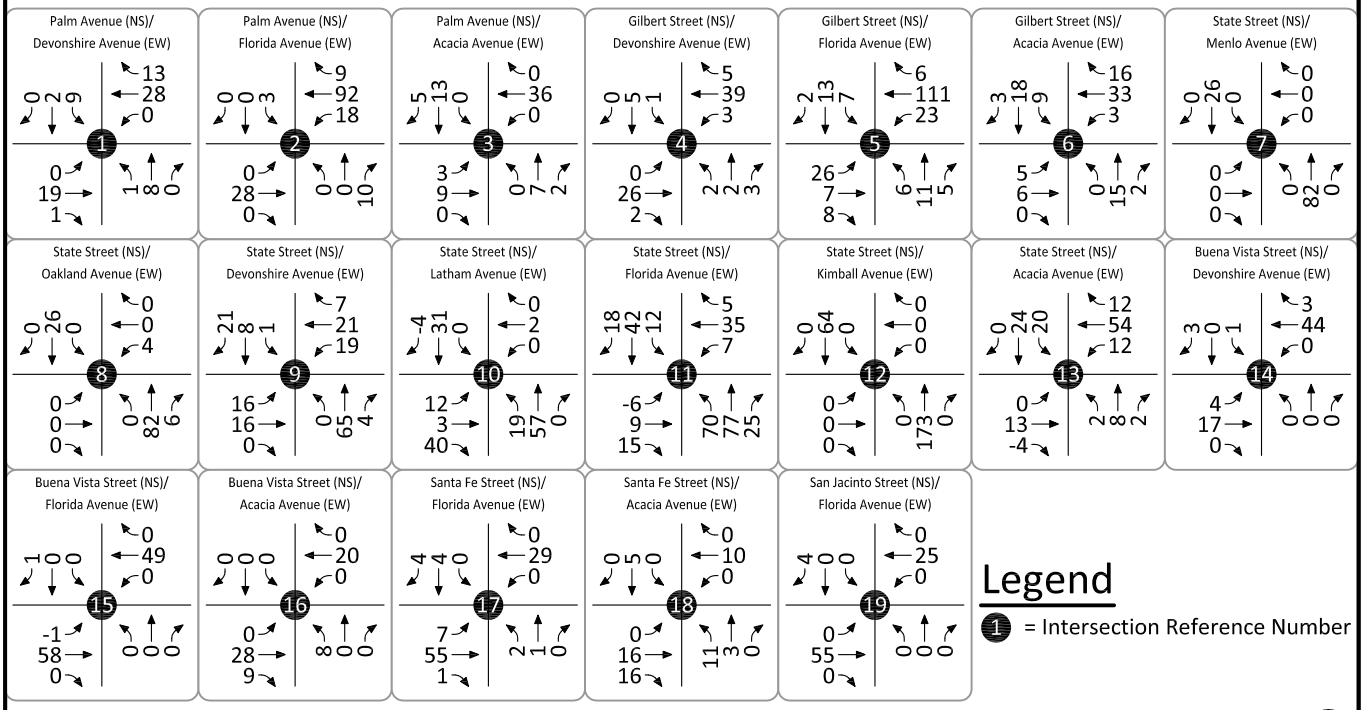
KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 37
Project Evening Peak Hour Intersection Turning Movement Volumes





KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

V. FUTURE CONDITIONS

A. Future Traffic

1. Method of Projection

To assess future traffic conditions, project traffic is combined with existing traffic, and General Plan Buildout traffic.

2. General Plan Buildout

General Plan Buildout traffic volumes were obtained from the City of Hemet General Plan Circulation Element Update Transportation Study (General Plan traffic study) prepared by Urban Crossroads, Inc.

B. Future Average Daily Traffic

1. Existing Plus Project

For Existing Plus Project traffic conditions, existing traffic is combined with project traffic. Figure 38 shows the average daily traffic volumes that can be expected for Existing Plus Project traffic conditions.

2. General Plan Buildout Without Project

For General Plan Buildout Without Project traffic conditions, existing traffic is combined with ambient growth. Figure 39 shows the average daily traffic volumes that can be expected for General Plan Buildout Without Project traffic conditions.

3. General Plan Buildout With Project

For General Plan Buildout With Project traffic conditions, existing traffic is combined with ambient growth and project traffic. Figure 40 shows the average daily traffic volumes that can be expected for General Plan Buildout With Project traffic conditions.

C. Future Level of Service

1. Existing Plus Project

The Existing Plus Project delay and Level of Service for the study area roadway network are shown in Table 3. Table 3 shows delay values based on the geometrics at the study area intersections without and with improvements. Existing Plus Project delay calculation worksheets are provided in Appendix D. Existing Plus Project morning and evening peak hour intersection turning movement volumes are shown on Figures 41 and 42, respectively.

As shown in Table 3, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

Palm Avenue (NS) at:
Acacia Avenue (EW) - #3

Gilbert Street (NS) at:
Acacia Avenue (EW) - #6

State Street (NS) at:
Kimball Avenue (EW) - #12

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions, with improvements.

2. General Plan Buildout Without Project

The General Plan Buildout Without Project delay and Level of Service for the study area roadway network without the proposed project are shown in Table 4. Table 4 shows delay values based on the geometrics at the study area intersections without and with improvements. General Plan Buildout Without Project delay calculation worksheets are provided in Appendix D. General Plan Buildout Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 43 and 44, respectively.

As shown in Table 4, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout Without Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

Palm Avenue (NS) at:
Acacia Avenue (EW) - #3

State Street (NS) at:
Menlo Avenue (EW) - #7
Kimball Avenue (EW) - #12
Acacia Avenue (EW) - #13

3. General Plan Buildout With Project

The General Plan Buildout With Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 5. Table 5 shows delay values based on the geometrics at the study area intersections without and

with improvements. General Plan Buildout With Project delay calculation worksheets are provided in Appendix D. General Plan Buildout With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 45 and 46, respectively.

As shown in Table 5, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout With Project traffic conditions, except for the following study area intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

Palm Avenue (NS) at:
- Acacia Avenue (EW) - #3

Gilbert Street (NS) at:
- Devonshire Avenue (EW) - #4
- Acacia Avenue (EW) - #6

State Street (NS) at:
- Menlo Avenue (EW) - #7
- Kimball Avenue (EW) - #12
- Acacia Avenue (EW) - #13

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for General Plan Buildout With Project traffic conditions, with improvements.

Table 3

Existing Plus Project Intersection Delay and Level of Service

Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:																
Devonshire Avenue (EW) - #1	Hemet	AWS	0	1	0	0	1	0	0.5	0.5	d	0	1	0	11.5-B	16.0-C
Florida Avenue (EW) - #2	Hemet	TS	1	1	1	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	20.8-C	20.8-C
Acacia Avenue (EW) - #3																
- Without Improvements	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	1	1	19.7-C	38.8-E
- With Improvements	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	**0.5**	**1**	0.5	**0.5**	**0.5**	1	17.5-C	20.1-C
Gilbert Street (NS) at:																
Devonshire Avenue (EW) - #4	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	12.2-B	14.5-B
Florida Avenue (EW) - #5	Hemet	TS	0.5	0.5	d	0	1	0	1	2	d	1	1.5	0.5	8.5-A	10.1-B
Acacia Avenue (EW) - #6																
- Without Improvements	Hemet	AWS	0.5	0.5	d	0	1	0	0	1	0	0	1	0	14.4-B	99.9-F[4]
- With Improvements	Hemet	AWS	0.5	0.5	d	0	1	0	**0.5**	1	**0.5**	0	1	0	14.8-B	31.9-D
State Street (NS) at:																
Menlo Avenue (EW) - #7	Hemet	TS	1	1.5	0.5	1	1.5	0.5	0	1	0	0.5	0.5	1	31.0-C	41.8-D
Oakland Avenue (EW) - #8	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	0.5	0.5	1	0.5	0.5	19.4-B	21.1-C
Devonshire Avenue (EW) - #9	Hemet	TS	1	1.5	0.5	1	2	1	1	0.5	0.5	1	1	1	20.7-C	21.0-C
Latham Avenue (EW) - #10	Hemet	TS	1	2	1	1	1.5	0.5	1	0.5	0.5	1	1	1	22.1-C	22.4-C
Florida Avenue (EW) - #11	Hemet	TS	1	1.5	0.5	1	1	1	1	1.5	0.5	1	2	d	16.5-B	20.5-C
Kimball Avenue (EW) - #12																
- Without Improvements	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	16.9-C	39.6-E
- With Improvements	Hemet	**CSS**[5]	0	1	0	0	1	0	0	0	**1**	0	0	**1**	11.0-B	13.0-B
Acacia Avenue (EW) - #13	Hemet	TS	1	1	d	1	1	d	0.5	0.5	d	0	1	0	26.1-C	34.7-C
Buena Vista Street (NS) at:																
Devonshire Avenue (EW) - #14	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	9.4-A	10.6-B
Florida Avenue (EW) - #15	Hemet	TS	1	0.5	0.5	1	1	d	1	1.5	0.5	1	2	d	16.3-B	13.5-B
Acacia Avenue (EW) - #16	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	16.8-C	16.9-C
Santa Fe Street (NS) at:																
Florida Avenue (EW) - #17	Hemet	TS	1	0.5	0.5	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	15.8-B	14.2-B
Acacia Avenue (EW) - #18	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	14.9-B	15.3-C
San Jacinto Street (NS) at:																
Florida Avenue (EW) - #19	Hemet	TS	1	1.5	0.5	1.5	0.5	1	1	1.5	0.5	1	2	1	29.3-C	34.2-C

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = De Facto Right Turn Lane; **BOLD** = Improvement

[2] Delay and level of service has been calculated using the following analysis software: Vistro, Version 4.00-00 (2015) for signalized and all-way stop controlled intersections and HCS 2010 6.80 (2016) for two-way stop controlled intersections. Per the Highway Capacity Manual, overall intersection delay and Level of Service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the average delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] Install signage to prohibit eastbound and westbound through and left turn movements during the peak hours.

Table 4

General Plan Buildout Without Project Intersection Delay and Level of Service

Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:																
Devonshire Avenue (EW) - #1	Hemet	AWS	0	1	0	0	1	0	0.5	0.5	d	0	1	0	11.6-B	15.4-C
Florida Avenue (EW) - #2	Hemet	TS	1	1	1	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	21.1-C	21.3-C
Acacia Avenue (EW) - #3	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	1	1	18.1-C	49.5-E
Gilbert Street (NS) at:																
Devonshire Avenue (EW) - #4	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	18.4-C	33.8-D
Florida Avenue (EW) - #5	Hemet	TS	0.5	0.5	d	0	1	0	1	2	d	1	1.5	0.5	12.1-B	14.2-B
Acacia Avenue (EW) - #6	Hemet	AWS	0.5	0.5	d	0	1	0	0	1	0	0	1	0	13.3-B	32.2-D
State Street (NS) at:																
Menlo Avenue (EW) - #7	Hemet	TS	1	1.5	0.5	1	1.5	0.5	0	1	0	0.5	0.5	1	45.9-D	99.9-F[4]
Oakland Avenue (EW) - #8	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	0.5	0.5	1	0.5	0.5	19.2-B	21.4-C
Devonshire Avenue (EW) - #9	Hemet	TS	1	1.5	0.5	1	2	1	1	0.5	0.5	1	1	1	21.2-C	23.3-C
Latham Avenue (EW) - #10	Hemet	TS	1	2	1	1	1.5	0.5	1	0.5	0.5	1	1	1	21.8-C	21.9-C
Florida Avenue (EW) - #11	Hemet	TS	1	1.5	0.5	1	1	1	1	1.5	0.5	1	2	d	20.1-C	41.7-D
Kimball Avenue (EW) - #12	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	30.3-D	99.9-F[4]
Acacia Avenue (EW) - #13	Hemet	TS	1	1	d	1	1	d	0.5	0.5	d	0	1	0	34.9-C	99.9-F[4]
Buena Vista Street (NS) at:																
Devonshire Avenue (EW) - #14	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	9.8-A	11.0-B
Florida Avenue (EW) - #15	Hemet	TS	1	0.5	0.5	1	1	d	1	1.5	0.5	1	2	d	16.7-B	14.3-B
Acacia Avenue (EW) - #16	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	16.1-C	19.1-C
Santa Fe Street (NS) at:																
Florida Avenue (EW) - #17	Hemet	TS	1	0.5	0.5	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	15.7-B	15.7-B
Acacia Avenue (EW) - #18	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	14.4-B	15.0-C
San Jacinto Street (NS) at:																
Florida Avenue (EW) - #19	Hemet	TS	1	1.5	0.5	1.5	0.5	1	1	1.5	0.5	1	2	1	29.2-C	40.5-D

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = De Facto Right Turn Lane; **BOLD** = Improvement

[2] Delay and level of service has been calculated using the following analysis software: Vistro, Version 4.00-00 (2015) for signalized and all-way stop controlled intersections and HCS 2010 6.80 (2016) for two-way stop controlled intersections. Per the Highway Capacity Manual, overall intersection delay and Level of Service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the average delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 5

General Plan Buildout With Project Intersection Delay and Level of Service

Intersection	Jurisdiction	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
			Northbound			Southbound			Eastbound			Westbound				
			L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:																
Devonshire Avenue (EW) - #1	Hemet	AWS	0	1	0	0	1	0	0.5	0.5	d	0	1	0	12.1-B	17.8-C
Florida Avenue (EW) - #2	Hemet	TS	1	1	1	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	22.1-C	22.2-C
Acacia Avenue (EW) - #3																
- Without Improvements	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	1	1	20.0-C	60.8-F
- With Improvements	Hemet	AWS	1	0.5	0.5	1	0.5	0.5	**0.5**	**1**	0.5	**0.5**	**0.5**	1	17.8-C	29.1-D
Gilbert Street (NS) at:																
Devonshire Avenue (EW) - #4																
- Without Improvements	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	19.5-C	43.3-E
- With Improvements	Hemet	CSS	**1**	**0.5**	**0.5**	0	1	0	0	1	0	0	1	0	17.7-C	29.7-D
Florida Avenue (EW) - #5	Hemet	TS	0.5	0.5	d	0	1	0	1	2	d	1	1.5	0.5	12.3-B	16.7-B
Acacia Avenue (EW) - #6																
- Without Improvements	Hemet	AWS	0.5	0.5	d	0	1	0	0	1	0	0	1	0	14.4-B	48.3-E
- With Improvements	Hemet	AWS	0.5	0.5	d	0	1	0	**0.5**	1	**0.5**	0	1	0	14.8-B	34.3-D
State Street (NS) at:																
Menlo Avenue (EW) - #7																
- Without Improvements	Hemet	TS	1	1.5	0.5	1	1.5	0.5	0	1	0	0.5	0.5	1	46.1-D	74.3-E
- With Improvements	Hemet	**TS**[5]	1	1.5	0.5	1	1.5	0.5	**1**	1	**1**	**1**	**1**	1	25.3-C	27.4-C
Oakland Avenue (EW) - #8	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	0.5	0.5	1	0.5	0.5	19.4-B	22.4-B
Devonshire Avenue (EW) - #9	Hemet	TS	1	1.5	0.5	1	2	1	1	0.5	0.5	1	1	1	21.5-C	23.3-C
Latham Avenue (EW) - #10	Hemet	TS	1	2	1	1	1.5	0.5	1	0.5	0.5	1	1	1	22.3-C	22.8-C
Florida Avenue (EW) - #11	Hemet	TS	1	1.5	0.5	1	1	1	1	1.5	0.5	1	2	d	23.0-C	47.8-D
Kimball Avenue (EW) - #12																
- Without Improvements	Hemet	CSS	0	1	0	0	1	0	0	1	0	0	1	0	40.9-E	99.9-F[4]
- With Improvements	Hemet	**CSS**[6]	0	1	0	0	1	0	0	0	**1**	0	0	**1**	13.7-B	20.5-C
Acacia Avenue (EW) - #13																
- Without Improvements	Hemet	TS	1	1	d	1	1	d	0.5	0.5	d	0	1	0	38.7-D	83.6-F
- With Improvements	Hemet	**TS**[5]	1	1	d	1	1	d	**1**	0.5	**0.5**	**1**	**0.5**	**0.5**	22.4-C	34.1-C
Buena Vista Street (NS) at:																
Devonshire Avenue (EW) - #14	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	10.0-B	11.7-B
Florida Avenue (EW) - #15	Hemet	TS	1	0.5	0.5	1	1	d	1	1.5	0.5	1	2	d	17.7-B	14.3-B
Acacia Avenue (EW) - #16	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	16.7-C	23.3-C
Santa Fe Street (NS) at:																
Florida Avenue (EW) - #17	Hemet	TS	1	0.5	0.5	1	0.5	0.5	1	1.5	0.5	1	1.5	0.5	16.7-B	15.9-B
Acacia Avenue (EW) - #18	Hemet	AWS	0	1	0	0	1	0	0	1	0	0	1	0	14.9-B	16.9-C
San Jacinto Street (NS) at:																
Florida Avenue (EW) - #19	Hemet	TS	1	1.5	0.5	1.5	0.5	1	1	1.5	0.5	1	2	1	30.0-C	44.0-D

[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = De Facto Right Turn Lane; **BOLD** = Improvement

[2] Delay and level of service has been calculated using the following analysis software: Vistro, Version 4.00-00 (2015) for signalized and all-way stop controlled intersections and HCS 2010 6.80 (2016) for two-way stop controlled intersections. Per the Highway Capacity Manual, overall intersection delay and Level of Service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the average delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

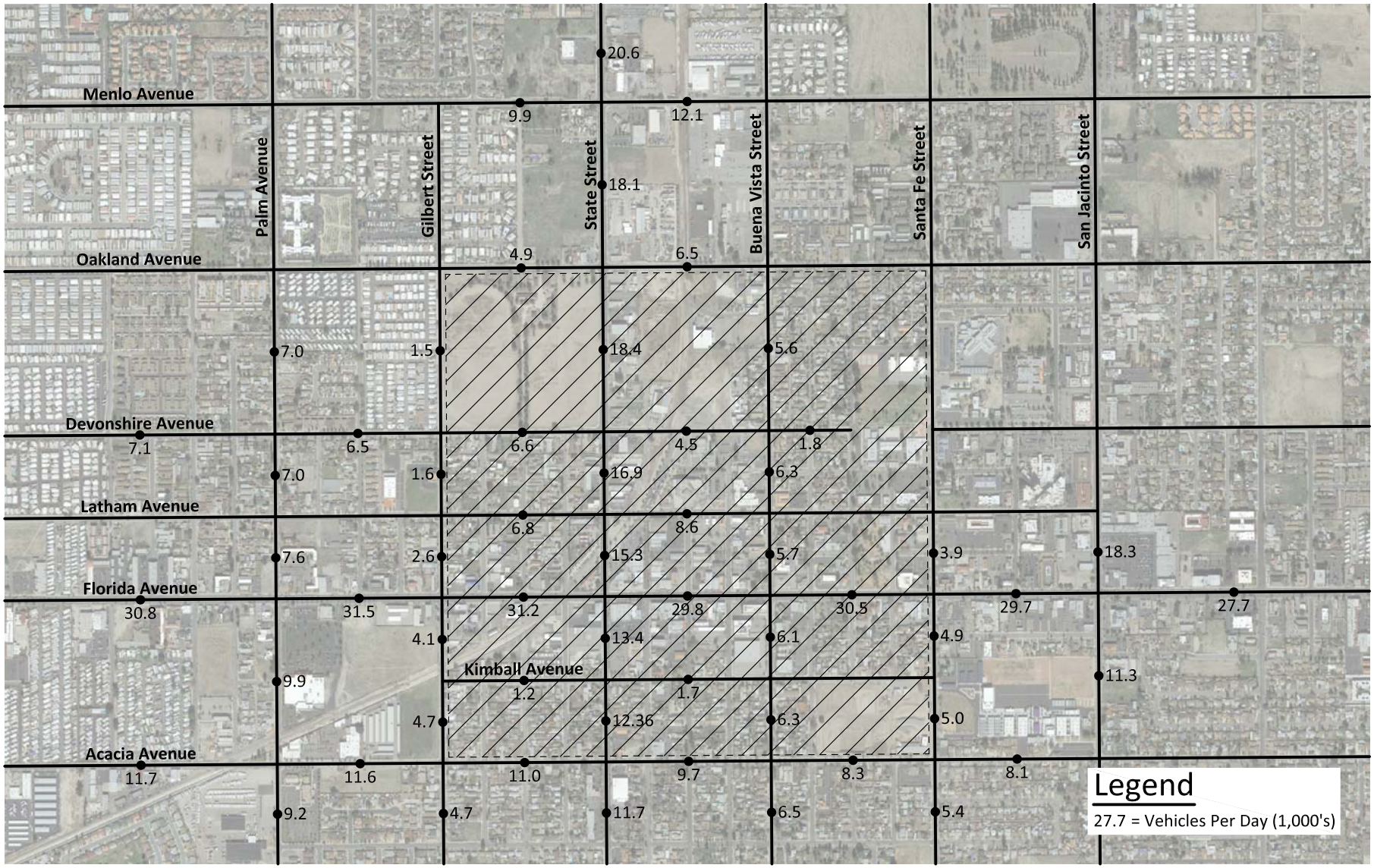
[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] Modify east & west approaches to protected traffic signal phasing.

[6] Install signage to prohibit eastbound and westbound through and left turn movements during the peak hours.

Figure 38
Existing Plus Project Average Daily Traffic Volumes

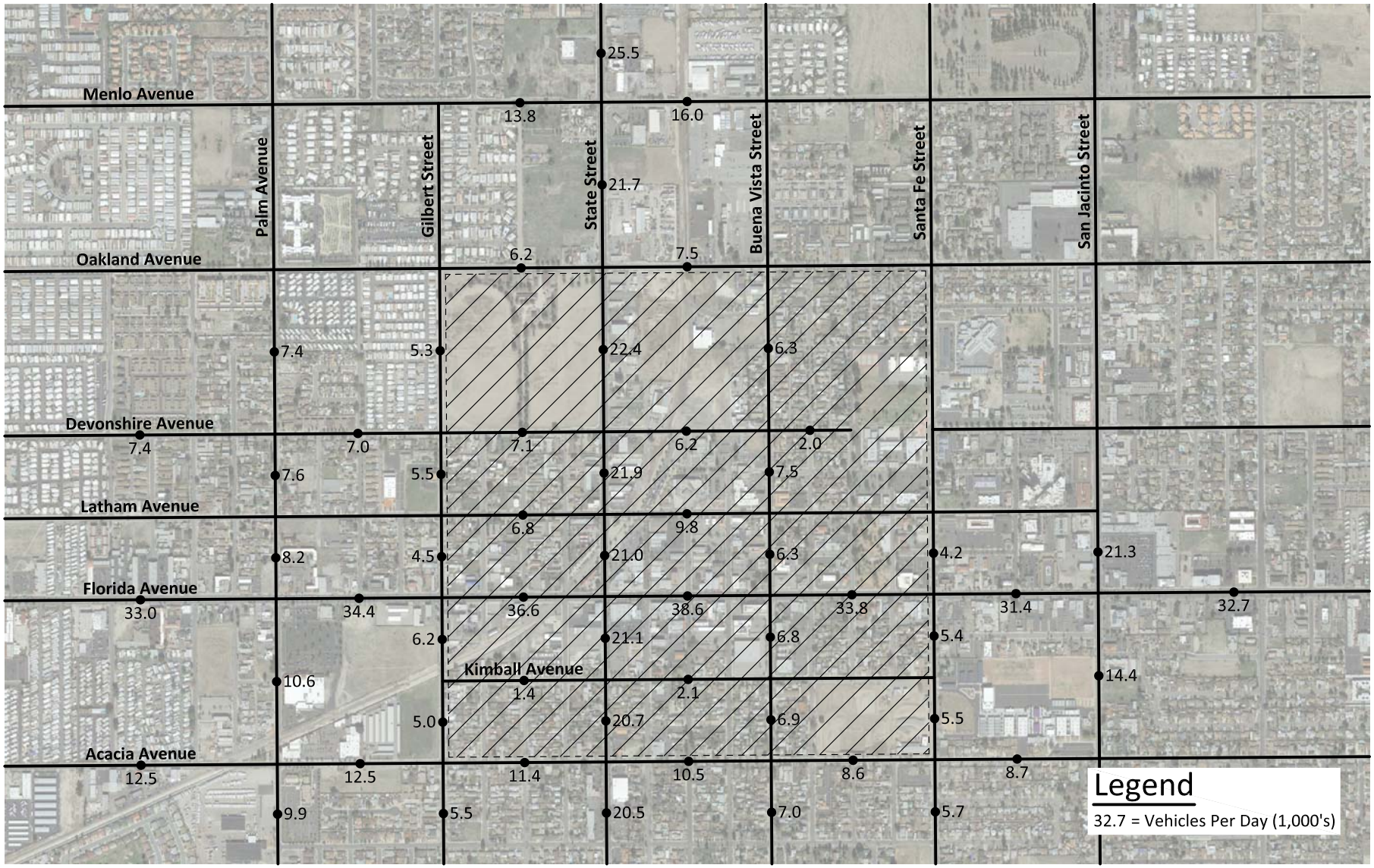


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 39
General Plan Buildout Without Project Average Daily Traffic Volumes

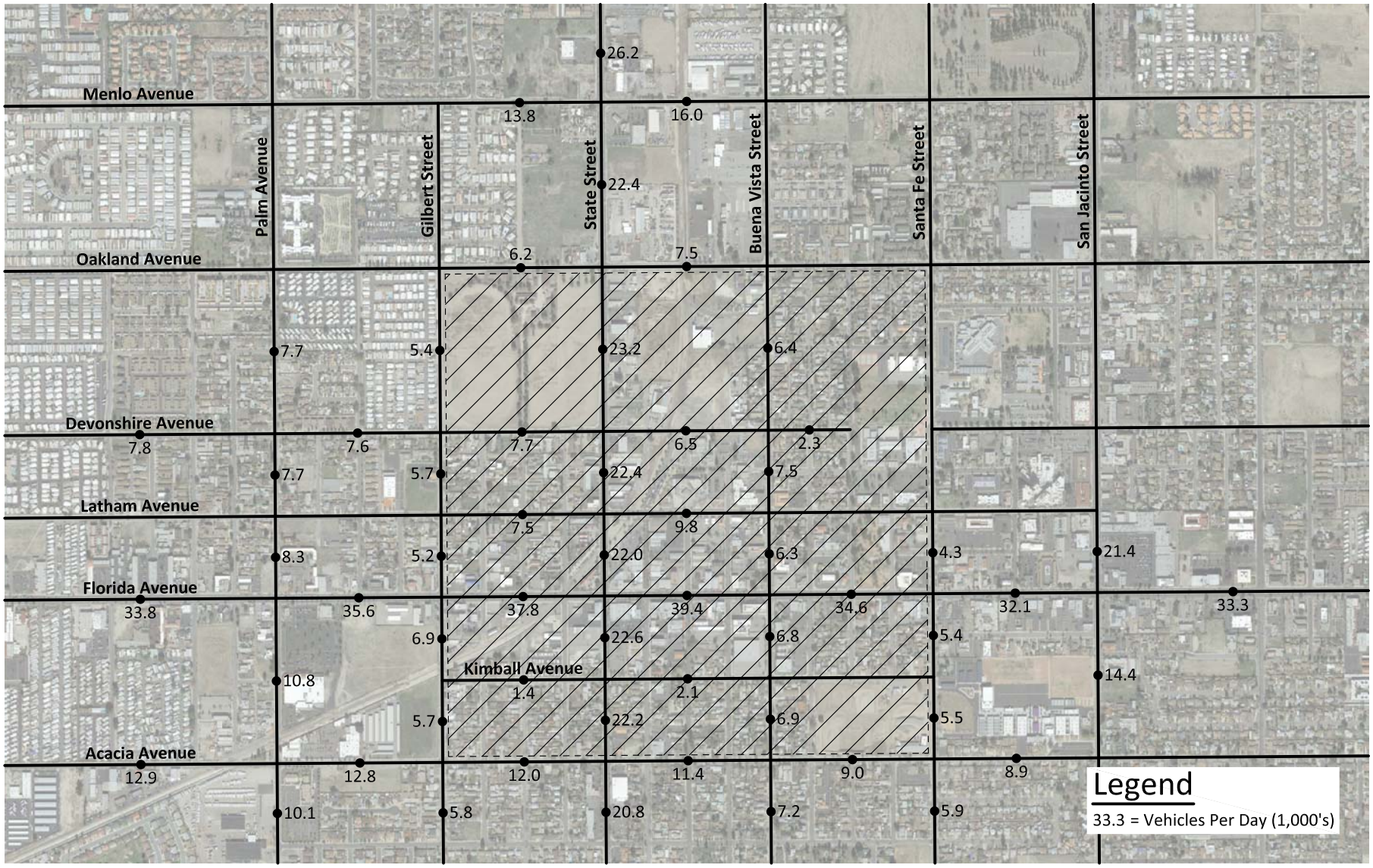


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 40
General Plan Buildout With Project Average Daily Traffic Volumes

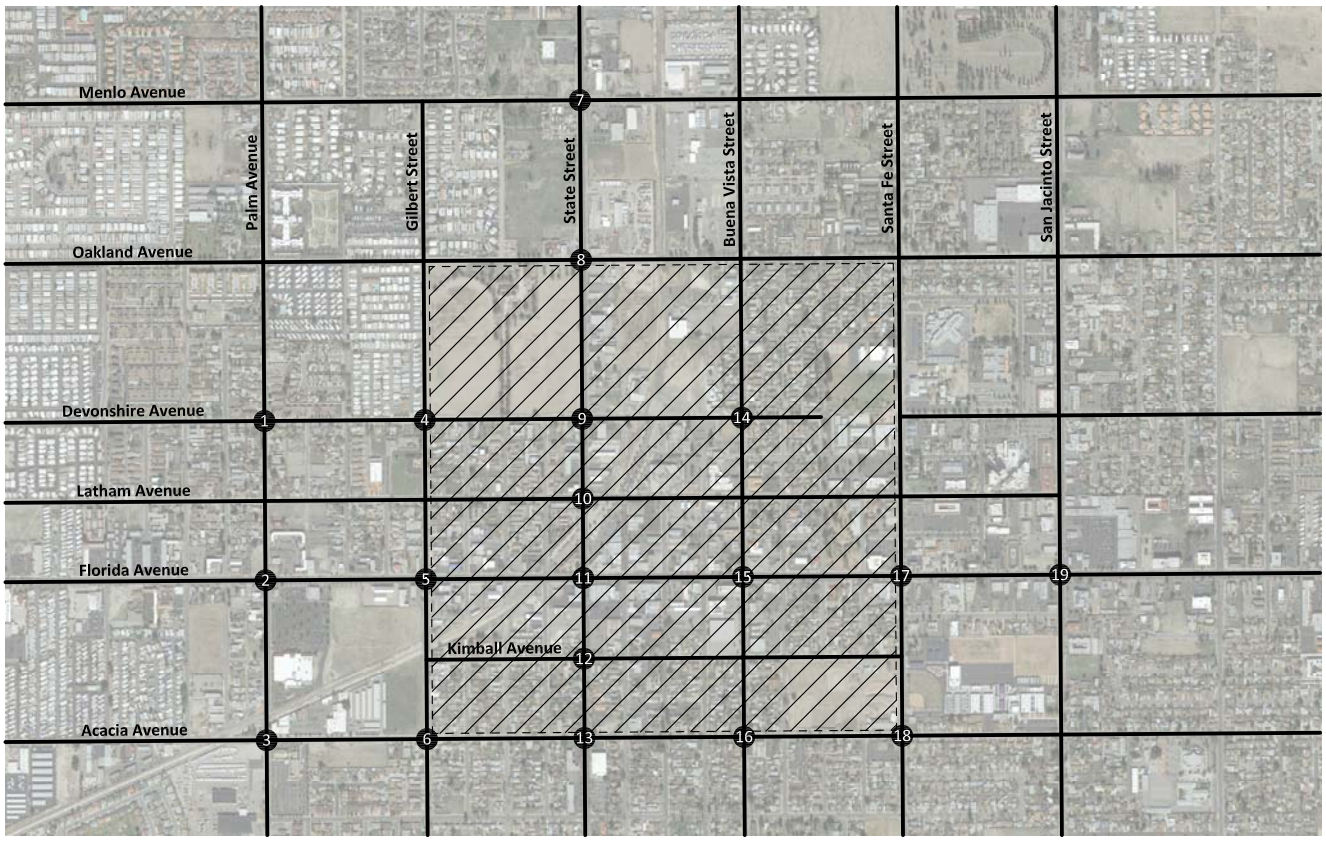


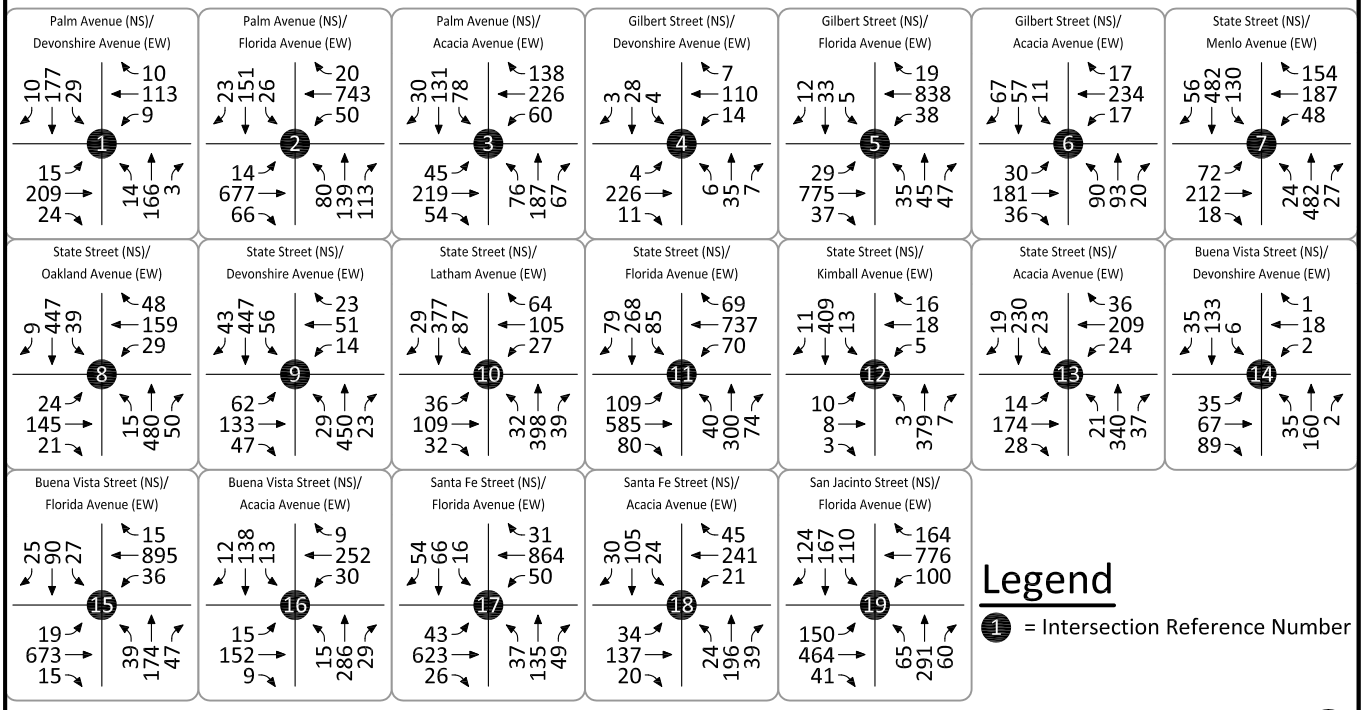
KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 41
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes



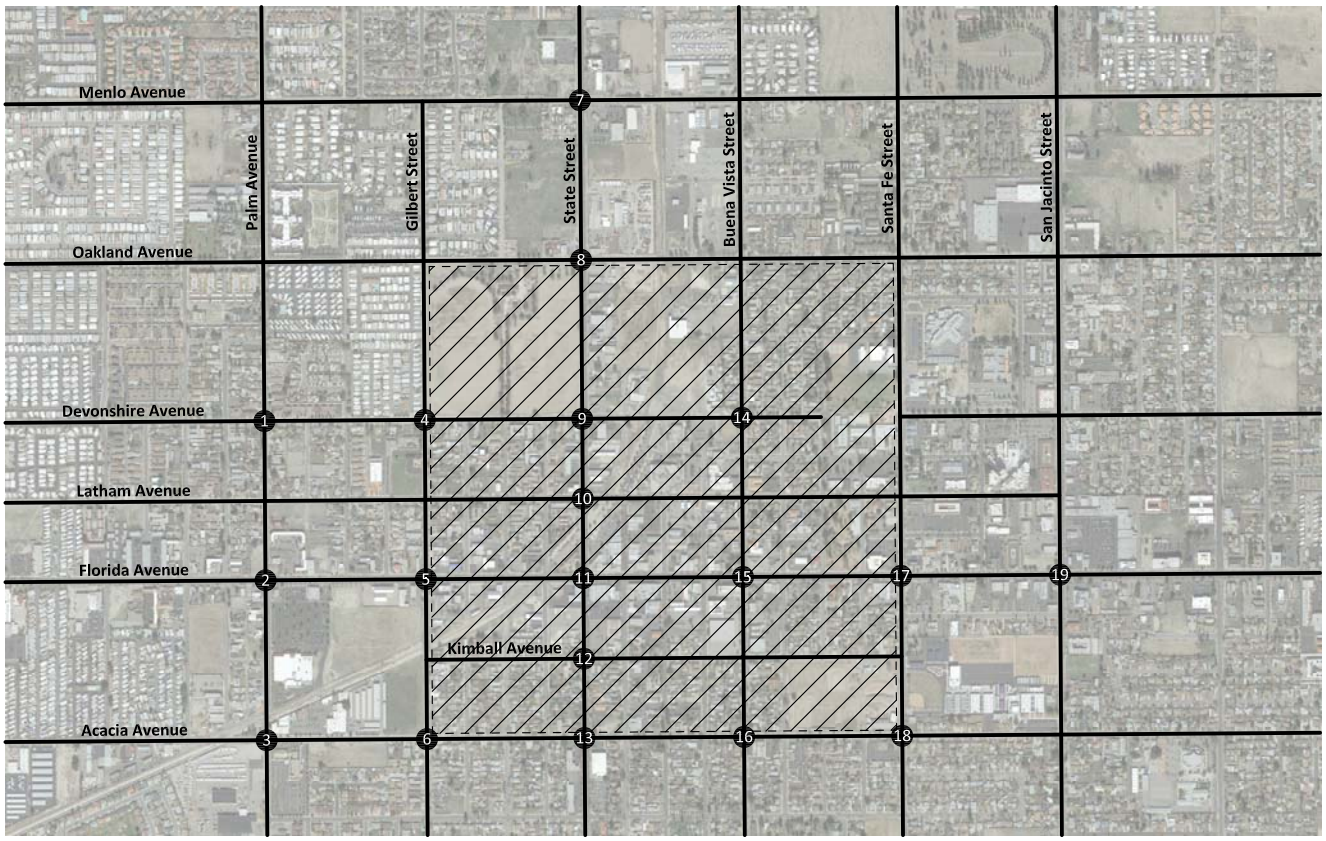


KUNZMAN ASSOCIATES, INC.

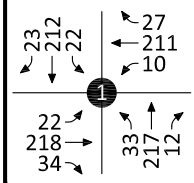
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

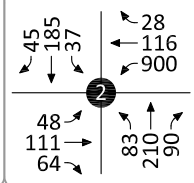
Figure 42
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes



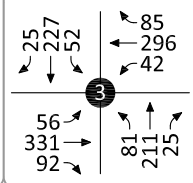
Palm Avenue (NS)/ Devonshire Avenue (EW)



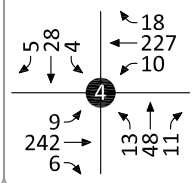
Palm Avenue (NS)/ Florida Avenue (EW)



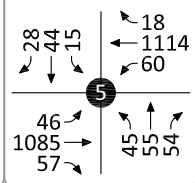
Palm Avenue (NS)/ Acacia Avenue (EW)



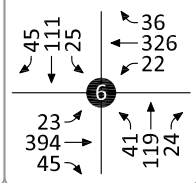
Gilbert Street (NS)/ Devonshire Avenue (EW)



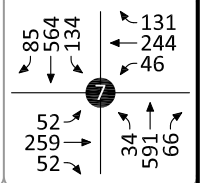
Gilbert Street (NS)/ Florida Avenue (EW)



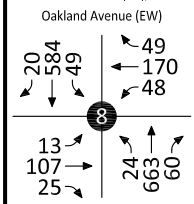
Gilbert Street (NS)/ Acacia Avenue (EW)



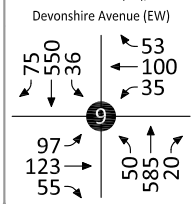
State Street (NS)/ Menlo Avenue (EW)



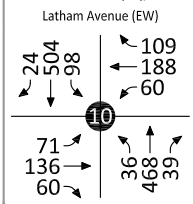
State Street (NS)/ Oakland Avenue (EW)



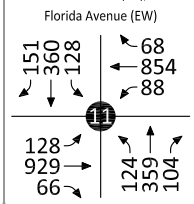
State Street (NS)/ Devonshire Avenue (EW)



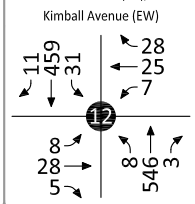
State Street (NS)/ Latham Avenue (EW)



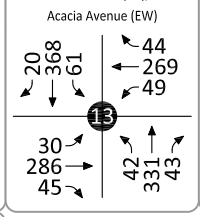
State Street (NS)/ Florida Avenue (EW)



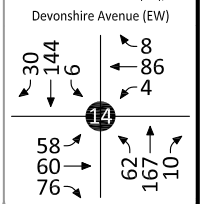
State Street (NS)/ Kimball Avenue (EW)



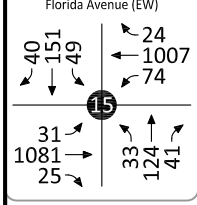
State Street (NS)/ Acacia Avenue (EW)



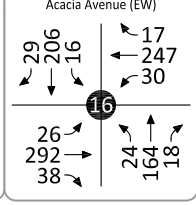
Buena Vista Street (NS)/ Devonshire Avenue (EW)



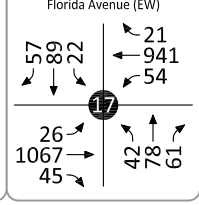
Buena Vista Street (NS)/ Florida Avenue (EW)



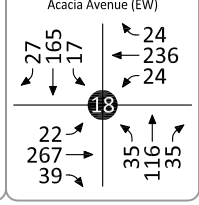
Buena Vista Street (NS)/ Acacia Avenue (EW)



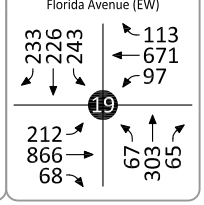
Santa Fe Street (NS)/ Florida Avenue (EW)



Santa Fe Street (NS)/ Acacia Avenue (EW)



San Jacinto Street (NS)/ Florida Avenue (EW)



Legend

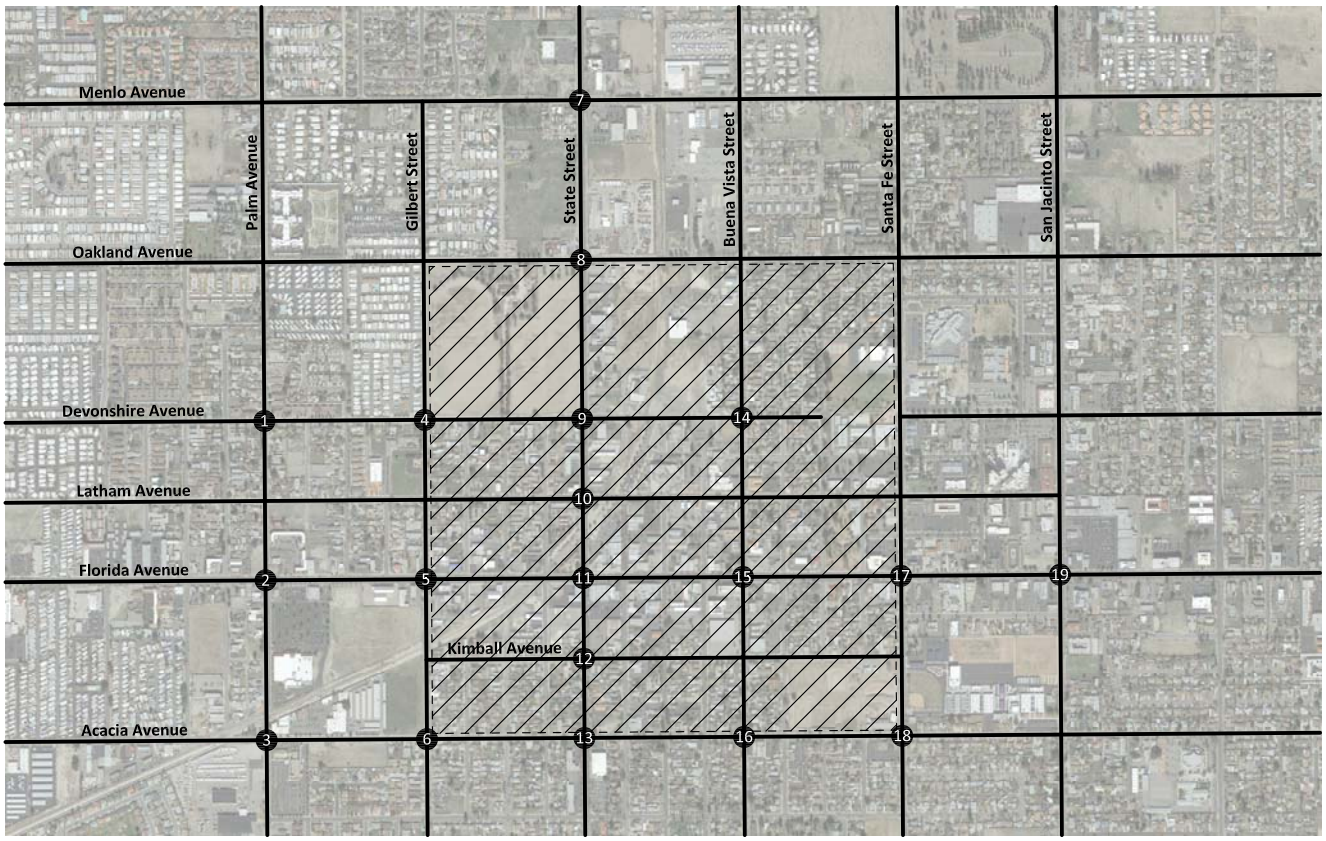
1 = Intersection Reference Number

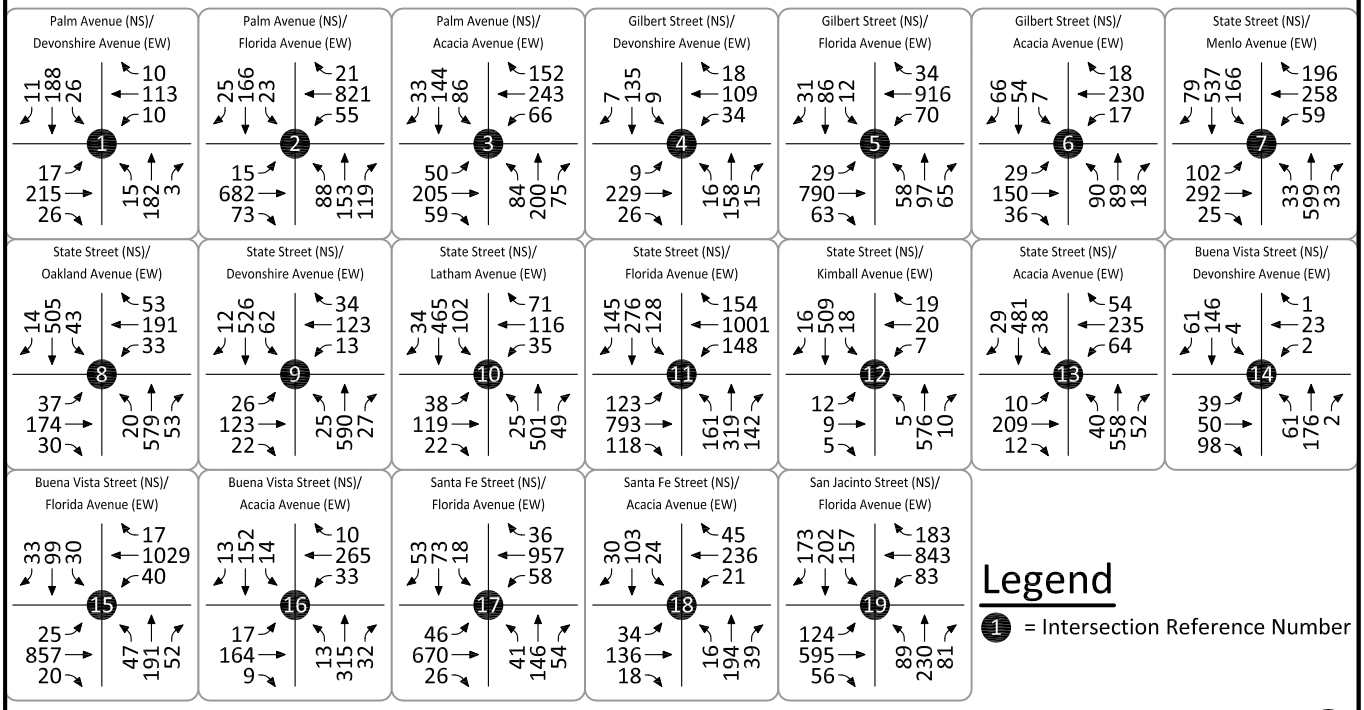
KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 43
General Plan Buildout Without Project
Morning Peak Hour Intersection Turning Movement Volumes



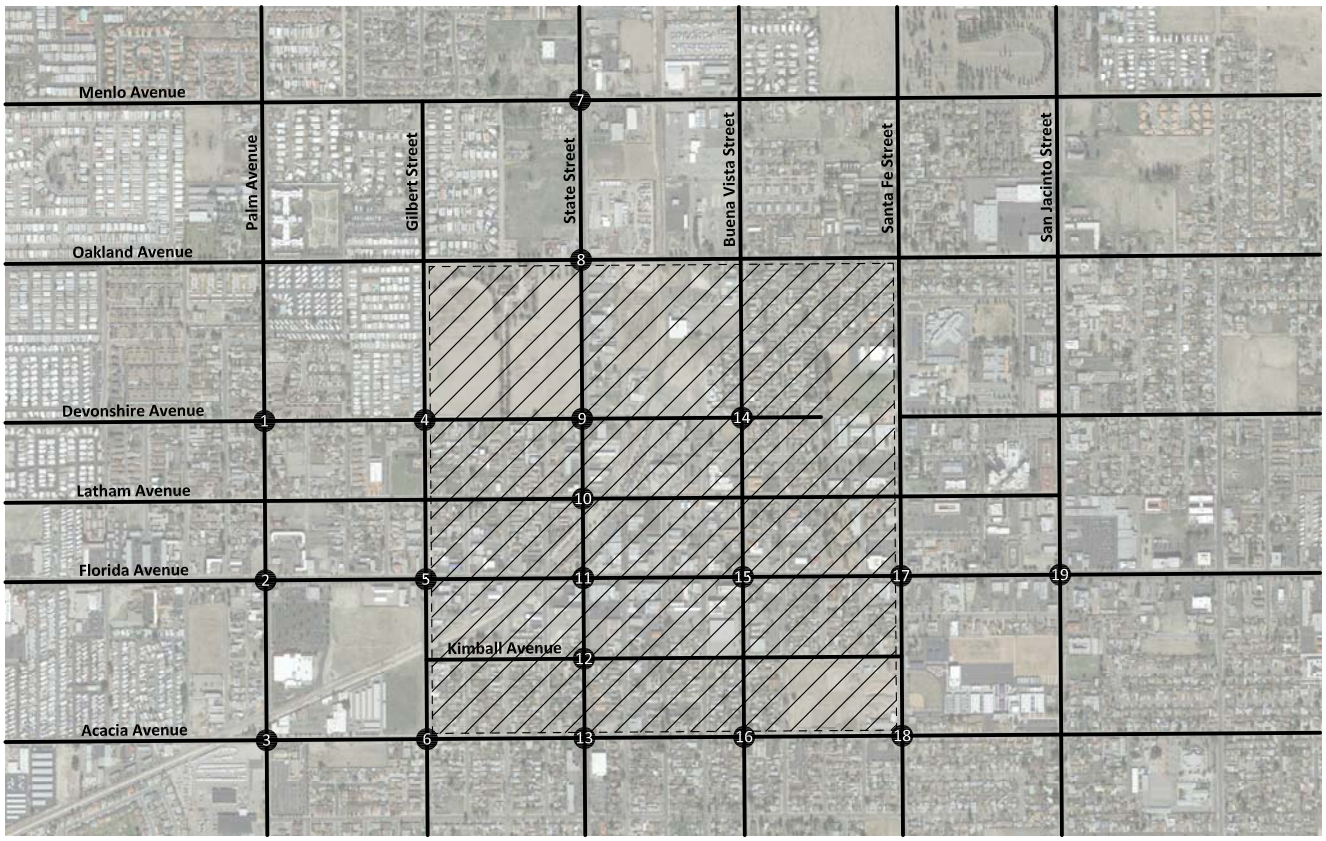


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 44
General Plan Buildout Without Project
Evening Peak Hour Intersection Turning Movement Volumes



Palm Avenue (NS)/ Devonshire Avenue (EW)

25	231	14
15	201	11
24	219	36
35	230	13

Palm Avenue (NS)/ Florida Avenue (EW)

50	204	37
26	970	70
53	1151	91
91	231	88

Palm Avenue (NS)/ Acacia Avenue (EW)

22	235	57
94	286	46
58	354	101
89	224	25

Gilbert Street (NS)/ Devonshire Avenue (EW)

11	107	7
29	207	18
20	238	10
28	214	21

Gilbert Street (NS)/ Florida Avenue (EW)

53	81	16
24	1103	55
41	1186	73
58	115	72

Gilbert Street (NS)/ Acacia Avenue (EW)

46	124	18
22	322	21
20	427	50
45	138	24

State Street (NS)/ Menlo Avenue (EW)

120	682	171
167	336	57
73	357	71
47	645	81

State Street (NS)/ Oakland Avenue (EW)

31	686	54
54	204	48
20	129	33
33	735	61

State Street (NS)/ Devonshire Avenue (EW)

17	685	58
86	127	32
13	124	25
27	774	24

State Street (NS)/ Latham Avenue (EW)

32	600	113
120	205	71
65	146	24
27	672	62

State Street (NS)/ Florida Avenue (EW)

148	384	199
195	946	186
175	1077	167
159	431	213

State Street (NS)/ Kimball Avenue (EW)

15	659	42
33	28	10
10	31	7
14	743	6

State Street (NS)/ Acacia Avenue (EW)

25	619	68
64	221	59
94	286	87
24	644	65

Buena Vista Street (NS)/ Devonshire Avenue (EW)

46	158	6
6	71	4
59	47	84
104	184	11

Buena Vista Street (NS)/ Florida Avenue (EW)

43	166	54
26	1059	81
37	1199	30
36	136	45

Buena Vista Street (NS)/ Acacia Avenue (EW)

32	227	18
19	250	33
29	290	32
18	180	20

Santa Fe Street (NS)/ Florida Avenue (EW)

58	94	24
23	1003	59
21	1113	48
44	85	67

Santa Fe Street (NS)/ Acacia Avenue (EW)

30	176	19
26	249	26
24	276	25
26	124	39

San Jacinto Street (NS)/ Florida Avenue (EW)

180	340	250
250	759	117
228	907	107
76	305	105

Legend

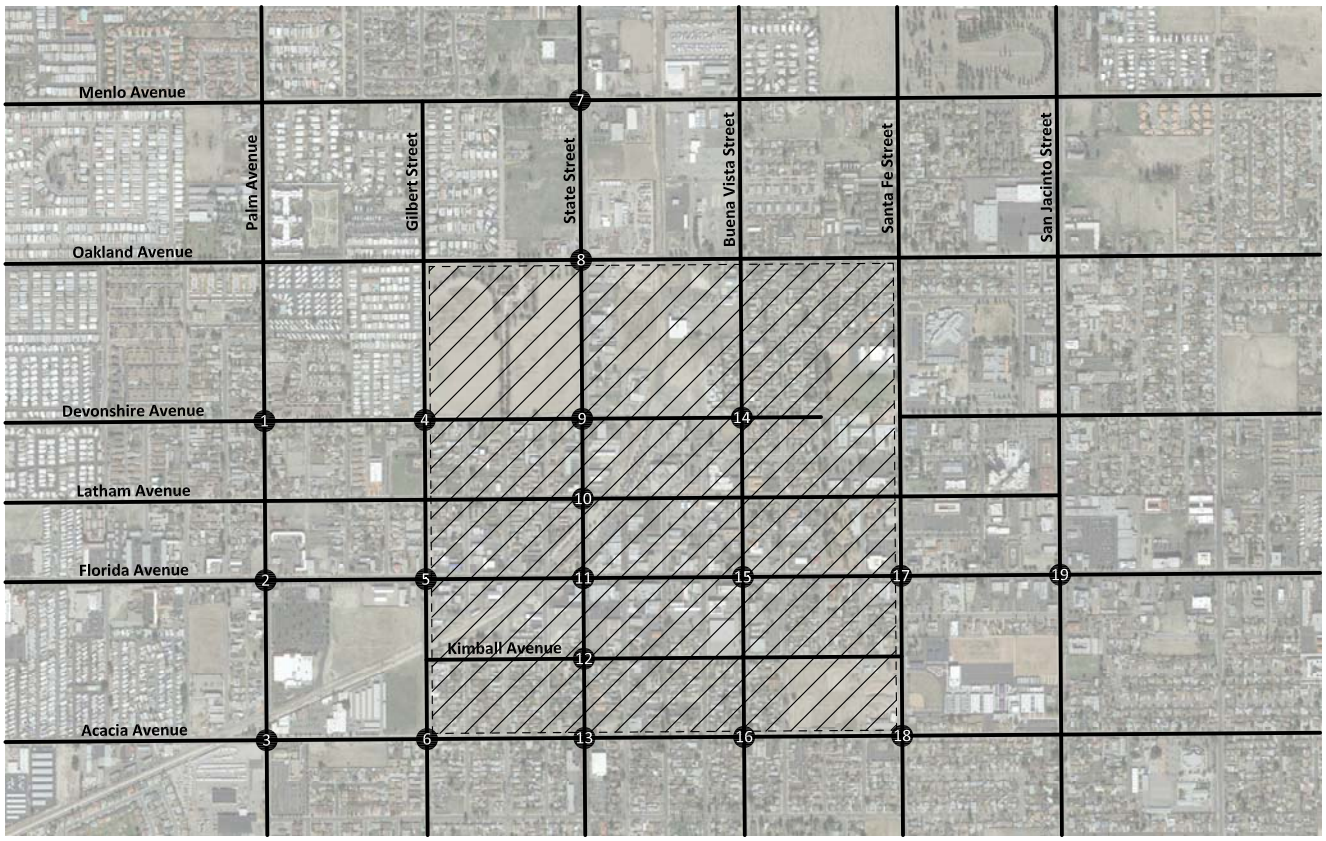
1 = Intersection Reference Number

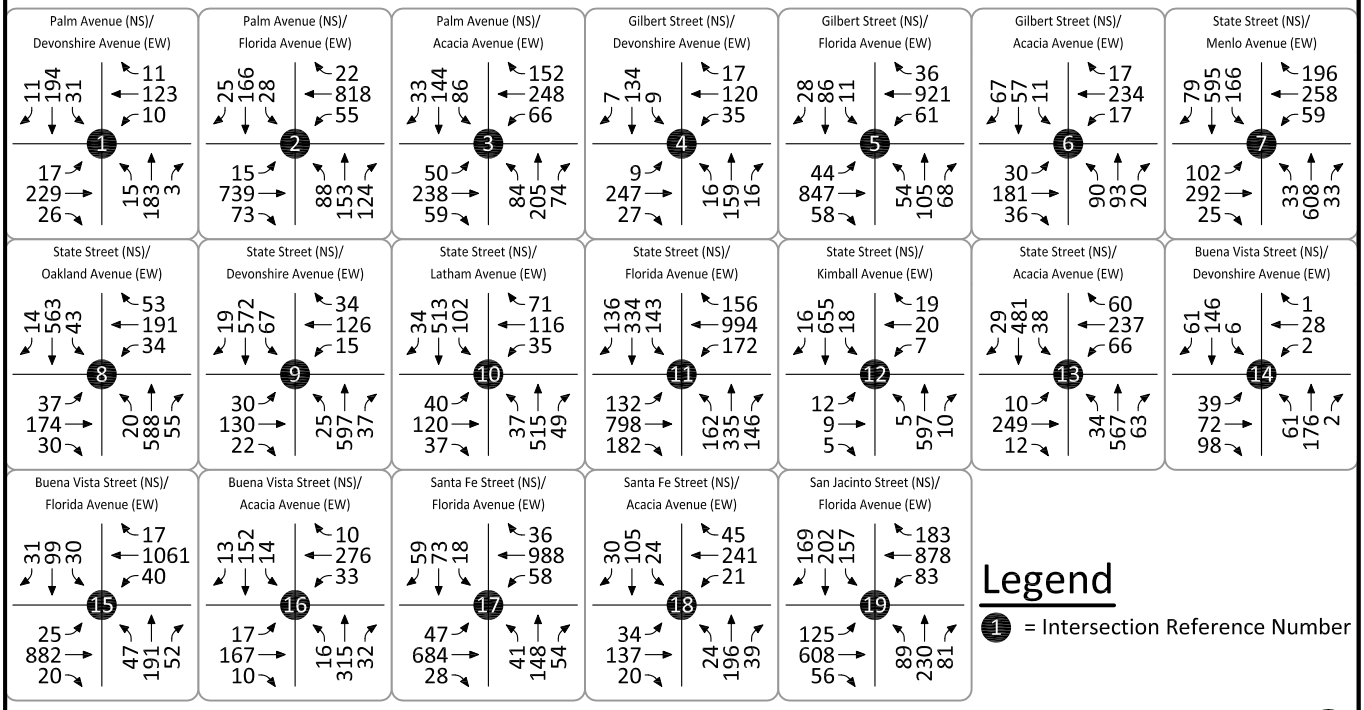
KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 45
General Plan Buildout With Project
Morning Peak Hour Intersection Turning Movement Volumes



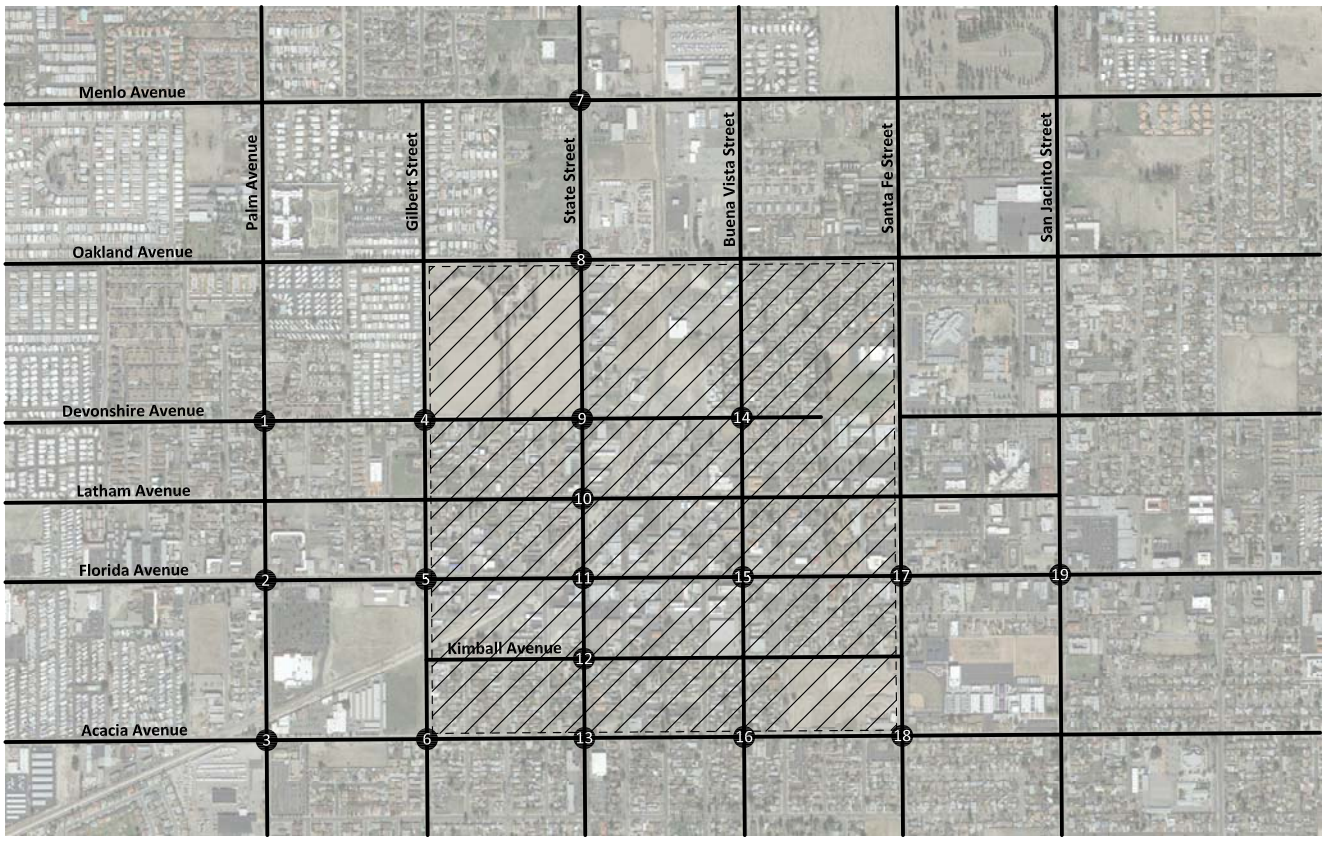


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

Figure 46
General Plan Buildout With Project
Evening Peak Hour Intersection Turning Movement Volumes



Intersection	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1 Palm Avenue (NS)/ Devonshire Avenue (EW)	25	233	23	28	229	11	24	238	37	36	238	13
2 Palm Avenue (NS)/ Florida Avenue (EW)	50	204	40	35	1062	88	53	1179	91	91	231	98
3 Palm Avenue (NS)/ Acacia Avenue (EW)	27	248	57	94	322	46	61	363	101	89	231	27
4 Gilbert Street (NS)/ Devonshire Avenue (EW)	11	112	8	34	246	21	20	264	12	30	216	24
5 Gilbert Street (NS)/ Florida Avenue (EW)	55	94	23	30	1214	78	67	1193	81	64	126	77
6 Gilbert Street (NS)/ Acacia Avenue (EW)	49	142	27	38	355	24	25	433	50	45	153	26
7 State Street (NS)/ Menlo Avenue (EW)	120	708	171	167	336	57	73	357	71	47	727	81
8 State Street (NS)/ Oakland Avenue (EW)	31	712	54	54	204	52	20	129	33	33	817	67
9 State Street (NS)/ Devonshire Avenue (EW)	38	693	59	93	148	51	29	140	25	27	839	28
10 State Street (NS)/ Latham Avenue (EW)	28	631	113	120	207	71	77	149	64	46	729	62
11 State Street (NS)/ Florida Avenue (EW)	166	426	211	200	981	193	169	1086	182	229	508	238
12 State Street (NS)/ Kimball Avenue (EW)	15	723	42	33	28	10	10	31	7	14	916	6
13 State Street (NS)/ Acacia Avenue (EW)	25	643	88	76	275	71	94	299	83	26	652	67
14 Buena Vista Street (NS)/ Devonshire Avenue (EW)	49	158	7	9	115	4	63	64	84	104	184	11
15 Buena Vista Street (NS)/ Florida Avenue (EW)	44	166	54	26	1108	81	36	1257	30	36	136	45
16 Buena Vista Street (NS)/ Acacia Avenue (EW)	32	227	18	19	270	33	29	318	41	26	180	20
17 Santa Fe Street (NS)/ Florida Avenue (EW)	62	98	24	23	1032	59	28	1168	49	46	86	67
18 Santa Fe Street (NS)/ Acacia Avenue (EW)	30	181	19	26	259	26	24	292	41	37	127	39
19 San Jacinto Street (NS)/ Florida Avenue (EW)	184	340	250	250	784	117	228	962	107	76	305	105

Legend

1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6616

VI. PROJECT MITIGATION

A. Required Improvements

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for General Plan Buildout With Project conditions. The improvements were determined through the operations analysis of Section V.

The needed intersection improvements are summarized in Table 6 for the study area intersections.

Table 6

Summary of Intersection Improvements

Intersection	Jurisdiction	Improvement
Palm Avenue (NS) at:		
Acacia Avenue (EW) - #3	Hemet	Restripe west leg to provide additional EB approach lane and to create shared EB through/left turn lane and shared EB through/right turn lane Restripe east leg to provide additional EB receiving lane and to create shared WB through/left turn lane
Gilbert Street (NS) at:		
Devonshire Avenue (EW) - #4	Hemet	Restripe south leg to create NB left turn lane and shared NB through/right turn lane
Acacia Avenue (EW) - #6	Hemet	Restripe west leg to provide additional EB approach lane and to create shared EB through/left turn lane and shared EB through/right turn lane Restripe east leg to provide additional EB receiving lane
State Street (NS) at:		
Menlo Avenue (EW) - #7	Hemet	Widen west leg to create one EB left, one EB through, and one EB right turn lane Restripe east leg to create one WB left, one WB through, and one WB right turn lane Modify east & west approaches to protected phasing
Kimball Avenue (EW) - #12	Hemet	Restrict east and west approaches to right turn only during peak hours
Acacia Avenue (EW) - #13	Hemet	Restripe west leg to create one EB left turn lane and one shared EB through/right turn lane Extend painted red curb along WB approach to first driveway east of the intersection Restripe east leg to create one WB left turn lane and one shared WB through/right turn lane Modify east & west approaches to protected traffic signal phasing

APPENDICES

Appendix A – Glossary of Transportation Terms

Appendix B – Traffic Count Worksheets

Appendix C – Explanation and Calculation of Intersection Delay

APPENDIX A

Glossary of Transportation Terms

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

Traffic Count Worksheets

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

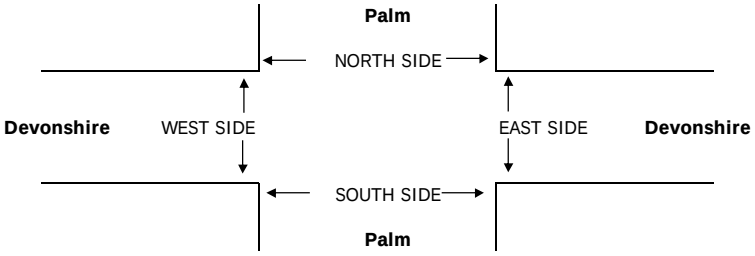
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Palm	LOCATION #: 1
	EAST & WEST:	Devonshire	CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

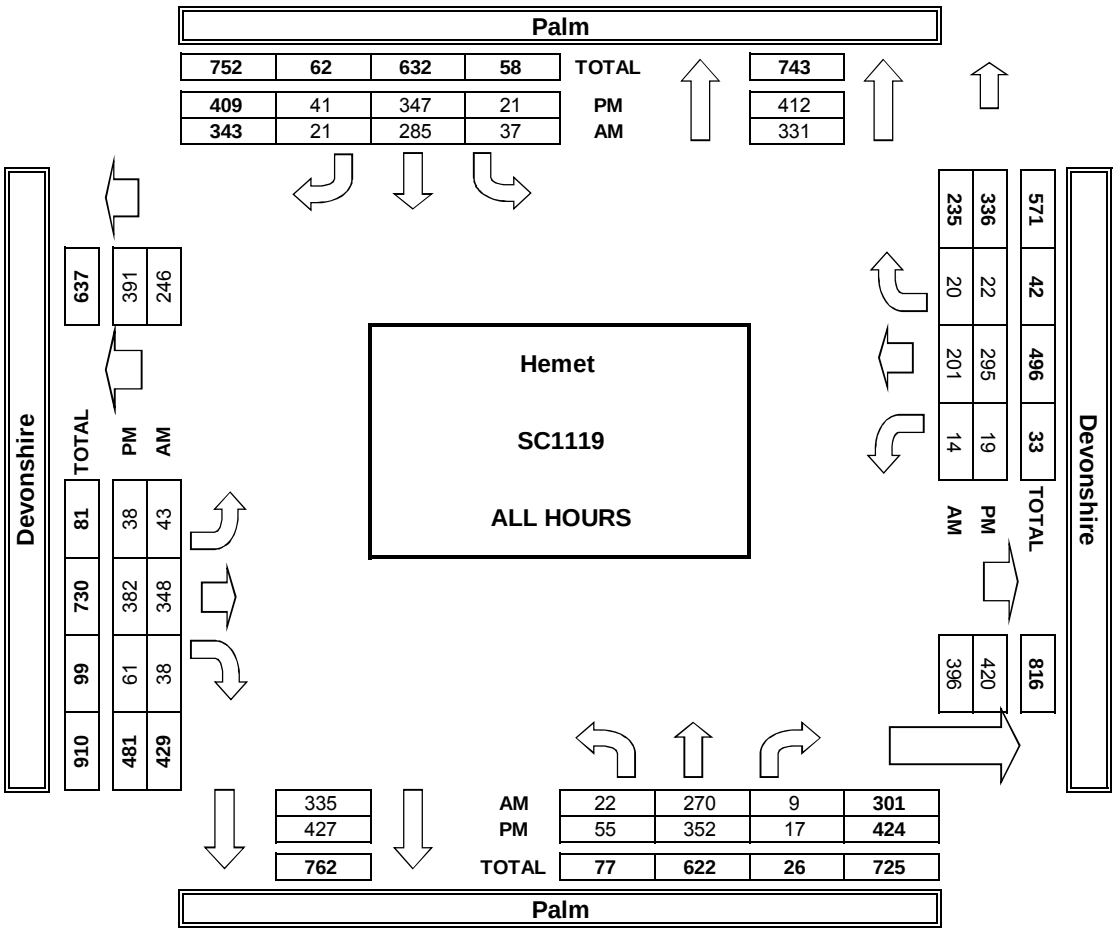
		NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	23	3	4	23	5	11	26	4	1	20	2	123	0	0	2	0	2
	7:15 AM	1	23	1	3	26	2	5	32	3	0	25	2	123	0	0	0	0	0
	7:30 AM	2	24	2	3	37	2	3	39	5	1	25	3	146	0	0	0	1	1
	7:45 AM	1	48	0	7	41	2	4	55	7	3	28	5	201	0	0	0	0	0
	8:00 AM	2	29	0	9	37	1	4	53	4	3	23	1	166	0	0	0	1	1
	8:15 AM	3	39	1	3	39	4	2	46	7	2	25	1	172	0	0	0	0	0
	8:30 AM	8	49	2	5	54	3	5	41	6	1	27	2	203	0	0	0	0	0
	8:45 AM	4	35	0	3	28	2	9	56	2	3	28	4	174	0	0	0	0	0
	VOLUMES	22	270	9	37	285	21	43	348	38	14	201	20	1,308	0	0	2	2	4
	APPROACH %	7%	90%	3%	11%	83%	6%	10%	81%	9%	6%	86%	9%						
	APP/DEPART	301	/	331	343	/	335	429	/	396	235	/	246	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	14	165	3	24	171	10	15	195	24	9	103	9	742					
	APPROACH %	8%	91%	2%	12%	83%	5%	6%	83%	10%	7%	85%	7%						
	PEAK HR FACTOR		0.771			0.827			0.886			0.840		0.914					
	APP/DEPART	182	/	189	205	/	203	234	/	223	121	/	127	0					
PM	4:00 PM	7	43	1	3	42	5	3	48	8	3	36	2	201	0	0	0	0	0
	4:15 PM	9	46	2	4	55	6	5	57	14	1	41	4	244	0	0	0	0	0
	4:30 PM	13	59	6	3	49	7	8	53	5	1	55	3	262	0	0	0	0	0
	4:45 PM	6	62	3	4	43	6	5	39	9	2	34	3	216	0	0	0	0	0
	5:00 PM	4	42	1	2	63	4	4	50	5	6	53	4	238	0	0	0	0	0
	5:15 PM	9	43	1	1	38	4	6	54	7	4	42	4	213	0	0	0	0	0
	5:30 PM	7	44	3	4	38	4	5	52	10	1	23	1	192	0	0	0	0	0
	5:45 PM	0	13	0	0	19	5	2	29	3	1	11	1	84	0	0	0	0	0
	VOLUMES	55	352	17	21	347	41	38	382	61	19	295	22	1,650	0	0	0	0	0
	APPROACH %	13%	83%	4%	5%	85%	10%	8%	79%	13%	6%	88%	7%						
	APP/DEPART	424	/	412	409	/	427	481	/	420	336	/	391	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	32	209	12	13	210	23	22	199	33	10	183	14	960					
	APPROACH %	13%	83%	5%	5%	85%	9%	9%	78%	13%	5%	88%	7%						
	PEAK HR FACTOR		0.811			0.891			0.836			0.821		0.916					
	APP/DEPART	253	/	245	246	/	253	254	/	224	207	/	238	0					

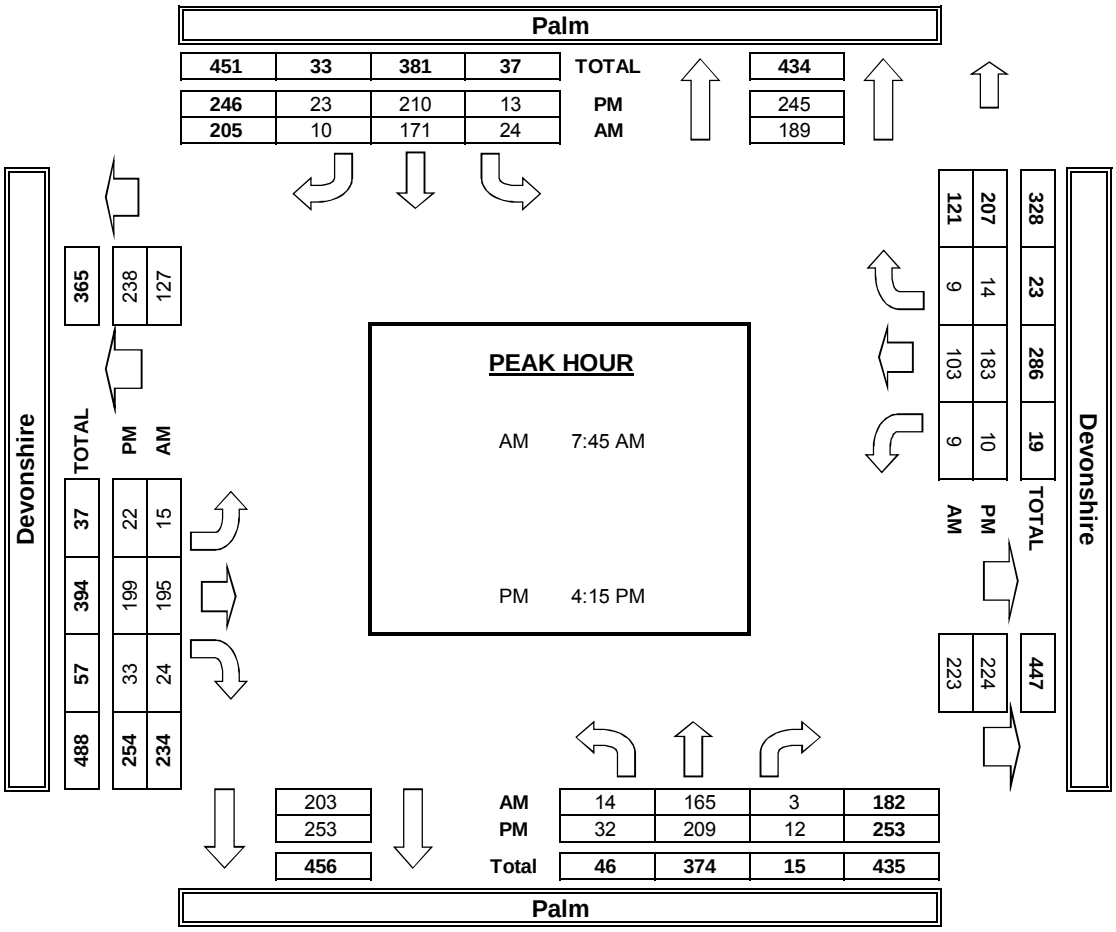


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

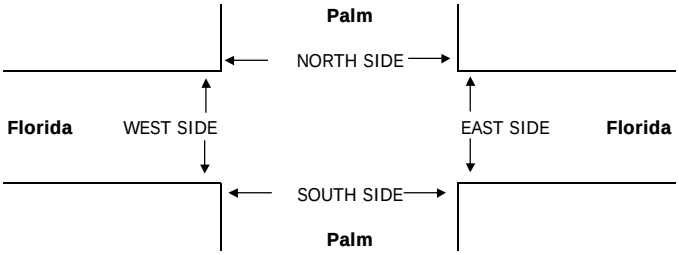
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	Palm	LOCATION #:	2
	EAST & WEST:	Florida	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	27	16	3	15	5	4	101	12	4	129	0	322	0	0	0	0	0
	7:15 AM	5	18	18	5	25	9	5	105	11	7	139	5	352	0	0	0	0	0
	7:30 AM	15	22	15	5	28	5	1	143	16	11	164	3	428	0	0	0	0	0
	7:45 AM	13	30	15	4	36	4	5	142	12	15	175	2	453	0	0	0	0	0
	8:00 AM	22	27	15	5	32	9	1	156	19	8	165	6	465	0	0	0	0	0
	8:15 AM	17	37	44	2	41	3	5	153	16	22	180	5	525	0	0	0	0	0
	8:30 AM	23	51	32	6	56	4	6	145	10	8	204	6	551	0	0	0	0	0
	8:45 AM	18	24	17	8	22	7	2	166	21	12	197	2	496	0	0	0	0	0
	VOLUMES	119	236	172	38	255	46	29	1,111	117	87	1,353	29	3,592	0	0	0	0	0
	APPROACH %	23%	45%	33%	11%	75%	14%	2%	88%	9%	6%	92%	2%						
	APP/DEPART	527	/	294	339	/	459	1,257	/	1,321	1,469	/	1,518	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	80	139	108	21	151	23	14	620	66	50	746	19	2,037					
	APPROACH %	24%	43%	33%	11%	77%	12%	2%	89%	9%	6%	92%	2%						
	PEAK HR FACTOR		0.771			0.739			0.926			0.935		0.924					
	APP/DEPART	327	/	172	195	/	267	700	/	749	815	/	849	0					
PM	4:00 PM	27	57	20	11	56	12	14	262	17	16	222	7	721	0	0	0	0	0
	4:15 PM	10	35	25	8	42	14	13	278	26	12	224	8	695	0	0	0	0	0
	4:30 PM	22	72	17	11	40	7	9	248	16	20	209	4	675	0	0	0	0	0
	4:45 PM	24	46	18	4	47	12	12	258	24	16	227	5	693	0	0	0	0	0
	5:00 PM	22	38	15	9	47	16	7	258	28	13	265	2	720	0	0	0	0	0
	5:15 PM	12	32	12	3	24	6	11	229	26	21	229	4	609	0	0	0	0	0
	5:30 PM	25	42	17	3	45	11	15	240	16	18	188	5	625	0	0	0	0	0
	5:45 PM	16	26	16	2	35	17	11	225	17	16	235	6	622	0	0	0	0	0
	VOLUMES	158	348	140	51	336	95	92	1,998	170	132	1,799	41	5,360	0	0	0	0	0
	APPROACH %	24%	54%	22%	11%	70%	20%	4%	88%	8%	7%	91%	2%						
	APP/DEPART	646	/	481	482	/	638	2,260	/	2,189	1,972	/	2,052	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	83	210	80	34	185	45	48	1,046	83	64	882	24	2,784					
	APPROACH %	22%	56%	21%	13%	70%	17%	4%	89%	7%	7%	91%	2%						
	PEAK HR FACTOR		0.840			0.835			0.928			0.978		0.965					
	APP/DEPART	373	/	282	264	/	332	1,177	/	1,160	970	/	1,010	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

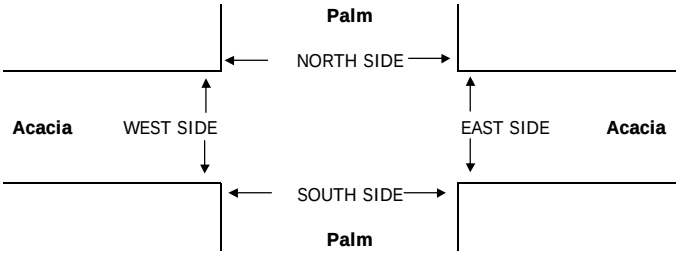
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Palm	LOCATION #: 3
	EAST & WEST:	Acacia	CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

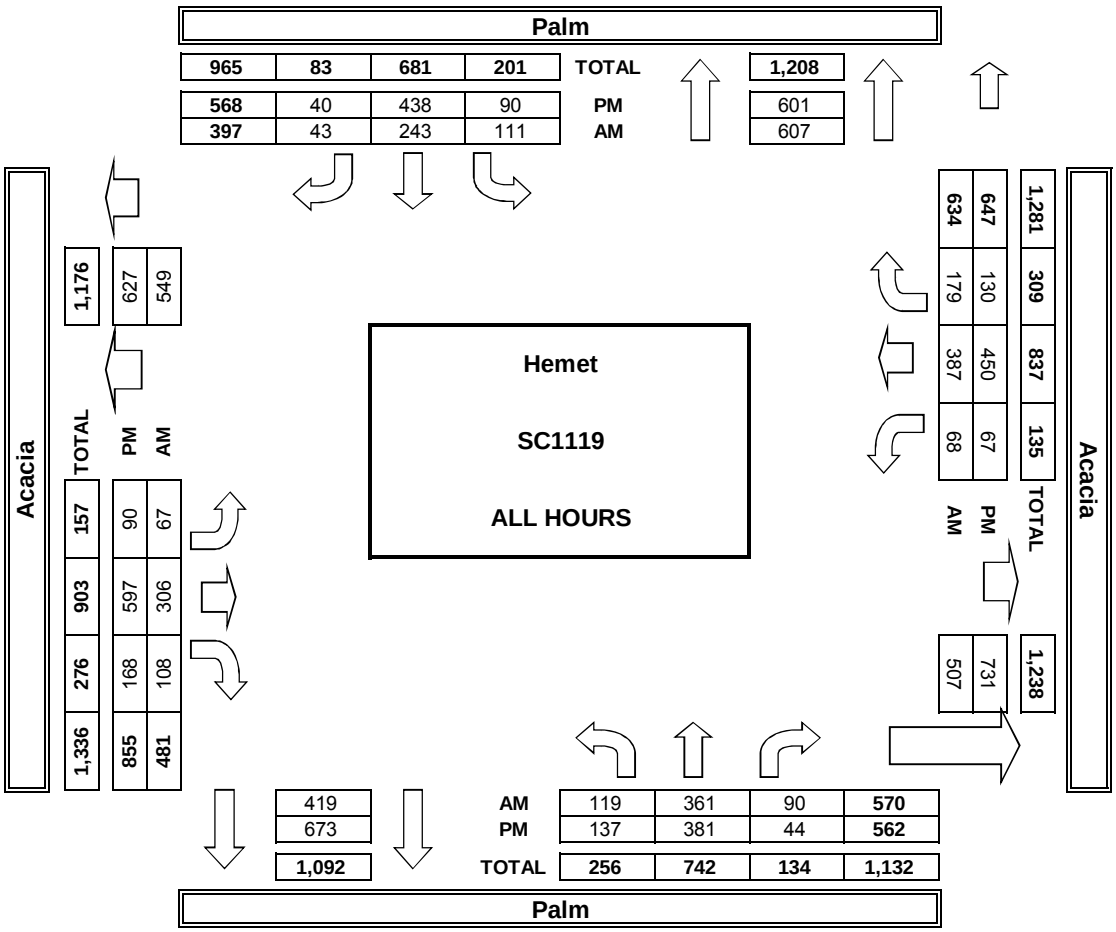
		NORTHBOUND Palm			SOUTHBOUND Palm			EASTBOUND Acacia			WESTBOUND Acacia				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	35	2	7	17	2	7	19	7	1	30	3	132	0	0	0	0	0
	7:15 AM	11	44	7	7	28	2	9	40	10	2	38	6	204	0	0	0	0	0
	7:30 AM	17	49	8	12	28	7	2	31	26	0	48	11	239	0	0	0	0	0
	7:45 AM	27	59	12	12	39	8	7	51	12	2	72	16	317	0	0	0	0	0
	8:00 AM	20	41	17	20	25	8	12	50	14	3	38	9	257	0	0	0	0	0
	8:15 AM	17	45	21	23	37	9	17	53	12	26	49	55	364	0	0	0	0	0
	8:30 AM	12	37	18	23	30	5	9	32	16	29	62	58	331	0	0	0	0	0
	8:45 AM	13	51	5	7	39	2	4	30	11	5	50	21	238	0	0	0	0	0
	VOLUMES	119	361	90	111	243	43	67	306	108	68	387	179	2,082	0	0	0	0	0
	APPROACH %	21%	63%	16%	28%	61%	11%	14%	64%	22%	11%	61%	28%						
	APP/DEPART	570	/	607	397	/	419	481	/	507	634	/	549	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	76	182	68	78	131	30	45	186	54	60	221	138	1,269					
	APPROACH %	23%	56%	21%	33%	55%	13%	16%	65%	19%	14%	53%	33%						
	PEAK HR FACTOR		0.832			0.866			0.869			0.703		0.872					
	APP/DEPART	326	/	365	239	/	245	285	/	332	419	/	327	0					
PM	4:00 PM	22	49	6	15	51	7	9	73	19	16	67	23	357	0	0	0	0	0
	4:15 PM	23	37	2	17	54	5	16	88	31	10	67	14	364	0	0	0	0	0
	4:30 PM	17	65	14	10	45	5	12	83	17	4	70	27	369	0	0	0	0	0
	4:45 PM	19	53	1	10	64	3	16	78	25	12	56	21	358	0	0	0	0	0
	5:00 PM	26	43	4	8	66	4	5	66	28	7	51	16	324	0	0	0	0	0
	5:15 PM	9	42	6	7	47	8	7	65	19	3	47	11	271	0	0	0	0	0
	5:30 PM	8	43	2	11	52	6	13	84	18	7	51	10	305	0	0	0	0	0
	5:45 PM	13	49	9	12	59	2	12	60	11	8	41	8	284	0	0	0	0	0
	VOLUMES	137	381	44	90	438	40	90	597	168	67	450	130	2,632	0	0	0	0	0
	APPROACH %	24%	68%	8%	16%	77%	7%	11%	70%	20%	10%	70%	20%						
	APP/DEPART	562	/	601	568	/	673	855	/	731	647	/	627	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	81	204	23	52	214	20	53	322	92	42	260	85	1,448					
	APPROACH %	26%	66%	7%	18%	75%	7%	11%	69%	20%	11%	67%	22%						
	PEAK HR FACTOR		0.802			0.929			0.865			0.913		0.981					
	APP/DEPART	308	/	342	286	/	348	467	/	397	387	/	361	0					

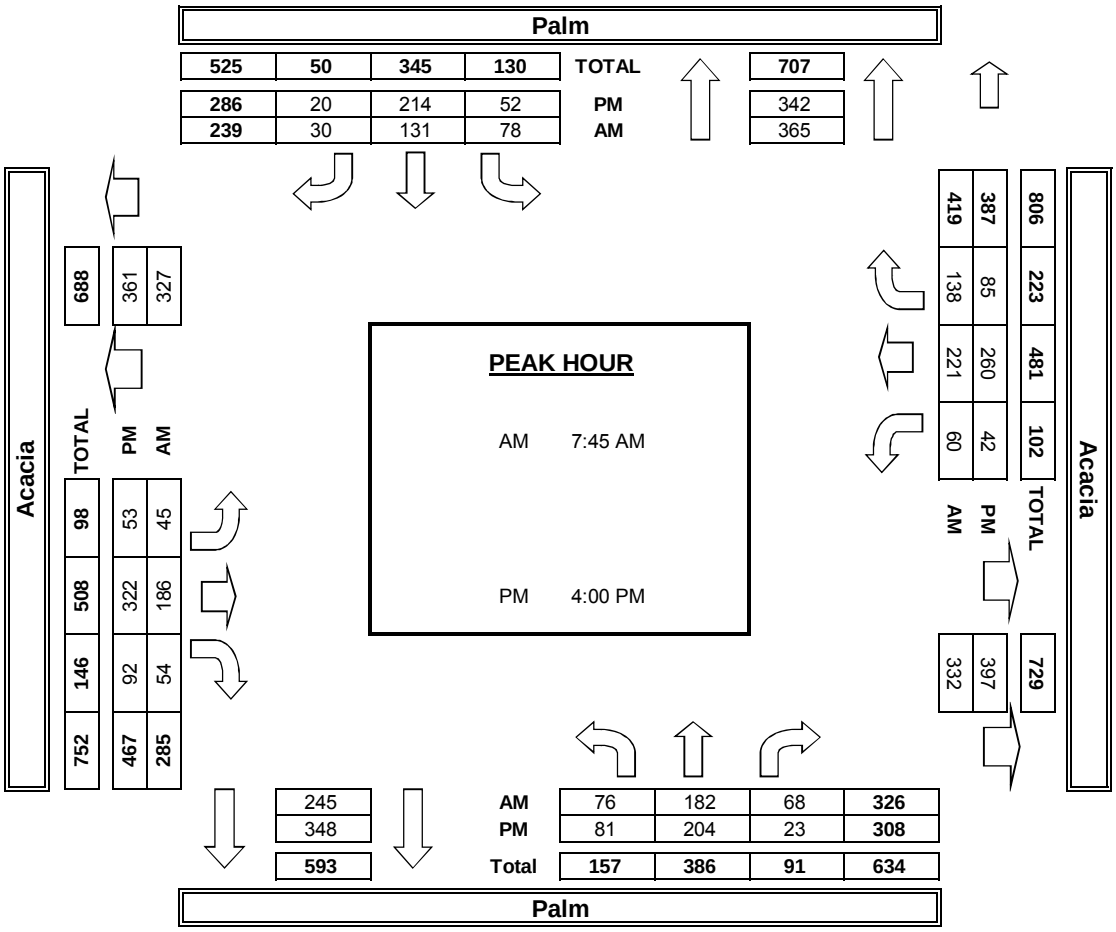


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

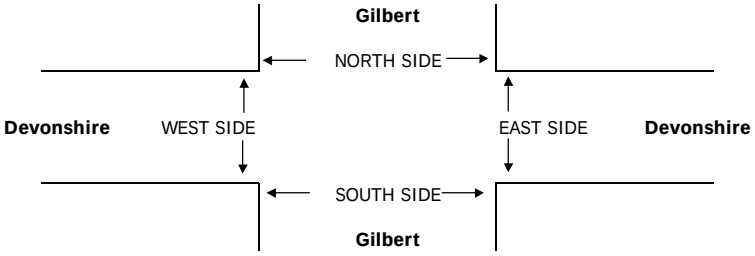
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Gilbert	LOCATION #: 4
	EAST & WEST:	Devonshire	CONTROL: STOP N/S

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Gilbert			SOUTHBOUND Gilbert			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	6	0	0	3	1	2	34	1	0	24	3	74	0	0	0	0	0
	7:15 AM	3	11	1	1	4	1	4	38	2	2	22	1	90	0	0	0	0	0
	7:30 AM	1	16	1	0	6	0	2	53	1	3	32	1	116	0	0	0	0	0
	7:45 AM	0	7	3	1	7	0	1	50	3	5	27	5	109	0	0	0	0	0
	8:00 AM	2	4	0	3	6	1	1	59	3	2	18	0	99	0	0	0	0	0
	8:15 AM	3	7	2	0	10	2	0	46	3	3	22	2	100	0	0	0	0	0
	8:30 AM	2	9	2	0	9	4	2	48	1	3	30	1	111	0	0	0	0	0
	8:45 AM	1	8	3	0	3	2	2	52	2	0	28	2	103	0	0	0	0	0
	VOLUMES	12	68	12	5	48	11	14	380	16	18	203	15	802	0	0	0	0	0
	APPROACH %	13%	74%	13%	8%	75%	17%	3%	93%	4%	8%	86%	6%						
	APP/DEPART	92	/	97	64	/	82	410	/	397	236	/	226	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	6	34	6	4	29	3	4	208	10	13	99	8	424					
	APPROACH %	13%	74%	13%	11%	81%	8%	2%	94%	5%	11%	83%	7%						
	PEAK HR FACTOR		0.639			0.750			0.881			0.811		0.914					
	APP/DEPART	46	/	46	36	/	52	222	/	218	120	/	108	0					
PM	4:00 PM	2	10	2	2	10	3	0	53	3	1	40	0	126	0	0	0	0	0
	4:15 PM	2	6	1	1	9	1	2	64	2	2	46	3	139	0	0	0	0	0
	4:30 PM	4	12	2	1	4	2	2	49	1	3	51	3	134	0	0	0	0	0
	4:45 PM	1	17	5	0	5	1	4	44	1	2	35	4	119	0	0	0	0	0
	5:00 PM	4	11	0	1	5	1	1	59	0	0	56	3	141	0	0	0	0	0
	5:15 PM	3	17	3	2	8	2	0	53	2	1	37	1	129	0	0	0	0	0
	5:30 PM	1	10	2	6	11	1	4	52	3	0	23	0	113	0	0	0	0	0
	5:45 PM	1	7	0	2	6	0	2	51	3	2	29	0	103	0	0	0	0	0
	VOLUMES	18	90	15	15	58	11	15	425	15	11	317	14	1,004	0	0	0	0	0
	APPROACH %	15%	73%	12%	18%	69%	13%	3%	93%	3%	3%	93%	4%						
	APP/DEPART	123	/	119	84	/	84	455	/	455	342	/	346	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	11	46	8	3	23	5	9	216	4	7	188	13	533					
	APPROACH %	17%	71%	12%	10%	74%	16%	4%	94%	2%	3%	90%	6%						
	PEAK HR FACTOR		0.707			0.705			0.842			0.881		0.945					
	APP/DEPART	65	/	68	31	/	34	229	/	227	208	/	204	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	Gilbert	LOCATION #:	5
	EAST & WEST:	Florida	CONTROL:	SIGNAL

NOTES:

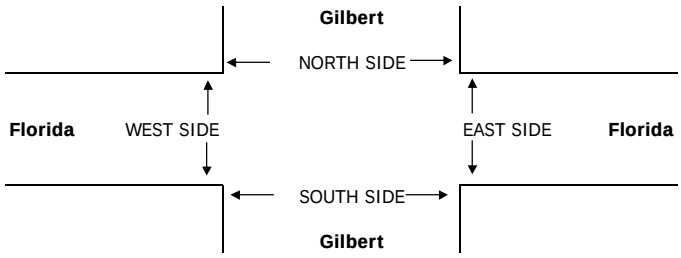
AM NB constructions

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

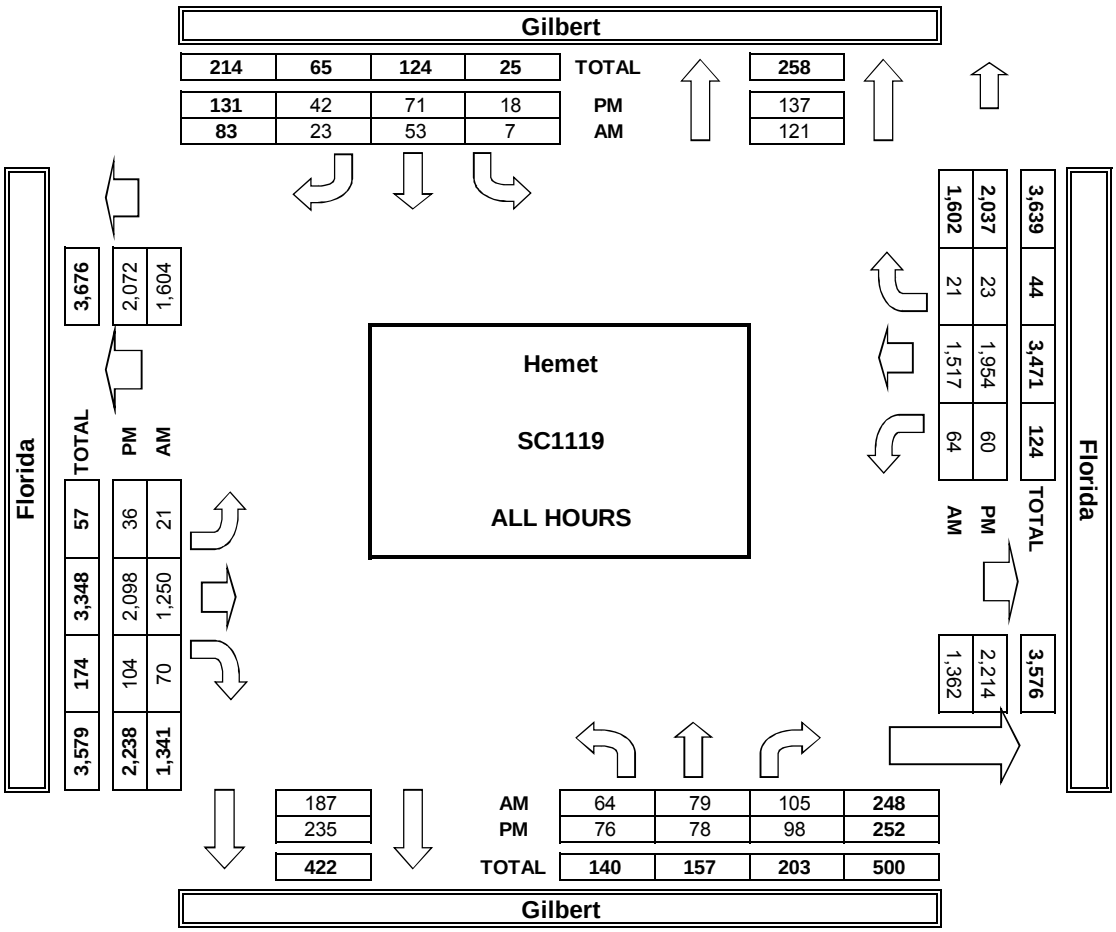
		NORTHBOUND Gilbert			SOUTHBOUND Gilbert			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	5	5	0	4	1	0	97	6	2	138	0	263	0	0	0	0	0
	7:15 AM	4	12	16	0	5	1	2	129	10	1	164	1	345	0	0	0	0	0
	7:30 AM	7	16	18	1	6	2	2	141	8	3	184	1	389	0	0	0	0	0
	7:45 AM	9	9	22	0	5	4	3	165	4	11	198	2	432	0	0	0	0	0
	8:00 AM	10	7	9	2	6	4	1	153	8	10	191	5	406	0	0	0	0	0
	8:15 AM	19	14	12	1	17	1	5	194	18	20	193	3	497	0	0	0	0	0
	8:30 AM	5	11	7	3	5	4	4	172	10	11	229	5	466	0	0	0	0	0
	8:45 AM	5	5	16	0	5	6	4	199	6	6	220	4	476	0	0	0	0	0
	VOLUMES	64	79	105	7	53	23	21	1,250	70	64	1,517	21	3,274	0	0	0	0	0
	APPROACH %	26%	32%	42%	8%	64%	28%	2%	93%	5%	4%	95%	1%						
	APP/DEPART	248	/	121	83	/	187	1,341	/	1,362	1,602	/	1,604	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	39	37	44	6	33	15	14	718	42	47	833	17	1,845					
	APPROACH %	33%	31%	37%	11%	61%	28%	2%	93%	5%	5%	93%	2%						
	PEAK HR FACTOR		0.667			0.711			0.892			0.915		0.928					
	APP/DEPART	120	/	68	54	/	122	774	/	768	897	/	887	0					
PM	4:00 PM	8	6	13	0	11	3	4	277	19	6	247	4	598	0	0	0	0	0
	4:15 PM	8	12	7	2	10	8	2	284	13	12	249	5	612	0	0	0	0	0
	4:30 PM	5	10	20	0	7	4	10	279	9	8	249	4	605	0	0	0	0	0
	4:45 PM	9	12	11	6	6	7	3	259	15	8	235	3	574	0	0	0	0	0
	5:00 PM	17	10	11	0	8	7	5	256	12	9	270	0	605	0	0	0	0	0
	5:15 PM	10	16	12	2	6	4	3	249	13	3	256	2	576	0	0	0	0	0
	5:30 PM	11	7	12	4	14	4	7	246	11	6	207	2	531	0	0	0	0	0
	5:45 PM	8	5	12	4	9	5	2	248	12	8	241	3	557	0	0	0	0	0
	VOLUMES	76	78	98	18	71	42	36	2,098	104	60	1,954	23	4,658	0	0	0	0	0
	APPROACH %	30%	31%	39%	14%	54%	32%	2%	94%	5%	3%	96%	1%						
	APP/DEPART	252	/	137	131	/	235	2,238	/	2,214	2,037	/	2,072	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	39	44	49	8	31	26	20	1,078	49	37	1,003	12	2,396					
	APPROACH %	30%	33%	37%	12%	48%	40%	2%	94%	4%	4%	95%	1%						
	PEAK HR FACTOR		0.868			0.813			0.959			0.943		0.979					
	APP/DEPART	132	/	76	65	/	117	1,147	/	1,135	1,052	/	1,068	0					

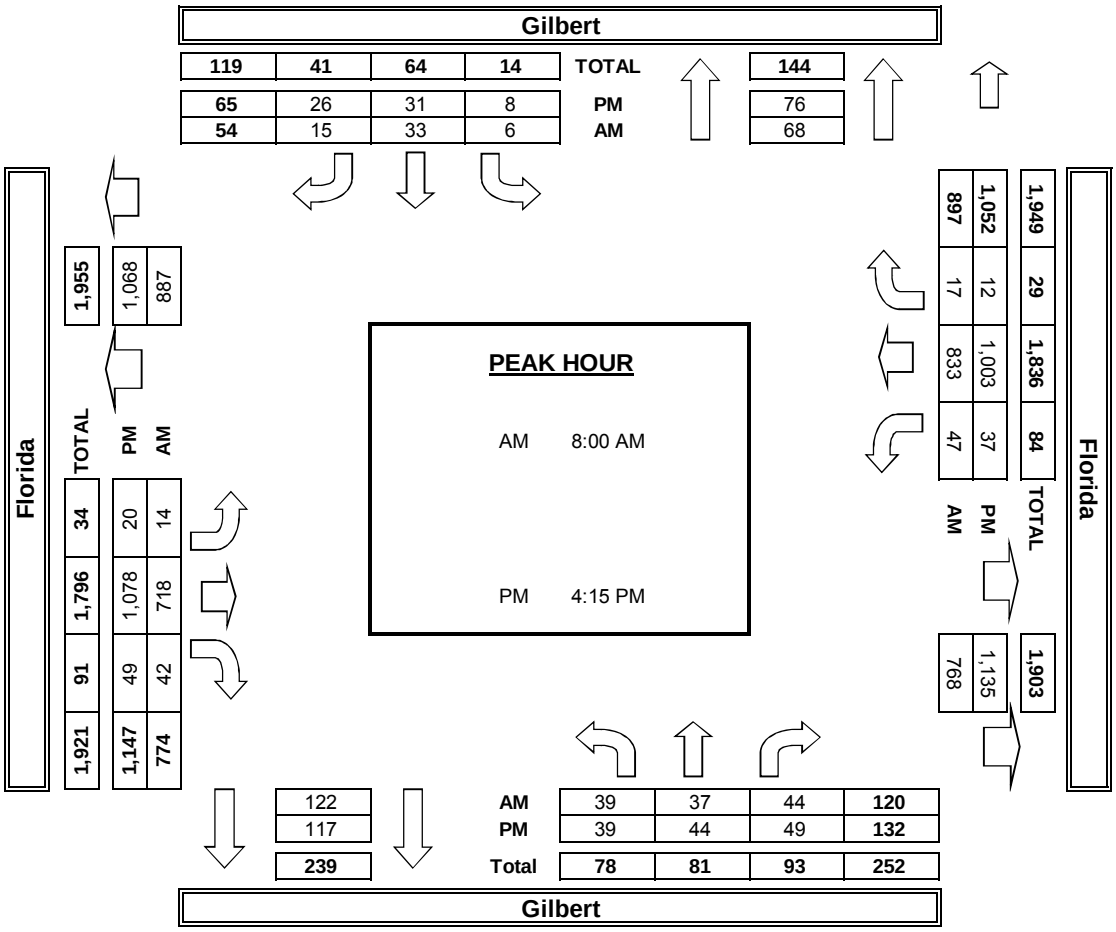


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

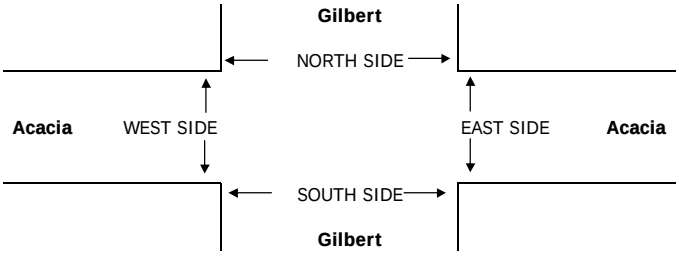
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	Gilbert	LOCATION #:	6
	EAST & WEST:	Acacia	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ◄ W ▲ N S ▼ E ►

☑ Add U-Turns to Left Turns

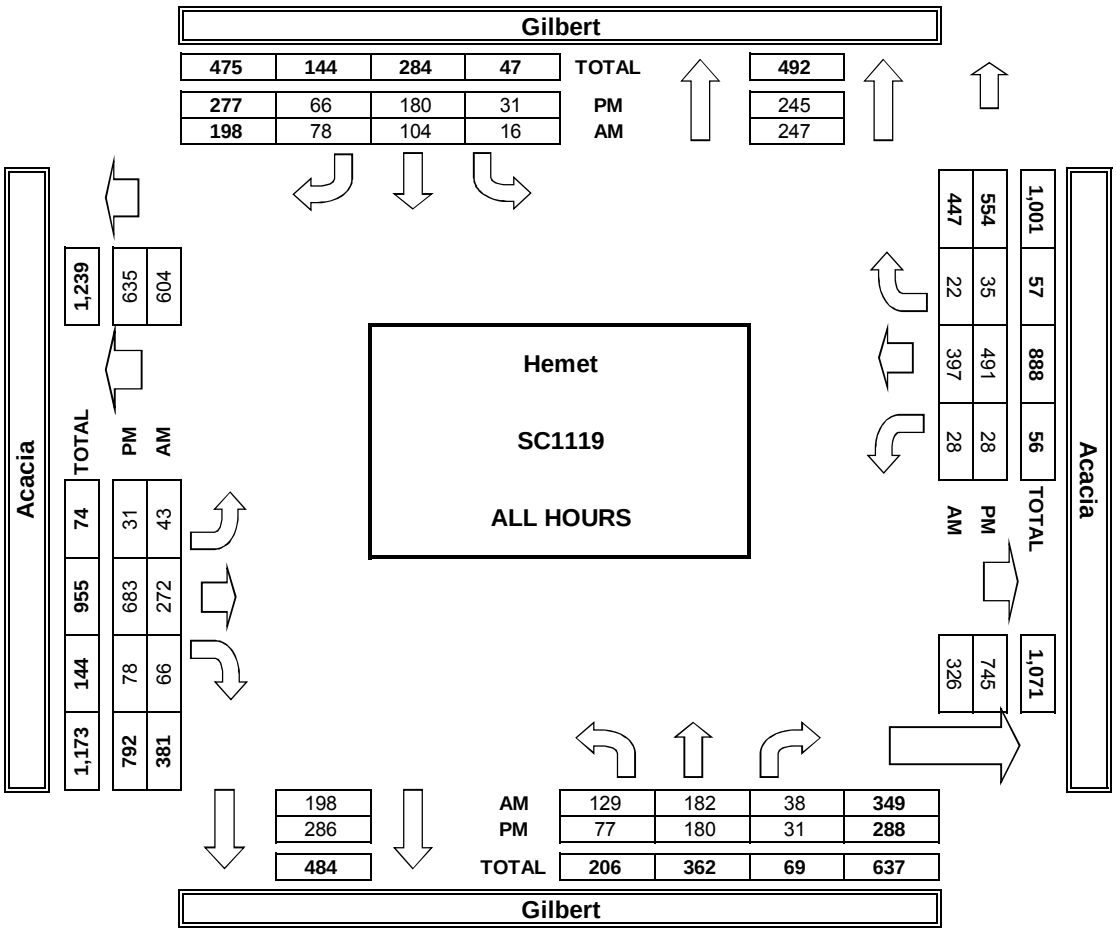
		NORTHBOUND Gilbert			SOUTHBOUND Gilbert			EASTBOUND Acacia			WESTBOUND Acacia				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	9	5	2	11	1	2	18	7	2	26	1	90	0	0	0	0	0
	7:15 AM	2	28	8	2	14	4	4	34	11	3	39	1	150	0	0	0	0	0
	7:30 AM	15	36	7	2	14	1	4	37	7	6	49	1	179	0	0	0	0	0
	7:45 AM	19	35	11	1	11	7	2	42	6	2	71	2	209	0	0	0	0	0
	8:00 AM	13	19	3	2	11	13	6	32	2	6	57	3	167	0	0	0	0	0
	8:15 AM	34	24	1	2	20	32	13	34	15	5	58	9	247	0	0	0	0	0
	8:30 AM	24	11	3	2	12	14	8	42	13	4	44	4	181	0	0	0	0	0
	8:45 AM	16	20	0	3	11	6	4	33	5	0	53	1	152	0	0	0	0	0
	VOLUMES	129	182	38	16	104	78	43	272	66	28	397	22	1,375	0	0	0	0	0
	APPROACH %	37%	52%	11%	8%	53%	39%	11%	71%	17%	6%	89%	5%						
	APP/DEPART	349	/	247	198	/	198	381	/	326	447	/	604	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	90	89	18	7	54	66	29	150	36	17	230	18	804					
	APPROACH %	46%	45%	9%	6%	43%	52%	13%	70%	17%	6%	87%	7%						
	PEAK HR FACTOR		0.758			0.588			0.853			0.883		0.814					
	APP/DEPART	197	/	136	127	/	107	215	/	175	265	/	386	0					
PM	4:00 PM	10	14	4	7	20	7	4	79	8	2	58	6	219	0	0	0	0	0
	4:15 PM	8	18	5	6	14	12	2	85	12	3	68	2	235	0	0	1	0	1
	4:30 PM	10	17	7	1	16	9	6	89	13	6	61	4	239	0	0	0	0	0
	4:45 PM	8	18	2	5	20	7	1	84	5	4	69	4	227	0	0	0	0	0
	5:00 PM	15	51	8	4	43	14	9	130	15	6	95	10	400	0	0	0	0	0
	5:15 PM	10	29	2	1	23	5	4	66	7	2	49	5	203	0	0	0	0	0
	5:30 PM	9	18	1	5	23	6	5	78	11	1	49	2	208	0	0	0	0	0
	5:45 PM	7	15	2	2	21	6	0	72	7	4	42	2	180	0	0	0	0	0
	VOLUMES	77	180	31	31	180	66	31	683	78	28	491	35	1,911	0	0	1	0	1
	APPROACH %	27%	63%	11%	11%	65%	24%	4%	86%	10%	5%	89%	6%						
	APP/DEPART	288	/	245	277	/	286	792	/	745	554	/	635	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	41	104	22	16	93	42	18	388	45	19	293	20	1,101					
	APPROACH %	25%	62%	13%	11%	62%	28%	4%	86%	10%	6%	88%	6%						
	PEAK HR FACTOR		0.564			0.619			0.732			0.748		0.688					
	APP/DEPART	167	/	141	151	/	157	451	/	426	332	/	377	0					

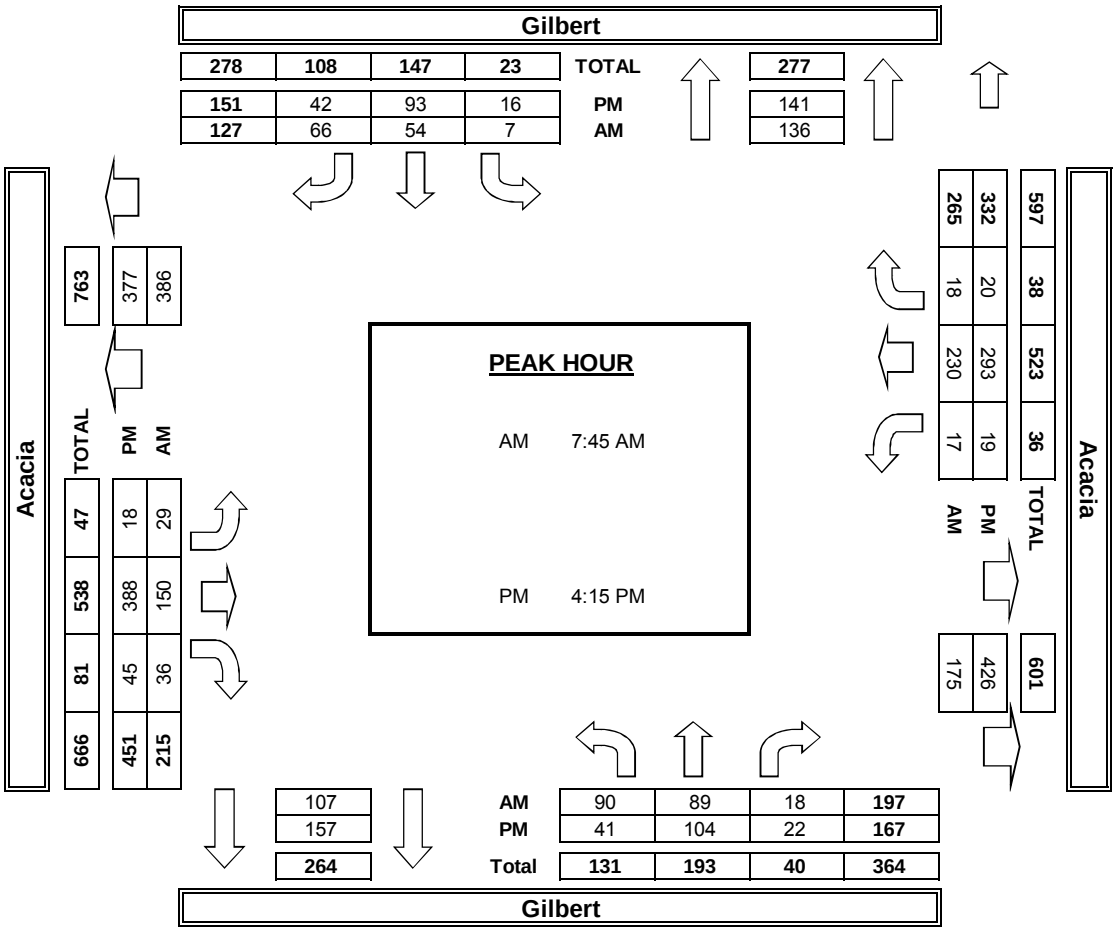


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

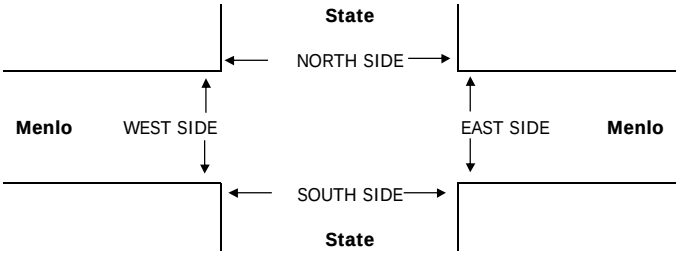
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	State	LOCATION #:	7
	EAST & WEST:	Menlo	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

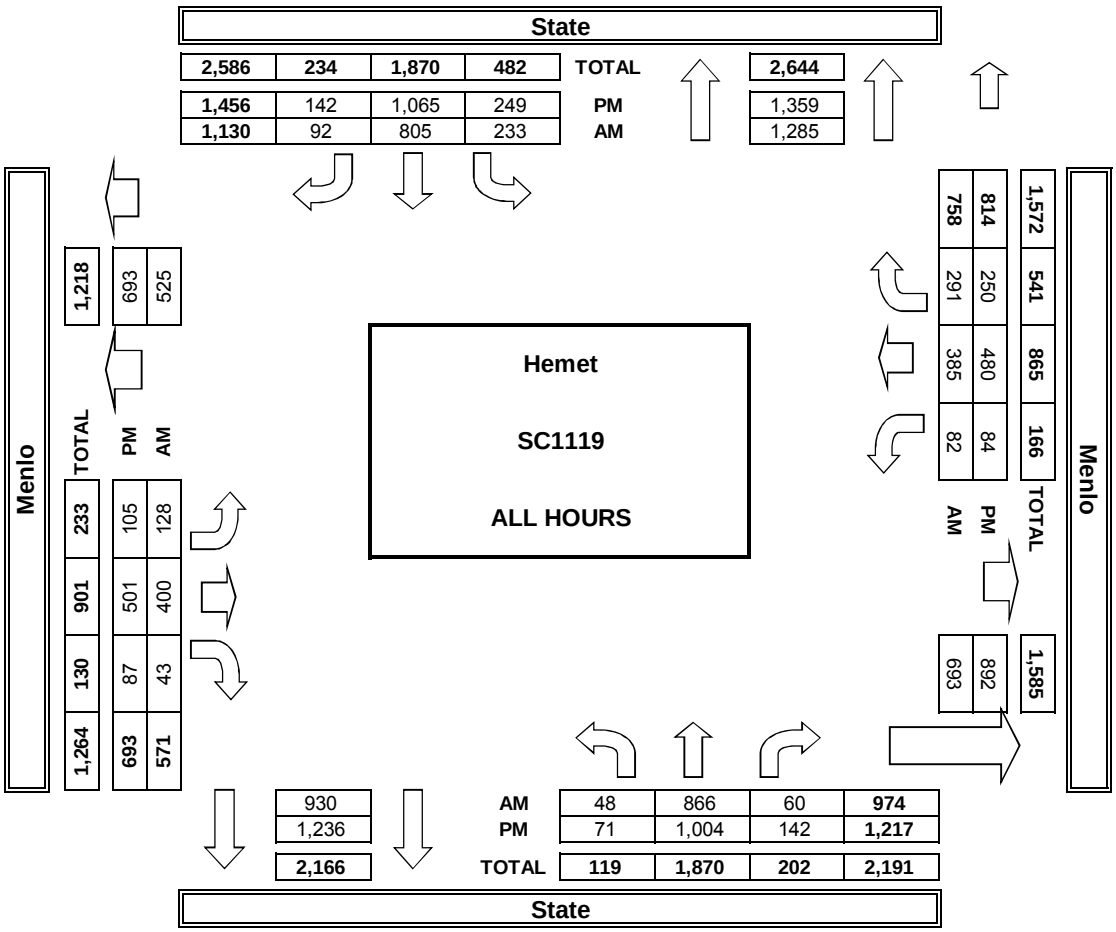
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Menlo			WESTBOUND Menlo				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	6	90	6	15	71	7	13	45	4	6	34	37	334	0	0	0	0	0
	7:15 AM	6	109	7	38	79	13	15	52	5	10	57	35	426	0	0	0	0	0
	7:30 AM	6	112	3	40	97	18	25	63	5	12	55	42	478	0	0	0	0	0
	7:45 AM	6	140	5	34	120	11	19	55	6	10	44	47	497	0	0	0	0	0
	8:00 AM	7	112	11	21	96	16	15	43	6	9	43	31	410	0	0	0	0	0
	8:15 AM	5	109	8	35	111	11	13	51	1	17	45	34	440	0	0	0	0	0
	8:30 AM	7	105	10	14	118	9	17	42	3	8	55	30	418	0	0	0	0	0
	8:45 AM	5	89	10	36	113	7	11	49	13	10	52	35	430	0	0	0	0	0
	VOLUMES	48	866	60	233	805	92	128	400	43	82	385	291	3,433	0	0	0	0	0
	APPROACH %	5%	89%	6%	21%	71%	8%	22%	70%	8%	11%	51%	38%						
	APP/DEPART	974	/	1,285	1,130	/	930	571	/	693	758	/	525	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	24	473	27	130	424	56	72	212	18	48	187	154	1,825					
	APPROACH %	5%	90%	5%	21%	70%	9%	24%	70%	6%	12%	48%	40%						
	PEAK HR FACTOR		0.868			0.924			0.812			0.892		0.918					
	APP/DEPART	524	/	699	610	/	490	302	/	369	389	/	267	0					
PM	4:00 PM	11	141	17	39	155	25	14	64	11	14	62	36	589	0	0	0	0	0
	4:15 PM	7	115	15	22	137	19	12	71	14	9	66	34	521	0	0	0	0	0
	4:30 PM	12	122	17	46	134	16	9	64	13	9	58	32	532	0	0	0	0	0
	4:45 PM	4	131	17	27	112	25	17	60	14	14	58	29	508	0	0	0	0	0
	5:00 PM	12	135	22	38	159	14	9	44	12	10	48	40	543	0	0	0	0	0
	5:15 PM	11	133	20	21	131	15	20	66	4	14	56	35	526	0	0	0	0	0
	5:30 PM	11	120	15	29	109	18	11	61	7	7	71	21	480	0	0	0	0	0
	5:45 PM	3	107	19	27	128	10	13	71	12	7	61	23	481	0	0	0	0	0
	VOLUMES	71	1,004	142	249	1,065	142	105	501	87	84	480	250	4,180	0	0	0	0	0
	APPROACH %	6%	82%	12%	17%	73%	10%	15%	72%	13%	10%	59%	31%						
	APP/DEPART	1,217	/	1,359	1,456	/	1,236	693	/	892	814	/	693	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	34	509	66	134	538	85	52	259	52	46	244	131	2,150					
	APPROACH %	6%	84%	11%	18%	71%	11%	14%	71%	14%	11%	58%	31%						
	PEAK HR FACTOR		0.901			0.864			0.936			0.940		0.913					
	APP/DEPART	609	/	692	757	/	636	363	/	459	421	/	363	0					

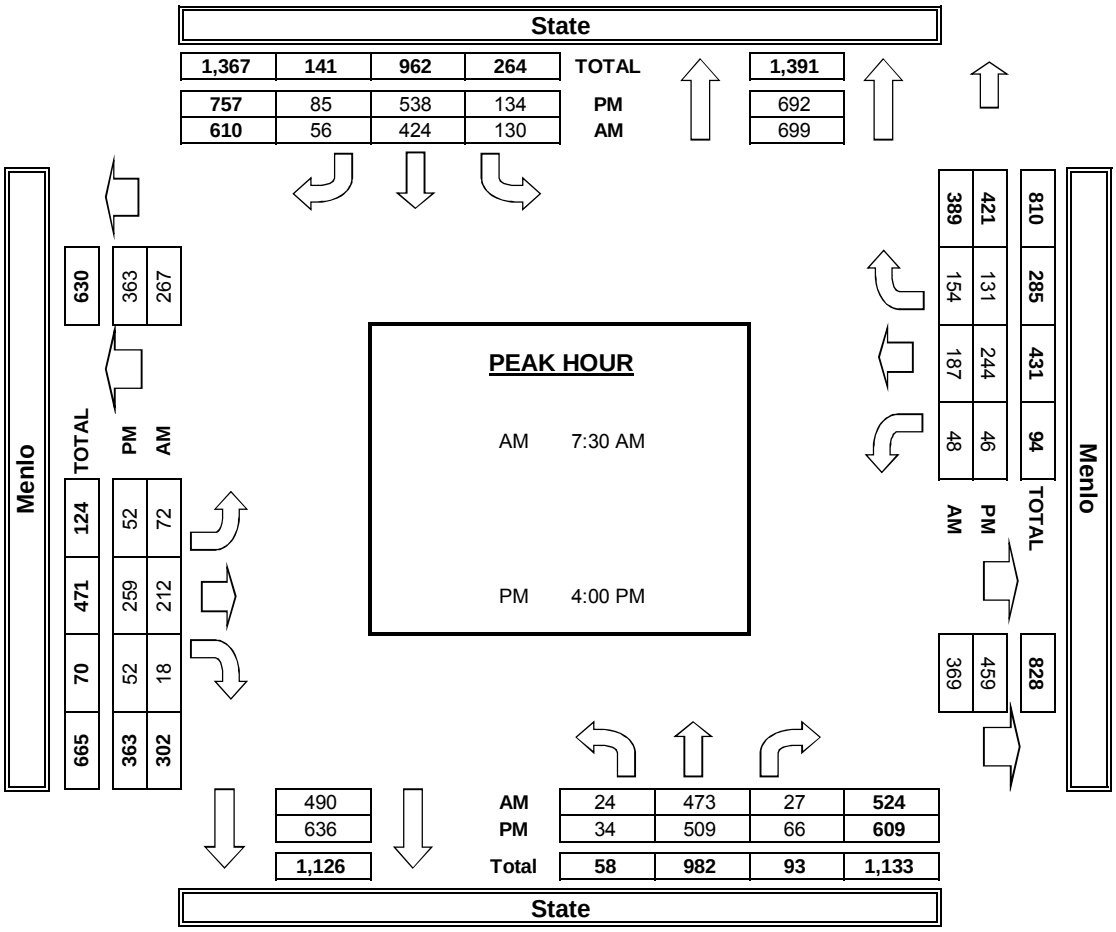


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

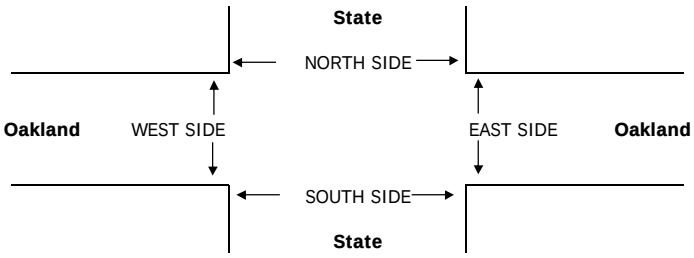
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	State	LOCATION #: 8
	EAST & WEST:	Oakland	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

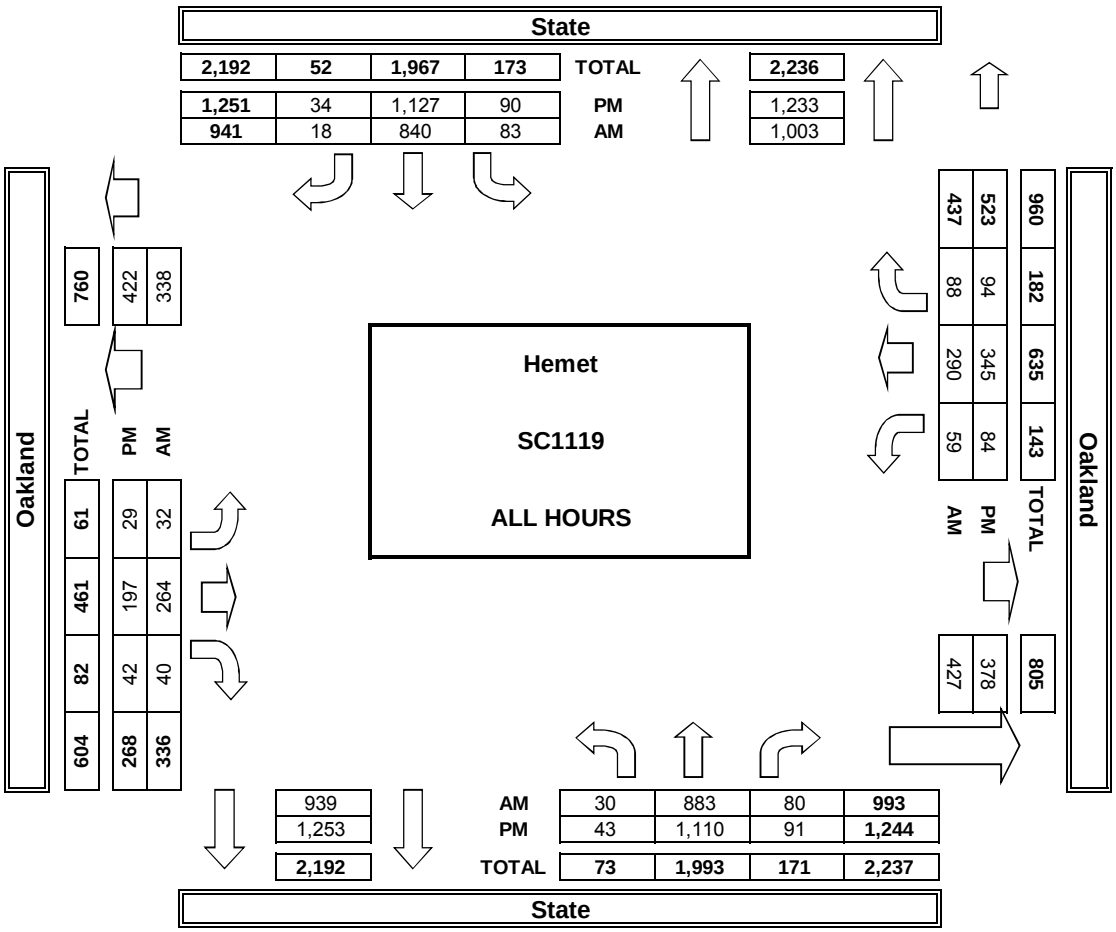
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Oakland			WESTBOUND Oakland				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	99	6	11	72	6	4	27	3	7	42	11	291	0	0	0	0	0
	7:15 AM	2	104	19	11	90	0	4	54	7	3	37	11	342	0	0	0	0	0
	7:30 AM	3	113	10	6	121	1	8	23	6	11	53	15	370	0	0	0	0	0
	7:45 AM	7	155	13	11	106	2	8	41	5	7	27	11	393	0	0	0	0	0
	8:00 AM	5	96	4	11	96	4	0	30	3	4	26	8	287	0	0	0	0	0
	8:15 AM	3	119	10	14	104	2	2	24	6	8	33	9	334	0	0	0	0	0
	8:30 AM	4	92	5	11	125	1	4	26	5	11	40	12	336	0	0	0	0	0
	8:45 AM	3	105	13	8	126	2	2	39	5	8	32	11	354	0	0	0	0	0
	VOLUMES	30	883	80	83	840	18	32	264	40	59	290	88	2,707	0	0	0	0	0
	APPROACH %	3%	89%	8%	9%	89%	2%	10%	79%	12%	14%	66%	20%						
	APP/DEPART	993	/	1,003	941	/	939	336	/	427	437	/	338	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	15	471	48	39	389	9	24	145	21	28	159	48	1,396					
	APPROACH %	3%	88%	9%	9%	89%	2%	13%	76%	11%	12%	68%	20%						
	PEAK HR FACTOR		0.763			0.854			0.731			0.744		0.888					
	APP/DEPART	534	/	543	437	/	438	190	/	232	235	/	183	0					
PM	4:00 PM	7	162	14	13	157	5	6	24	6	9	46	8	457	0	0	0	0	0
	4:15 PM	7	137	9	7	148	4	3	22	2	9	36	10	394	0	0	0	0	0
	4:30 PM	7	155	16	16	149	4	3	36	4	9	30	13	442	0	0	0	0	0
	4:45 PM	6	127	9	15	111	4	2	28	7	12	40	7	368	0	0	0	0	0
	5:00 PM	6	151	16	9	173	1	3	24	4	12	58	14	471	0	0	0	0	0
	5:15 PM	5	148	13	9	125	11	5	19	10	11	42	15	413	0	0	0	0	0
	5:30 PM	3	126	4	10	122	3	3	21	5	18	70	15	400	0	0	0	0	0
	5:45 PM	2	104	10	11	142	2	4	23	4	4	23	12	341	0	0	0	0	0
	VOLUMES	43	1,110	91	90	1,127	34	29	197	42	84	345	94	3,286	0	0	0	0	0
	APPROACH %	3%	89%	7%	7%	90%	3%	11%	74%	16%	16%	66%	18%						
	APP/DEPART	1,244	/	1,233	1,251	/	1,253	268	/	378	523	/	422	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	24	581	54	49	558	20	13	107	25	44	170	49	1,694					
	APPROACH %	4%	88%	8%	8%	89%	3%	9%	74%	17%	17%	65%	19%						
	PEAK HR FACTOR		0.926			0.857			0.843			0.783		0.899					
	APP/DEPART	659	/	643	627	/	627	145	/	210	263	/	214	0					

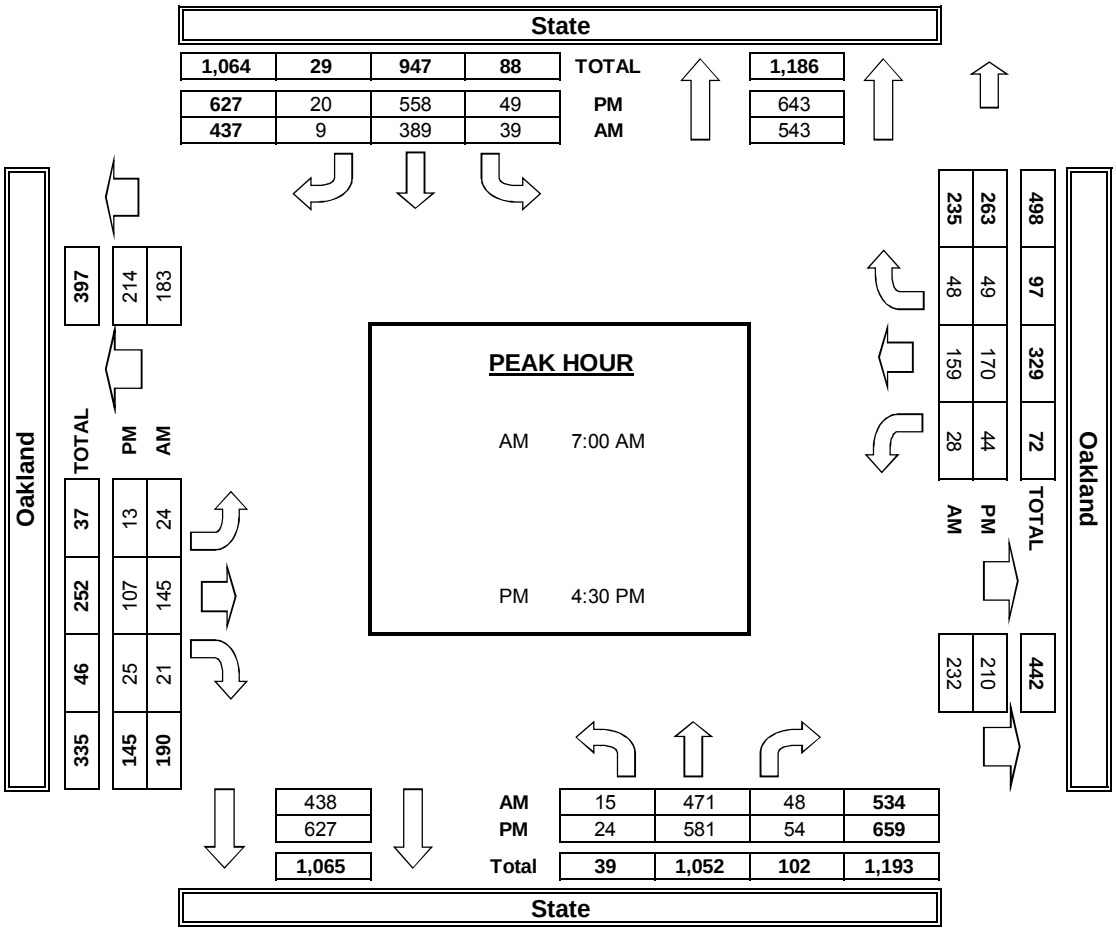


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

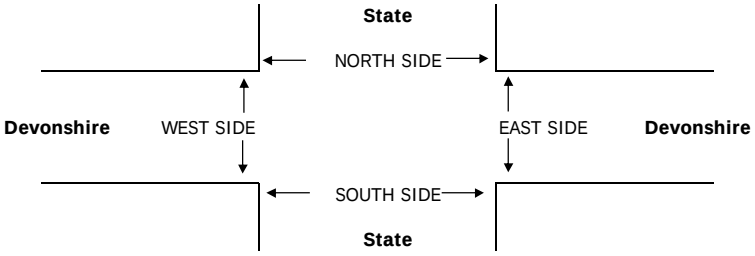
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	State	LOCATION #: 9
	EAST & WEST:	Devonshire	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

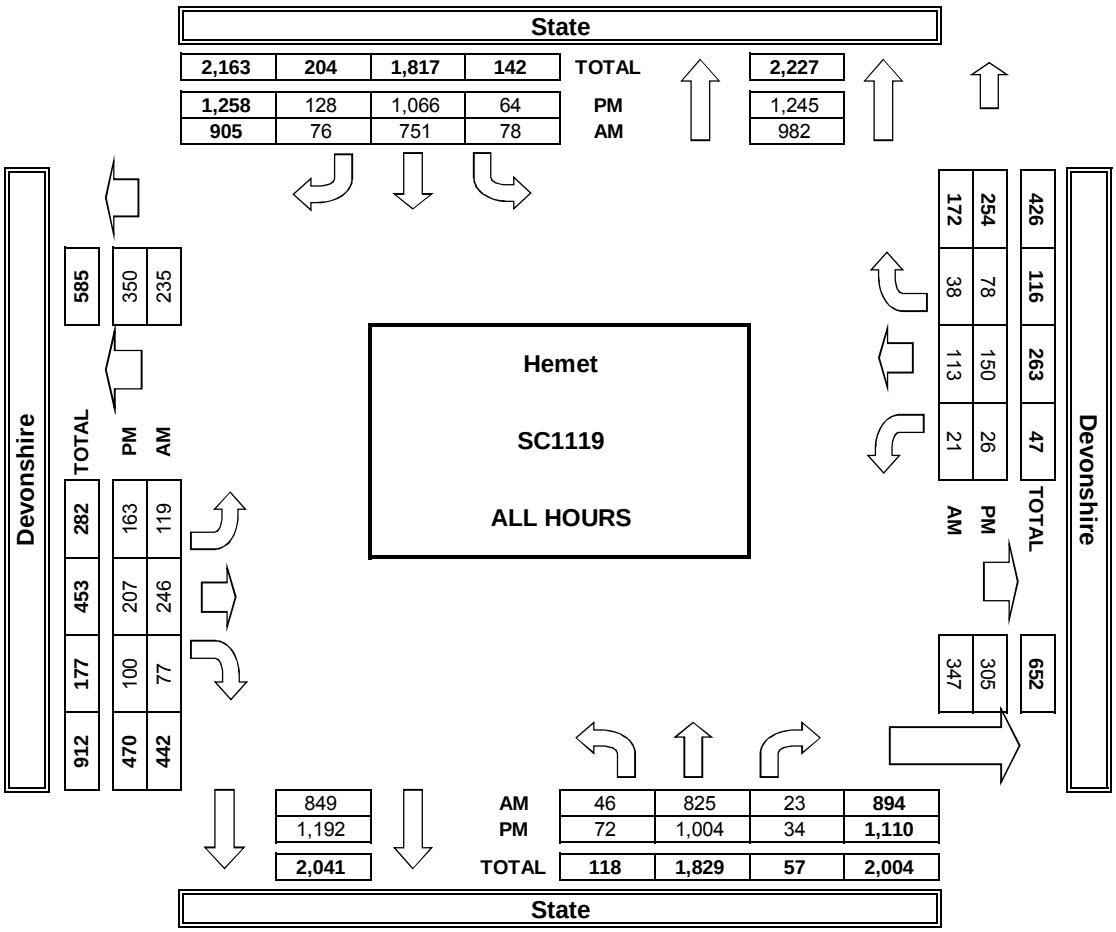
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	106	2	4	56	7	9	29	7	4	17	1	243	0	0	0	0	0
	7:15 AM	4	96	2	4	87	11	21	23	6	1	15	4	274	0	0	0	0	0
	7:30 AM	5	86	1	8	91	11	21	32	5	2	21	6	289	0	0	0	0	0
	7:45 AM	6	138	2	19	119	11	18	39	13	6	20	5	396	0	0	0	0	0
	8:00 AM	8	105	3	11	87	3	15	29	9	4	4	9	287	0	0	0	0	0
	8:15 AM	5	103	6	9	93	11	12	33	12	0	13	4	301	0	0	0	0	0
	8:30 AM	10	97	2	12	102	11	13	25	13	2	11	5	303	0	0	0	0	0
	8:45 AM	7	94	5	11	116	11	10	36	12	2	12	4	320	0	0	0	0	0
	VOLUMES	46	825	23	78	751	76	119	246	77	21	113	38	2,413	0	0	0	0	0
	APPROACH %	5%	92%	3%	9%	83%	8%	27%	56%	17%	12%	66%	22%						
	APP/DEPART	894	/	982	905	/	849	442	/	347	172	/	235	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	29	443	13	51	401	36	58	126	47	12	48	23	1,287					
	APPROACH %	6%	91%	3%	10%	82%	7%	25%	55%	20%	14%	58%	28%						
	PEAK HR FACTOR		0.830			0.819			0.825			0.669		0.813					
	APP/DEPART	485	/	524	488	/	460	231	/	190	83	/	113	0					
PM	4:00 PM	14	145	6	8	154	10	23	23	14	6	18	13	434	0	0	0	0	0
	4:15 PM	10	121	7	9	145	12	19	30	10	6	18	7	394	0	0	0	0	0
	4:30 PM	17	141	1	10	112	17	21	23	21	2	25	15	405	0	0	0	0	0
	4:45 PM	9	113	2	8	131	15	18	31	10	2	18	11	368	0	0	0	0	0
	5:00 PM	6	140	6	5	147	26	17	26	9	2	31	9	424	0	0	0	0	0
	5:15 PM	7	132	9	9	123	17	24	24	12	2	22	3	384	0	0	0	0	0
	5:30 PM	5	119	2	7	135	12	26	21	10	3	5	14	359	0	0	0	0	0
	5:45 PM	4	93	1	8	119	19	15	29	14	3	13	6	324	0	0	0	0	0
	VOLUMES	72	1,004	34	64	1,066	128	163	207	100	26	150	78	3,092	0	0	0	0	0
	APPROACH %	6%	90%	3%	5%	85%	10%	35%	44%	21%	10%	59%	31%						
	APP/DEPART	1,110	/	1,245	1,258	/	1,192	470	/	305	254	/	350	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	50	520	16	35	542	54	81	107	55	16	79	46	1,601					
	APPROACH %	9%	89%	3%	6%	86%	9%	33%	44%	23%	11%	56%	33%						
	PEAK HR FACTOR		0.888			0.917			0.935			0.839		0.922					
	APP/DEPART	586	/	647	631	/	613	243	/	158	141	/	183	0					

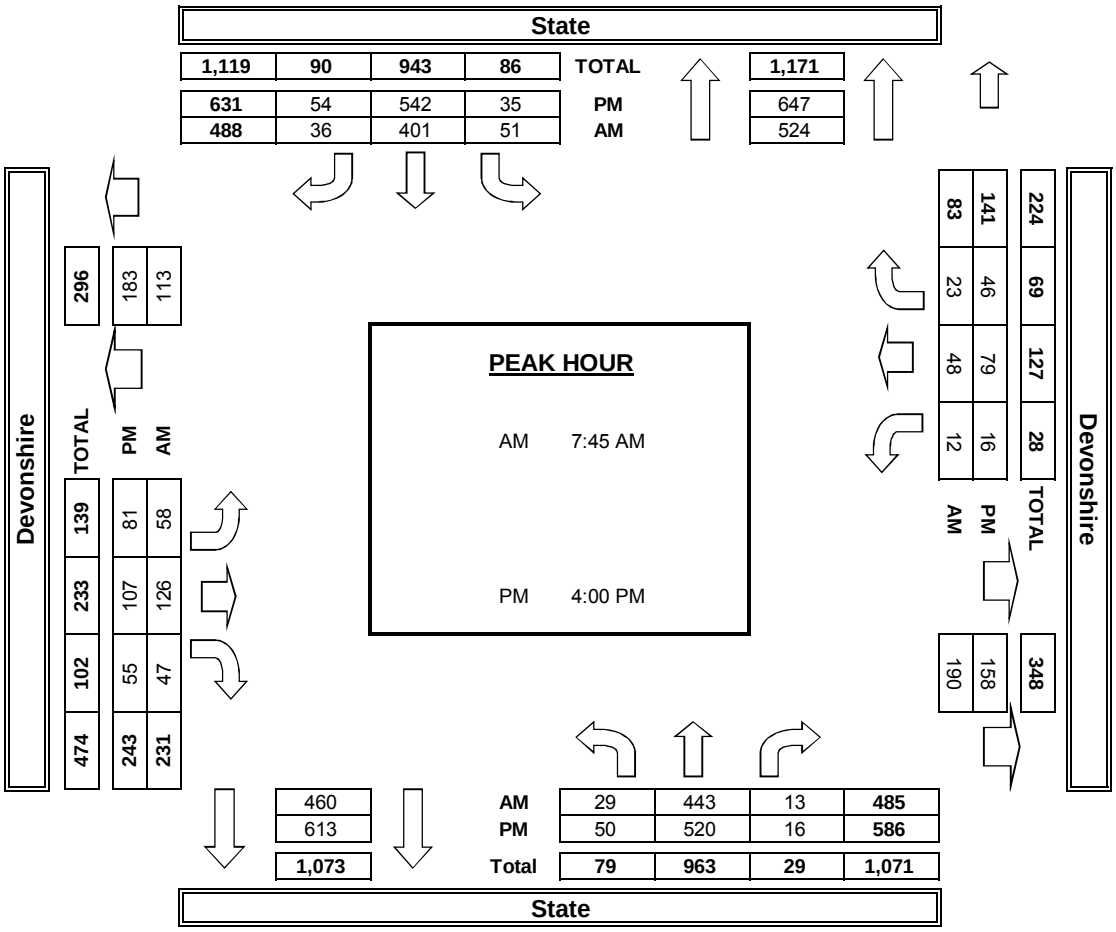


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

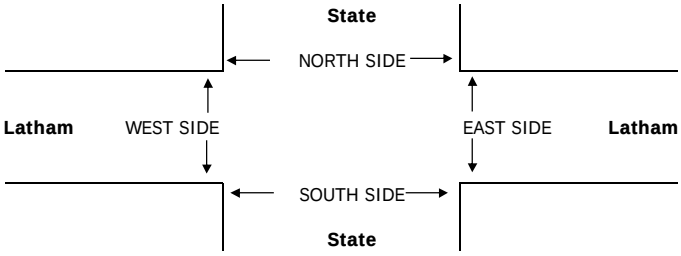
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	State	LOCATION #:	10
	EAST & WEST:	Latham	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

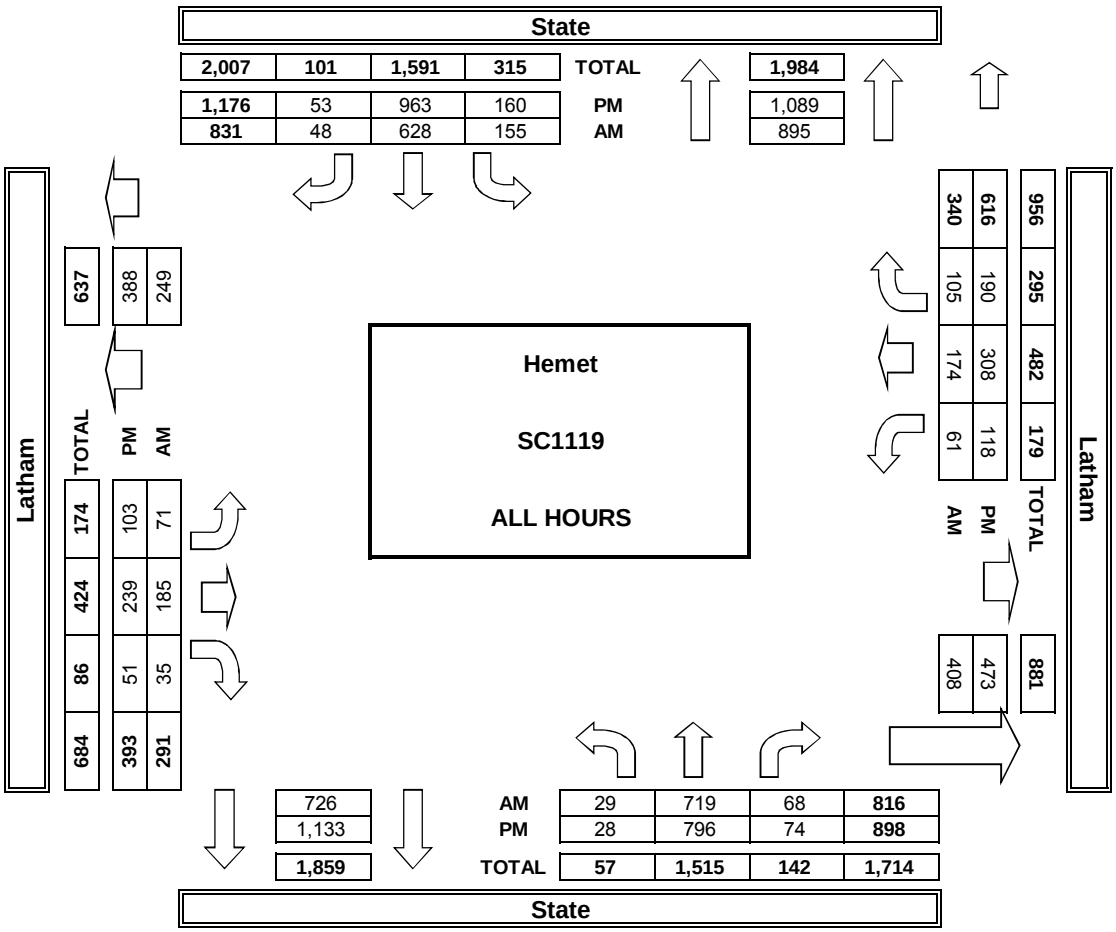
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Latham			WESTBOUND Latham				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	87	3	9	53	4	8	12	2	8	8	8	203	0	0	0	0	0
	7:15 AM	3	89	11	14	75	5	6	21	3	7	17	5	256	0	0	0	0	0
	7:30 AM	2	74	8	11	85	2	9	20	4	9	20	15	259	0	0	0	0	0
	7:45 AM	5	130	10	26	96	5	6	37	2	7	24	13	361	0	0	0	0	0
	8:00 AM	4	85	8	17	71	6	8	18	9	6	27	15	274	1	0	0	0	1
	8:15 AM	5	93	8	23	72	11	14	29	2	5	21	16	299	0	0	0	0	0
	8:30 AM	6	76	13	21	90	7	6	24	4	9	33	20	309	1	0	0	0	1
	8:45 AM	3	85	7	34	86	8	14	24	9	10	24	13	317	0	0	0	0	0
	VOLUMES	29	719	68	155	628	48	71	185	35	61	174	105	2,278	2	0	0	0	2
	APPROACH %	4%	88%	8%	19%	76%	6%	24%	64%	12%	18%	51%	31%						
	APP/DEPART	816	/	895	831	/	726	291	/	408	340	/	249	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	20	384	39	87	329	29	34	108	17	27	105	64	1,243					
	APPROACH %	5%	87%	9%	20%	74%	7%	21%	68%	11%	14%	54%	33%						
	PEAK HR FACTOR		0.764			0.876			0.883			0.790		0.861					
	APP/DEPART	443	/	482	445	/	375	159	/	234	196	/	152	0					
PM	4:00 PM	5	108	11	26	132	10	19	31	4	16	49	33	444	1	0	0	0	1
	4:15 PM	4	94	10	26	117	9	15	42	8	16	56	22	419	0	0	0	0	0
	4:30 PM	2	115	11	22	109	5	16	30	4	17	42	26	399	0	0	0	0	0
	4:45 PM	6	94	7	24	115	4	9	30	4	11	39	28	371	0	0	0	0	0
	5:00 PM	2	103	7	24	126	8	16	37	10	15	46	32	426	0	0	0	0	0
	5:15 PM	3	113	9	16	121	4	9	27	8	18	30	26	384	0	0	0	0	0
	5:30 PM	6	93	9	10	131	3	12	20	8	14	18	13	337	0	0	0	0	0
	5:45 PM	0	76	10	12	112	10	7	22	5	11	28	10	303	0	0	0	0	0
	VOLUMES	28	796	74	160	963	53	103	239	51	118	308	190	3,083	1	0	0	0	1
	APPROACH %	3%	89%	8%	14%	82%	5%	26%	61%	13%	19%	50%	31%						
	APP/DEPART	898	/	1,089	1,176	/	1,133	393	/	473	616	/	388	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	17	411	39	98	473	28	59	133	20	60	186	109	1,633					
	APPROACH %	4%	88%	8%	16%	79%	5%	28%	63%	9%	17%	52%	31%						
	PEAK HR FACTOR		0.912			0.891			0.815			0.906		0.919					
	APP/DEPART	467	/	579	599	/	554	212	/	270	355	/	230	0					

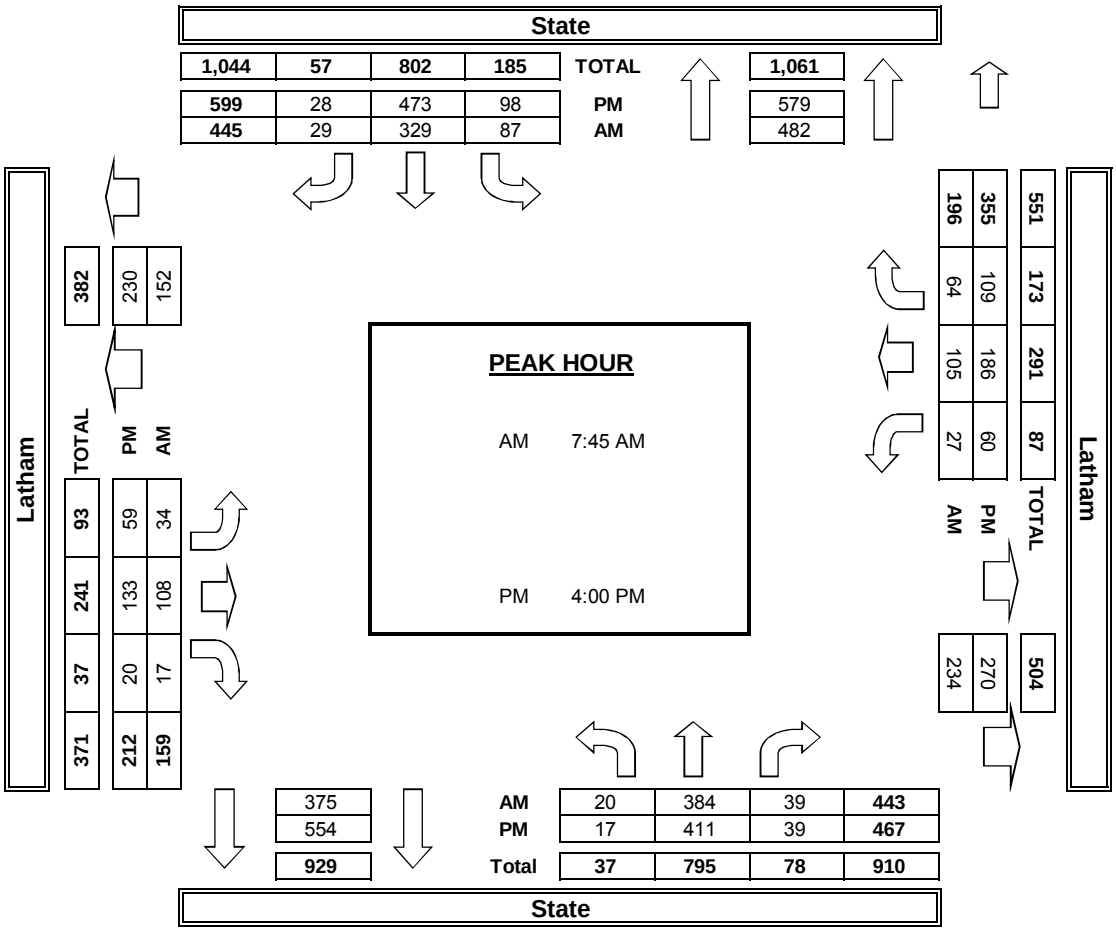


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

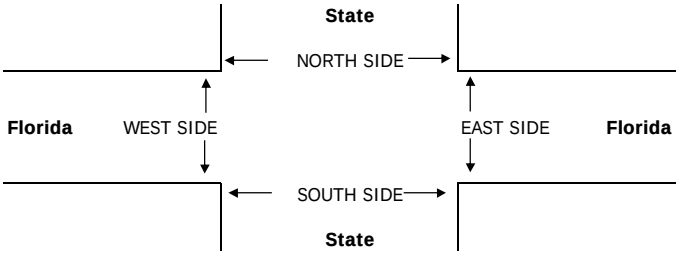
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	State	LOCATION #:	11
	EAST & WEST:	Florida	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☑ Add U-Turns to Left Turns

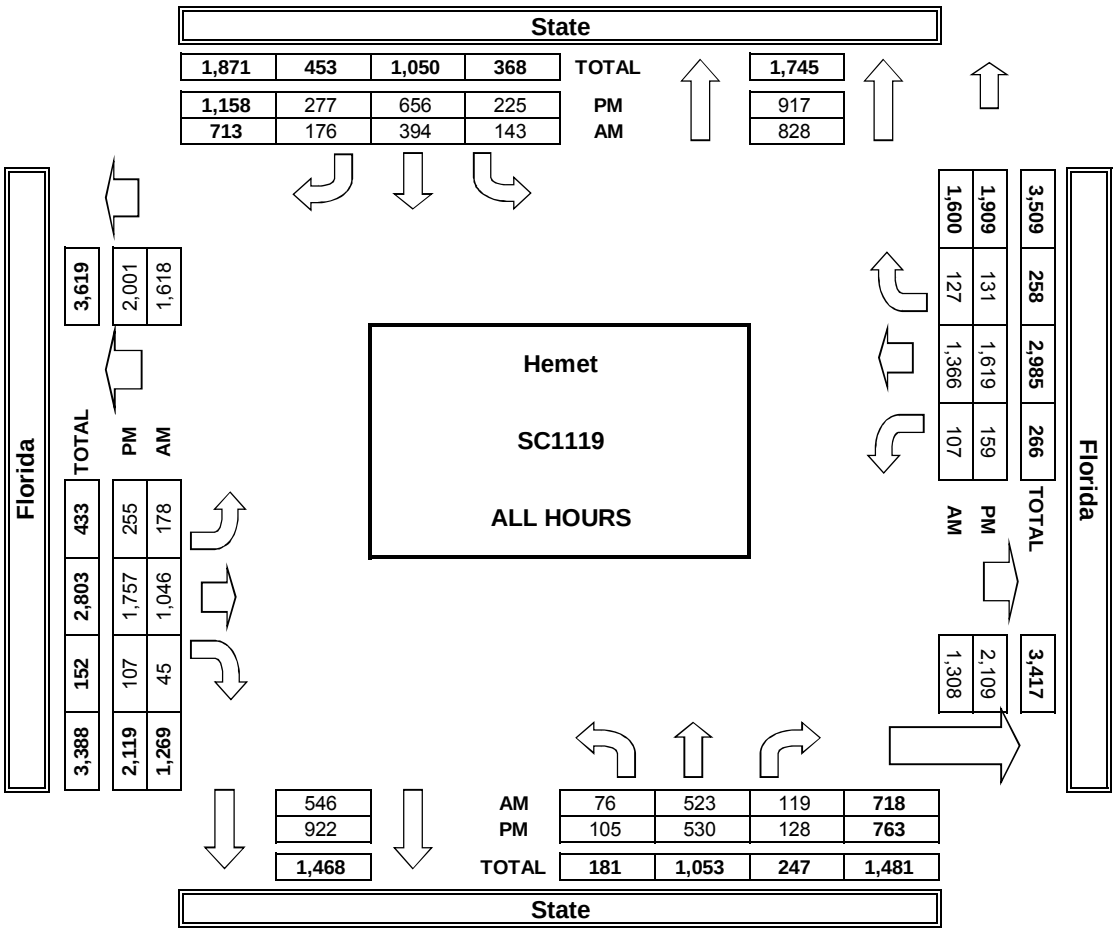
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	51	8	15	32	18	25	75	4	15	114	17	379	0	0	0	0	0
	7:15 AM	11	72	13	11	41	24	16	105	6	17	139	12	467	0	0	0	0	0
	7:30 AM	7	57	14	23	60	17	16	127	6	16	175	20	538	0	0	0	0	0
	7:45 AM	14	85	14	22	58	15	34	136	4	15	192	22	611	0	0	0	0	0
	8:00 AM	11	69	20	18	55	24	17	123	5	11	160	12	525	0	0	0	0	0
	8:15 AM	8	68	12	10	50	15	28	162	3	12	190	16	574	0	0	0	0	0
	8:30 AM	6	62	24	20	47	34	21	159	4	8	202	17	604	0	0	0	0	0
	8:45 AM	14	59	14	24	51	29	21	159	13	13	194	11	602	0	0	0	0	0
	VOLUMES	76	523	119	143	394	176	178	1,046	45	107	1,366	127	4,300	0	0	0	0	0
	APPROACH %	11%	73%	17%	20%	55%	25%	14%	82%	4%	7%	85%	8%						
	APP/DEPART	718	/	828	713	/	546	1,269	/	1,308	1,600	/	1,618	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	39	284	70	70	210	88	100	580	16	46	744	67	2,314					
	APPROACH %	10%	72%	18%	19%	57%	24%	14%	83%	2%	5%	87%	8%						
	PEAK HR FACTOR		0.869			0.911			0.902			0.936		0.947					
	APP/DEPART	393	/	451	368	/	272	696	/	720	857	/	871	0					
PM	4:00 PM	11	65	24	28	87	45	40	241	19	21	202	20	803	0	0	0	0	0
	4:15 PM	15	81	23	27	86	31	26	207	15	20	215	12	758	0	0	0	0	0
	4:30 PM	12	76	22	26	77	30	42	250	11	24	217	13	800	0	1	0	0	1
	4:45 PM	16	60	10	35	68	27	26	222	6	16	185	18	689	0	0	0	0	0
	5:00 PM	12	66	12	33	84	33	32	230	10	21	245	18	796	0	0	0	0	0
	5:15 PM	9	75	9	27	85	38	29	208	12	23	193	23	731	0	0	0	0	0
	5:30 PM	13	59	14	26	87	43	29	193	16	17	167	21	685	0	0	0	0	0
	5:45 PM	17	48	14	23	82	30	31	206	18	17	195	6	687	0	0	0	0	0
	VOLUMES	105	530	128	225	656	277	255	1,757	107	159	1,619	131	5,949	0	1	0	0	1
	APPROACH %	14%	69%	17%	19%	57%	24%	12%	83%	5%	8%	85%	7%						
	APP/DEPART	763	/	917	1,158	/	922	2,119	/	2,109	1,909	/	2,001	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	54	282	79	116	318	133	134	920	51	81	819	63	3,050					
	APPROACH %	13%	68%	19%	20%	56%	23%	12%	83%	5%	8%	85%	7%						
	PEAK HR FACTOR		0.872			0.886			0.912			0.948		0.950					
	APP/DEPART	415	/	480	567	/	450	1,105	/	1,114	963	/	1,006	0					

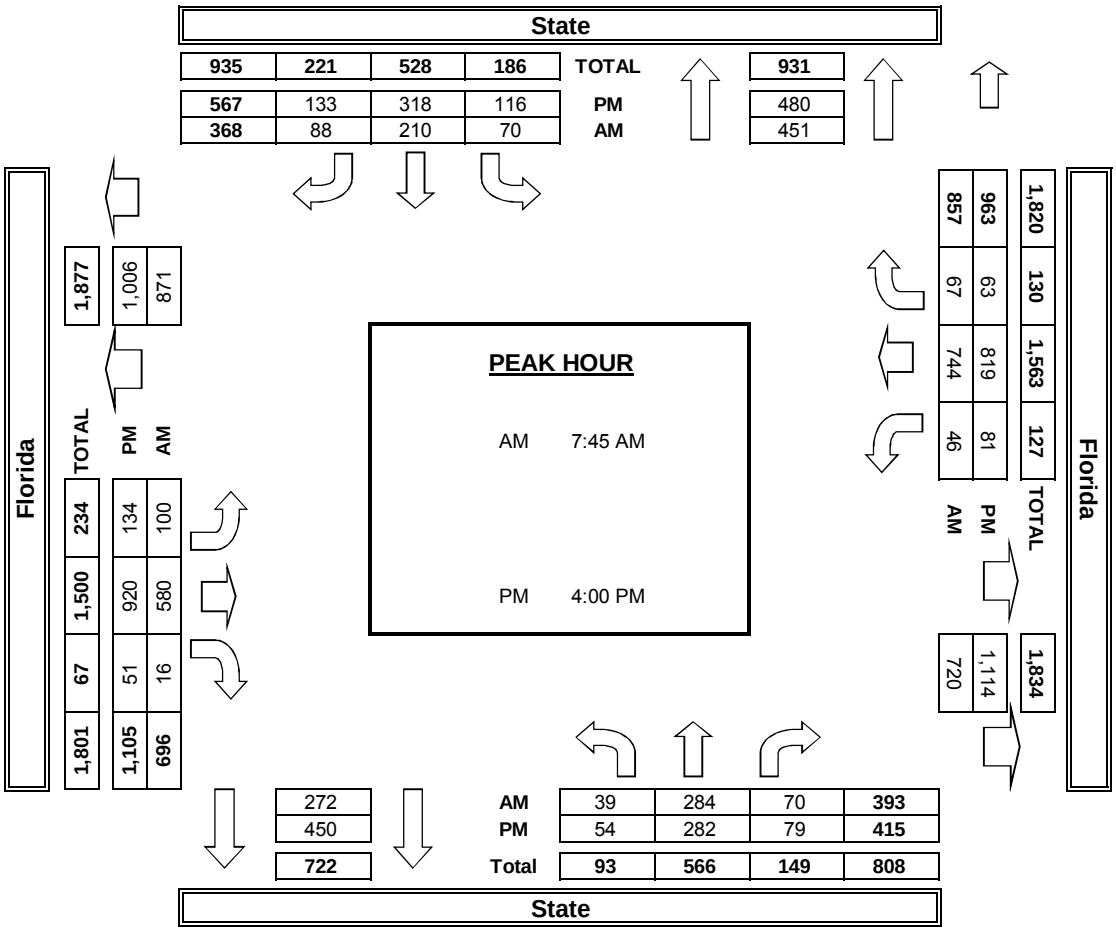


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

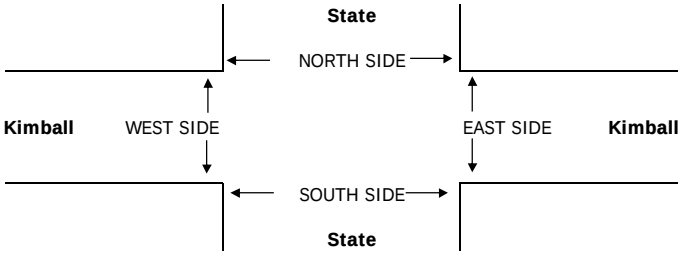
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	State	LOCATION #: 12
	EAST & WEST:	Kimball	CONTROL: STOP E/W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

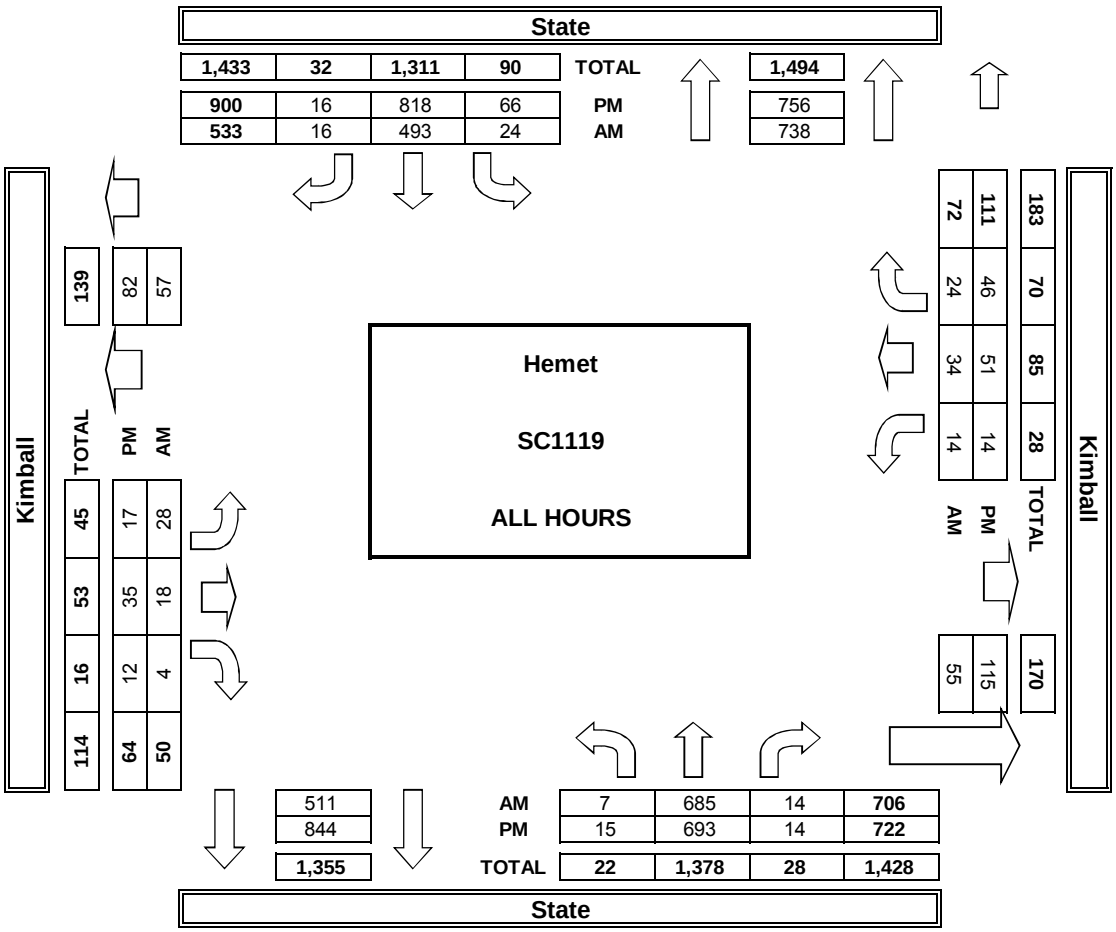
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Kimball			WESTBOUND Kimball				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	60	1	3	45	3	5	1	0	2	3	2	125	0	0	0	0	0
	7:15 AM	0	88	0	4	56	4	2	1	0	1	4	5	165	0	0	0	0	0
	7:30 AM	1	76	1	6	73	1	3	2	1	1	4	3	172	0	0	0	0	0
	7:45 AM	2	101	3	2	69	5	3	2	1	2	5	6	201	0	0	0	0	0
	8:00 AM	0	93	3	1	65	1	2	3	1	1	5	2	177	0	0	0	0	0
	8:15 AM	2	87	0	3	59	1	1	3	0	3	1	2	162	0	1	0	0	1
	8:30 AM	1	84	3	2	56	1	6	3	1	2	5	2	166	0	0	0	0	0
	8:45 AM	1	96	3	3	70	0	6	3	0	2	7	2	193	0	0	0	0	0
	VOLUMES	7	685	14	24	493	16	28	18	4	14	34	24	1,361	0	1	0	0	1
	APPROACH %	1%	97%	2%	5%	92%	3%	56%	36%	8%	19%	47%	33%						
	APP/DEPART	706	/	738	533	/	511	50	/	55	72	/	57	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	3	358	7	13	263	11	10	8	3	5	18	16	715					
	APPROACH %	1%	97%	2%	5%	92%	4%	48%	38%	14%	13%	46%	41%						
	PEAK HR FACTOR		0.868			0.897			0.875			0.750		0.889					
	APP/DEPART	368	/	384	287	/	271	21	/	28	39	/	32	0					
PM	4:00 PM	3	95	2	12	113	3	3	10	0	1	8	5	255	0	0	0	0	0
	4:15 PM	1	103	1	7	104	2	2	5	1	0	6	9	241	0	0	0	0	0
	4:30 PM	3	93	0	7	100	3	2	7	2	4	6	10	237	0	0	0	0	0
	4:45 PM	1	82	0	5	78	3	1	6	2	2	5	4	189	0	0	0	0	0
	5:00 PM	0	88	2	4	110	1	0	0	4	2	7	7	225	0	0	0	0	0
	5:15 PM	0	85	2	11	106	2	3	3	0	1	7	3	223	0	0	0	0	0
	5:30 PM	3	79	4	14	97	1	2	2	0	2	5	3	212	0	0	0	0	0
	5:45 PM	4	68	3	6	110	1	4	2	3	2	7	5	215	0	0	0	0	0
	VOLUMES	15	693	14	66	818	16	17	35	12	14	51	46	1,797	0	0	0	0	0
	APPROACH %	2%	96%	2%	7%	91%	2%	27%	55%	19%	13%	46%	41%						
	APP/DEPART	722	/	756	900	/	844	64	/	115	111	/	82	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	8	373	3	31	395	11	8	28	5	7	25	28	922					
	APPROACH %	2%	97%	1%	7%	90%	3%	20%	68%	12%	12%	42%	47%						
	PEAK HR FACTOR		0.914			0.854			0.788			0.750		0.904					
	APP/DEPART	384	/	409	437	/	407	41	/	62	60	/	44	0					

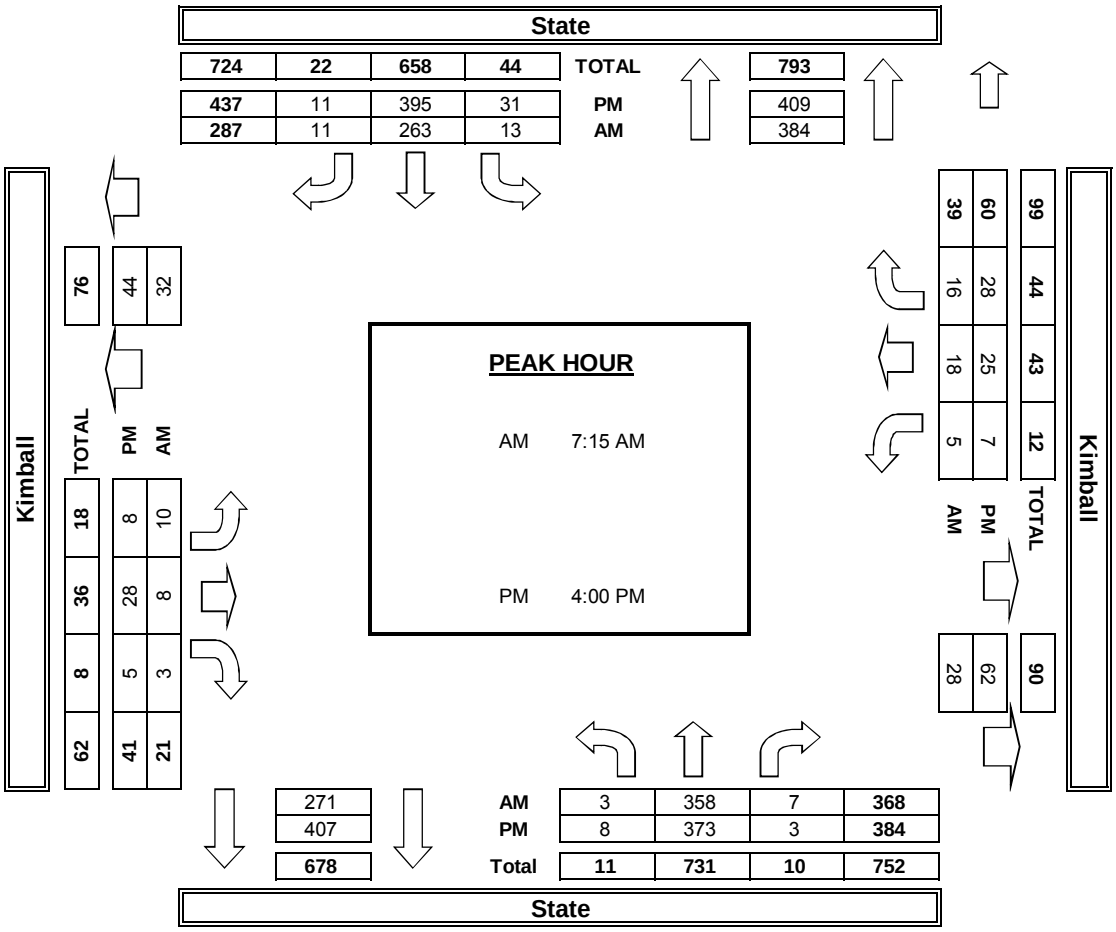


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

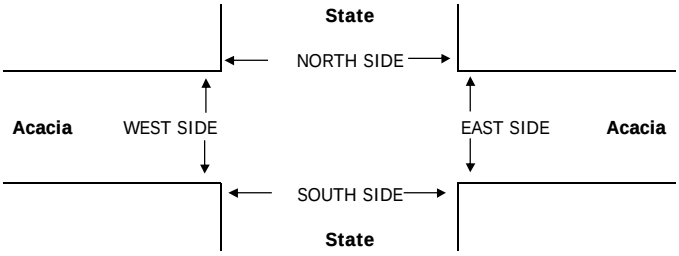
DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	State	LOCATION #:	13
	EAST & WEST:	Acacia	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

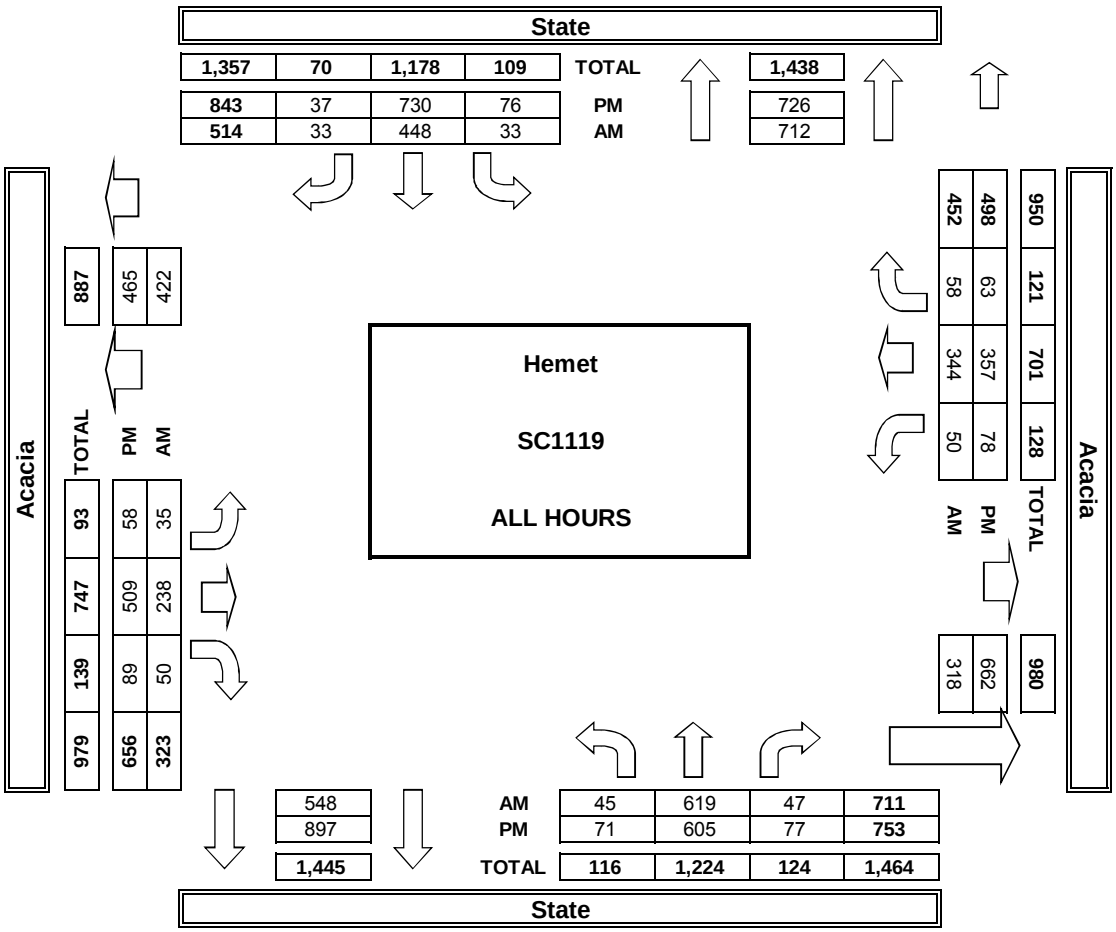
		NORTHBOUND State			SOUTHBOUND State			EASTBOUND Acacia			WESTBOUND Acacia				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	1	51	2	1	44	1	3	14	7	5	30	6	165	0	0	0	0	0
	7:15 AM	2	76	3	5	49	3	4	30	6	9	35	8	230	0	0	0	0	0
	7:30 AM	4	75	3	3	69	1	5	28	10	10	50	8	266	0	0	0	0	0
	7:45 AM	11	98	11	7	62	3	2	41	11	3	54	9	312	0	0	0	0	0
	8:00 AM	4	79	8	6	59	6	3	29	5	6	58	7	270	0	0	0	0	0
	8:15 AM	8	79	4	7	40	9	4	36	2	3	45	6	243	0	0	0	0	0
	8:30 AM	5	74	10	0	57	5	9	33	6	7	38	5	249	0	0	0	0	0
	8:45 AM	10	87	6	4	68	5	5	27	3	7	34	9	265	0	0	0	0	0
	VOLUMES	45	619	47	33	448	33	35	238	50	50	344	58	2,000	0	0	0	0	0
	APPROACH %	6%	87%	7%	6%	87%	6%	11%	74%	15%	11%	76%	13%						
	APP/DEPART	711	/	712	514	/	548	323	/	318	452	/	422	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	27	331	26	23	230	19	14	134	28	22	207	30	1,091					
	APPROACH %	7%	86%	7%	8%	85%	7%	8%	76%	16%	8%	80%	12%						
	PEAK HR FACTOR		0.800			0.932			0.815			0.912		0.874					
	APP/DEPART	384	/	375	272	/	280	176	/	183	259	/	253	0					
PM	4:00 PM	9	84	9	13	92	5	5	68	12	10	51	8	366	0	0	0	0	0
	4:15 PM	6	86	6	13	96	2	14	67	9	6	62	10	377	0	0	0	0	0
	4:30 PM	15	81	17	8	84	7	10	73	14	9	43	7	368	0	0	0	0	0
	4:45 PM	10	72	9	7	72	6	1	65	14	12	59	7	334	0	0	0	0	0
	5:00 PM	9	72	14	8	106	3	6	60	10	15	36	12	351	0	0	0	0	0
	5:15 PM	8	77	6	6	96	5	5	55	10	6	37	7	318	0	0	0	0	0
	5:30 PM	11	70	7	10	80	4	7	63	8	13	35	6	314	0	0	0	0	0
	5:45 PM	3	63	9	11	104	5	10	58	12	7	34	6	322	0	0	0	0	0
	VOLUMES	71	605	77	76	730	37	58	509	89	78	357	63	2,750	0	0	0	0	0
	APPROACH %	9%	80%	10%	9%	87%	4%	9%	78%	14%	16%	72%	13%						
	APP/DEPART	753	/	726	843	/	897	656	/	662	498	/	465	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	40	323	41	41	344	20	30	273	49	37	215	32	1,445					
	APPROACH %	10%	80%	10%	10%	85%	5%	9%	78%	14%	13%	76%	11%						
	PEAK HR FACTOR		0.894			0.912			0.907			0.910		0.958					
	APP/DEPART	404	/	385	405	/	430	352	/	355	284	/	275	0					

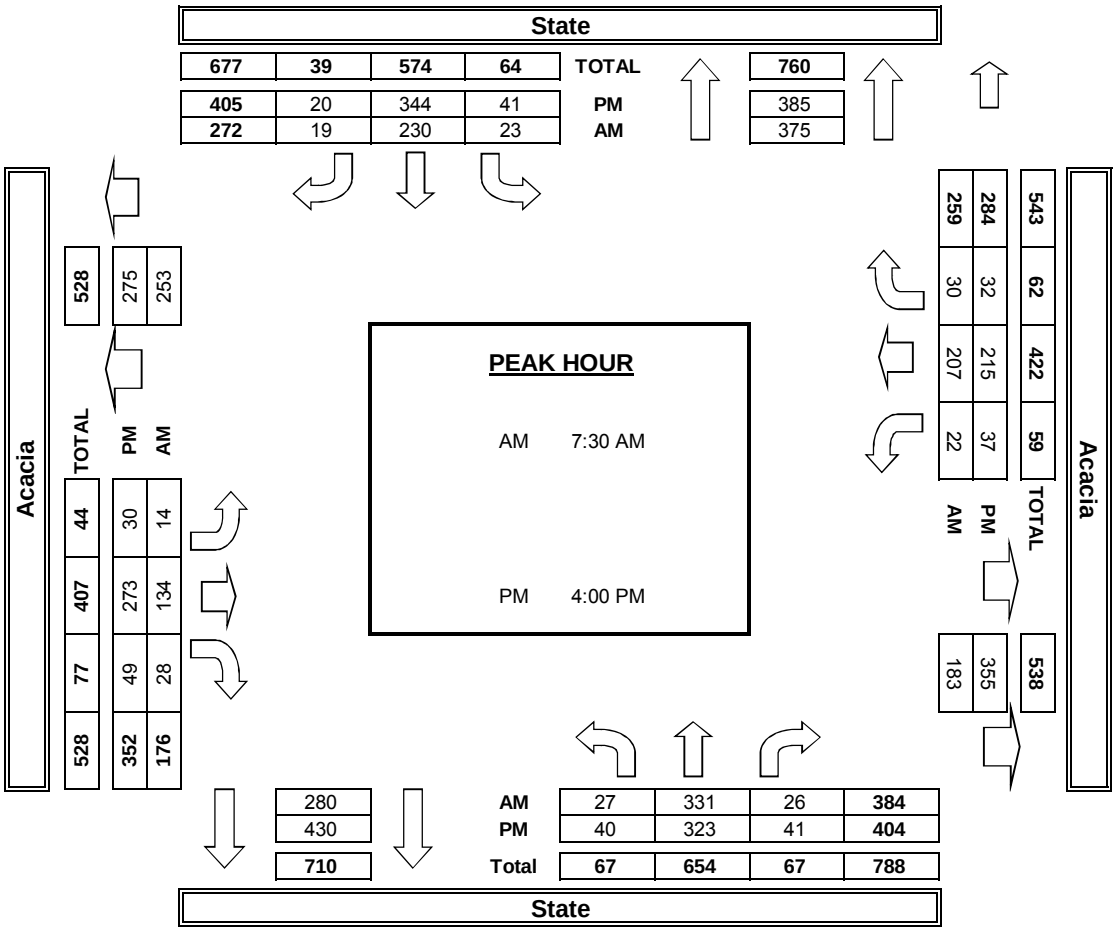


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	Buena Vista	LOCATION #:	14
	EAST & WEST:	Devonshire	CONTROL:	STOP ALL

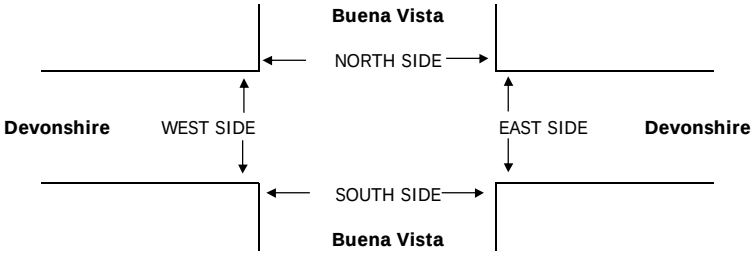
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

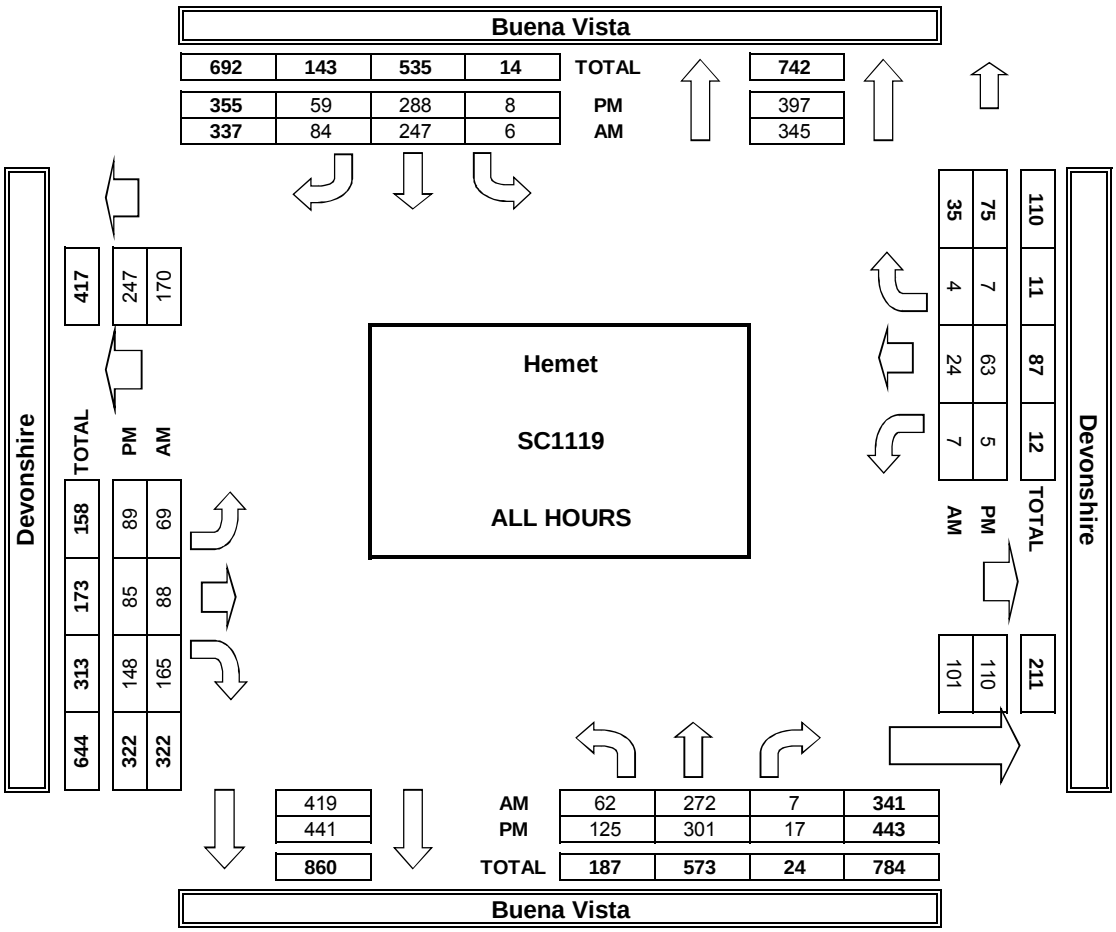
		NORTHBOUND Buena Vista			SOUTHBOUND Buena Vista			EASTBOUND Devonshire			WESTBOUND Devonshire				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	27	4	0	28	18	13	10	14	1	3	1	123	0	0	0	0	0
	7:15 AM	4	49	0	2	35	12	15	6	9	0	3	0	135	0	0	0	0	0
	7:30 AM	9	34	1	0	36	8	9	13	20	0	5	1	136	0	0	0	0	0
	7:45 AM	12	42	0	2	30	10	7	14	30	0	2	0	149	0	0	0	0	0
	8:00 AM	10	35	1	0	32	5	4	12	30	2	3	0	134	0	0	0	0	0
	8:15 AM	4	24	0	0	25	12	7	16	11	2	2	1	104	0	0	0	0	0
	8:30 AM	10	26	1	2	26	6	6	12	21	1	1	0	112	0	0	0	0	0
	8:45 AM	9	35	0	0	35	13	8	5	30	1	5	1	142	0	0	0	0	0
	VOLUMES	62	272	7	6	247	84	69	88	165	7	24	4	1,035	0	0	0	0	0
	APPROACH %	18%	80%	2%	2%	73%	25%	21%	27%	51%	20%	69%	11%						
	APP/DEPART	341	/	345	337	/	419	322	/	101	35	/	170	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	35	160	2	4	133	35	35	45	89	2	13	1	554					
	APPROACH %	18%	81%	1%	2%	77%	20%	21%	27%	53%	13%	81%	6%						
	PEAK HR FACTOR		0.912			0.878			0.828			0.667		0.930					
	APP/DEPART	197	/	196	172	/	224	169	/	51	16	/	83	0					
PM	4:00 PM	23	37	3	2	43	11	11	9	21	1	7	0	168	0	0	0	0	0
	4:15 PM	17	29	3	1	39	11	12	10	19	1	7	1	150	0	0	0	0	0
	4:30 PM	13	50	1	1	26	4	12	8	16	1	13	3	148	0	0	0	0	0
	4:45 PM	12	46	3	2	34	4	17	11	21	1	11	1	163	0	0	0	0	0
	5:00 PM	20	42	3	1	45	8	13	14	20	1	11	0	178	0	0	0	0	0
	5:15 PM	15	21	0	0	29	7	11	9	16	0	5	0	113	0	0	0	0	0
	5:30 PM	11	35	3	1	44	9	10	11	15	0	6	1	146	0	0	0	0	0
	5:45 PM	14	41	1	0	28	5	3	13	20	0	3	1	129	0	0	0	0	0
	VOLUMES	125	301	17	8	288	59	89	85	148	5	63	7	1,195	0	0	0	0	0
	APPROACH %	28%	68%	4%	2%	81%	17%	28%	26%	46%	7%	84%	9%						
	APP/DEPART	443	/	397	355	/	441	322	/	110	75	/	247	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	62	167	10	5	144	27	54	43	76	4	42	5	639					
	APPROACH %	26%	70%	4%	3%	82%	15%	31%	25%	44%	8%	82%	10%						
	PEAK HR FACTOR		0.919			0.815			0.883			0.750		0.897					
	APP/DEPART	239	/	226	176	/	224	173	/	58	51	/	131	0					

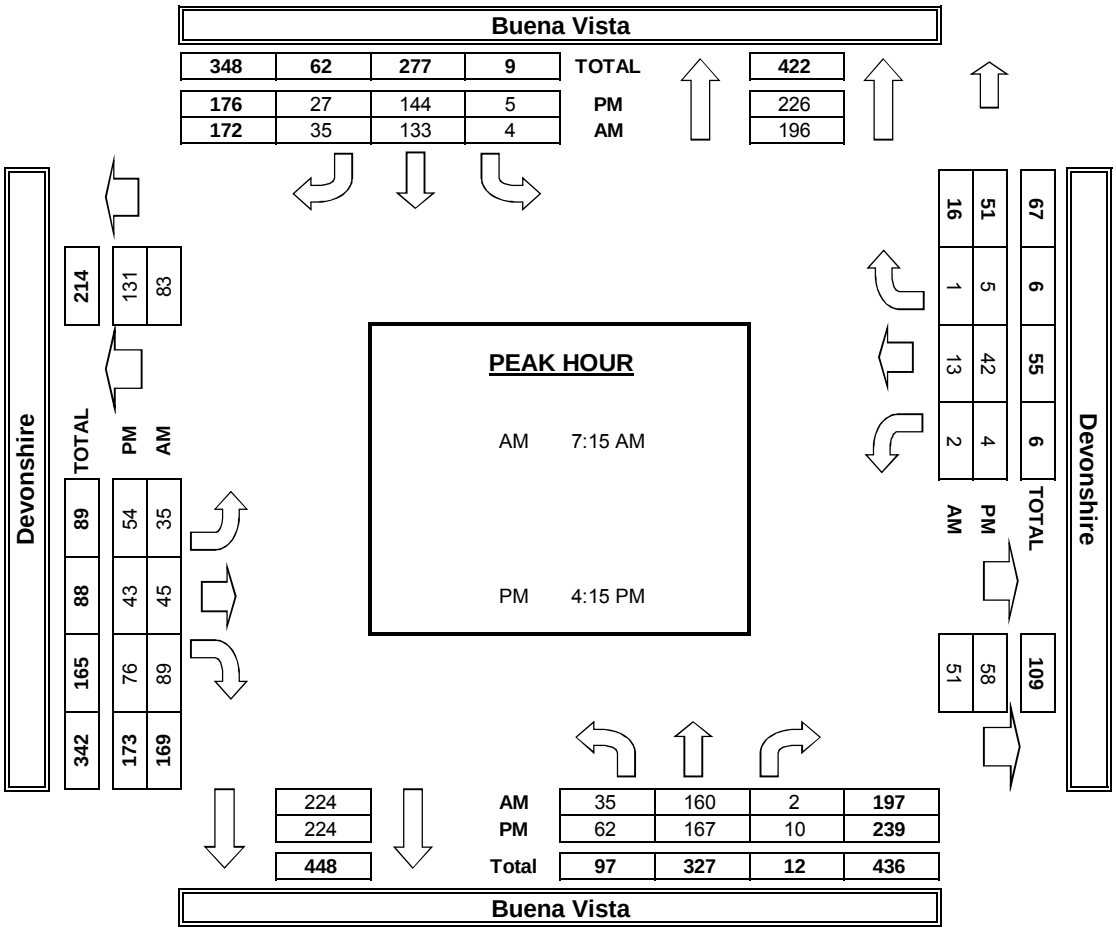


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

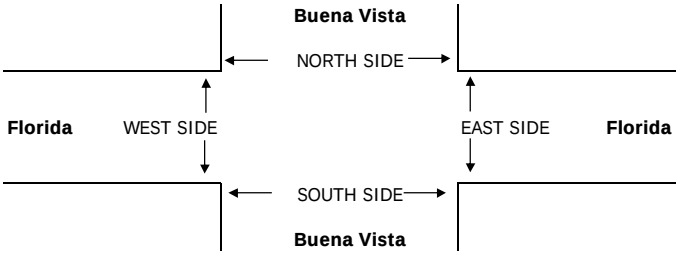
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Buena Vista	LOCATION #: 15
	EAST & WEST:	Florida	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

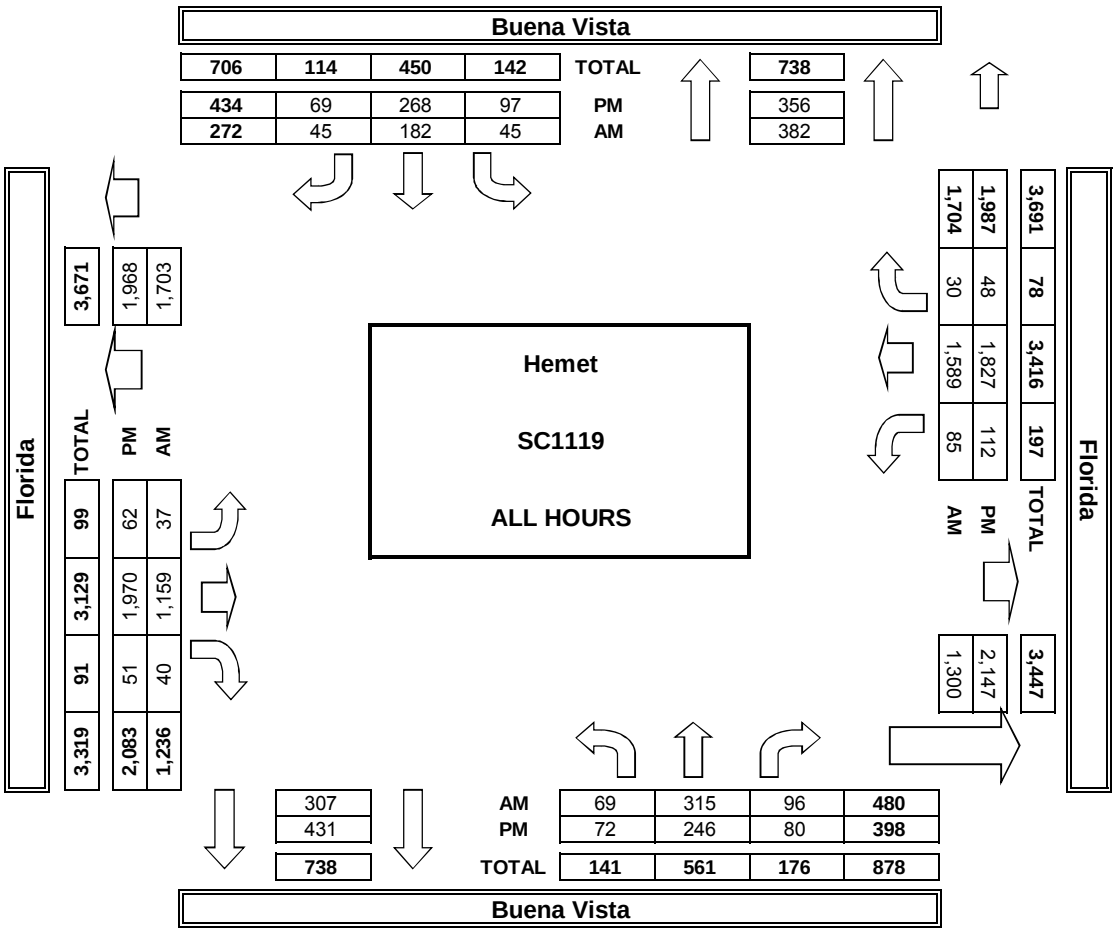
		NORTHBOUND Buena Vista			SOUTHBOUND Buena Vista			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	25	7	1	18	2	7	98	5	12	142	2	327	0	0	0	0	0
	7:15 AM	13	39	14	4	20	8	2	117	9	10	149	3	388	0	0	0	0	0
	7:30 AM	1	37	15	4	27	6	2	133	5	22	207	4	463	0	0	0	0	0
	7:45 AM	14	57	20	9	27	8	4	148	5	13	231	8	544	0	0	0	0	0
	8:00 AM	9	53	9	7	24	6	3	149	2	11	191	4	468	0	0	0	0	0
	8:15 AM	9	34	9	6	26	9	8	171	4	6	215	1	498	0	0	0	0	0
	8:30 AM	7	30	9	5	13	4	4	180	4	6	226	2	490	0	0	0	0	0
	8:45 AM	8	40	13	9	27	2	7	163	6	5	228	6	514	0	0	0	0	0
	VOLUMES	69	315	96	45	182	45	37	1,159	40	85	1,589	30	3,692	0	0	0	0	0
	APPROACH %	14%	66%	20%	17%	67%	17%	3%	94%	3%	5%	93%	2%						
	APP/DEPART	480	/	382	272	/	307	1,236	/	1,300	1,704	/	1,703	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	39	174	47	27	90	27	19	648	15	36	863	15	2,000					
	APPROACH %	15%	67%	18%	19%	63%	19%	3%	95%	2%	4%	94%	2%						
	PEAK HR FACTOR		0.714			0.818			0.907			0.907		0.919					
	APP/DEPART	260	/	208	144	/	141	682	/	722	914	/	929	0					
PM	4:00 PM	13	43	9	17	28	9	6	258	6	13	225	5	632	0	0	0	0	0
	4:15 PM	9	26	12	13	37	7	8	252	9	14	240	6	633	0	0	0	0	0
	4:30 PM	4	32	10	11	29	11	10	259	3	20	245	6	640	0	0	0	0	0
	4:45 PM	8	42	6	15	42	8	7	253	7	19	215	6	628	0	0	0	0	0
	5:00 PM	12	24	13	10	43	13	7	259	6	21	258	6	672	0	0	0	0	0
	5:15 PM	7	22	8	10	34	5	8	225	7	8	236	6	576	0	0	0	0	0
	5:30 PM	7	22	12	7	27	10	10	224	4	10	191	7	531	0	0	0	0	0
	5:45 PM	12	35	10	14	28	6	6	240	9	7	217	6	590	0	0	0	0	0
	VOLUMES	72	246	80	97	268	69	62	1,970	51	112	1,827	48	4,902	0	0	0	0	0
	APPROACH %	18%	62%	20%	22%	62%	16%	3%	95%	2%	6%	92%	2%						
	APP/DEPART	398	/	356	434	/	431	2,083	/	2,147	1,987	/	1,968	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	33	124	41	49	151	39	32	1,023	25	74	958	24	2,573					
	APPROACH %	17%	63%	21%	21%	63%	16%	3%	95%	2%	7%	91%	2%						
	PEAK HR FACTOR		0.884			0.905			0.993			0.926		0.957					
	APP/DEPART	198	/	180	239	/	250	1,080	/	1,113	1,056	/	1,030	0					

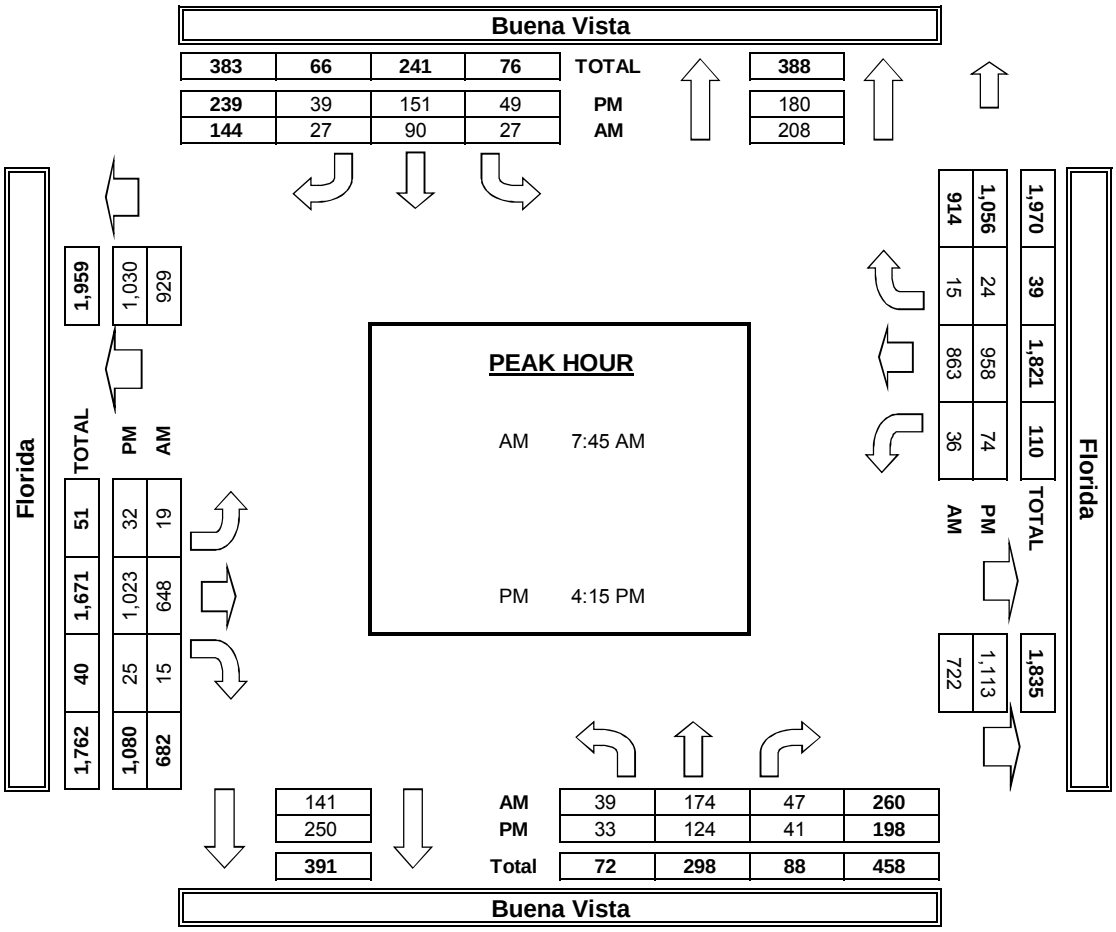


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

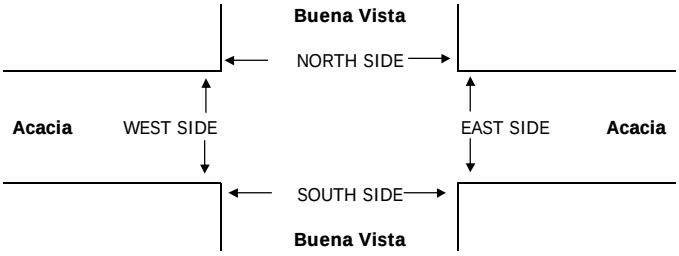
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Buena Vista	LOCATION #: 16
	EAST & WEST:	Acacia	CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

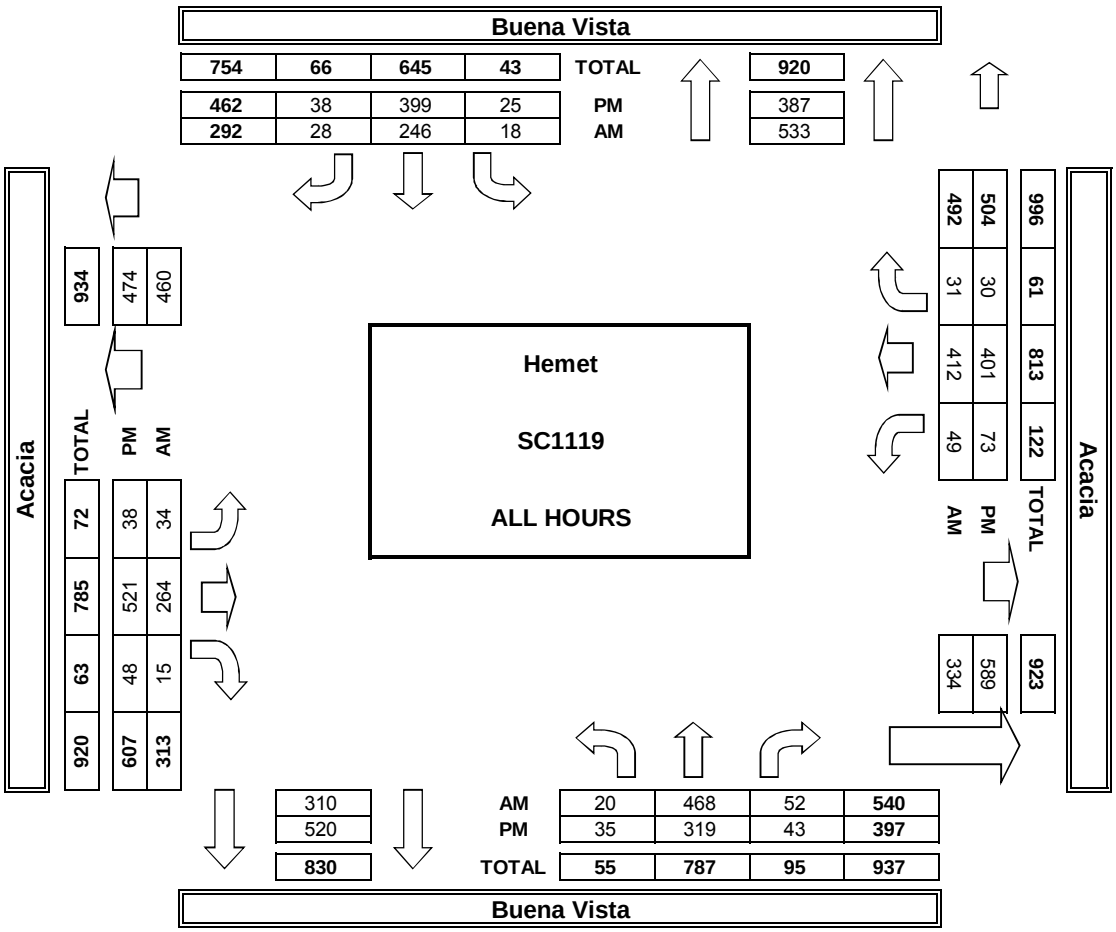
		NORTHBOUND Buena Vista			SOUTHBOUND Buena Vista			EASTBOUND Acacia			WESTBOUND Acacia				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	44	4	4	28	4	3	18	2	6	27	6	148	0	0	0	0	0
	7:15 AM	1	66	6	2	31	3	2	36	2	8	45	1	203	0	0	0	0	0
	7:30 AM	5	59	4	2	46	4	1	34	0	10	63	3	231	0	0	0	0	0
	7:45 AM	5	87	8	3	37	2	8	44	3	5	69	3	274	0	0	0	0	0
	8:00 AM	1	74	11	6	24	3	4	35	3	7	64	2	234	0	0	0	0	0
	8:15 AM	1	40	6	1	28	5	7	36	2	5	51	9	191	0	0	0	0	0
	8:30 AM	1	40	6	0	24	3	6	31	3	5	49	3	171	0	0	0	0	0
	8:45 AM	4	58	7	0	28	4	3	30	0	3	44	4	185	0	0	0	0	0
	VOLUMES	20	468	52	18	246	28	34	264	15	49	412	31	1,637	0	0	0	0	0
	APPROACH %	4%	87%	10%	6%	84%	10%	11%	84%	5%	10%	84%	6%						
	APP/DEPART	540	/	533	292	/	310	313	/	334	492	/	460	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	12	286	29	13	138	12	15	149	8	30	241	9	942					
	APPROACH %	4%	87%	9%	8%	85%	7%	9%	87%	5%	11%	86%	3%						
	PEAK HR FACTOR		0.818			0.784			0.782			0.909		0.859					
	APP/DEPART	327	/	310	163	/	176	172	/	191	280	/	265	0					
PM	4:00 PM	4	50	6	2	49	6	8	69	10	11	51	6	272	0	0	0	0	0
	4:15 PM	5	31	2	7	48	2	6	64	4	4	63	5	241	0	0	0	0	0
	4:30 PM	1	42	7	2	49	7	5	73	7	8	53	3	257	0	0	0	0	0
	4:45 PM	6	41	3	5	60	14	7	58	8	7	60	3	272	0	0	0	0	0
	5:00 PM	8	41	7	2	63	1	2	69	5	12	52	4	266	0	0	0	0	0
	5:15 PM	1	28	7	4	47	6	3	60	4	15	39	2	216	0	0	0	0	0
	5:30 PM	6	38	6	1	48	1	4	64	5	10	39	5	227	0	0	0	0	0
	5:45 PM	4	48	5	2	35	1	3	64	5	6	44	2	219	0	0	0	0	0
	VOLUMES	35	319	43	25	399	38	38	521	48	73	401	30	1,970	0	0	0	0	0
	APPROACH %	9%	80%	11%	5%	86%	8%	6%	86%	8%	14%	80%	6%						
	APP/DEPART	397	/	387	462	/	520	607	/	589	504	/	474	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	16	164	18	16	206	29	26	264	29	30	227	17	1,042					
	APPROACH %	8%	83%	9%	6%	82%	12%	8%	83%	9%	11%	83%	6%						
	PEAK HR FACTOR		0.825			0.794			0.917			0.951		0.958					
	APP/DEPART	198	/	207	251	/	265	319	/	298	274	/	272	0					

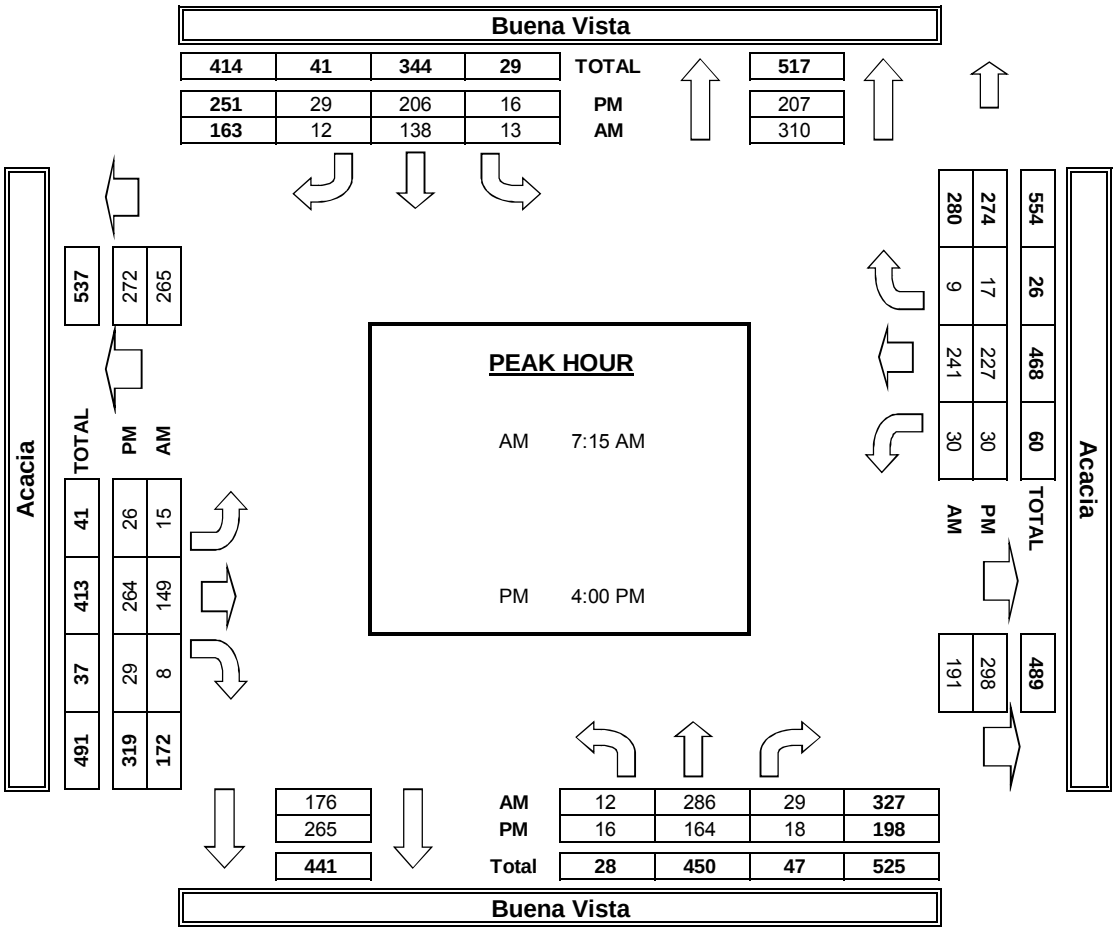


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #:	SC1119
	NORTH & SOUTH:	Santa Fe	LOCATION #:	17
	EAST & WEST:	Florida	CONTROL:	SIGNAL

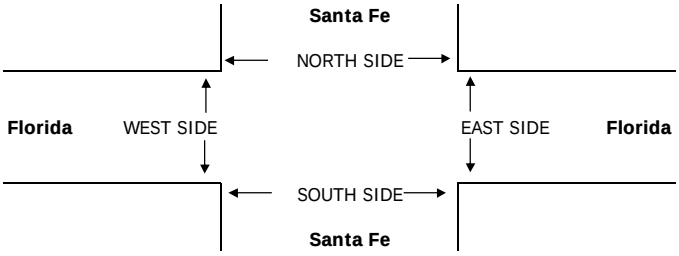
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

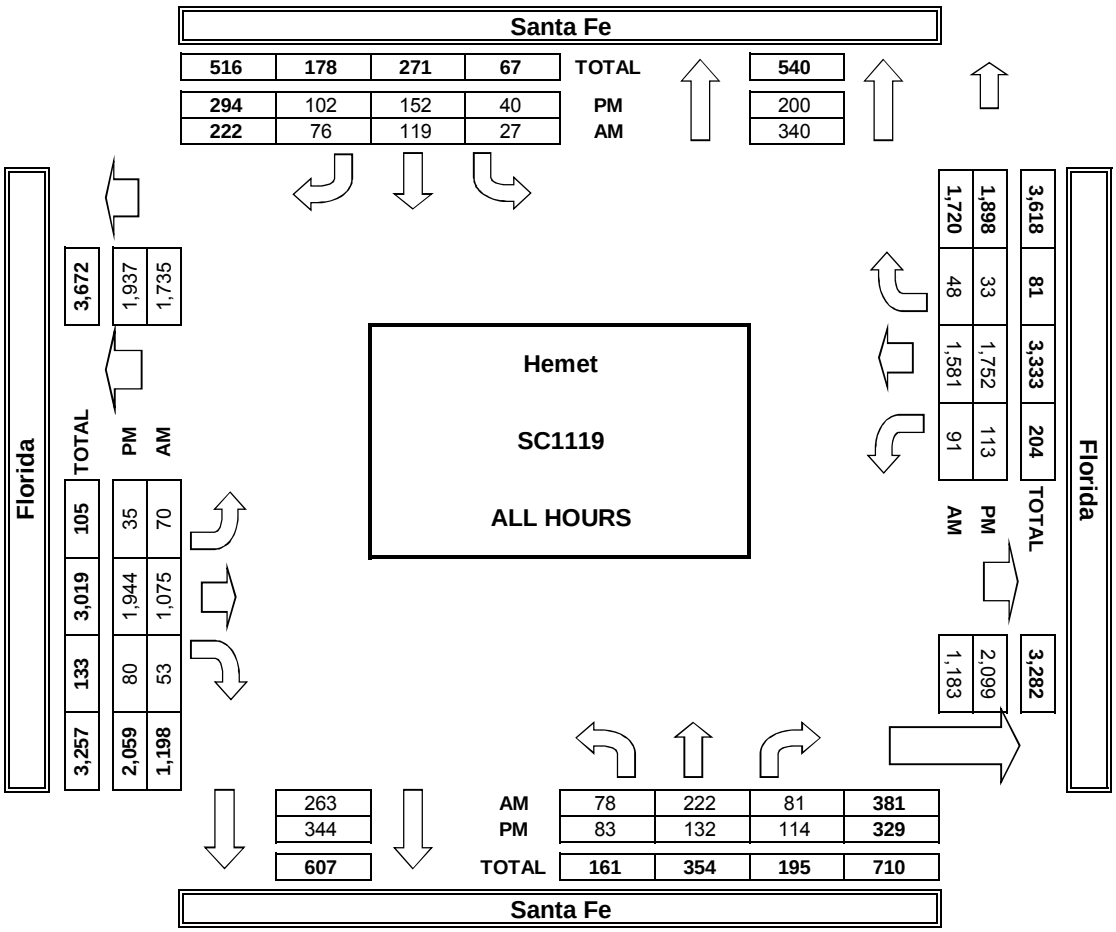
		NORTHBOUND Santa Fe			SOUTHBOUND Santa Fe			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	5	10	4	1	3	3	6	86	4	13	144	2	281	0	0	0	0	0
	7:15 AM	9	29	9	2	15	8	6	101	4	5	171	5	364	0	0	0	0	0
	7:30 AM	13	28	12	5	23	6	12	122	11	12	207	4	455	0	0	0	0	0
	7:45 AM	6	51	13	3	28	15	11	150	11	18	232	10	548	0	0	0	0	0
	8:00 AM	10	30	15	7	19	11	15	128	6	8	192	9	450	0	0	0	0	0
	8:15 AM	12	35	13	1	11	7	8	155	2	11	191	4	450	0	0	0	0	0
	8:30 AM	9	17	8	5	8	15	8	176	5	13	218	8	490	0	0	0	0	0
	8:45 AM	14	22	7	3	12	11	4	157	10	11	226	6	483	0	0	0	0	0
	VOLUMES	78	222	81	27	119	76	70	1,075	53	91	1,581	48	3,521	0	0	0	0	0
	APPROACH %	20%	58%	21%	12%	54%	34%	6%	90%	4%	5%	92%	3%						
	APP/DEPART	381	/	340	222	/	263	1,198	/	1,183	1,720	/	1,735	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	37	133	49	16	66	48	42	609	24	50	833	31	1,938					
	APPROACH %	17%	61%	22%	12%	51%	37%	6%	90%	4%	5%	91%	3%						
	PEAK HR FACTOR		0.782			0.707			0.893			0.879		0.884					
	APP/DEPART	219	/	206	130	/	140	675	/	674	914	/	918	0					
PM	4:00 PM	12	26	14	9	31	15	5	254	17	14	230	8	635	0	0	0	0	0
	4:15 PM	8	17	18	2	12	10	5	238	11	14	237	3	575	0	0	0	0	0
	4:30 PM	10	14	17	7	18	14	5	256	6	12	233	8	600	0	0	0	0	0
	4:45 PM	10	20	12	4	24	14	4	264	10	14	212	2	590	0	0	0	1	1
	5:00 PM	12	15	14	9	27	20	8	240	13	16	241	4	619	0	0	0	0	0
	5:15 PM	9	15	12	2	16	10	4	223	10	17	220	2	540	0	0	0	0	0
	5:30 PM	12	10	15	3	12	8	3	210	6	18	187	3	487	0	0	0	0	0
	5:45 PM	10	15	12	4	12	11	1	259	7	8	192	3	534	0	0	0	0	0
	VOLUMES	83	132	114	40	152	102	35	1,944	80	113	1,752	33	4,580	0	0	0	1	1
	APPROACH %	25%	40%	35%	14%	52%	35%	2%	94%	4%	6%	92%	2%						
	APP/DEPART	329	/	200	294	/	344	2,059	/	2,099	1,898	/	1,937	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	40	77	61	22	85	53	19	1,012	44	54	912	21	2,400					
	APPROACH %	22%	43%	34%	14%	53%	33%	2%	94%	4%	5%	92%	2%						
	PEAK HR FACTOR		0.856			0.727			0.967			0.971		0.945					
	APP/DEPART	178	/	117	160	/	182	1,075	/	1,096	987	/	1,005	0					

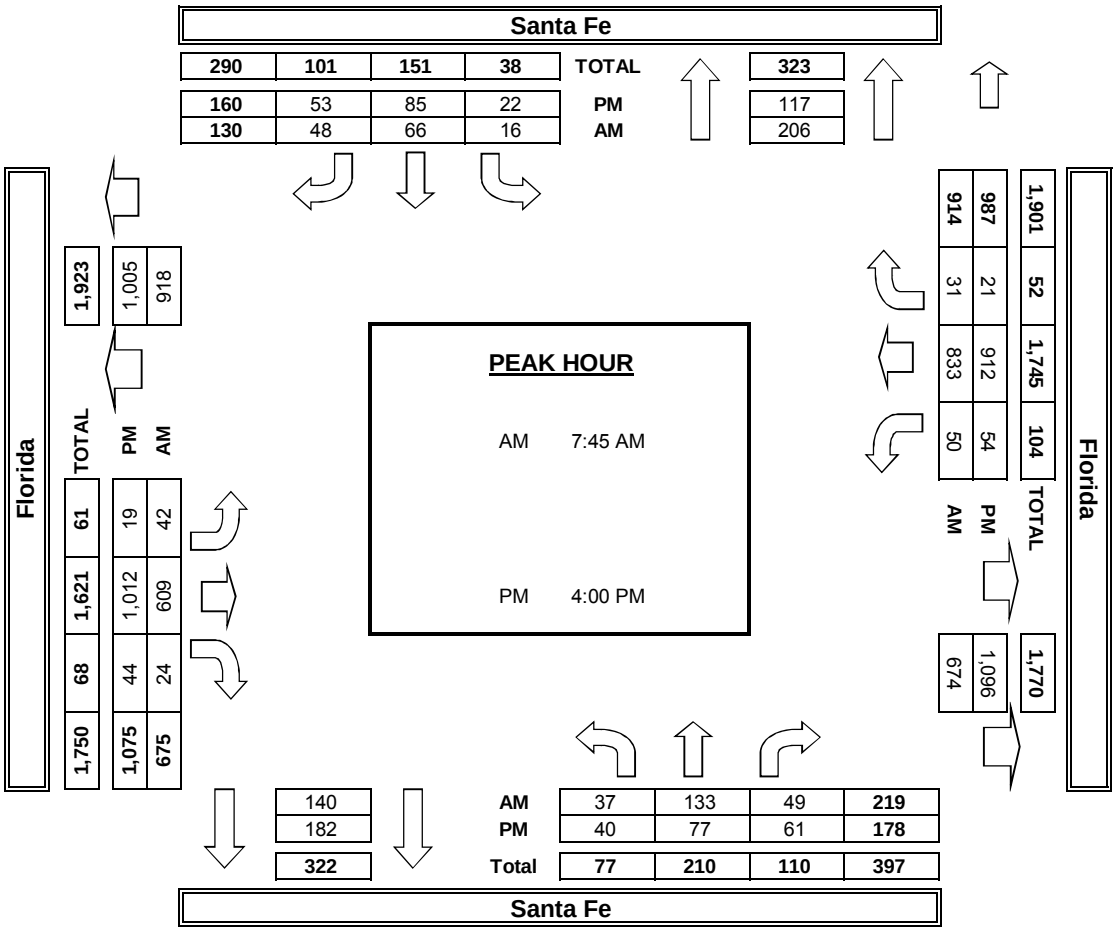


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

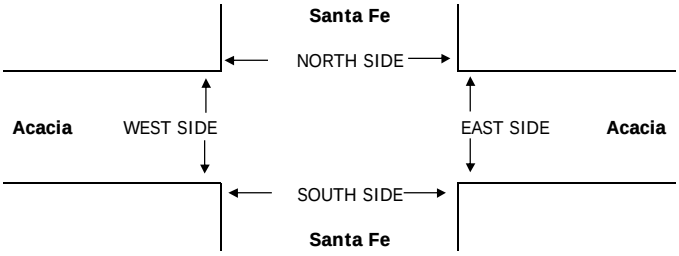
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	Santa Fe	LOCATION #: 18
	EAST & WEST:	Acacia	CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

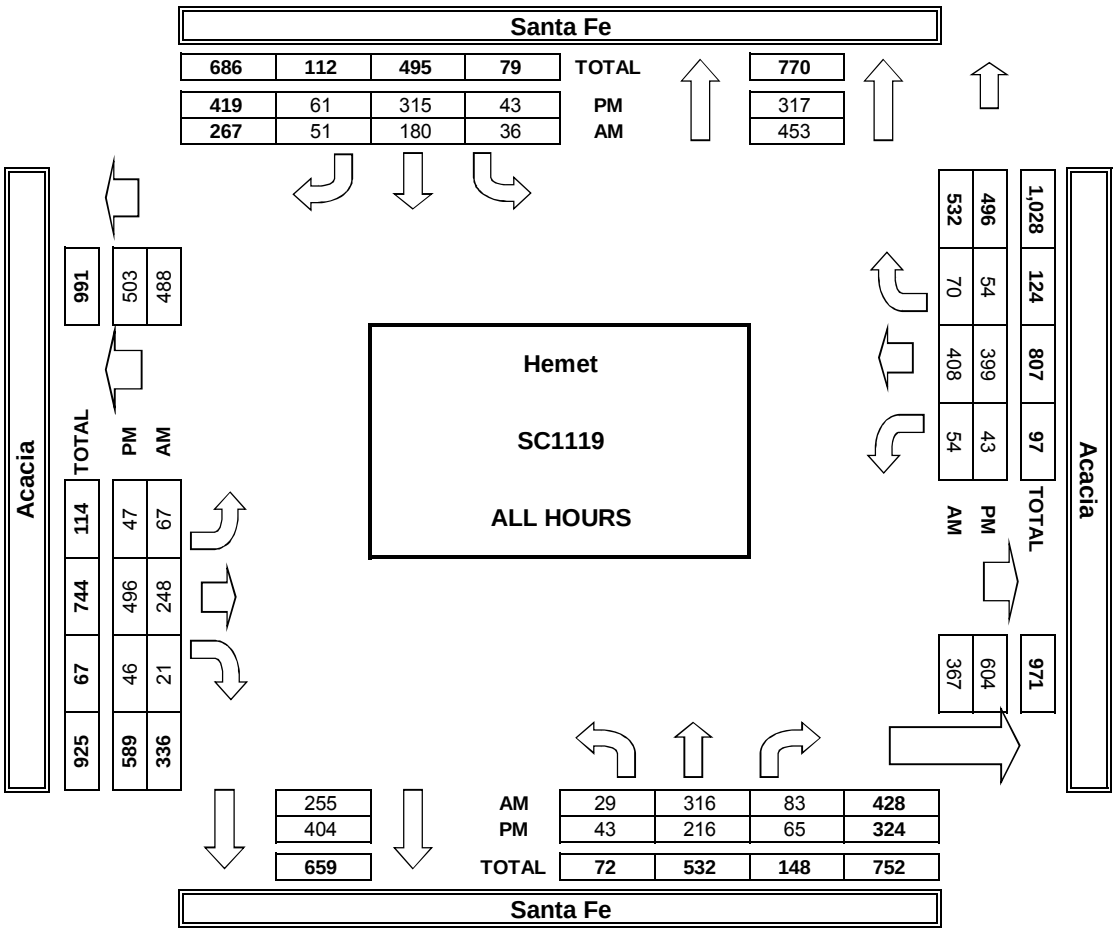
		NORTHBOUND Santa Fe			SOUTHBOUND Santa Fe			EASTBOUND Acacia			WESTBOUND Acacia				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	3	16	5	2	17	0	6	20	1	2	40	2	114	0	0	0	0	0
	7:15 AM	2	38	8	3	15	5	7	35	1	2	45	8	169	0	0	0	0	0
	7:30 AM	5	42	8	4	28	8	9	24	5	4	62	14	213	0	0	0	0	0
	7:45 AM	7	67	11	10	36	11	11	35	4	4	59	8	263	0	0	0	0	0
	8:00 AM	1	39	11	6	21	6	8	40	6	4	58	9	209	0	0	0	0	0
	8:15 AM	3	46	9	4	18	5	6	37	3	9	57	14	211	0	0	0	0	0
	8:30 AM	5	30	20	4	20	6	9	30	0	17	46	8	195	0	0	0	0	0
	8:45 AM	3	38	11	3	25	10	11	27	1	12	41	7	189	0	0	0	0	0
	VOLUMES	29	316	83	36	180	51	67	248	21	54	408	70	1,563	0	0	0	0	0
	APPROACH %	7%	74%	19%	13%	67%	19%	20%	74%	6%	10%	77%	13%						
	APP/DEPART	428	/	453	267	/	255	336	/	367	532	/	488	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	16	194	39	24	103	30	34	136	18	21	236	45	896					
	APPROACH %	6%	78%	16%	15%	66%	19%	18%	72%	10%	7%	78%	15%						
	PEAK HR FACTOR		0.732			0.689			0.870			0.944		0.852					
	APP/DEPART	249	/	273	157	/	142	188	/	199	302	/	282	0					
PM	4:00 PM	6	31	12	7	52	8	4	62	6	2	61	8	259	0	0	0	0	0
	4:15 PM	9	31	5	3	41	5	3	67	7	7	51	5	234	0	0	0	0	0
	4:30 PM	3	24	6	4	29	7	5	64	7	10	57	5	221	0	0	0	0	0
	4:45 PM	6	27	12	3	38	7	10	58	3	5	57	6	232	0	0	0	0	0
	5:00 PM	7	29	5	7	47	11	7	67	5	7	46	16	254	0	0	0	0	0
	5:15 PM	3	23	9	8	47	10	8	56	7	5	49	5	230	0	0	0	0	0
	5:30 PM	4	27	8	3	35	8	6	61	5	1	40	3	201	0	0	0	0	0
	5:45 PM	5	24	8	8	26	5	4	61	6	6	38	6	197	0	0	0	0	0
	VOLUMES	43	216	65	43	315	61	47	496	46	43	399	54	1,828	0	0	0	0	0
	APPROACH %	13%	67%	20%	10%	75%	15%	8%	84%	8%	9%	80%	11%						
	APP/DEPART	324	/	317	419	/	404	589	/	604	496	/	503	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	24	113	35	17	160	27	22	251	23	24	226	24	946					
	APPROACH %	14%	66%	20%	8%	78%	13%	7%	85%	8%	9%	82%	9%						
	PEAK HR FACTOR		0.878			0.761			0.961			0.951		0.913					
	APP/DEPART	172	/	159	204	/	207	296	/	303	274	/	277	0					

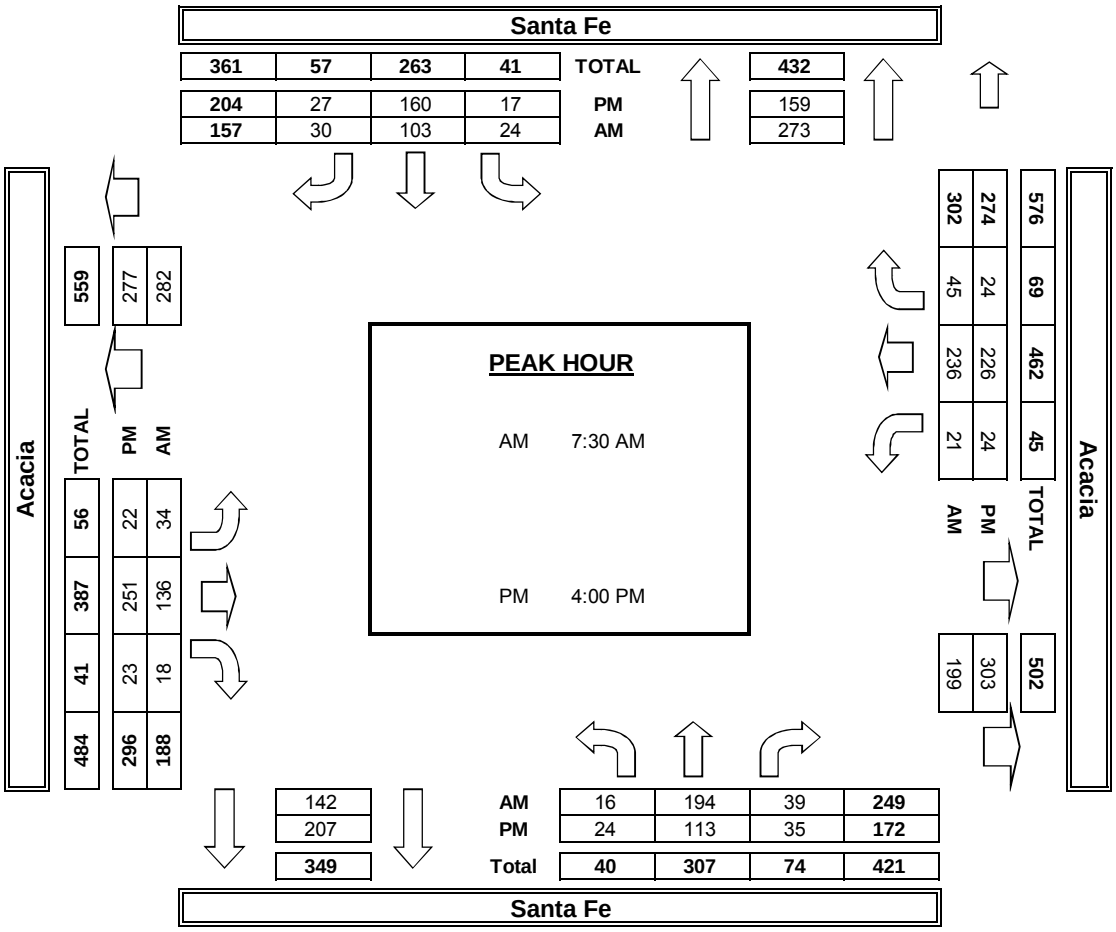


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T816

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

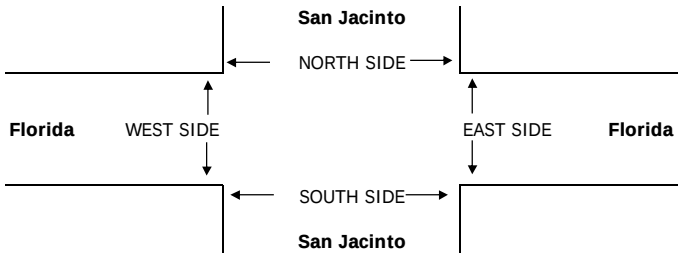
DATE:			
Wed, Nov 9, 16	LOCATION:	Hemet	PROJECT #: SC1119
	NORTH & SOUTH:	San Jacinto	LOCATION #: 19
	EAST & WEST:	Florida	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

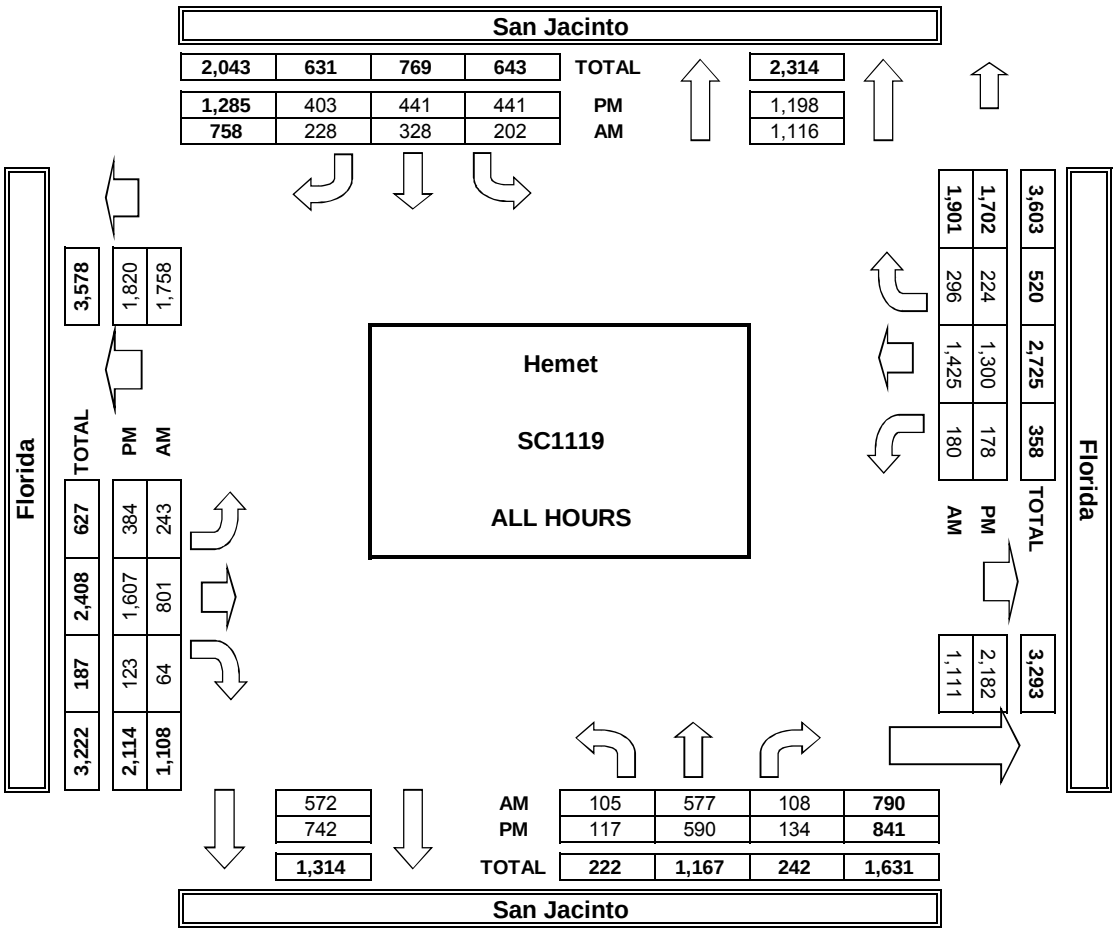
		NORTHBOUND San Jacinto			SOUTHBOUND San Jacinto			EASTBOUND Florida			WESTBOUND Florida				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1.5	ST 0.5	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	7	76	6	17	36	22	20	59	5	14	142	23	427	0	0	0	0	0
	7:15 AM	4	61	11	15	39	18	18	79	5	16	152	39	457	0	0	0	0	0
	7:30 AM	18	97	18	32	51	21	21	89	8	27	205	42	629	0	0	0	0	0
	7:45 AM	21	87	17	30	34	38	39	107	9	25	208	46	661	0	0	0	0	0
	8:00 AM	8	72	13	26	46	28	37	101	6	20	175	39	571	0	0	0	0	0
	8:15 AM	23	70	17	30	37	27	36	115	13	31	152	34	585	0	0	0	0	0
	8:30 AM	13	62	13	24	50	35	37	128	13	24	206	45	650	0	0	0	0	0
	8:45 AM	11	52	13	28	35	39	35	123	5	23	185	28	577	0	0	0	0	0
	VOLUMES	105	577	108	202	328	228	243	801	64	180	1,425	296	4,557	0	0	0	0	0
	APPROACH %	13%	73%	14%	27%	43%	30%	22%	72%	6%	9%	75%	16%						
	APP/DEPART	790	/	1,116	758	/	572	1,108	/	1,111	1,901	/	1,758	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	65	291	60	110	167	128	149	451	41	100	741	164	2,467					
	APPROACH %	16%	70%	14%	27%	41%	32%	23%	70%	6%	10%	74%	16%						
	PEAK HR FACTOR		0.832			0.929			0.900			0.901		0.933					
	APP/DEPART	416	/	604	405	/	308	641	/	621	1,005	/	934	0					
PM	4:00 PM	12	68	26	62	64	50	47	219	10	23	170	45	796	0	0	0	0	0
	4:15 PM	17	79	16	48	40	48	63	178	13	25	174	26	727	0	0	0	0	0
	4:30 PM	15	68	20	54	67	66	52	219	11	21	165	31	789	0	0	0	0	0
	4:45 PM	16	83	14	64	58	50	50	205	26	19	143	26	754	0	0	0	0	0
	5:00 PM	19	73	15	77	61	65	47	209	18	32	164	30	810	0	0	0	0	0
	5:15 PM	11	67	12	48	54	42	35	204	18	20	194	19	724	0	0	0	0	0
	5:30 PM	10	67	14	49	56	47	44	165	11	21	154	29	667	0	0	0	0	0
	5:45 PM	17	85	17	39	41	35	46	208	16	17	136	18	675	0	0	0	0	0
	VOLUMES	117	590	134	441	441	403	384	1,607	123	178	1,300	224	5,942	0	0	0	0	0
	APPROACH %	14%	70%	16%	34%	34%	31%	18%	76%	6%	10%	76%	13%						
	APP/DEPART	841	/	1,198	1,285	/	742	2,114	/	2,182	1,702	/	1,820	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	67	303	65	243	226	229	212	811	68	97	646	113	3,080					
	APPROACH %	15%	70%	15%	35%	32%	33%	19%	74%	6%	11%	75%	13%						
	PEAK HR FACTOR		0.962			0.860			0.967			0.947		0.951					
	APP/DEPART	435	/	628	698	/	391	1,091	/	1,119	856	/	942	0					

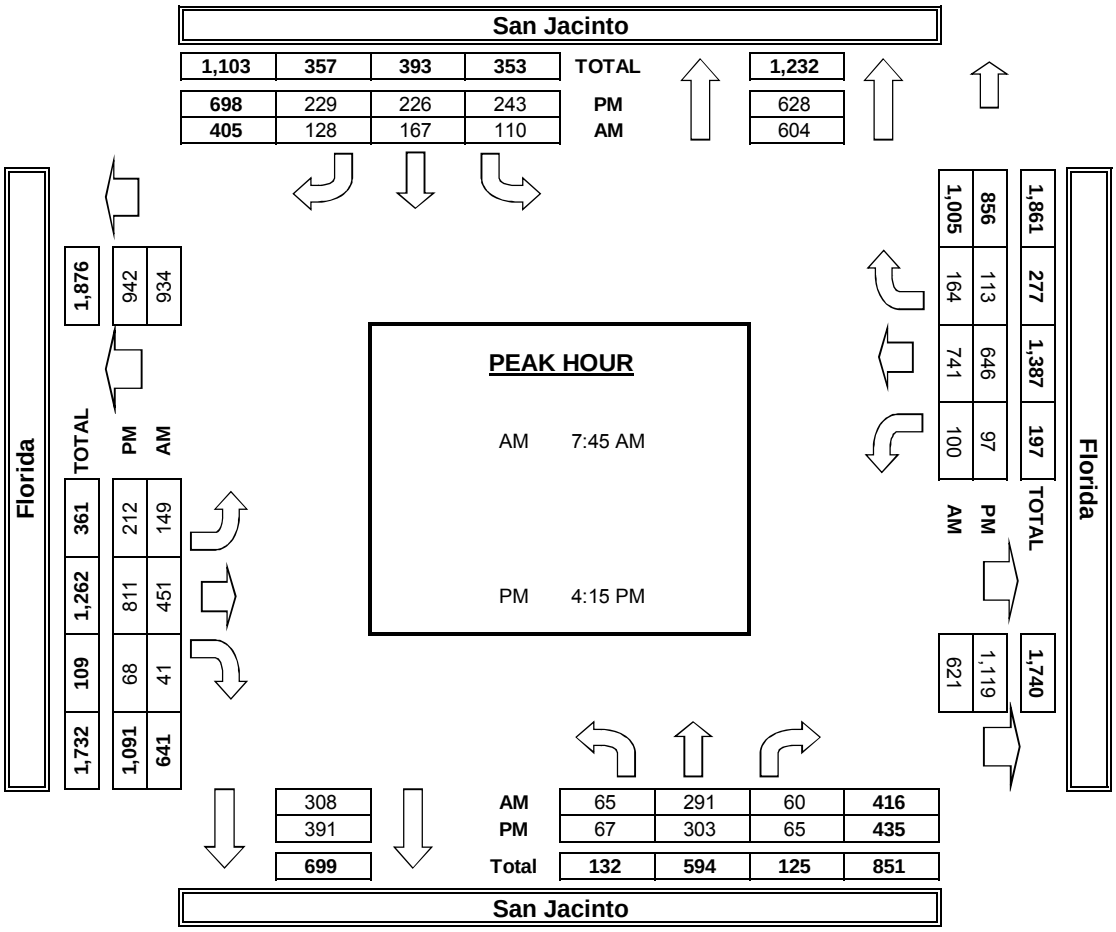


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





APPENDIX C

Explanation and Calculation of Intersection Delay

EXPLANATION AND CALCULATION OF INTERSECTION LEVEL OF SERVICE USING DELAY METHODOLOGY

The levels of service at the unsignalized and signalized intersections are calculated using the delay methodology in the Highway Capacity Manual. This methodology views an intersection as consisting of several lane groups. A lane group is a set of lanes serving a movement. If there are two northbound left turn lanes, then the lane group serving the northbound left turn movement has two lanes. Similarly, there may be three lanes in the lane group serving the northbound through movement, one lane in the lane group serving the northbound right turn movement, and so forth. It is also possible for one lane to serve two lane groups. A shared lane might result in there being 1.5 lanes in the northbound left turn lane group and 2.5 lanes in the northbound through lane group.

For each lane group, there is a capacity. That capacity is calculated by multiplying the number of lanes in the lane group times a theoretical maximum lane capacity per lane time's 12 adjustment factors.

Each of the 12 adjustment factors has a value of approximately 1.00. A value less than 1.00 is generally assigned when a less than desirable condition occurs.

The 12 adjustment factors are as follows:

1. Peak hour factor (to account for peaking within the peak hour)
2. Lane utilization factor (to account for not all lanes loading equally)
3. Lane width
4. Percent of heavy trucks
5. Approach grade
6. Parking
7. Bus stops at intersections
8. Area type (CBD or other)
9. Right turns

10. Left turns

11. Pedestrian activity

12. Signal progression

The maximum theoretical lane capacity and the 12 adjustment factors for it are all unknowns for which approximate estimates have been recommended in the Highway Capacity Manual. For the most part, the recommended values are not based on statistical analysis but rather on educated estimates. However, it is possible to use the delay method and get reasonable results as will be discussed below.

Once the lane group volume is known and the lane group capacity is known, a volume to capacity ratio can be calculated for the lane group.

With a volume to capacity ratio calculated, average delay per vehicle in a lane group can be estimated. The average delay per vehicle in a lane group is calculated using a complex formula provided by the Highway Capacity Manual, which can be simplified and described as follows:

Delay per vehicle in a lane group is a function of the following:

1. Cycle length

2. Amount of red time faced by a lane group

3. Amount of yellow time for that lane group

4. The volume to capacity ratio of the lane group

The average delay per vehicle for each lane group is calculated, and eventually an overall average delay for all vehicles entering the intersection is calculated. This average delay per vehicle is then used to judge Level of Service. The Level of Services are defined in the table that follows this discussion.

Experience has shown that when a maximum lane capacity of 1,900 vehicles per hour is used (as recommended in the Highway Capacity Manual), little or no yellow time penalty is used, and none of the 12 penalty factors are applied, calculated delay is realistic. The delay calculation for instance assumes that yellow time is totally unused. Yet experience shows that most of the yellow time is used.

An idiosyncrasy of the delay methodology is that it is possible to add traffic to an intersection and reduce the average total delay per vehicle. If the average total delay is 30 seconds per vehicle for all vehicles traveling through an intersection, and traffic is added to a movement that has an average total delay of 15 seconds per vehicle, then the overall average total delay is reduced.

The delay calculation for a lane group is based on a concept that the delay is a function of the amount of unused capacity available. As the volume approaches capacity and there is no more unused capacity available, then the delay rapidly increases. Delay is not proportional to volume, but rather increases rapidly as the unused capacity approaches zero.

Because delay is not linearly related to volumes, the delay does not reflect how close an intersection is to overloading. If an intersection is operating at Level of Service C and has an average total delay of 18 seconds per vehicle, you know very little as to what percent the traffic can increase before Level of Service E is reached.

LEVEL OF SERVICE DESCRIPTION[1]

Level of Service	Description	Average Total Delay Per Vehicle (Seconds)	
		Signalized	Unsignalized
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 10.00	0 to 10.00
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average total delay.	10.01 to 20.00	10.01 to 15.00
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.01 to 35.00	15.01 to 25.00
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.01 to 55.00	25.01 to 35.00
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00	35.01 to 50.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	80.01 and up	50.01 and up

[1] Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 2000.

Existing

Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	14	165	3	24	171	10	15	195	24	9	103	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	165	3	24	171	10	15	195	24	9	103	9
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	45	1	7	47	3	4	53	7	2	28	2
Total Analysis Volume [veh/h]	15	181	3	26	187	11	16	213	26	10	113	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.26	1.47	1.76	0.12	0.78
95th-Percentile Queue Length [ft]	31.46	36.70	43.94	2.92	19.53
Approach Delay [s/veh]	10.73	11.05	11.79		10.13
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	11.05				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.420

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	80	139	108	21	151	23	14	620	66	50	746	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	139	108	21	151	23	14	620	66	50	746	19
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	38	29	6	41	6	4	168	18	14	202	5
Total Analysis Volume [veh/h]	87	150	117	23	163	25	15	671	71	54	807	21
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	2	15	15	4	18	18
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.48	0.03	0.25	0.25	0.07	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.07	0.02	0.10	0.01	0.20	0.20	0.03	0.22	0.22
s, saturation flow rate [veh/h]	1191	1863	1583	1232	1820	1774	1863	1801	1774	1863	1846
c, Capacity [veh/h]	571	887	754	606	867	50	471	455	127	552	547
d1, Uniform Delay [s]	12.50	8.97	8.91	11.24	9.20	28.66	21.06	21.07	26.75	19.19	19.19
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	0.41	0.44	0.12	0.57	3.35	3.21	3.34	2.25	2.12	2.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

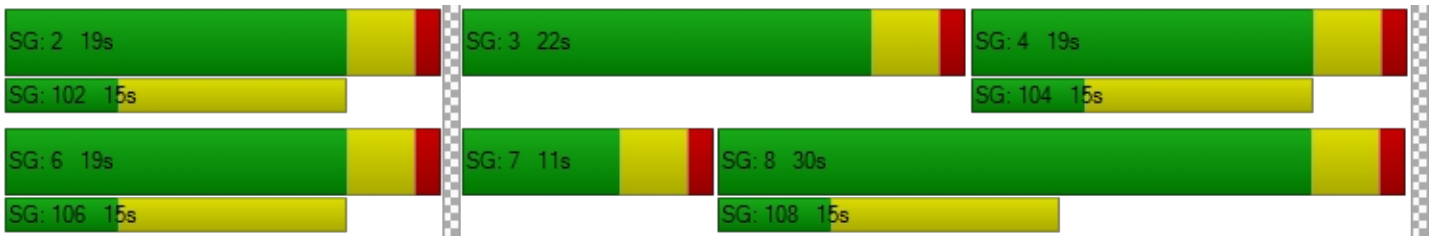
X, volume / capacity	0.15	0.17	0.16	0.04	0.22	0.30	0.80	0.80	0.43	0.75	0.75
d, Delay for Lane Group [s/veh]	13.07	9.38	9.34	11.36	9.77	32.01	24.27	24.41	29.00	21.30	21.32
Lane Group LOS	B	A	A	B	A	C	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.79	1.05	0.83	0.19	1.36	0.25	4.96	4.82	0.78	5.07	5.03
50th-Percentile Queue Length [ft]	19.73	26.32	20.71	4.71	34.02	6.21	123.91	120.44	19.57	126.87	125.83
95th-Percentile Queue Length [veh]	1.42	1.89	1.49	0.34	2.45	0.45	8.61	8.42	1.41	8.77	8.71
95th-Percentile Queue Length [ft]	35.51	47.37	37.27	8.48	61.23	11.17	215.18	210.43	35.23	219.24	217.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.07	9.38	9.34	11.36	9.77	9.77	32.01	24.34	24.41	29.00	21.31	21.32
Movement LOS	B	A	A	B	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.27			9.95			24.50			21.78		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	19.73											
Intersection LOS	B											
Intersection V/C	0.420											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	76	182	68	78	131	30	45	186	54	60	221	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	182	68	78	131	30	45	186	54	60	221	138
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	52	19	22	38	9	13	53	15	17	63	40
Total Analysis Volume [veh/h]	87	209	78	89	150	34	52	213	62	69	253	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.73	3.93	0.78	1.92	0.41	3.76	0.57	3.33	1.35
95th-Percentile Queue Length [ft]	18.36	98.18	19.62	48.12	10.26	93.92	14.27	83.31	33.76
Approach Delay [s/veh]	19.29		15.08		19.67		16.81		
Approach LOS	C		C		C		C		
Intersection Delay [s/veh]	17.77								
Intersection LOS	C								

HCS 2010 Two-Way Stop Control Summary Report

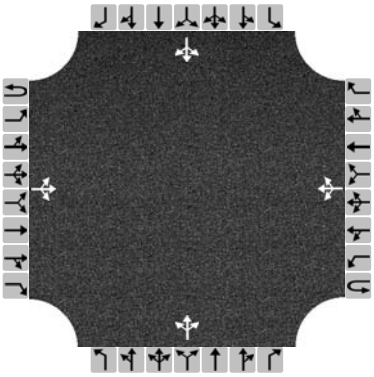
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	AM Existing
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	208	10		13	99	8		6	34	6		4	29	3
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		4				14					48				38	
Capacity		1470				1331					570				564	
v/c Ratio		0.00				0.01					0.08				0.07	
95% Queue Length		0.0				0.0					0.3				0.2	
Control Delay (s/veh)		7.5				7.7					11.9				11.8	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)	0.2				0.9				11.9				11.8			
Approach LOS									B				B			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	37	44	6	33	15	14	718	42	47	833	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	37	44	6	33	15	14	718	42	47	833	17
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	10	12	2	9	4	4	193	11	13	224	5
Total Analysis Volume [veh/h]	42	40	47	6	36	16	15	774	45	51	898	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	2	38	38	4	40	40
g / C, Green / Cycle	0.10	0.10	0.10	0.03	0.63	0.63	0.07	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.06	0.03	0.05	0.01	0.22	0.03	0.03	0.25	0.25
s, saturation flow rate [veh/h]	1288	1583	1265	1774	3547	1583	1774	1863	1850
c, Capacity [veh/h]	226	166	199	50	2224	993	122	1244	1235
d1, Uniform Delay [s]	25.43	24.84	24.95	28.66	5.35	4.31	26.86	4.41	4.41
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.98	0.92	0.81	3.35	0.43	0.09	2.28	0.85	0.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

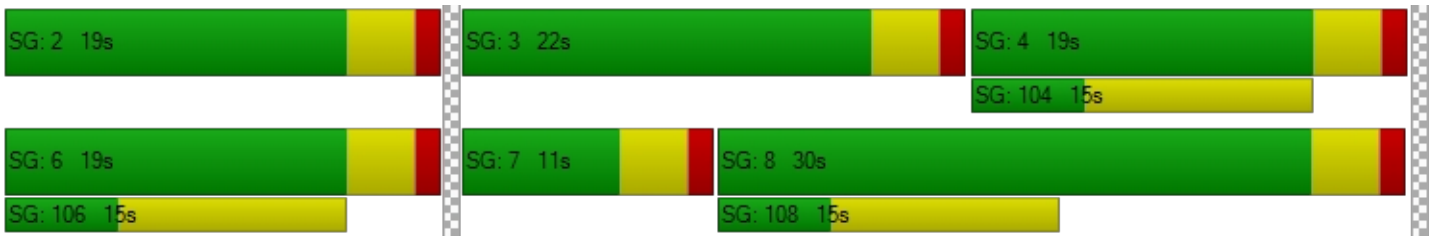
X, volume / capacity	0.36	0.28	0.29	0.30	0.35	0.05	0.42	0.37	0.37
d, Delay for Lane Group [s/veh]	26.41	25.76	25.75	32.01	5.79	4.39	29.14	5.26	5.26
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.11	0.63	0.77	0.25	1.78	0.18	0.74	1.90	1.89
50th-Percentile Queue Length [ft]	27.75	15.68	19.20	6.21	44.38	4.43	18.56	47.49	47.21
95th-Percentile Queue Length [veh]	2.00	1.13	1.38	0.45	3.20	0.32	1.34	3.42	3.40
95th-Percentile Queue Length [ft]	49.94	28.22	34.56	11.17	79.88	7.98	33.41	85.48	84.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.41	26.41	25.76	25.75	25.75	25.75	32.01	5.79	4.39	29.14	5.26	5.26
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	26.18			25.75			6.18			6.52		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.21											
Intersection LOS	A											
Intersection V/C	0.398											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	27	6	2	17	20	9	46	11	5	71	6
Total Analysis Volume [veh/h]	111	109	22	9	66	81	36	184	44	21	283	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.01	0.11	1.04	2.07	2.92
95th-Percentile Queue Length [ft]	50.28	2.75	25.88	51.82	73.09
Approach Delay [s/veh]	13.66		11.10	12.79	14.42
Approach LOS	B		B	B	B
Intersection Delay [s/veh]	13.27				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	30.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	24	473	27	130	424	56	72	212	18	48	187	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	473	27	130	424	56	72	212	18	48	187	154
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	129	7	35	115	15	20	58	5	13	51	42
Total Analysis Volume [veh/h]	26	515	29	142	462	61	78	231	20	52	204	168
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	19	0	13	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	7	17	17	17	17	17
g / C, Green / Cycle	0.04	0.18	0.18	0.10	0.24	0.24	0.24	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.01	0.15	0.15	0.08	0.14	0.14	0.18	0.14	0.11
s, saturation flow rate [veh/h]	1774	1863	1828	1774	1863	1788	1822	1844	1583
c, Capacity [veh/h]	74	337	331	183	451	433	445	450	387
d1, Uniform Delay [s]	32.73	27.64	27.65	30.73	23.55	23.57	24.49	23.30	22.45
k, delay calibration	0.11	0.15	0.15	0.12	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.80	6.56	6.83	7.50	1.24	1.30	10.54	5.13	3.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

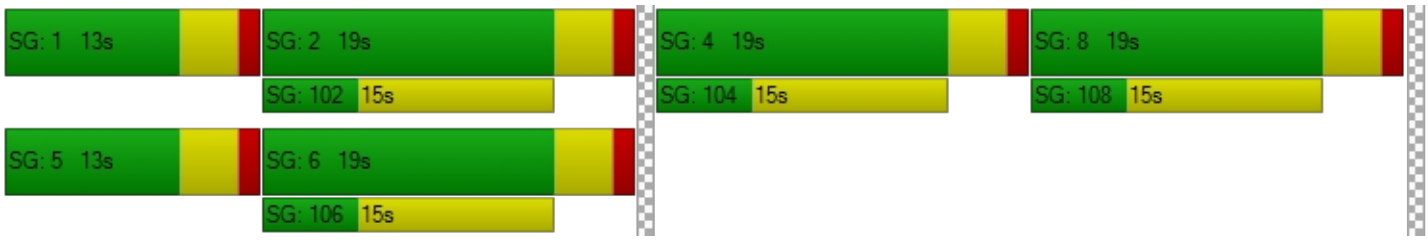
X, volume / capacity	0.35	0.81	0.82	0.78	0.59	0.59	0.74	0.57	0.43
d, Delay for Lane Group [s/veh]	35.54	34.19	34.48	38.23	24.79	24.87	35.03	28.43	25.97
Lane Group LOS	D	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.47	4.82	4.77	2.64	3.85	3.72	6.05	4.16	2.60
50th-Percentile Queue Length [ft]	11.87	120.42	119.20	65.90	96.23	92.97	151.31	103.96	65.05
95th-Percentile Queue Length [veh]	0.85	8.42	8.35	4.74	6.93	6.69	10.09	7.48	4.68
95th-Percentile Queue Length [ft]	21.36	210.40	208.72	118.62	173.22	167.35	252.17	187.12	117.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.54	34.33	34.48	38.23	24.82	24.87	35.03	35.03	35.03	28.43	28.43	25.97
Movement LOS	D	C	C	D	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	34.39			27.69			35.03			27.46		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	30.78											
Intersection LOS	C											
Intersection V/C	0.709											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	15	471	48	39	389	9	24	145	21	28	159	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	471	48	39	389	9	24	145	21	28	159	48
Peak Hour Factor	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	133	14	11	110	3	7	41	6	8	45	14
Total Analysis Volume [veh/h]	17	530	54	44	438	10	27	163	24	32	179	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	23	0	18	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	12	12	4	14	14	32	32	32	32
g / C, Green / Cycle	0.03	0.21	0.21	0.06	0.24	0.24	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.16	0.16	0.02	0.12	0.12	0.02	0.10	0.03	0.13
s, saturation flow rate [veh/h]	1774	1863	1803	1774	1863	1848	1143	1821	1192	1790
c, Capacity [veh/h]	55	386	374	112	446	442	601	966	642	949
d1, Uniform Delay [s]	28.52	22.48	22.50	27.09	19.80	19.81	10.32	7.39	9.74	7.63
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.13	3.22	3.38	2.25	0.88	0.89	0.14	0.45	0.15	0.62
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

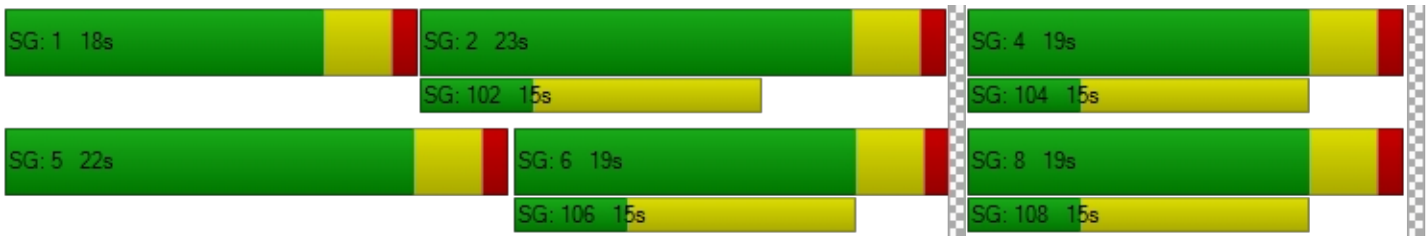
X, volume / capacity	0.31	0.77	0.77	0.39	0.50	0.51	0.04	0.19	0.05	0.25
d, Delay for Lane Group [s/veh]	31.65	25.69	25.88	29.33	20.69	20.70	10.46	7.84	9.89	8.24
Lane Group LOS	C	C	C	C	C	C	B	A	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.28	3.99	3.90	0.65	2.62	2.61	0.21	1.15	0.24	1.48
50th-Percentile Queue Length [ft]	6.91	99.78	97.51	16.15	65.49	65.15	5.25	28.67	5.97	37.07
95th-Percentile Queue Length [veh]	0.50	7.18	7.02	1.16	4.72	4.69	0.38	2.06	0.43	2.67
95th-Percentile Queue Length [ft]	12.43	179.60	175.51	29.07	117.89	117.26	9.46	51.61	10.74	66.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.65	25.78	25.88	29.33	20.69	20.70	10.46	7.84	7.84	9.89	8.24	8.24
Movement LOS	C	C	C	C	C	C	B	A	A	A	A	A
d_A, Approach Delay [s/veh]	25.95			21.47			8.17			8.44		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	19.18											
Intersection LOS	B											
Intersection V/C	0.393											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.413

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	29	443	13	51	401	36	58	126	47	12	48	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	443	13	51	401	36	58	126	47	12	48	23
Peak Hour Factor	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	136	4	16	123	11	18	39	14	4	15	7
Total Analysis Volume [veh/h]	36	545	16	63	493	44	71	155	58	15	59	28
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	20	12	12	20	13	13	32	26	32	23	23
g / C, Green / Cycle	0.34	0.19	0.19	0.34	0.22	0.22	0.53	0.44	0.53	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.03	0.15	0.15	0.05	0.14	0.03	0.05	0.12	0.01	0.03	0.02
s, saturation flow rate [veh/h]	1129	1863	1844	1152	3547	1583	1434	1777	1234	1863	1583
c, Capacity [veh/h]	442	360	357	443	768	343	914	773	741	708	602
d1, Uniform Delay [s]	14.02	23.11	23.11	14.40	21.49	19.03	6.97	10.94	6.93	11.96	11.79
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	3.72	3.79	0.15	0.90	0.17	0.04	0.88	0.05	0.23	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.78	0.78	0.14	0.64	0.13	0.08	0.28	0.02	0.08	0.05
d, Delay for Lane Group [s/veh]	14.10	26.83	26.90	14.54	22.40	19.20	7.01	11.82	6.98	12.19	11.93
Lane Group LOS	B	C	C	B	C	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.31	3.89	3.86	0.55	3.02	0.48	0.38	1.77	0.09	0.50	0.24
50th-Percentile Queue Length [ft]	7.77	97.24	96.57	13.83	75.48	11.95	9.41	44.24	2.14	12.48	5.91
95th-Percentile Queue Length [veh]	0.56	7.00	6.95	1.00	5.43	0.86	0.68	3.19	0.15	0.90	0.43
95th-Percentile Queue Length [ft]	13.98	175.03	173.82	24.89	135.86	21.51	16.94	79.63	3.85	22.46	10.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.10	26.86	26.90	14.54	22.40	19.20	7.01	11.82	11.82	6.98	12.19	11.93
Movement LOS	B	C	C	B	C	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	26.09			21.34			10.62			11.35		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	20.57											
Intersection LOS	C											
Intersection V/C	0.413											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.381

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	20	384	39	87	329	29	34	108	17	27	105	64
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	384	39	87	329	29	34	108	17	27	105	64
Peak Hour Factor	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	111	11	25	96	8	10	31	5	8	30	19
Total Analysis Volume [veh/h]	23	446	45	101	382	34	39	125	20	31	122	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	6	13	13	3	25	3	25	25
g / C, Green / Cycle	0.04	0.17	0.17	0.10	0.22	0.22	0.06	0.42	0.05	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.03	0.06	0.11	0.11	0.02	0.08	0.02	0.07	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1810	1774	1818	1774	1863	1583
c, Capacity [veh/h]	71	591	264	172	417	406	102	767	87	769	654
d1, Uniform Delay [s]	28.16	23.95	21.55	26.06	20.46	20.48	27.37	10.96	27.75	11.11	10.90
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.64	1.98	0.30	3.14	0.94	0.98	2.32	0.55	2.45	0.44	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.75	0.17	0.59	0.50	0.51	0.38	0.19	0.36	0.16	0.11
d, Delay for Lane Group [s/veh]	30.80	25.93	21.85	29.19	21.40	21.46	29.69	11.50	30.19	11.56	11.25
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.36	2.98	0.53	1.46	2.50	2.45	0.58	1.18	0.47	0.99	0.60
50th-Percentile Queue Length [ft]	8.97	74.51	13.34	36.46	62.50	61.25	14.48	29.50	11.75	24.86	14.97
95th-Percentile Queue Length [veh]	0.65	5.36	0.96	2.63	4.50	4.41	1.04	2.12	0.85	1.79	1.08
95th-Percentile Queue Length [ft]	16.15	134.12	24.02	65.63	112.50	110.25	26.07	53.10	21.15	44.74	26.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.80	25.93	21.85	29.19	21.43	21.46	29.69	11.50	11.50	30.19	11.56	11.25
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.79			22.94			15.36			14.00		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.58											
Intersection LOS	C											
Intersection V/C	0.381											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.501

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	284	70	70	210	88	100	580	16	46	744	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	284	70	70	210	88	100	580	16	46	744	67
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	75	18	18	55	23	26	153	4	12	196	18
Total Analysis Volume [veh/h]	41	300	74	74	222	93	106	612	17	49	786	71
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	6	30	30	4	28	28
g / C, Green / Cycle	0.23	0.23	0.23	0.23	0.23	0.23	0.10	0.50	0.50	0.07	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.11	0.07	0.12	0.06	0.06	0.17	0.17	0.03	0.22	0.04
s, saturation flow rate [veh/h]	1154	1863	1738	1004	1863	1583	1774	1863	1845	1774	3547	1583
c, Capacity [veh/h]	224	427	398	225	427	363	172	942	933	116	1680	750
d1, Uniform Delay [s]	25.76	19.88	19.93	26.00	20.25	18.95	26.02	8.84	8.84	26.96	10.68	8.70
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	0.74	0.82	0.85	0.98	0.37	3.52	0.96	0.97	2.42	0.94	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

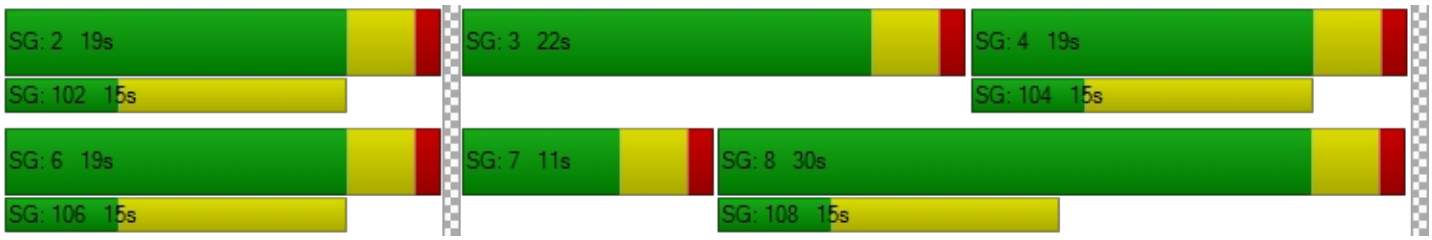
X, volume / capacity	0.18	0.45	0.46	0.33	0.52	0.26	0.61	0.34	0.34	0.42	0.47	0.09
d, Delay for Lane Group [s/veh]	26.14	20.62	20.76	26.85	21.24	19.32	29.55	9.80	9.81	29.38	11.62	8.95
Lane Group LOS	C	C	C	C	C	B	C	A	A	C	B	A
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.55	2.21	2.12	1.01	2.62	1.02	1.54	2.30	2.28	0.72	3.20	0.49
50th-Percentile Queue Length [ft]	13.63	55.22	53.02	25.34	65.58	25.50	38.53	57.47	57.02	17.95	80.05	12.29
95th-Percentile Queue Length [veh]	0.98	3.98	3.82	1.82	4.72	1.84	2.77	4.14	4.11	1.29	5.76	0.88
95th-Percentile Queue Length [ft]	24.54	99.40	95.43	45.62	118.05	45.89	69.35	103.44	102.63	32.31	144.09	22.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.14	20.67	20.76	26.85	21.24	19.32	29.55	9.81	9.81	29.38	11.62	8.95
Movement LOS	C	C	C	C	C	B	C	A	A	C	B	A
d_A, Approach Delay [s/veh]	21.23			21.85			12.65			12.37		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.47											
Intersection LOS	B											
Intersection V/C	0.501											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

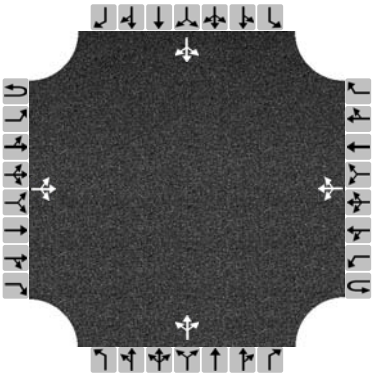
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	AM Existing
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	8	3		5	18	16		3	358	7		13	263	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11				6					413				323	
Capacity		1564				1598					798				774	
v/c Ratio		0.01				0.00					0.52				0.42	
95% Queue Length		0.0				0.0					3.0				2.1	
Control Delay (s/veh)		7.3				7.3					14.3				12.9	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)	3.5				1.0				14.3				12.9			
Approach LOS									B				B			

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	24.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	27	331	26	23	230	19	14	134	28	22	207	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	331	26	23	230	19	14	134	28	22	207	30
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	95	7	7	66	5	4	38	8	6	59	9
Total Analysis Volume [veh/h]	31	379	30	26	263	22	16	153	32	25	237	34
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	19	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	30	30	3	29	29	8	8	13
g / C, Green / Cycle	0.05	0.42	0.42	0.04	0.42	0.42	0.12	0.12	0.19
(v / s)_i Volume / Saturation Flow Rate	0.02	0.20	0.02	0.01	0.14	0.01	0.09	0.02	0.16
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1854	1583	1818
c, Capacity [veh/h]	82	783	666	72	773	657	222	190	347
d1, Uniform Delay [s]	32.45	14.78	12.00	32.74	13.98	12.17	29.89	27.72	27.43
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.83	2.14	0.13	2.98	1.20	0.09	5.30	0.42	9.85
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

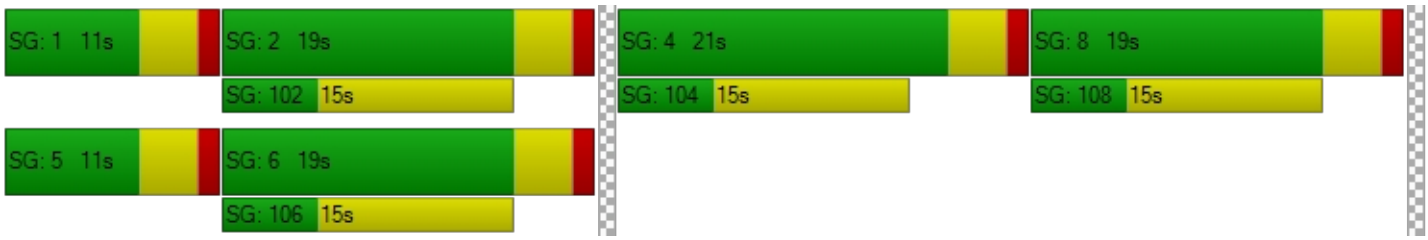
X, volume / capacity	0.38	0.48	0.05	0.36	0.34	0.03	0.76	0.17	0.85
d, Delay for Lane Group [s/veh]	35.28	16.92	12.13	35.72	15.18	12.27	35.19	28.14	37.28
Lane Group LOS	D	B	B	D	B	B	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.56	4.45	0.28	0.48	2.85	0.21	2.98	0.49	5.50
50th-Percentile Queue Length [ft]	13.99	111.16	6.99	11.92	71.32	5.16	74.44	12.19	137.55
95th-Percentile Queue Length [veh]	1.01	7.90	0.50	0.86	5.14	0.37	5.36	0.88	9.35
95th-Percentile Queue Length [ft]	25.18	197.61	12.58	21.45	128.38	9.29	133.99	21.93	233.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.28	16.92	12.13	35.72	15.18	12.27	35.19	35.19	28.14	37.28	37.28	37.28
Movement LOS	D	B	B	D	B	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	17.89			16.69			34.06			37.28		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	24.79											
Intersection LOS	C											
Intersection V/C	0.612											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	35	160	2	4	133	35	35	45	89	2	13	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	160	2	4	133	35	35	45	89	2	13	1
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	43	1	1	36	9	9	12	24	1	3	0
Total Analysis Volume [veh/h]	38	172	2	4	143	38	38	48	96	2	14	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.12	0.91	0.90	0.07
95th-Percentile Queue Length [ft]	28.05	22.71	22.59	1.86
Approach Delay [s/veh]	9.44	8.96	9.03	8.25
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.13			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.460

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	174	47	27	90	27	19	648	15	36	863	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	174	47	27	90	27	19	648	15	36	863	15
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	47	13	7	24	7	5	176	4	10	235	4
Total Analysis Volume [veh/h]	42	189	51	29	98	29	21	705	16	39	939	16
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	30	30	30	30	30	22	22	22	22	22	22
g / C, Green / Cycle	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.03	0.13	0.03	0.05	0.02	0.04	0.19	0.19	0.05	0.26	0.01
s, saturation flow rate [veh/h]	1292	1795	1135	1863	1583	594	1863	1848	729	3547	1583
c, Capacity [veh/h]	694	896	570	930	790	178	684	679	247	1303	582
d1, Uniform Delay [s]	9.57	8.69	11.24	7.94	7.66	25.34	14.90	14.90	21.63	16.33	12.13
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.73	0.17	0.23	0.09	0.29	0.64	0.64	0.30	0.76	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

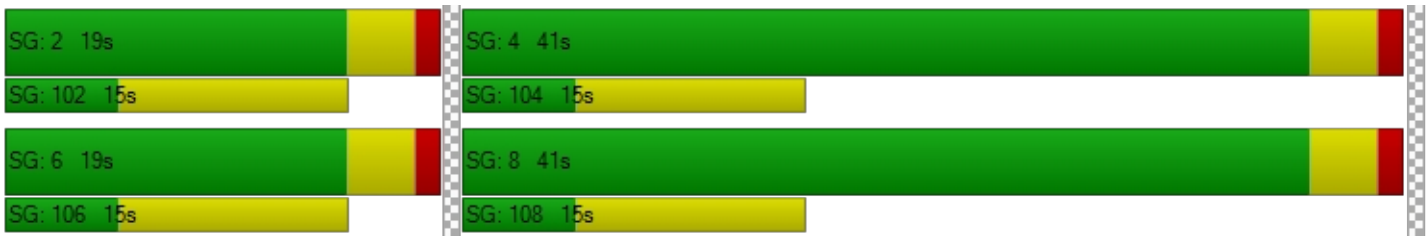
X, volume / capacity	0.06	0.27	0.05	0.11	0.04	0.12	0.53	0.53	0.16	0.72	0.03
d, Delay for Lane Group [s/veh]	9.74	9.42	11.41	8.17	7.75	25.64	15.54	15.54	21.93	17.10	12.15
Lane Group LOS	A	A	B	A	A	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.31	1.69	0.24	0.62	0.18	0.28	3.57	3.54	0.47	5.04	0.13
50th-Percentile Queue Length [ft]	7.71	42.30	6.01	15.56	4.50	6.99	89.17	88.54	11.73	125.96	3.18
95th-Percentile Queue Length [veh]	0.56	3.05	0.43	1.12	0.32	0.50	6.42	6.38	0.84	8.72	0.23
95th-Percentile Queue Length [ft]	13.88	76.14	10.81	28.01	8.10	12.58	160.50	159.38	21.12	217.99	5.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.74	9.42	9.42	11.41	8.17	7.75	25.64	15.54	15.54	21.93	17.10	12.15
Movement LOS	A	A	A	B	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	9.47			8.69			15.83			17.21		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	15.12											
Intersection LOS	B											
Intersection V/C	0.460											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	12	286	29	13	138	12	15	149	8	30	241	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	286	29	13	138	12	15	149	8	30	241	9
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	83	8	4	40	3	4	43	2	9	70	3
Total Analysis Volume [veh/h]	14	333	34	15	161	14	17	173	9	35	281	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.50	1.50	1.62	3.46
95th-Percentile Queue Length [ft]	112.42	37.46	40.40	86.52
Approach Delay [s/veh]	18.90	12.74	13.05	16.83
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	16.15			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	14.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.438

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	37	133	49	16	66	48	42	609	24	50	833	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	133	49	16	66	48	42	609	24	50	833	31
Peak Hour Factor	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	38	14	5	19	14	12	172	7	14	236	9
Total Analysis Volume [veh/h]	42	150	55	18	75	54	48	689	27	57	942	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	23	23	23	23	23	23
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.02	0.07	0.08	0.19	0.19	0.08	0.26	0.26
s, saturation flow rate [veh/h]	1256	1779	1172	1735	573	1863	1838	732	1863	1839
c, Capacity [veh/h]	618	847	553	826	203	727	718	279	727	718
d1, Uniform Delay [s]	11.31	9.30	12.11	8.89	23.91	13.82	13.82	19.96	15.14	15.14
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	0.68	0.11	0.40	0.59	0.52	0.53	0.36	1.11	1.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

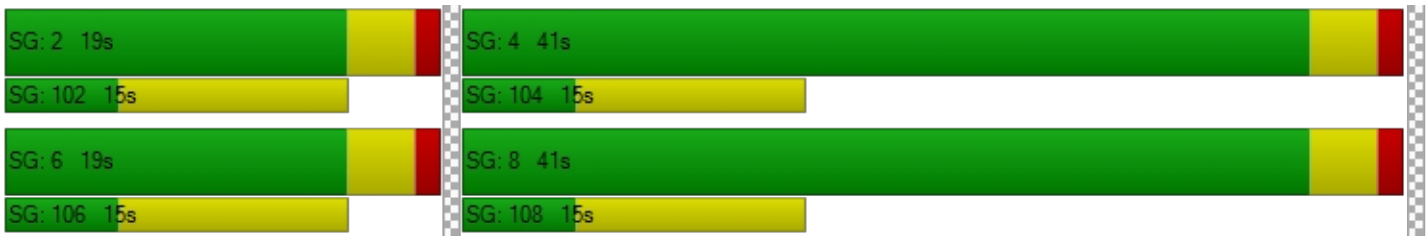
X, volume / capacity	0.07	0.24	0.03	0.16	0.24	0.50	0.50	0.20	0.68	0.68
d, Delay for Lane Group [s/veh]	11.53	9.98	12.21	9.29	24.50	14.34	14.35	20.31	16.25	16.27
Lane Group LOS	B	A	B	A	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.35	1.51	0.16	0.91	0.63	3.36	3.32	0.66	5.09	5.03
50th-Percentile Queue Length [ft]	8.69	37.76	3.90	22.63	15.73	84.05	83.03	16.43	127.29	125.77
95th-Percentile Queue Length [veh]	0.63	2.72	0.28	1.63	1.13	6.05	5.98	1.18	8.79	8.71
95th-Percentile Queue Length [ft]	15.65	67.97	7.01	40.73	28.31	151.28	149.46	29.57	219.81	217.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.53	9.98	9.98	12.21	9.29	9.29	24.50	14.35	14.35	20.31	16.26	16.27
Movement LOS	B	A	A	B	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.24			9.65			14.99			16.48		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	14.80											
Intersection LOS	B											
Intersection V/C	0.438											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Peak Hour Factor	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	11	7	30	9	10	40	5	6	69	13
Total Analysis Volume [veh/h]	19	228	46	28	121	35	40	160	21	25	277	53
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.68	1.37	1.74	3.63
95th-Percentile Queue Length [ft]	66.97	34.22	43.60	90.74
Approach Delay [s/veh]	14.60	12.15	12.78	16.32
Approach LOS	B	B	B	C
Intersection Delay [s/veh]	14.37			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	65	291	60	110	167	128	149	451	41	100	741	164
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	291	60	110	167	128	149	451	41	100	741	164
Peak Hour Factor	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	78	16	29	45	34	40	121	11	27	199	44
Total Analysis Volume [veh/h]	70	312	64	118	179	137	160	483	44	107	794	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	16	19	0	18	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	16	8	21	21	6	19	19
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.11	0.28	0.28	0.08	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.10	0.07	0.10	0.09	0.09	0.14	0.14	0.06	0.22	0.11
s, saturation flow rate [veh/h]	1774	1863	1755	1774	1863	1583	1774	1863	1809	1774	3547	1583
c, Capacity [veh/h]	375	393	371	375	393	334	202	522	507	150	891	398
d1, Uniform Delay [s]	24.37	26.10	26.15	25.08	25.90	25.63	32.47	22.75	22.76	33.53	27.18	23.73
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.10	4.29	4.69	2.19	3.77	3.69	6.83	0.78	0.80	6.08	3.35	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

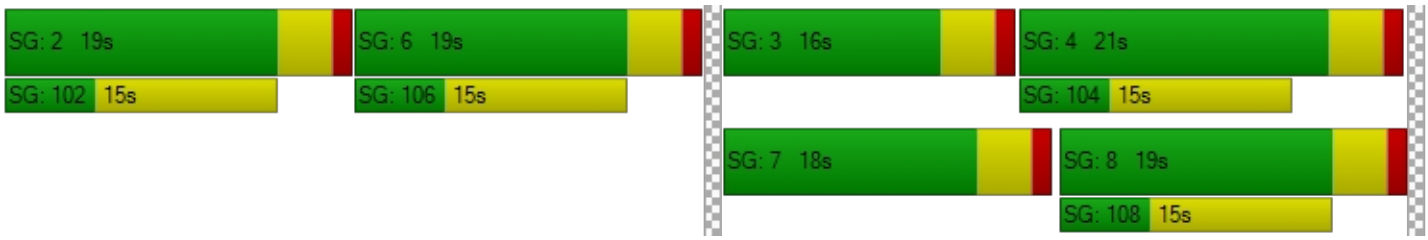
X, volume / capacity	0.19	0.49	0.50	0.32	0.46	0.41	0.79	0.51	0.51	0.71	0.89	0.44
d, Delay for Lane Group [s/veh]	25.47	30.39	30.85	27.27	29.66	29.32	39.29	23.53	23.56	39.61	30.53	24.51
Lane Group LOS	C	C	C	C	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.10	3.38	3.28	1.95	3.10	2.38	3.13	3.89	3.79	2.10	6.92	2.60
50th-Percentile Queue Length [ft]	27.61	84.39	81.89	48.63	77.53	59.49	78.27	97.22	94.76	52.55	172.96	65.08
95th-Percentile Queue Length [veh]	1.99	6.08	5.90	3.50	5.58	4.28	5.64	7.00	6.82	3.78	11.23	4.69
95th-Percentile Queue Length [ft]	49.70	151.91	147.39	87.54	139.56	107.08	140.89	174.99	170.57	94.58	280.80	117.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.47	30.56	30.85	27.27	29.66	29.32	39.29	23.54	23.56	39.61	30.53	24.51
Movement LOS	C	C	C	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	29.81			28.90			27.21			30.45		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.25											
Intersection LOS	C											
Intersection V/C	0.654											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	32	209	12	13	210	23	22	199	33	10	183	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	209	12	13	210	23	22	199	33	10	183	14
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	57	3	4	57	6	6	54	9	3	50	4
Total Analysis Volume [veh/h]	35	228	13	14	229	25	24	217	36	11	200	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.48	2.35	2.31	0.19	1.90
95th-Percentile Queue Length [ft]	62.07	58.68	57.81	4.74	47.51
Approach Delay [s/veh]	14.36	14.02	14.07		13.48
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	14.01				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.610

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	83	210	80	34	185	45	48	1046	83	64	882	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	210	80	34	185	45	48	1046	83	64	882	24
Peak Hour Factor	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	21	9	48	12	12	271	22	17	228	6
Total Analysis Volume [veh/h]	86	218	83	35	192	47	50	1084	86	66	914	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	21	21	21	4	22	22	5	23	23
g / C, Green / Cycle	0.35	0.35	0.35	0.35	0.35	0.07	0.37	0.37	0.08	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.05	0.03	0.13	0.03	0.32	0.32	0.04	0.25	0.25
s, saturation flow rate [veh/h]	1136	1863	1583	1158	1800	1774	1863	1815	1774	1863	1845
c, Capacity [veh/h]	377	657	558	397	635	121	686	668	142	708	701
d1, Uniform Delay [s]	19.49	14.29	13.31	17.94	14.54	26.87	17.61	17.63	26.44	15.49	15.49
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.21	0.22	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.41	1.36	0.56	0.44	1.70	2.24	6.47	6.71	2.36	1.09	1.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

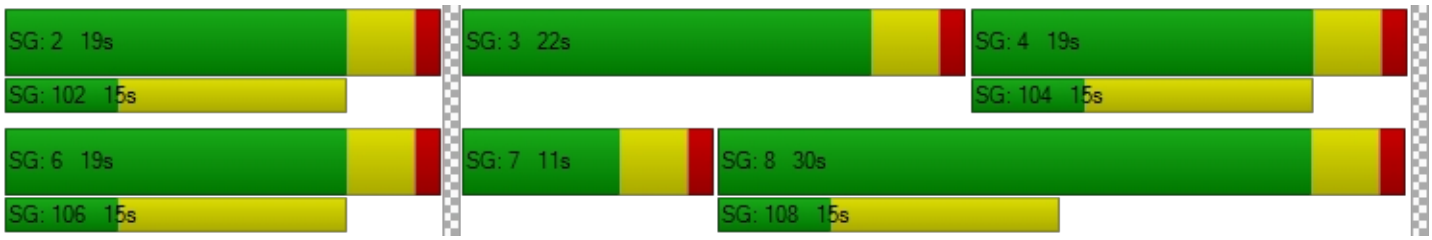
X, volume / capacity	0.23	0.33	0.15	0.09	0.38	0.41	0.86	0.87	0.46	0.67	0.67
d, Delay for Lane Group [s/veh]	20.90	15.64	13.87	18.38	16.25	29.11	24.08	24.34	28.80	16.58	16.60
Lane Group LOS	C	B	B	B	B	C	C	C	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.08	2.20	0.78	0.40	2.48	0.73	7.88	7.74	0.95	4.93	4.89
50th-Percentile Queue Length [ft]	26.99	55.01	19.50	10.05	62.00	18.20	197.07	193.56	23.72	123.25	122.15
95th-Percentile Queue Length [veh]	1.94	3.96	1.40	0.72	4.46	1.31	12.49	12.31	1.71	8.57	8.51
95th-Percentile Queue Length [ft]	48.58	99.02	35.10	18.09	111.61	32.76	312.19	307.65	42.70	214.29	212.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	20.90	15.64	13.87	18.38	16.25	16.25	29.11	24.20	24.34	28.80	16.59	16.60
Movement LOS	C	B	B	B	B	B	C	C	C	C	B	B
d_A, Approach Delay [s/veh]	16.43			16.52			24.41			17.39		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	20.15											
Intersection LOS	C											
Intersection V/C	0.610											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	29.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	81	204	23	52	214	20	53	322	92	42	260	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	204	23	52	214	20	53	322	92	42	260	85
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	52	6	13	55	5	14	82	23	11	66	22
Total Analysis Volume [veh/h]	83	208	23	53	218	20	54	328	94	43	265	87
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.79	3.25	0.46	3.44	0.44	10.74	0.37	4.28	0.70
95th-Percentile Queue Length [ft]	19.70	81.16	11.58	86.12	10.98	268.62	9.13	107.07	17.53
Approach Delay [s/veh]	19.52		20.52		49.80		21.14		
Approach LOS	C		C		E		C		
Intersection Delay [s/veh]	29.92								
Intersection LOS	D								

HCS 2010 Two-Way Stop Control Summary Report

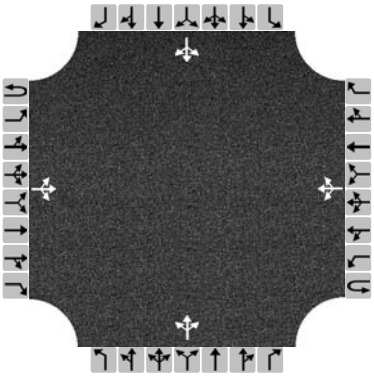
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	216	4		7	188	13		11	46	8		3	23	5
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				7					68				32	
Capacity		1351				1329					503				513	
v/c Ratio		0.01				0.01					0.14				0.06	
95% Queue Length		0.0				0.0					0.5				0.2	
Control Delay (s/veh)		7.7				7.7					13.3				12.5	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)	0.3				0.3				13.3				12.5			
Approach LOS									B				B			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	8.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.486

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	44	49	8	31	26	20	1078	49	37	1003	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	44	49	8	31	26	20	1078	49	37	1003	12
Peak Hour Factor	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	11	13	2	8	7	5	275	13	9	256	3
Total Analysis Volume [veh/h]	40	45	50	8	32	27	20	1101	50	38	1025	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	27	35	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	2	43	43	4	44	44
g / C, Green / Cycle	0.10	0.10	0.10	0.03	0.66	0.66	0.05	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.06	0.03	0.06	0.01	0.31	0.03	0.02	0.28	0.28
s, saturation flow rate [veh/h]	1320	1583	1129	1774	3547	1583	1774	1863	1855
c, Capacity [veh/h]	213	158	175	61	2343	1046	98	1269	1264
d1, Uniform Delay [s]	27.91	27.26	27.49	30.70	5.44	3.87	29.71	4.59	4.59
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.21	1.13	1.38	3.02	0.68	0.09	2.49	0.98	0.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

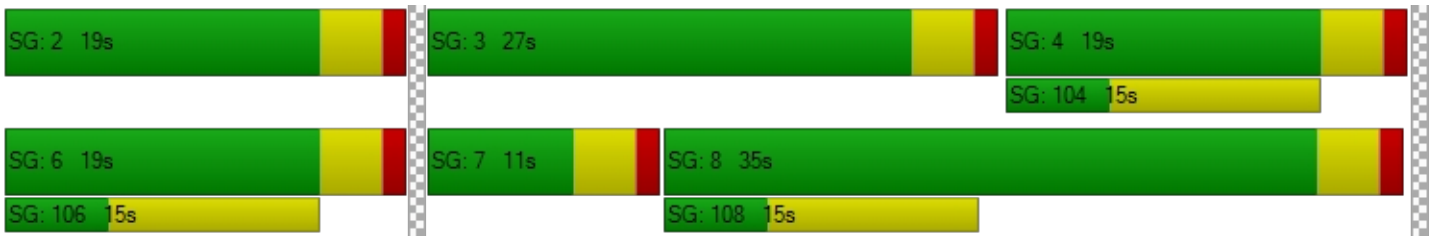
X, volume / capacity	0.40	0.32	0.38	0.33	0.47	0.05	0.39	0.41	0.41
d, Delay for Lane Group [s/veh]	29.12	28.39	28.87	33.72	6.12	3.96	32.20	5.57	5.57
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.28	0.74	1.00	0.35	2.79	0.19	0.62	2.40	2.39
50th-Percentile Queue Length [ft]	32.03	18.54	25.02	8.66	69.85	4.79	15.49	59.94	59.74
95th-Percentile Queue Length [veh]	2.31	1.34	1.80	0.62	5.03	0.34	1.12	4.32	4.30
95th-Percentile Queue Length [ft]	57.66	33.38	45.03	15.59	125.74	8.62	27.88	107.90	107.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.12	29.12	28.39	28.87	28.87	28.87	33.72	6.12	3.96	32.20	5.57	5.57
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	28.85			28.87			6.50			6.51		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.35											
Intersection LOS	A											
Intersection V/C	0.486											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	94.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	41	104	22	16	93	42	18	388	45	19	293	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	104	22	16	93	42	18	388	45	19	293	20
Peak Hour Factor	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	38	8	6	34	15	7	141	16	7	106	7
Total Analysis Volume [veh/h]	60	151	32	23	135	61	26	564	65	28	426	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.83	0.23	2.74	28.00	12.25
95th-Percentile Queue Length [ft]	70.64	5.63	68.54	699.99	306.22
Approach Delay [s/veh]	19.03		19.25	174.07	57.39
Approach LOS	C		C	F	F
Intersection Delay [s/veh]	94.11				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	38.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.839

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	34	509	66	134	538	85	52	259	52	46	244	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	509	66	134	538	85	52	259	52	46	244	131
Peak Hour Factor	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	139	18	37	147	23	14	71	14	13	67	36
Total Analysis Volume [veh/h]	37	558	72	147	589	93	57	284	57	50	267	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	14	14	7	17	17	17	17	17
g / C, Green / Cycle	0.05	0.20	0.20	0.10	0.25	0.25	0.24	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.17	0.17	0.08	0.19	0.19	0.22	0.17	0.09
s, saturation flow rate [veh/h]	1774	1863	1789	1774	1863	1775	1804	1848	1583
c, Capacity [veh/h]	95	374	359	179	462	441	425	435	373
d1, Uniform Delay [s]	32.15	27.11	27.13	30.96	24.44	24.44	26.35	24.79	22.58
k, delay calibration	0.11	0.28	0.28	0.22	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.60	13.45	14.29	17.01	2.54	2.67	30.48	10.26	2.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

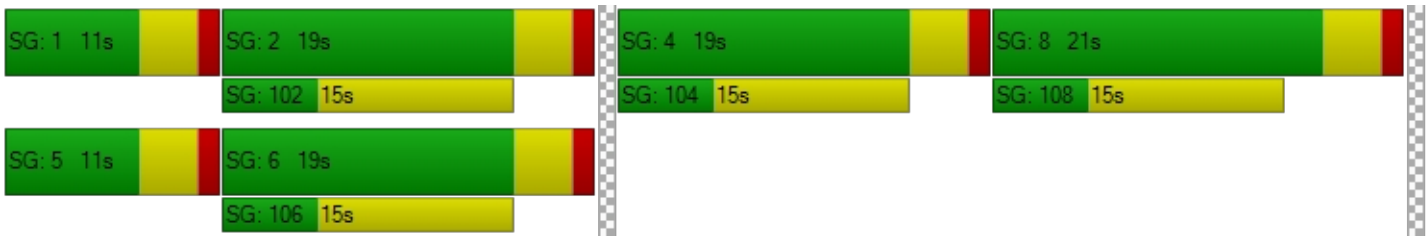
X, volume / capacity	0.39	0.86	0.86	0.82	0.76	0.76	0.94	0.73	0.38
d, Delay for Lane Group [s/veh]	34.75	40.56	41.43	47.97	26.97	27.11	56.83	35.05	25.56
Lane Group LOS	C	D	D	D	C	C	E	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.66	6.31	6.17	3.19	5.38	5.15	9.73	5.83	2.20
50th-Percentile Queue Length [ft]	16.43	157.87	154.30	79.80	134.40	128.64	243.15	145.85	54.89
95th-Percentile Queue Length [veh]	1.18	10.44	10.25	5.75	9.18	8.87	14.84	9.80	3.95
95th-Percentile Queue Length [ft]	29.57	260.90	256.16	143.64	229.46	221.65	371.02	244.88	98.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.75	40.93	41.43	47.97	27.03	27.11	56.83	56.83	56.83	35.05	35.05	25.56
Movement LOS	C	D	D	D	C	C	E	E	E	D	D	C
d_A, Approach Delay [s/veh]	40.64			30.75			56.83			32.10		
Approach LOS	D			C			E			C		
d_I, Intersection Delay [s/veh]	38.23											
Intersection LOS	D											
Intersection V/C	0.839											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.450

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	24	581	54	49	558	20	13	107	25	44	170	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	581	54	49	558	20	13	107	25	44	170	49
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	162	15	14	155	6	4	30	7	12	47	14
Total Analysis Volume [veh/h]	27	646	60	55	621	22	14	119	28	49	189	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	21	0	20	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	14	14	4	16	16	29	29	29	29
g / C, Green / Cycle	0.04	0.24	0.24	0.07	0.27	0.27	0.49	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.19	0.19	0.03	0.17	0.17	0.01	0.08	0.04	0.14
s, saturation flow rate [veh/h]	1774	1863	1808	1774	1863	1840	1131	1802	1236	1791
c, Capacity [veh/h]	79	451	437	128	502	496	535	876	619	871
d1, Uniform Delay [s]	27.88	21.40	21.41	26.72	19.42	19.42	12.19	8.64	11.12	9.19
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.53	3.22	3.34	2.26	1.39	1.41	0.09	0.41	0.25	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

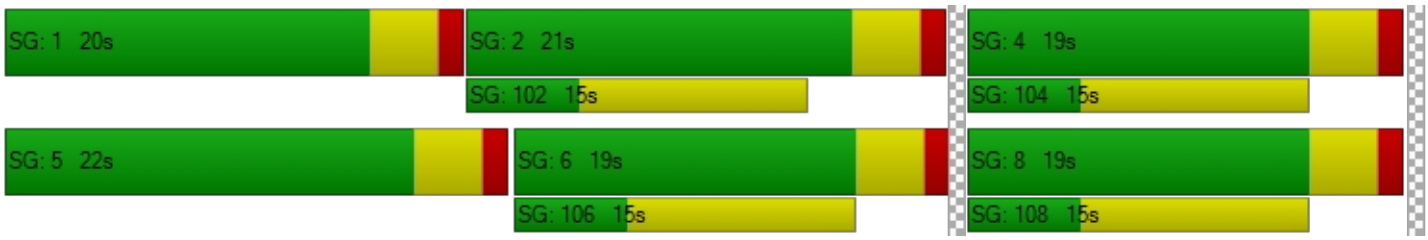
X, volume / capacity	0.34	0.79	0.80	0.43	0.64	0.64	0.03	0.17	0.08	0.28
d, Delay for Lane Group [s/veh]	30.41	24.62	24.75	28.98	20.80	20.83	12.28	9.06	11.37	9.99
Lane Group LOS	C	C	C	C	C	C	B	A	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.41	4.74	4.62	0.80	3.84	3.80	0.12	1.01	0.40	1.79
50th-Percentile Queue Length [ft]	10.35	118.41	115.51	19.91	95.93	94.96	3.05	25.18	10.05	44.85
95th-Percentile Queue Length [veh]	0.75	8.31	8.15	1.43	6.91	6.84	0.22	1.81	0.72	3.23
95th-Percentile Queue Length [ft]	18.64	207.63	203.65	35.84	172.68	170.93	5.48	45.33	18.09	80.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.41	24.68	24.75	28.98	20.81	20.83	12.28	9.06	9.06	11.37	9.99	9.99
Movement LOS	C	C	C	C	C	C	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	24.89			21.46			9.34			10.22		
Approach LOS	C			C			A			B		
d_I, Intersection Delay [s/veh]	20.01											
Intersection LOS	C											
Intersection V/C	0.450											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	50	520	16	35	542	54	81	107	55	16	79	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	520	16	35	542	54	81	107	55	16	79	46
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	141	4	9	147	15	22	29	15	4	21	12
Total Analysis Volume [veh/h]	54	564	17	38	588	59	88	116	60	17	86	50
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	21	13	13	21	13	13	31	26	31	22	22
g / C, Green / Cycle	0.35	0.22	0.22	0.35	0.21	0.21	0.52	0.42	0.52	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.05	0.16	0.16	0.04	0.17	0.04	0.06	0.10	0.01	0.05	0.03
s, saturation flow rate [veh/h]	1112	1863	1844	1076	3547	1583	1418	1757	1274	1863	1583
c, Capacity [veh/h]	430	416	412	427	741	331	883	743	766	676	575
d1, Uniform Delay [s]	14.11	21.57	21.57	13.85	22.62	19.60	7.32	11.15	7.13	12.83	12.63
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	2.16	2.19	0.09	1.98	0.26	0.05	0.75	0.05	0.39	0.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.70	0.70	0.09	0.79	0.18	0.10	0.24	0.02	0.13	0.09
d, Delay for Lane Group [s/veh]	14.24	23.73	23.77	13.94	24.60	19.86	7.37	11.90	7.18	13.22	12.93
Lane Group LOS	B	C	C	B	C	B	A	B	A	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.46	3.74	3.71	0.32	3.85	0.66	0.49	1.47	0.10	0.77	0.45
50th-Percentile Queue Length [ft]	11.59	93.56	92.81	8.07	96.15	16.42	12.15	36.78	2.48	19.27	11.18
95th-Percentile Queue Length [veh]	0.83	6.74	6.68	0.58	6.92	1.18	0.87	2.65	0.18	1.39	0.81
95th-Percentile Queue Length [ft]	20.85	168.41	167.07	14.53	173.07	29.56	21.87	66.20	4.46	34.69	20.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.24	23.75	23.77	13.94	24.60	19.86	7.37	11.90	11.90	7.18	13.22	12.93
Movement LOS	B	C	C	B	C	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	22.94			23.60			10.39			12.45		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	20.37											
Intersection LOS	C											
Intersection V/C	0.401											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.451

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	17	411	39	98	473	28	59	133	20	60	186	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	411	39	98	473	28	59	133	20	60	186	109
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	112	11	27	129	8	16	36	5	16	51	30
Total Analysis Volume [veh/h]	18	447	42	107	515	30	64	145	22	65	202	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	10	10	6	14	14	5	24	5	24	24
g / C, Green / Cycle	0.03	0.17	0.17	0.10	0.23	0.23	0.08	0.39	0.08	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.01	0.13	0.03	0.06	0.15	0.15	0.04	0.09	0.04	0.11	0.08
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1827	1774	1820	1774	1863	1583
c, Capacity [veh/h]	58	591	264	176	434	426	139	710	140	728	618
d1, Uniform Delay [s]	28.49	23.95	21.50	26.03	20.80	20.80	26.58	12.35	26.56	12.56	12.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.97	2.00	0.28	3.36	1.53	1.57	2.39	0.78	2.40	0.95	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.76	0.16	0.61	0.63	0.63	0.46	0.24	0.47	0.28	0.19
d, Delay for Lane Group [s/veh]	31.46	25.95	21.78	29.39	22.32	22.37	28.97	13.13	28.96	13.51	12.80
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.29	2.99	0.50	1.55	3.39	3.33	0.92	1.49	0.94	1.84	1.05
50th-Percentile Queue Length [ft]	7.24	74.71	12.42	38.79	84.66	83.34	23.10	37.32	23.44	45.99	26.37
95th-Percentile Queue Length [veh]	0.52	5.38	0.89	2.79	6.10	6.00	1.66	2.69	1.69	3.31	1.90
95th-Percentile Queue Length [ft]	13.04	134.48	22.36	69.82	152.39	150.01	41.57	67.18	42.20	82.79	47.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.46	25.95	21.78	29.39	22.34	22.37	28.97	13.13	13.13	28.96	13.51	12.80
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.80			23.50			17.52			15.89		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.73											
Intersection LOS	C											
Intersection V/C	0.451											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	18.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	54	282	79	116	318	133	134	920	51	81	819	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	282	79	116	318	133	134	920	51	81	819	63
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	74	21	31	84	35	35	242	13	21	216	17
Total Analysis Volume [veh/h]	57	297	83	122	335	140	141	968	54	85	862	66
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	15	6	28	28	5	27	27
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.25	0.11	0.46	0.46	0.09	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.11	0.12	0.18	0.09	0.08	0.28	0.28	0.05	0.24	0.04
s, saturation flow rate [veh/h]	1041	1863	1726	999	1863	1583	1774	1863	1828	1774	3547	1583
c, Capacity [veh/h]	175	466	432	248	466	396	190	860	844	157	1572	702
d1, Uniform Delay [s]	28.52	18.89	18.94	26.01	20.62	18.55	26.05	12.05	12.05	26.25	12.33	9.74
k, delay calibration	0.11	0.11	0.11	0.11	0.22	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.07	0.60	0.67	1.50	4.11	0.54	5.60	3.08	3.14	2.88	1.38	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

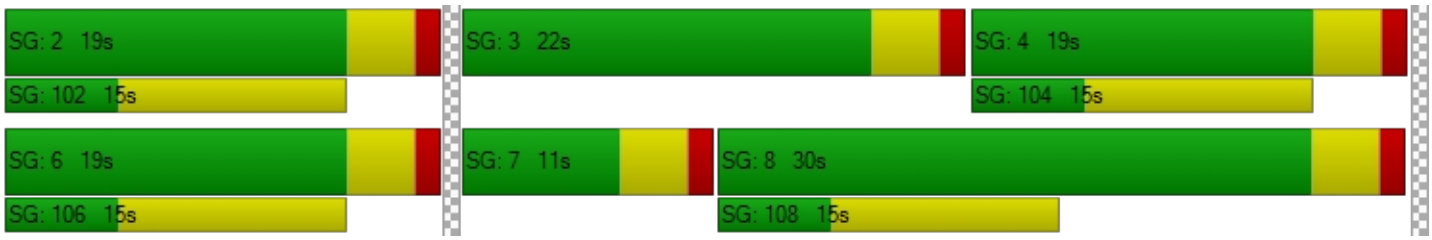
X, volume / capacity	0.33	0.42	0.43	0.49	0.72	0.35	0.74	0.60	0.60	0.54	0.55	0.09
d, Delay for Lane Group [s/veh]	29.59	19.48	19.61	27.51	24.72	19.08	31.66	15.13	15.20	29.13	13.71	10.00
Lane Group LOS	C	B	B	C	C	B	C	B	B	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.83	2.18	2.07	1.72	4.47	1.54	2.14	5.09	5.01	1.23	3.95	0.49
50th-Percentile Queue Length [ft]	20.78	54.41	51.87	43.10	111.63	38.45	53.46	127.13	125.25	30.66	98.64	12.32
95th-Percentile Queue Length [veh]	1.50	3.92	3.73	3.10	7.93	2.77	3.85	8.78	8.68	2.21	7.10	0.89
95th-Percentile Queue Length [ft]	37.41	97.93	93.37	77.59	198.27	69.21	96.24	219.58	217.02	55.19	177.55	22.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.59	19.53	19.61	27.51	24.72	19.08	31.66	15.16	15.20	29.13	13.71	10.00
Movement LOS	C	B	B	C	C	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	20.86			23.97			17.16			14.76		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	18.17											
Intersection LOS	B											
Intersection V/C	0.631											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

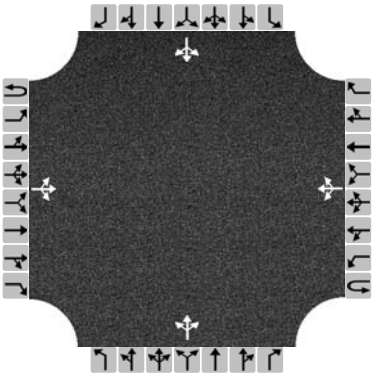
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	28	5		7	25	28		8	373	3		31	395	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				8					431				491	
Capacity		1537				1565					734				709	
v/c Ratio		0.01				0.01					0.59				0.69	
95% Queue Length		0.0				0.0					3.9				5.6	
Control Delay (s/veh)		7.4				7.3					16.6				20.7	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	1.5				0.9				16.6				20.7			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.713

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	40	323	41	41	344	20	30	273	49	37	215	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	323	41	41	344	20	30	273	49	37	215	32
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	84	11	11	90	5	8	71	13	10	56	8
Total Analysis Volume [veh/h]	42	337	43	43	359	21	31	285	51	39	224	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	19	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	23	23	4	23	23	14	14	13
g / C, Green / Cycle	0.06	0.32	0.32	0.06	0.33	0.33	0.20	0.20	0.19
(v / s)_i Volume / Saturation Flow Rate	0.02	0.18	0.03	0.02	0.19	0.01	0.17	0.03	0.16
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1854	1583	1815
c, Capacity [veh/h]	101	602	512	103	604	513	370	316	347
d1, Uniform Delay [s]	31.94	19.61	16.51	31.90	19.84	16.24	27.06	23.20	27.42
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.17	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.71	3.73	0.32	2.71	4.27	0.15	8.64	0.24	9.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

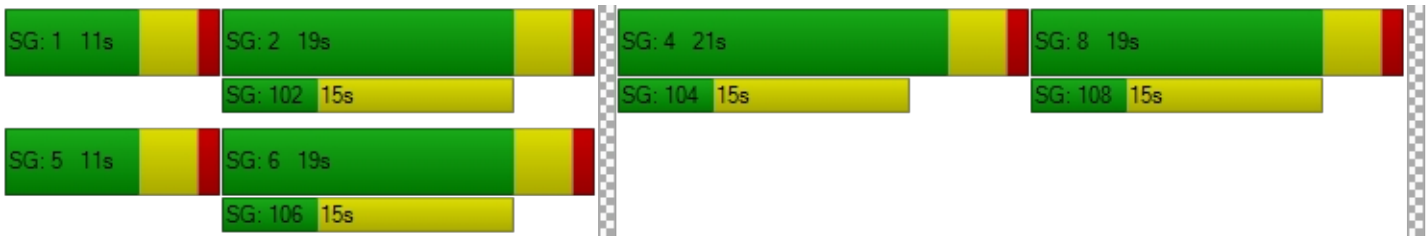
X, volume / capacity	0.42	0.56	0.08	0.42	0.59	0.04	0.85	0.16	0.85
d, Delay for Lane Group [s/veh]	34.65	23.34	16.83	34.61	24.12	16.38	35.70	23.43	37.33
Lane Group LOS	C	C	B	C	C	B	D	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.74	4.85	0.50	0.76	5.27	0.24	5.72	0.69	5.51
50th-Percentile Queue Length [ft]	18.55	121.18	12.49	18.97	131.86	5.99	143.11	17.24	137.68
95th-Percentile Queue Length [veh]	1.34	8.46	0.90	1.37	9.04	0.43	9.65	1.24	9.36
95th-Percentile Queue Length [ft]	33.39	211.45	22.48	34.14	226.02	10.77	241.20	31.03	233.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.65	23.34	16.83	34.61	24.12	16.38	35.70	35.70	23.43	37.33	37.33	37.33
Movement LOS	C	C	B	C	C	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	23.80			24.80			34.00			37.33		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	29.22											
Intersection LOS	C											
Intersection V/C	0.713											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	62	167	10	5	144	27	54	43	76	4	42	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	167	10	5	144	27	54	43	76	4	42	5
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	47	3	1	40	8	15	12	21	1	12	1
Total Analysis Volume [veh/h]	69	186	11	6	161	30	60	48	85	4	47	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.65	1.07	1.07	0.28
95th-Percentile Queue Length [ft]	41.13	26.75	26.77	6.89
Approach Delay [s/veh]	10.60	9.61	9.76	8.83
Approach LOS	B	A	A	A
Intersection Delay [s/veh]	9.96			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	12.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.452

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	33	124	41	49	151	39	32	1023	25	74	958	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	124	41	49	151	39	32	1023	25	74	958	24
Peak Hour Factor	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	32	11	13	39	10	8	267	7	19	250	6
Total Analysis Volume [veh/h]	34	130	43	51	158	41	33	1069	26	77	1001	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	24	24	24	28	28	28	28	28	28
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.47	0.47	0.47	0.47	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.04	0.08	0.03	0.06	0.30	0.30	0.15	0.28	0.02
s, saturation flow rate [veh/h]	1223	1784	1207	1863	1583	561	1863	1847	513	3547	1583
c, Capacity [veh/h]	488	707	472	738	628	254	876	869	236	1668	745
d1, Uniform Delay [s]	15.09	12.11	15.72	11.95	11.22	18.48	11.94	11.94	21.18	11.73	8.55
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	0.82	0.46	0.66	0.20	0.23	0.74	0.75	0.80	0.35	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

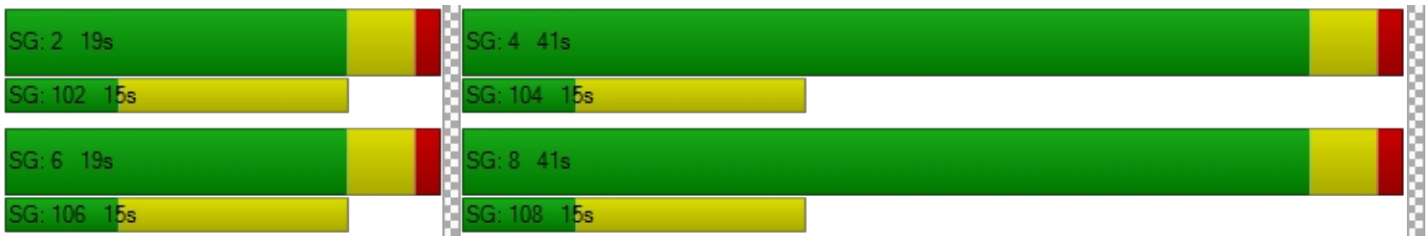
X, volume / capacity	0.07	0.24	0.11	0.21	0.07	0.13	0.63	0.63	0.33	0.60	0.03
d, Delay for Lane Group [s/veh]	15.37	12.93	16.18	12.61	11.42	18.71	12.69	12.69	21.98	12.08	8.57
Lane Group LOS	B	B	B	B	B	B	B	B	C	B	A
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.34	1.54	0.54	1.38	0.34	0.36	4.81	4.77	0.96	4.22	0.15
50th-Percentile Queue Length [ft]	8.61	38.45	13.40	34.41	8.43	8.99	120.27	119.34	24.00	105.50	3.86
95th-Percentile Queue Length [veh]	0.62	2.77	0.96	2.48	0.61	0.65	8.41	8.36	1.73	7.59	0.28
95th-Percentile Queue Length [ft]	15.50	69.21	24.12	61.94	15.18	16.19	210.19	208.91	43.20	189.73	6.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.37	12.93	12.93	16.18	12.61	11.42	18.71	12.69	12.69	21.98	12.08	8.57
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	A
d_A, Approach Delay [s/veh]	13.33			13.14			12.87			12.69		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	12.85											
Intersection LOS	B											
Intersection V/C	0.452											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	164	18	16	206	29	26	264	29	30	227	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	164	18	16	206	29	26	264	29	30	227	17
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	43	5	4	54	8	7	69	8	8	59	4
Total Analysis Volume [veh/h]	17	171	19	17	215	30	27	276	30	31	237	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.70	2.38	3.44	2.68
95th-Percentile Queue Length [ft]	42.46	59.60	85.88	66.93
Approach Delay [s/veh]	13.18	14.48	16.40	14.89
Approach LOS	B	B	C	B
Intersection Delay [s/veh]	14.93			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	13.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	40	77	61	22	85	53	19	1012	44	54	912	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	77	61	22	85	53	19	1012	44	54	912	21
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	20	16	6	22	14	5	268	12	14	241	6
Total Analysis Volume [veh/h]	42	81	65	23	90	56	20	1071	47	57	965	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	27	27	27	27	27	27
g / C, Green / Cycle	0.42	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.03	0.08	0.02	0.08	0.04	0.30	0.30	0.11	0.27	0.27
s, saturation flow rate [veh/h]	1237	1727	1237	1745	568	1863	1835	502	1863	1848
c, Capacity [veh/h]	524	725	523	732	247	833	820	213	833	826
d1, Uniform Delay [s]	14.09	11.04	13.89	11.03	18.75	13.15	13.15	22.49	12.50	12.50
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.30	0.63	0.16	0.61	0.14	0.97	0.98	0.67	0.68	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

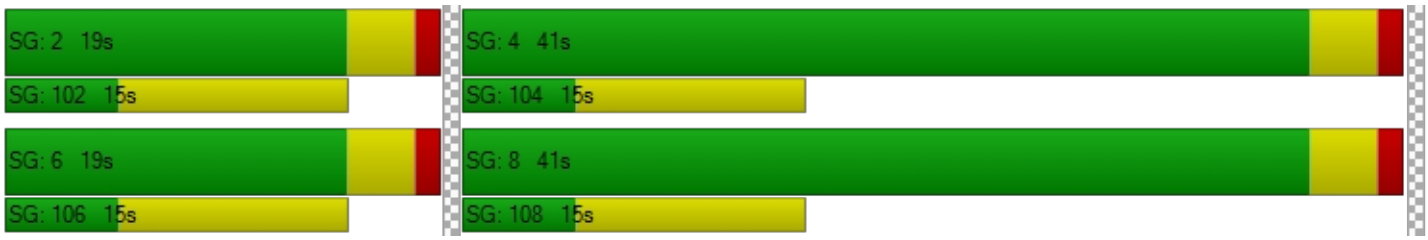
X, volume / capacity	0.08	0.20	0.04	0.20	0.08	0.68	0.68	0.27	0.59	0.60
d, Delay for Lane Group [s/veh]	14.38	11.66	14.05	11.64	18.89	14.12	14.14	23.15	13.18	13.19
Lane Group LOS	B	B	B	B	B	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.41	1.21	0.22	1.20	0.22	5.35	5.28	0.73	4.44	4.41
50th-Percentile Queue Length [ft]	10.13	30.14	5.46	30.08	5.46	133.70	131.90	18.22	111.10	110.27
95th-Percentile Queue Length [veh]	0.73	2.17	0.39	2.17	0.39	9.14	9.04	1.31	7.90	7.85
95th-Percentile Queue Length [ft]	18.24	54.26	9.82	54.14	9.83	228.52	226.07	32.79	197.53	196.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.38	11.66	11.66	14.05	11.64	11.64	18.89	14.13	14.14	23.15	13.18	13.19
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	12.27			11.97			14.21			13.73		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	13.72											
Intersection LOS	B											
Intersection V/C	0.446											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	24	113	35	17	160	27	22	251	23	24	226	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	113	35	17	160	27	22	251	23	24	226	24
Peak Hour Factor	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	31	10	5	44	7	6	69	6	7	62	7
Total Analysis Volume [veh/h]	26	124	38	19	175	30	24	275	25	26	248	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.38	1.77	2.99	2.63
95th-Percentile Queue Length [ft]	34.56	44.16	74.74	65.80
Approach Delay [s/veh]	12.04	12.78	14.78	14.10
Approach LOS	B	B	B	B
Intersection Delay [s/veh]	13.65			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	33.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	67	303	65	243	226	229	212	811	68	97	646	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	303	65	243	226	229	212	811	68	97	646	113
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	80	17	64	59	60	56	213	18	25	170	30
Total Analysis Volume [veh/h]	70	319	68	256	238	241	223	853	72	102	679	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	18	26	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	16	11	22	22	6	17	17
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.15	0.29	0.29	0.08	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.11	0.11	0.14	0.14	0.15	0.13	0.25	0.25	0.06	0.19	0.08
s, saturation flow rate [veh/h]	1774	1863	1752	1774	1858	1583	1774	1863	1812	1774	3547	1583
c, Capacity [veh/h]	366	384	361	366	383	326	267	543	529	147	795	355
d1, Uniform Delay [s]	24.64	26.48	26.53	27.42	27.37	27.92	31.00	25.18	25.19	33.51	27.96	24.44
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.18	0.18	0.18	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.16	4.87	5.35	9.16	8.49	13.91	10.69	6.72	6.94	5.72	2.75	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

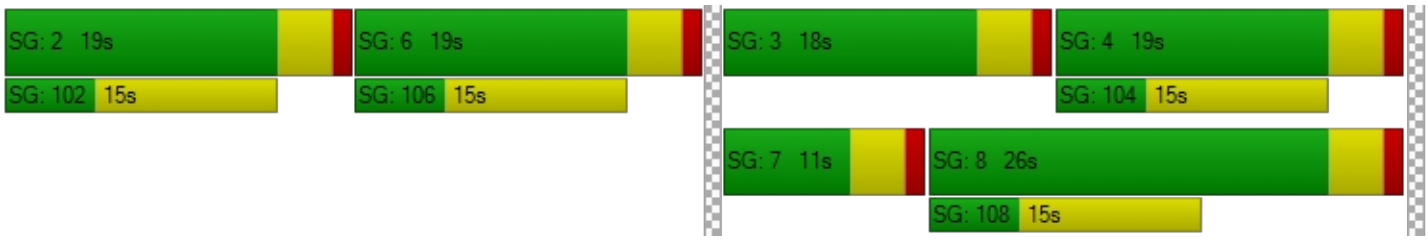
X, volume / capacity	0.19	0.52	0.52	0.66	0.66	0.74	0.84	0.86	0.86	0.69	0.85	0.34
d, Delay for Lane Group [s/veh]	25.80	31.35	31.88	36.58	35.86	41.83	41.70	31.90	32.13	39.24	30.71	25.00
Lane Group LOS	C	C	C	D	D	D	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.11	3.54	3.43	4.77	4.87	5.14	4.58	8.46	8.27	1.99	5.89	1.77
50th-Percentile Queue Length [ft]	27.83	88.56	85.84	119.30	121.80	128.60	114.44	211.56	206.85	49.80	147.19	44.14
95th-Percentile Queue Length [veh]	2.00	6.38	6.18	8.35	8.49	8.86	8.09	13.23	12.99	3.59	9.87	3.18
95th-Percentile Queue Length [ft]	50.10	159.41	154.52	208.87	212.29	221.59	202.17	330.83	324.79	89.64	246.67	79.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.80	31.55	31.88	36.55	35.86	41.83	41.70	32.00	32.13	39.24	30.71	25.00
Movement LOS	C	C	C	D	D	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	30.72			38.05			33.89			30.92		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	33.56											
Intersection LOS	C											
Intersection V/C	0.734											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Existing Plus Project

Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	14	165	3	24	171	10	15	195	24	9	103	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	5	6	0	0	14	0	0	10	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	166	3	29	177	10	15	209	24	9	113	10
Peak Hour Factor	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140	0.9140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	45	1	8	48	3	4	57	7	2	31	3
Total Analysis Volume [veh/h]	15	182	3	32	194	11	16	229	26	10	124	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.31	1.65	2.00	0.12	0.89
95th-Percentile Queue Length [ft]	32.79	41.19	49.95	2.97	22.30
Approach Delay [s/veh]	11.03	11.57	12.42		10.48
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	11.53				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	80	139	108	21	151	23	14	620	66	50	746	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	5	0	0	0	57	0	0	-3	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	139	113	26	151	23	14	677	66	50	743	20
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	38	31	7	41	6	4	183	18	14	201	5
Total Analysis Volume [veh/h]	87	150	122	28	163	25	15	733	71	54	804	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	27	35	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	2	17	17	4	20	20
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.48	0.03	0.27	0.27	0.07	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.08	0.02	0.10	0.01	0.22	0.22	0.03	0.22	0.22
s, saturation flow rate [veh/h]	1191	1863	1583	1232	1820	1774	1863	1806	1774	1863	1845
c, Capacity [veh/h]	568	893	759	603	873	49	498	482	123	575	570
d1, Uniform Delay [s]	13.32	9.59	9.56	12.03	9.84	31.07	22.40	22.41	29.12	20.03	20.03
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	0.41	0.45	0.15	0.57	3.49	3.42	3.54	2.48	1.73	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

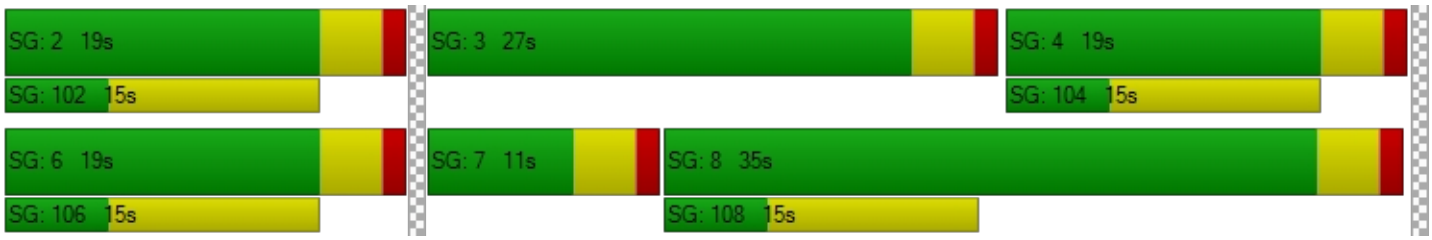
X, volume / capacity	0.15	0.17	0.16	0.05	0.22	0.31	0.82	0.82	0.44	0.72	0.72
d, Delay for Lane Group [s/veh]	13.89	10.00	10.01	12.18	10.40	34.55	25.83	25.95	31.59	21.76	21.78
Lane Group LOS	B	A	B	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.86	1.16	0.95	0.25	1.50	0.27	5.89	5.73	0.86	5.41	5.37
50th-Percentile Queue Length [ft]	21.55	29.02	23.86	6.31	37.48	6.75	147.37	143.37	21.55	135.34	134.16
95th-Percentile Queue Length [veh]	1.55	2.09	1.72	0.45	2.70	0.49	9.88	9.66	1.55	9.23	9.17
95th-Percentile Queue Length [ft]	38.79	52.23	42.95	11.35	67.46	12.15	246.91	241.55	38.78	230.74	229.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.89	10.00	10.01	12.18	10.40	10.40	34.55	25.88	25.95	31.59	21.77	21.78
Movement LOS	B	A	B	B	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	10.95			10.63			26.05			22.37		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.78											
Intersection LOS	C											
Intersection V/C	0.433											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	76	182	68	78	131	30	45	186	54	60	221	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	-1	0	0	0	0	33	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	187	67	78	131	30	45	219	54	60	226	138
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	19	22	38	9	13	63	15	17	65	40
Total Analysis Volume [veh/h]	87	214	77	89	150	34	52	251	62	69	259	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.76	4.26	0.81	2.01	0.42	5.07	0.59	3.66	1.41
95th-Percentile Queue Length [ft]	18.93	106.60	20.30	50.36	10.39	126.83	14.69	91.38	35.13
Approach Delay [s/veh]	20.68		15.66		24.01		17.87		
Approach LOS	C		C		C		C		
Intersection Delay [s/veh]	19.67								
Intersection LOS	C								

HCS 2010 Two-Way Stop Control Summary Report

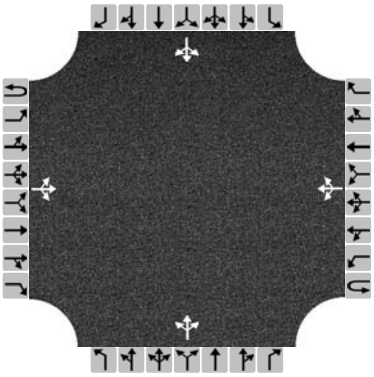
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing Plus Project
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	242	6		10	227	18		13	48	11		4	28	5
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				11					77				38	
Capacity		1299				1296					456				453	
v/c Ratio		0.01				0.01					0.17				0.08	
95% Queue Length		0.0				0.0					0.6				0.3	
Control Delay (s/veh)		7.8				7.8					14.5				13.7	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)	0.3				0.4				14.5				13.7			
Approach LOS									B				B			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	8.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.412

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	37	44	6	33	15	14	718	42	47	833	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-4	8	3	-1	0	-3	15	57	-5	-9	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	45	47	5	33	12	29	775	37	38	838	19
Peak Hour Factor	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	12	13	1	9	3	8	209	10	10	226	5
Total Analysis Volume [veh/h]	38	48	51	5	36	13	31	835	40	41	903	20
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	6	6	3	38	38	4	39	39
g / C, Green / Cycle	0.11	0.11	0.11	0.05	0.64	0.64	0.06	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.06	0.03	0.04	0.02	0.24	0.03	0.02	0.25	0.25
s, saturation flow rate [veh/h]	1360	1583	1331	1774	3547	1583	1774	1863	1849
c, Capacity [veh/h]	231	169	207	88	2249	1004	106	1201	1192
d1, Uniform Delay [s]	25.34	24.82	24.79	27.67	5.26	4.13	27.22	5.06	5.06
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	1.00	0.66	2.41	0.47	0.07	2.29	0.94	0.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

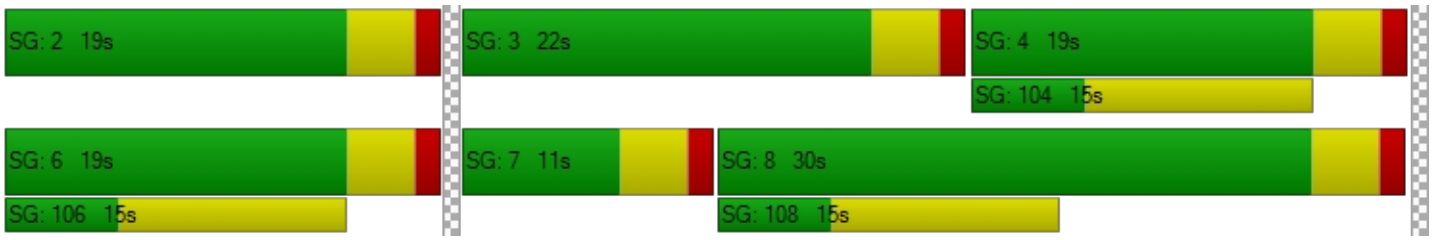
X, volume / capacity	0.37	0.30	0.26	0.35	0.37	0.04	0.39	0.39	0.39
d, Delay for Lane Group [s/veh]	26.33	25.81	25.45	30.08	5.73	4.20	29.51	5.99	6.00
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.16	0.68	0.71	0.47	1.89	0.15	0.61	2.17	2.16
50th-Percentile Queue Length [ft]	29.00	17.03	17.71	11.72	47.30	3.80	15.14	54.36	54.00
95th-Percentile Queue Length [veh]	2.09	1.23	1.28	0.84	3.41	0.27	1.09	3.91	3.89
95th-Percentile Queue Length [ft]	52.20	30.66	31.88	21.10	85.13	6.83	27.26	97.84	97.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.33	26.33	25.81	25.45	25.45	25.45	30.08	5.73	4.20	29.51	6.00	6.00
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	26.14			25.45			6.50			7.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	8.53											
Intersection LOS	A											
Intersection V/C	0.412											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	2	4	3	1	1	31	0	0	4	-1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	93	20	11	57	67	30	181	36	17	234	17
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	29	6	3	18	21	9	56	11	5	72	5
Total Analysis Volume [veh/h]	111	114	25	14	70	82	37	222	44	21	287	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.20	0.13	1.20	2.76	3.19
95th-Percentile Queue Length [ft]	55.01	3.28	29.91	68.88	79.84
Approach Delay [s/veh]	14.43		11.83	14.55	15.49
Approach LOS	B		B	B	C
Intersection Delay [s/veh]	14.39				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	31.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	24	473	27	130	424	56	72	212	18	48	187	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	58	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	482	27	130	482	56	72	212	18	48	187	154
Peak Hour Factor	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180	0.9180
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	131	7	35	131	15	20	58	5	13	51	42
Total Analysis Volume [veh/h]	26	525	29	142	525	61	78	231	20	52	204	168
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	13	19	0	13	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	13	13	7	17	17	17	17	17
g / C, Green / Cycle	0.04	0.18	0.18	0.10	0.24	0.24	0.24	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.01	0.15	0.15	0.08	0.16	0.16	0.18	0.14	0.11
s, saturation flow rate [veh/h]	1774	1863	1829	1774	1863	1796	1822	1844	1583
c, Capacity [veh/h]	74	342	336	183	456	439	442	448	385
d1, Uniform Delay [s]	32.73	27.54	27.56	30.73	23.86	23.87	24.58	23.38	22.53
k, delay calibration	0.11	0.16	0.16	0.12	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.80	6.89	7.17	7.50	1.60	1.67	10.79	5.22	3.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

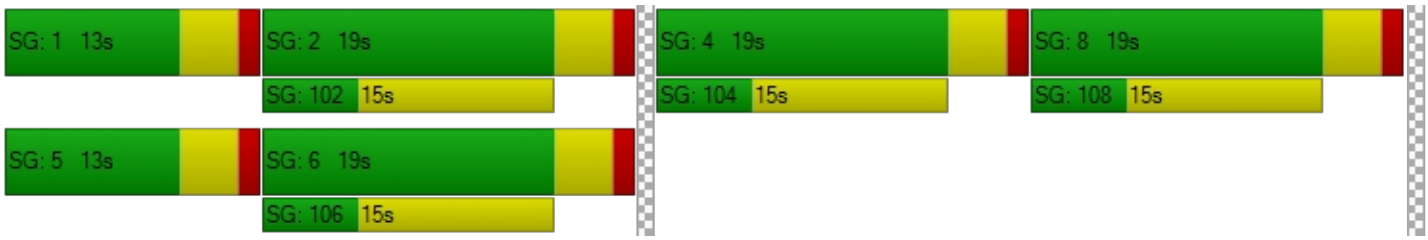
X, volume / capacity	0.35	0.82	0.82	0.78	0.65	0.66	0.74	0.57	0.44
d, Delay for Lane Group [s/veh]	35.54	34.43	34.72	38.23	25.45	25.53	35.37	28.60	26.11
Lane Group LOS	D	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.47	4.93	4.88	2.64	4.40	4.26	6.09	4.17	2.61
50th-Percentile Queue Length [ft]	11.87	123.29	122.04	65.90	110.04	106.57	152.16	104.34	65.26
95th-Percentile Queue Length [veh]	0.85	8.57	8.51	4.74	7.84	7.65	10.13	7.51	4.70
95th-Percentile Queue Length [ft]	21.36	214.34	212.63	118.62	196.06	191.22	253.30	187.82	117.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.54	34.57	34.72	38.23	25.49	25.53	35.37	35.37	35.37	28.60	28.60	26.11
Movement LOS	D	C	C	D	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	34.62			27.98			35.37			27.61		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	30.95											
Intersection LOS	C											
Intersection V/C	0.712											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	15	471	48	39	389	9	24	145	21	28	159	48
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	2	0	58	0	0	0	0	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	480	50	39	447	9	24	145	21	29	159	48
Peak Hour Factor	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	135	14	11	126	3	7	41	6	8	45	14
Total Analysis Volume [veh/h]	17	541	56	44	503	10	27	163	24	33	179	54
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	22	0	19	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	13	13	4	15	15	32	32	32	32
g / C, Green / Cycle	0.03	0.21	0.21	0.06	0.24	0.24	0.53	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.01	0.16	0.16	0.02	0.14	0.14	0.02	0.10	0.03	0.13
s, saturation flow rate [veh/h]	1774	1863	1802	1774	1863	1850	1143	1821	1192	1790
c, Capacity [veh/h]	55	393	380	112	453	450	596	959	637	942
d1, Uniform Delay [s]	28.52	22.36	22.38	27.09	20.00	20.00	10.47	7.51	9.90	7.75
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.13	3.21	3.38	2.25	1.12	1.14	0.14	0.45	0.15	0.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

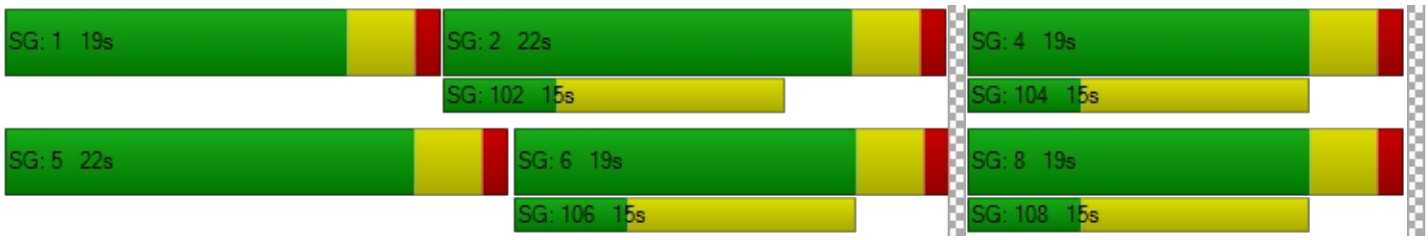
X, volume / capacity	0.31	0.77	0.77	0.39	0.57	0.57	0.05	0.19	0.05	0.25
d, Delay for Lane Group [s/veh]	31.65	25.57	25.76	29.33	21.13	21.14	10.62	7.97	10.05	8.38
Lane Group LOS	C	C	C	C	C	C	B	A	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.28	4.07	3.98	0.65	3.05	3.04	0.21	1.16	0.25	1.50
50th-Percentile Queue Length [ft]	6.91	101.82	99.42	16.15	76.37	75.98	5.31	29.03	6.22	37.53
95th-Percentile Queue Length [veh]	0.50	7.33	7.16	1.16	5.50	5.47	0.38	2.09	0.45	2.70
95th-Percentile Queue Length [ft]	12.43	183.27	178.96	29.07	137.46	136.77	9.56	52.26	11.20	67.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.65	25.65	25.76	29.33	21.13	21.14	10.62	7.97	7.97	10.05	8.38	8.38
Movement LOS	C	C	C	C	C	C	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	25.83			21.78			8.30			8.59		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	19.41											
Intersection LOS	B											
Intersection V/C	0.398											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	29	443	13	51	401	36	58	126	47	12	48	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	10	5	46	7	4	7	0	2	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	29	450	23	56	447	43	62	133	47	14	51	23
Peak Hour Factor	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130	0.8130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	138	7	17	137	13	19	41	14	4	16	7
Total Analysis Volume [veh/h]	36	554	28	69	550	53	76	164	58	17	63	28
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	21	12	12	21	14	14	31	26	31	22	22
g / C, Green / Cycle	0.35	0.20	0.20	0.35	0.23	0.23	0.52	0.42	0.52	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.16	0.06	0.16	0.03	0.05	0.12	0.01	0.03	0.02
s, saturation flow rate [veh/h]	1088	1863	1831	1143	3547	1583	1434	1781	1231	1863	1583
c, Capacity [veh/h]	430	371	365	448	802	358	900	752	723	686	583
d1, Uniform Delay [s]	13.78	22.95	22.96	14.13	21.38	18.69	7.28	11.49	7.23	12.46	12.26
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	3.87	4.00	0.16	1.05	0.19	0.04	1.00	0.06	0.27	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.79	0.79	0.15	0.69	0.15	0.08	0.30	0.02	0.09	0.05
d, Delay for Lane Group [s/veh]	13.87	26.82	26.97	14.29	22.43	18.88	7.32	12.49	7.29	12.73	12.41
Lane Group LOS	B	C	C	B	C	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.31	4.05	4.01	0.60	3.39	0.57	0.42	1.92	0.10	0.55	0.24
50th-Percentile Queue Length [ft]	7.63	101.28	100.16	14.91	84.69	14.24	10.43	47.95	2.50	13.74	6.08
95th-Percentile Queue Length [veh]	0.55	7.29	7.21	1.07	6.10	1.03	0.75	3.45	0.18	0.99	0.44
95th-Percentile Queue Length [ft]	13.73	182.31	180.28	26.84	152.44	25.64	18.77	86.31	4.50	24.73	10.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.87	26.89	26.97	14.29	22.43	18.88	7.32	12.49	12.49	7.29	12.73	12.41
Movement LOS	B	C	C	B	C	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	26.13			21.31			11.17			11.79		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	20.68											
Intersection LOS	C											
Intersection V/C	0.433											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.404

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	20	384	39	87	329	29	34	108	17	27	105	64
Site-Generated Trips [veh/h]	12	14	0	0	48	0	2	1	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	398	39	87	377	29	36	109	32	27	105	64
Peak Hour Factor	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	116	11	25	109	8	10	32	9	8	30	19
Total Analysis Volume [veh/h]	37	462	45	101	438	34	42	127	37	31	122	74
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	10	10	6	13	13	4	25	3	24	24
g / C, Green / Cycle	0.06	0.17	0.17	0.10	0.21	0.21	0.06	0.42	0.05	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.02	0.13	0.03	0.06	0.13	0.13	0.02	0.09	0.02	0.07	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1816	1774	1791	1774	1863	1583
c, Capacity [veh/h]	100	607	271	172	395	385	108	747	87	756	642
d1, Uniform Delay [s]	27.41	23.81	21.32	26.06	21.47	21.48	27.25	11.27	27.75	11.40	11.17
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.26	2.00	0.29	3.14	1.49	1.54	2.30	0.68	2.45	0.46	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.76	0.17	0.59	0.60	0.61	0.39	0.22	0.36	0.16	0.12
d, Delay for Lane Group [s/veh]	29.67	25.81	21.60	29.19	22.96	23.03	29.55	11.95	30.19	11.86	11.54
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.55	3.08	0.53	1.46	2.98	2.92	0.62	1.37	0.47	1.01	0.61
50th-Percentile Queue Length [ft]	13.76	77.06	13.24	36.46	74.41	73.02	15.51	34.31	11.75	25.32	15.25
95th-Percentile Queue Length [veh]	0.99	5.55	0.95	2.63	5.36	5.26	1.12	2.47	0.85	1.82	1.10
95th-Percentile Queue Length [ft]	24.77	138.71	23.83	65.63	133.94	131.44	27.92	61.77	21.15	45.57	27.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.67	25.81	21.60	29.19	22.99	23.03	29.55	11.95	11.95	30.19	11.86	11.54
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.73			24.09			15.54			14.26		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.09											
Intersection LOS	C											
Intersection V/C	0.404											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.545

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	284	70	70	210	88	100	580	16	46	744	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	16	4	15	58	-9	9	5	64	24	-7	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	300	74	85	268	79	109	585	80	70	737	69
Peak Hour Factor	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470	0.9470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	79	20	22	71	21	29	154	21	18	195	18
Total Analysis Volume [veh/h]	42	317	78	90	283	83	115	618	84	74	778	73
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	15	6	28	28	5	27	27
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.25	0.10	0.47	0.47	0.08	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.04	0.11	0.11	0.09	0.15	0.05	0.06	0.19	0.19	0.04	0.22	0.05
s, saturation flow rate [veh/h]	1092	1863	1739	985	1863	1583	1774	1863	1786	1774	3547	1583
c, Capacity [veh/h]	207	459	429	239	459	390	179	877	840	148	1606	717
d1, Uniform Delay [s]	26.50	19.15	19.20	25.56	20.13	18.02	25.99	10.44	10.44	26.38	11.54	9.44
k, delay calibration	0.11	0.11	0.11	0.11	0.14	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.48	0.66	0.74	0.98	1.71	0.27	3.78	1.41	1.47	2.61	1.05	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

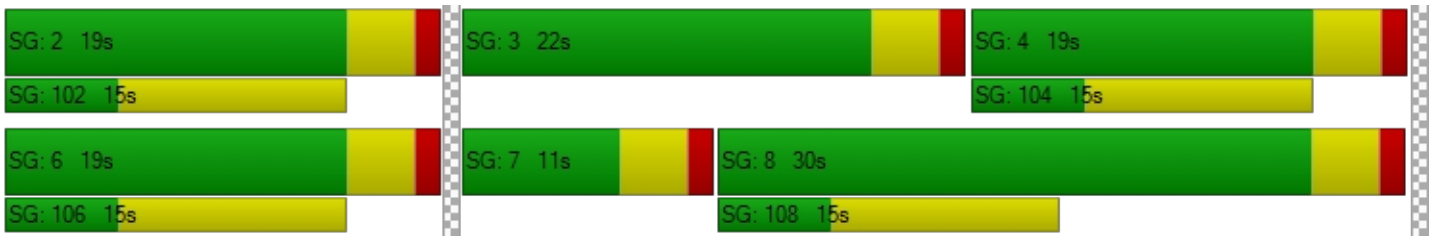
X, volume / capacity	0.20	0.44	0.45	0.38	0.62	0.21	0.64	0.41	0.41	0.50	0.48	0.10
d, Delay for Lane Group [s/veh]	26.98	19.82	19.94	26.54	21.85	18.29	29.76	11.85	11.91	28.99	12.59	9.73
Lane Group LOS	C	B	B	C	C	B	C	B	B	C	B	A
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.57	2.28	2.19	1.23	3.45	0.88	1.68	2.99	2.88	1.07	3.35	0.53
50th-Percentile Queue Length [ft]	14.30	57.03	54.64	30.78	86.21	21.92	42.00	74.68	72.05	26.66	83.72	13.37
95th-Percentile Queue Length [veh]	1.03	4.11	3.93	2.22	6.21	1.58	3.02	5.38	5.19	1.92	6.03	0.96
95th-Percentile Queue Length [ft]	25.75	102.66	98.36	55.40	155.18	39.46	75.59	134.43	129.69	47.98	150.69	24.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.98	19.86	19.94	26.54	21.85	18.29	29.76	11.87	11.91	28.99	12.59	9.73
Movement LOS	C	B	B	C	C	B	C	B	B	C	B	A
d_A, Approach Delay [s/veh]	20.56			22.12			14.40			13.68		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	16.50											
Intersection LOS	B											
Intersection V/C	0.545											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

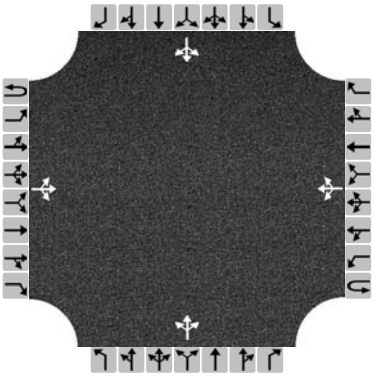
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing Plus Project
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	28	5		7	25	28		8	546	3		31	459	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				8					625				563	
Capacity		1537				1565					734				633	
v/c Ratio		0.01				0.01					0.85				0.89	
95% Queue Length		0.0				0.0					10.0				10.8	
Control Delay (s/veh)		7.4				7.3					31.3				39.6	
Level of Service (LOS)		A				A					D				E	
Approach Delay (s/veh)	1.5				0.9				31.3				39.6			
Approach LOS									D				E			

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	26.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	27	331	26	23	230	19	14	134	28	22	207	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-6	9	11	0	0	0	0	40	0	2	2	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	340	37	23	230	19	14	174	28	24	209	36
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	97	11	7	66	5	4	50	8	7	60	10
Total Analysis Volume [veh/h]	24	389	42	26	263	22	16	199	32	27	239	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	19	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	27	27	3	27	27	10	10	14
g / C, Green / Cycle	0.04	0.39	0.39	0.04	0.39	0.39	0.14	0.14	0.20
(v / s)_i Volume / Saturation Flow Rate	0.01	0.21	0.03	0.01	0.14	0.01	0.12	0.02	0.17
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1856	1583	1812
c, Capacity [veh/h]	68	724	615	72	728	619	270	230	357
d1, Uniform Delay [s]	32.87	16.57	13.47	32.74	15.14	13.19	28.96	26.14	27.22
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.21
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.07	2.85	0.21	2.98	1.39	0.11	5.34	0.27	10.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

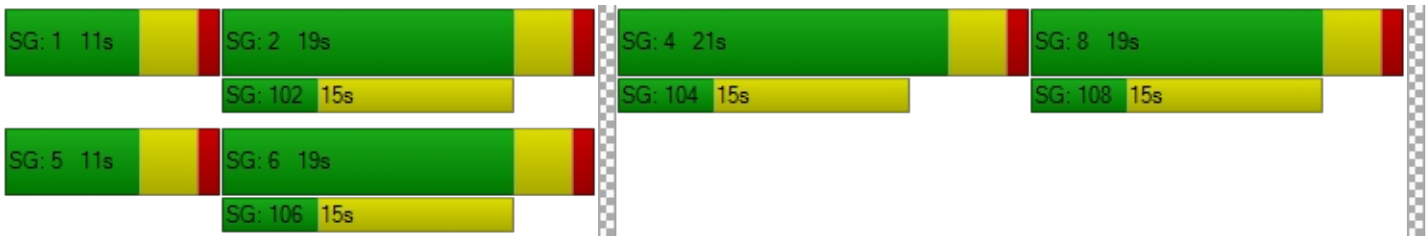
X, volume / capacity	0.35	0.54	0.07	0.36	0.36	0.04	0.80	0.14	0.86
d, Delay for Lane Group [s/veh]	35.94	19.42	13.68	35.72	16.54	13.30	34.30	26.41	38.08
Lane Group LOS	D	B	B	D	B	B	C	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.44	4.99	0.42	0.48	3.02	0.22	3.75	0.47	5.79
50th-Percentile Queue Length [ft]	11.09	124.84	10.61	11.92	75.50	5.45	93.63	11.67	144.79
95th-Percentile Queue Length [veh]	0.80	8.66	0.76	0.86	5.44	0.39	6.74	0.84	9.74
95th-Percentile Queue Length [ft]	19.96	216.46	19.10	21.45	135.91	9.81	168.54	21.00	243.47

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.94	19.42	13.68	35.72	16.54	13.30	34.30	34.30	26.41	38.08	38.08	38.08
Movement LOS	D	B	B	D	B	B	C	C	C	D	D	D
d_A, Approach Delay [s/veh]	19.76			17.91			33.28			38.08		
Approach LOS	B			B			C			D		
d_I, Intersection Delay [s/veh]	26.12											
Intersection LOS	C											
Intersection V/C	0.659											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	35	160	2	4	133	35	35	45	89	2	13	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	0	0	22	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	160	2	6	133	35	35	67	89	2	18	1
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	43	1	2	36	9	9	18	24	1	5	0
Total Analysis Volume [veh/h]	38	172	2	6	143	38	38	72	96	2	19	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.15	0.94	1.08	0.10
95th-Percentile Queue Length [ft]	28.77	23.62	27.04	2.45
Approach Delay [s/veh]	9.61	9.13	9.39	8.35
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.35			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	16.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	174	47	27	90	27	19	648	15	36	863	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	-2	0	25	0	0	32	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	174	47	27	90	25	19	673	15	36	895	15
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	47	13	7	24	7	5	183	4	10	243	4
Total Analysis Volume [veh/h]	42	189	51	29	98	27	21	732	16	39	974	16
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	33	24	24	24	24	24	24
g / C, Green / Cycle	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.03	0.13	0.03	0.05	0.02	0.04	0.20	0.20	0.05	0.27	0.01
s, saturation flow rate [veh/h]	1292	1795	1135	1863	1583	575	1863	1849	711	3547	1583
c, Capacity [veh/h]	694	904	568	938	797	166	696	691	236	1325	592
d1, Uniform Delay [s]	10.12	9.26	11.88	8.46	8.16	27.55	15.97	15.97	23.32	17.58	12.88
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.72	0.17	0.22	0.08	0.34	0.65	0.66	0.33	0.81	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

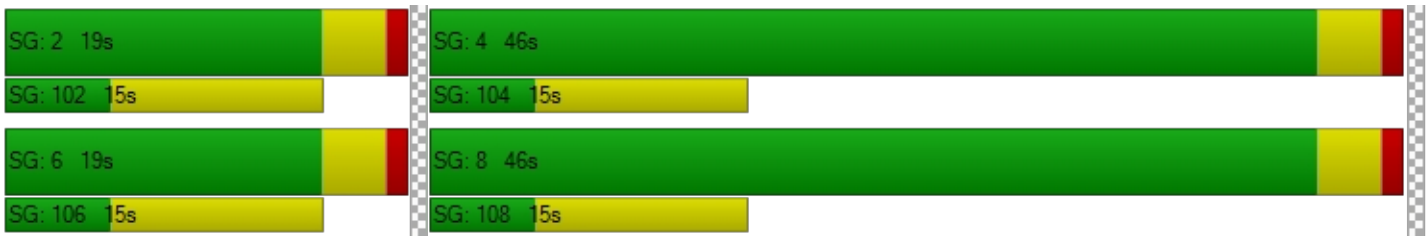
X, volume / capacity	0.06	0.27	0.05	0.10	0.03	0.13	0.54	0.54	0.17	0.74	0.03
d, Delay for Lane Group [s/veh]	10.29	9.97	12.05	8.69	8.24	27.89	16.62	16.63	23.64	18.39	12.90
Lane Group LOS	B	A	B	A	A	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.34	1.86	0.26	0.69	0.18	0.31	4.10	4.07	0.52	5.82	0.14
50th-Percentile Queue Length [ft]	8.41	46.51	6.53	17.14	4.60	7.72	102.41	101.71	12.92	145.49	3.49
95th-Percentile Queue Length [veh]	0.61	3.35	0.47	1.23	0.33	0.56	7.37	7.32	0.93	9.78	0.25
95th-Percentile Queue Length [ft]	15.14	83.72	11.75	30.85	8.28	13.90	184.34	183.07	23.25	244.39	6.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	10.29	9.97	9.97	12.05	8.69	8.24	27.89	16.63	16.63	23.64	18.39	12.90
Movement LOS	B	A	A	B	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.02			9.24			16.93			18.50		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	16.25											
Intersection LOS	B											
Intersection V/C	0.466											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	12	286	29	13	138	12	15	149	8	30	241	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	0	0	0	0	3	1	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	286	29	13	138	12	15	152	9	30	252	9
Peak Hour Factor	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590	0.8590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	83	8	4	40	3	4	44	3	9	73	3
Total Analysis Volume [veh/h]	17	333	34	15	161	14	17	177	10	35	293	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.71	1.53	1.71	3.78
95th-Percentile Queue Length [ft]	117.72	38.32	42.64	94.58
Approach Delay [s/veh]	19.68	12.97	13.38	17.75
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	16.80			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	37	133	49	16	66	48	42	609	24	50	833	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	0	0	6	1	14	2	0	31	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	135	49	16	66	54	43	623	26	50	864	31
Peak Hour Factor	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840	0.8840
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	38	14	5	19	15	12	176	7	14	244	9
Total Analysis Volume [veh/h]	42	153	55	18	75	61	49	705	29	57	977	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	26	26	26	26	26	26
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.40	0.40	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.02	0.08	0.09	0.20	0.20	0.08	0.27	0.27
s, saturation flow rate [veh/h]	1248	1780	1169	1726	555	1863	1837	720	1863	1840
c, Capacity [veh/h]	610	855	549	829	192	738	728	271	738	729
d1, Uniform Delay [s]	12.11	9.93	12.89	9.52	25.95	14.77	14.77	21.30	16.29	16.29
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	0.68	0.11	0.43	0.69	0.53	0.53	0.38	1.16	1.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

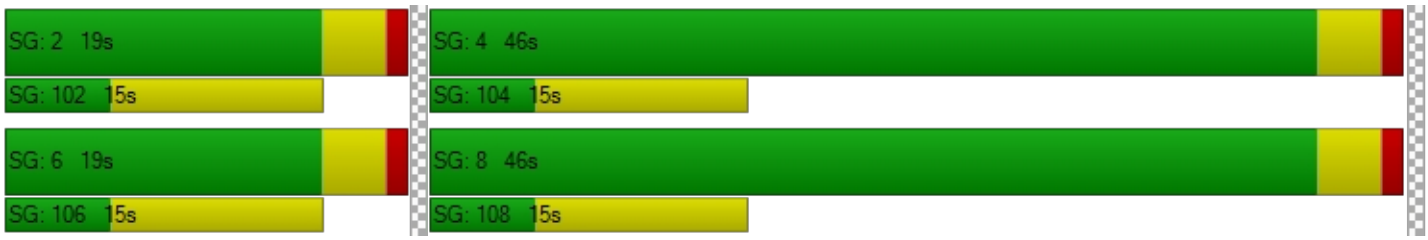
X, volume / capacity	0.07	0.24	0.03	0.16	0.25	0.50	0.50	0.21	0.69	0.69
d, Delay for Lane Group [s/veh]	12.33	10.61	13.00	9.95	26.64	15.30	15.31	21.68	17.45	17.47
Lane Group LOS	B	B	B	A	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.38	1.69	0.17	1.06	0.71	3.81	3.76	0.72	5.86	5.79
50th-Percentile Queue Length [ft]	9.55	42.19	4.26	26.38	17.76	95.17	93.95	17.98	146.49	144.81
95th-Percentile Queue Length [veh]	0.69	3.04	0.31	1.90	1.28	6.85	6.76	1.29	9.83	9.74
95th-Percentile Queue Length [ft]	17.19	75.94	7.66	47.48	31.97	171.30	169.11	32.36	245.74	243.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.33	10.61	10.61	13.00	9.95	9.95	26.64	15.30	15.31	21.68	17.46	17.47
Movement LOS	B	B	B	B	A	A	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	10.90			10.30			16.01			17.69		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.85											
Intersection LOS	B											
Intersection V/C	0.445											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	2	0	0	2	0	0	1	2	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	196	39	24	105	30	34	137	20	21	241	45
Peak Hour Factor	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	58	11	7	31	9	10	40	6	6	71	13
Total Analysis Volume [veh/h]	28	230	46	28	123	35	40	161	23	25	283	53
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.92	1.42	1.82	3.86
95th-Percentile Queue Length [ft]	73.11	35.48	45.46	96.39
Approach Delay [s/veh]	15.30	12.40	13.09	17.04
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	14.92			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	29.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	65	291	60	110	167	128	149	451	41	100	741	164
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	-4	1	13	0	0	35	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	291	60	110	167	124	150	464	41	100	776	164
Peak Hour Factor	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330	0.9330
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	78	16	29	45	33	40	124	11	27	208	44
Total Analysis Volume [veh/h]	70	312	64	118	179	133	161	497	44	107	832	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	16	19	0	18	21	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	16	8	22	22	6	20	20
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.11	0.29	0.29	0.08	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.10	0.07	0.10	0.08	0.09	0.15	0.15	0.06	0.23	0.11
s, saturation flow rate [veh/h]	1774	1863	1755	1774	1863	1583	1774	1863	1810	1774	3547	1583
c, Capacity [veh/h]	367	385	363	367	385	328	201	539	523	149	921	411
d1, Uniform Delay [s]	24.60	26.34	26.39	25.31	26.14	25.79	32.46	22.26	22.26	33.53	26.90	23.16
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.15	4.54	4.98	2.31	3.98	3.70	7.12	0.75	0.77	6.30	3.65	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

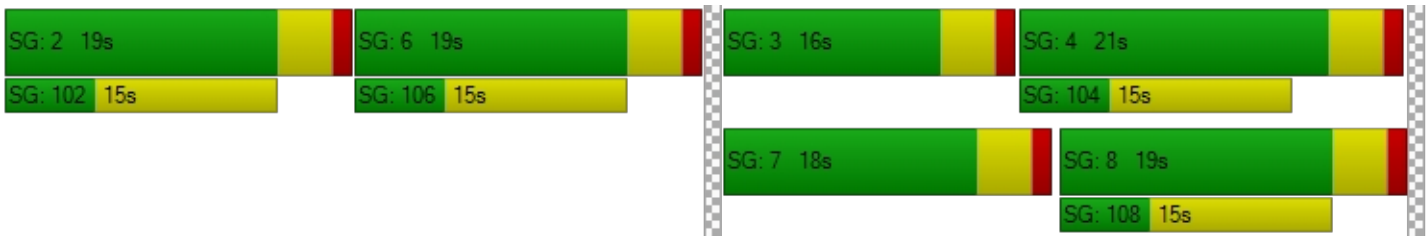
X, volume / capacity	0.19	0.50	0.51	0.32	0.46	0.41	0.80	0.51	0.51	0.72	0.90	0.43
d, Delay for Lane Group [s/veh]	25.75	30.88	31.37	27.61	30.12	29.50	39.57	23.00	23.04	39.83	30.55	23.87
Lane Group LOS	C	C	C	C	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.11	3.41	3.31	1.96	3.13	2.32	3.16	3.94	3.84	2.11	7.28	2.56
50th-Percentile Queue Length [ft]	27.82	85.25	82.75	49.04	78.28	58.00	79.05	98.57	96.11	52.70	181.98	64.06
95th-Percentile Queue Length [veh]	2.00	6.14	5.96	3.53	5.64	4.18	5.69	7.10	6.92	3.79	11.70	4.61
95th-Percentile Queue Length [ft]	50.07	153.45	148.94	88.27	140.90	104.40	142.29	177.43	173.01	94.87	292.60	115.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.75	31.07	31.37	27.61	30.12	29.50	39.57	23.02	23.04	39.83	30.55	23.87
Movement LOS	C	C	C	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	30.28			29.24			26.82			30.39		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.25											
Intersection LOS	C											
Intersection V/C	0.669											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	32	209	12	13	210	23	22	199	33	10	183	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	8	0	9	2	0	0	19	1	0	28	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	217	12	22	212	23	22	218	34	10	211	27
Peak Hour Factor	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160	0.9160
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	59	3	6	58	6	6	59	9	3	58	7
Total Analysis Volume [veh/h]	36	237	13	24	231	25	24	238	37	11	230	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.94	2.81	2.88	0.21	2.73
95th-Percentile Queue Length [ft]	73.44	70.36	72.04	5.15	68.15
Approach Delay [s/veh]	16.20	15.86	15.96		15.90
Approach LOS	C	C	C		C
Intersection Delay [s/veh]	15.98				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.633

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	83	210	80	34	185	45	48	1046	83	64	882	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	10	3	0	0	0	28	0	18	92	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	83	210	90	37	185	45	48	1074	83	82	974	33
Peak Hour Factor	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650	0.9650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	23	10	48	12	12	278	22	21	252	9
Total Analysis Volume [veh/h]	86	218	93	38	192	47	50	1113	86	85	1009	34
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20	20	20	4	22	22	5	24	24
g / C, Green / Cycle	0.34	0.34	0.34	0.34	0.34	0.07	0.37	0.37	0.09	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.08	0.12	0.06	0.03	0.13	0.03	0.33	0.33	0.05	0.28	0.28
s, saturation flow rate [veh/h]	1136	1863	1583	1158	1800	1774	1863	1816	1774	1863	1841
c, Capacity [veh/h]	358	626	532	379	605	121	696	679	160	738	729
d1, Uniform Delay [s]	20.31	15.01	14.08	18.75	15.28	26.87	17.49	17.50	26.14	15.27	15.27
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.24	0.24	0.11	0.15	0.15
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.58	1.53	0.71	0.53	1.93	2.24	7.36	7.65	2.70	1.75	1.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

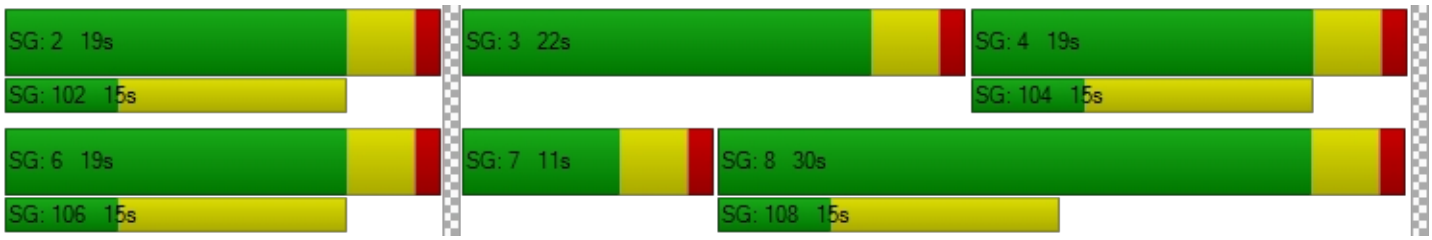
X, volume / capacity	0.24	0.35	0.17	0.10	0.39	0.41	0.87	0.87	0.53	0.71	0.71
d, Delay for Lane Group [s/veh]	21.89	16.54	14.80	19.28	17.21	29.11	24.84	25.16	28.83	17.02	17.04
Lane Group LOS	C	B	B	B	B	C	C	C	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.12	2.29	0.91	0.45	2.58	0.73	8.22	8.09	1.22	5.61	5.55
50th-Percentile Queue Length [ft]	27.88	57.17	22.86	11.28	64.50	18.20	205.57	202.32	30.48	140.14	138.71
95th-Percentile Queue Length [veh]	2.01	4.12	1.65	0.81	4.64	1.31	12.93	12.76	2.19	9.49	9.41
95th-Percentile Queue Length [ft]	50.19	102.90	41.15	20.31	116.10	32.76	323.14	318.96	54.87	237.22	235.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.89	16.54	14.80	19.28	17.21	17.21	29.11	24.99	25.16	28.83	17.03	17.04
Movement LOS	C	B	B	B	B	B	C	C	C	C	B	B
d_A, Approach Delay [s/veh]	17.29			17.49			25.16			17.92		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	20.76											
Intersection LOS	C											
Intersection V/C	0.633											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	38.8
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	81	204	23	52	214	20	53	322	92	42	260	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	2	0	13	5	3	9	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	211	25	52	227	25	56	331	92	42	296	85
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	54	6	13	58	6	14	84	23	11	75	22
Total Analysis Volume [veh/h]	83	215	25	53	231	25	57	337	94	43	302	87
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.85	3.93	0.50	4.46	0.49	12.81	0.39	6.35	0.75
95th-Percentile Queue Length [ft]	21.30	98.32	12.40	111.45	12.37	320.29	9.69	158.84	18.83
Approach Delay [s/veh]	22.80		25.19		66.41		29.37		
Approach LOS	C		D		F		D		
Intersection Delay [s/veh]	38.82								
Intersection LOS	E								

HCS 2010 Two-Way Stop Control Summary Report

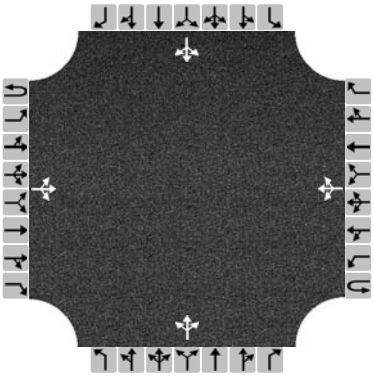
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing Plus Project
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	242	6		10	227	18		13	48	11		4	28	5
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				11					77				38	
Capacity		1299				1296					456				453	
v/c Ratio		0.01				0.01					0.17				0.08	
95% Queue Length		0.0				0.0					0.6				0.3	
Control Delay (s/veh)		7.8				7.8					14.5				13.7	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)	0.3				0.4				14.5				13.7			
Approach LOS									B				B			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.548

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	39	44	49	8	31	26	20	1078	49	37	1003	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	11	5	7	13	2	26	7	8	23	111	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	55	54	15	44	28	46	1085	57	60	1114	18
Peak Hour Factor	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790	0.9790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	14	14	4	11	7	12	277	15	15	284	5
Total Analysis Volume [veh/h]	46	56	55	15	45	29	47	1108	58	61	1138	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	7	7	4	37	37	5	38	38
g / C, Green / Cycle	0.11	0.11	0.11	0.06	0.62	0.62	0.08	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.08	0.03	0.09	0.03	0.31	0.04	0.03	0.31	0.31
s, saturation flow rate [veh/h]	1359	1583	971	1774	3547	1583	1774	1863	1853
c, Capacity [veh/h]	236	174	176	116	2180	973	135	1165	1158
d1, Uniform Delay [s]	25.53	24.70	25.42	26.98	6.50	4.64	26.59	6.13	6.14
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.25	1.03	2.22	2.24	0.85	0.12	2.34	1.52	1.53
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

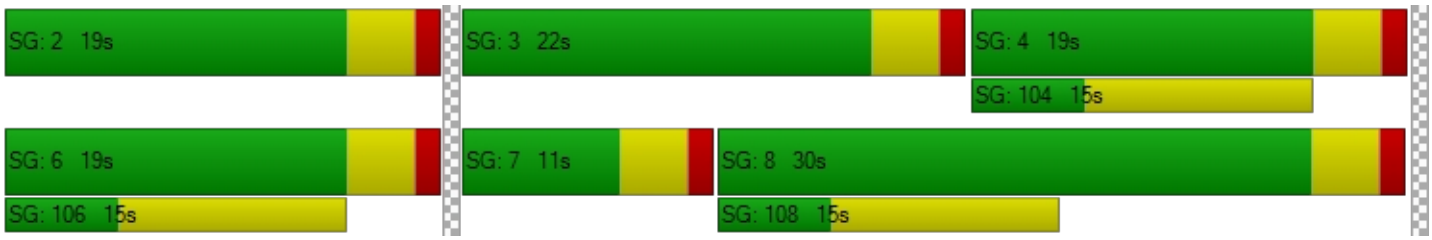
X, volume / capacity	0.43	0.32	0.50	0.40	0.51	0.06	0.45	0.50	0.50
d, Delay for Lane Group [s/veh]	26.78	25.73	27.64	29.22	7.35	4.76	28.93	7.66	7.67
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.40	0.73	1.23	0.69	3.10	0.24	0.88	3.31	3.29
50th-Percentile Queue Length [ft]	34.92	18.32	30.81	17.18	77.47	6.10	22.01	82.65	82.30
95th-Percentile Queue Length [veh]	2.51	1.32	2.22	1.24	5.58	0.44	1.59	5.95	5.93
95th-Percentile Queue Length [ft]	62.86	32.98	55.46	30.92	139.44	10.98	39.63	148.76	148.14

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.78	26.78	25.73	27.64	27.64	27.64	29.22	7.35	4.76	28.93	7.66	7.67
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	26.41			27.64			8.07			8.73		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	10.10											
Intersection LOS	B											
Intersection V/C	0.548											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	132.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	41	104	22	16	93	42	18	388	45	19	293	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	2	9	18	3	5	6	0	3	33	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	119	24	25	111	45	23	394	45	22	326	36
Peak Hour Factor	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880	0.6880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	43	9	9	40	16	8	143	16	8	118	13
Total Analysis Volume [veh/h]	60	173	35	36	161	65	33	573	65	32	474	52
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.60	0.26	4.10	32.52	20.76
95th-Percentile Queue Length [ft]	90.06	6.48	102.39	812.98	519.10
Approach Delay [s/veh]	22.14		24.62	222.30	126.87
Approach LOS	C		C	F	F
Intersection Delay [s/veh]	132.09				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	41.8
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.854

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	34	509	66	134	538	85	52	259	52	46	244	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	82	0	0	26	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	591	66	134	564	85	52	259	52	46	244	131
Peak Hour Factor	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	162	18	37	154	23	14	71	14	13	67	36
Total Analysis Volume [veh/h]	37	647	72	147	618	93	57	284	57	50	267	143
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	20	0	12	21	0	0	24	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	16	16	8	20	20	18	18	18
g / C, Green / Cycle	0.05	0.22	0.22	0.10	0.27	0.27	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.20	0.20	0.08	0.20	0.20	0.22	0.17	0.09
s, saturation flow rate [veh/h]	1774	1863	1798	1774	1863	1779	1804	1848	1583
c, Capacity [veh/h]	90	399	386	183	497	475	423	434	371
d1, Uniform Delay [s]	34.54	28.82	28.83	32.91	25.06	25.06	28.21	26.54	24.17
k, delay calibration	0.11	0.35	0.35	0.20	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.99	21.72	22.56	14.07	2.09	2.19	31.05	10.39	3.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

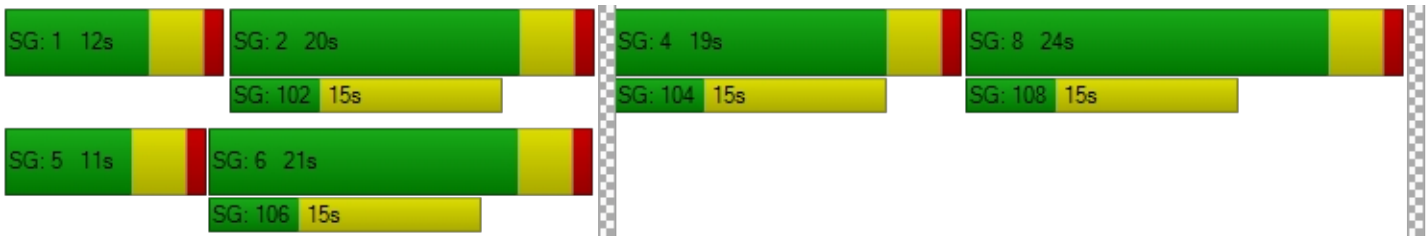
X, volume / capacity	0.41	0.92	0.92	0.80	0.73	0.73	0.94	0.73	0.38
d, Delay for Lane Group [s/veh]	37.53	50.53	51.39	46.98	27.15	27.26	59.26	36.93	27.17
Lane Group LOS	D	D	D	D	C	C	E	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.71	8.53	8.34	3.25	5.88	5.63	10.33	6.26	2.37
50th-Percentile Queue Length [ft]	17.84	213.32	208.49	81.25	146.94	140.75	258.23	156.40	59.14
95th-Percentile Queue Length [veh]	1.28	13.32	13.08	5.85	9.85	9.52	15.60	10.36	4.26
95th-Percentile Queue Length [ft]	32.11	333.08	326.89	146.25	246.33	238.03	390.00	258.94	106.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.53	50.90	51.39	46.98	27.20	27.26	59.26	59.26	59.26	36.93	36.93	27.17
Movement LOS	D	D	D	D	C	C	E	E	E	D	D	C
d_A, Approach Delay [s/veh]	50.30			30.59			59.26			33.90		
Approach LOS	D			C			E			C		
d_I, Intersection Delay [s/veh]	41.85											
Intersection LOS	D											
Intersection V/C	0.854											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.474

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	24	581	54	49	558	20	13	107	25	44	170	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	82	6	0	26	0	0	0	0	4	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	663	60	49	584	20	13	107	25	48	170	49
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	184	17	14	162	6	4	30	7	13	47	14
Total Analysis Volume [veh/h]	27	737	67	55	650	22	14	119	28	53	189	55
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	27	23	0	23	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	17	17	4	19	19	31	31	31	31
g / C, Green / Cycle	0.04	0.27	0.27	0.07	0.29	0.29	0.48	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.22	0.03	0.18	0.18	0.01	0.08	0.04	0.14
s, saturation flow rate [veh/h]	1774	1863	1809	1774	1863	1841	1131	1802	1236	1791
c, Capacity [veh/h]	77	497	483	124	546	540	519	863	602	858
d1, Uniform Delay [s]	30.26	22.41	22.42	29.09	19.88	19.89	13.47	9.62	12.33	10.23
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.67	3.43	3.54	2.49	1.15	1.16	0.10	0.43	0.29	0.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

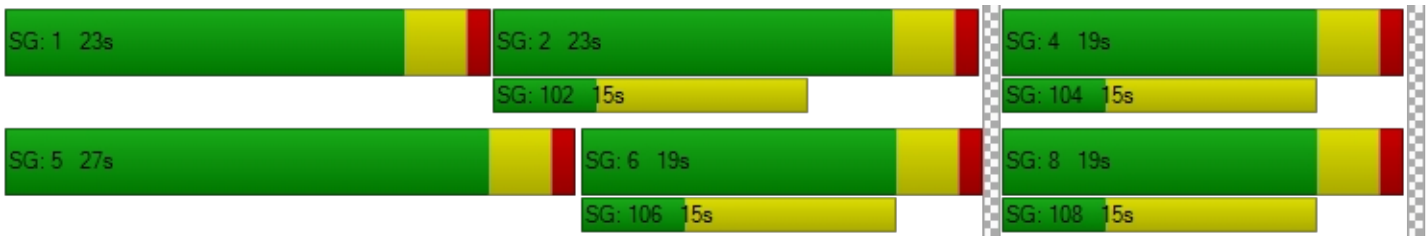
X, volume / capacity	0.35	0.82	0.82	0.44	0.62	0.62	0.03	0.17	0.09	0.28
d, Delay for Lane Group [s/veh]	32.93	25.84	25.95	31.57	21.03	21.05	13.56	10.05	12.62	11.06
Lane Group LOS	C	C	C	C	C	C	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.45	5.89	5.74	0.88	4.26	4.22	0.14	1.14	0.49	2.04
50th-Percentile Queue Length [ft]	11.32	147.29	143.49	21.93	106.53	105.46	3.41	28.60	12.24	50.90
95th-Percentile Queue Length [veh]	0.82	9.87	9.67	1.58	7.65	7.59	0.25	2.06	0.88	3.66
95th-Percentile Queue Length [ft]	20.38	246.80	241.71	39.47	191.17	189.67	6.14	51.47	22.04	91.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.93	25.89	25.95	31.57	21.04	21.05	13.56	10.05	10.05	12.62	11.06	11.06
Movement LOS	C	C	C	C	C	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	26.12			21.84			10.35			11.34		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.14											
Intersection LOS	C											
Intersection V/C	0.474											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	50	520	16	35	542	54	81	107	55	16	79	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	65	4	1	8	21	16	16	0	19	21	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	585	20	36	550	75	97	123	55	35	100	53
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	159	5	10	149	20	26	33	15	9	27	14
Total Analysis Volume [veh/h]	54	634	22	39	597	81	105	133	60	38	108	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	21	14	14	21	13	13	31	24	31	21	21
g / C, Green / Cycle	0.35	0.23	0.23	0.35	0.21	0.21	0.52	0.40	0.52	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.05	0.18	0.18	0.04	0.17	0.05	0.07	0.11	0.03	0.06	0.04
s, saturation flow rate [veh/h]	1105	1863	1841	1036	3547	1583	1405	1766	1287	1863	1583
c, Capacity [veh/h]	430	420	415	407	751	335	862	696	760	659	560
d1, Uniform Delay [s]	14.02	21.99	22.00	13.97	22.52	19.74	7.50	12.42	7.34	13.37	13.07
k, delay calibration	0.11	0.13	0.13	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	3.88	3.95	0.10	1.96	0.37	0.06	0.99	0.12	0.54	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.13	0.79	0.79	0.10	0.79	0.24	0.12	0.28	0.05	0.16	0.10
d, Delay for Lane Group [s/veh]	14.15	25.88	25.95	14.07	24.49	20.11	7.57	13.41	7.46	13.91	13.43
Lane Group LOS	B	C	C	B	C	C	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.46	4.48	4.44	0.33	3.90	0.91	0.59	1.75	0.23	1.00	0.52
50th-Percentile Queue Length [ft]	11.52	112.10	111.08	8.25	97.40	22.81	14.80	43.85	5.68	25.09	13.09
95th-Percentile Queue Length [veh]	0.83	7.96	7.90	0.59	7.01	1.64	1.07	3.16	0.41	1.81	0.94
95th-Percentile Queue Length [ft]	20.73	198.91	197.51	14.86	175.32	41.05	26.64	78.94	10.22	45.17	23.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.15	25.91	25.95	14.07	24.49	20.11	7.57	13.41	13.41	7.46	13.91	13.43
Movement LOS	B	C	C	B	C	C	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	25.02			23.43			11.35			12.57		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.00											
Intersection LOS	C											
Intersection V/C	0.429											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.492

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	17	411	39	98	473	28	59	133	20	60	186	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	57	0	0	31	-4	12	3	40	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	468	39	98	504	24	71	136	60	60	188	109
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	127	11	27	137	7	19	37	16	16	51	30
Total Analysis Volume [veh/h]	39	509	42	107	548	26	77	148	65	65	205	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	6	14	14	5	22	5	22	22
g / C, Green / Cycle	0.06	0.18	0.18	0.10	0.22	0.22	0.09	0.37	0.08	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.03	0.06	0.16	0.16	0.04	0.12	0.04	0.11	0.08
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1833	1774	1768	1774	1863	1583
c, Capacity [veh/h]	104	652	291	176	418	412	152	659	140	681	579
d1, Uniform Delay [s]	27.32	23.45	20.63	26.03	21.46	21.46	26.35	13.48	26.56	13.62	13.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.24	2.08	0.23	3.36	2.05	2.09	2.59	1.30	2.40	1.13	0.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.78	0.14	0.61	0.69	0.69	0.51	0.32	0.47	0.30	0.21
d, Delay for Lane Group [s/veh]	29.56	25.52	20.85	29.39	23.51	23.55	28.94	14.78	28.96	14.76	13.91
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.58	3.38	0.48	1.55	3.68	3.64	1.11	2.07	0.94	1.99	1.12
50th-Percentile Queue Length [ft]	14.44	84.60	12.06	38.79	92.10	90.90	27.70	51.81	23.44	49.66	27.97
95th-Percentile Queue Length [veh]	1.04	6.09	0.87	2.79	6.63	6.55	1.99	3.73	1.69	3.58	2.01
95th-Percentile Queue Length [ft]	25.99	152.27	21.70	69.82	165.78	163.63	49.85	93.25	42.20	89.38	50.34

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.56	25.52	20.85	29.39	23.53	23.55	28.94	14.78	14.78	28.96	14.76	13.91
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.46			24.45			18.54			16.87		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.36											
Intersection LOS	C											
Intersection V/C	0.492											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.675

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	54	282	79	116	318	133	134	920	51	81	819	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	70	77	25	12	42	18	-6	9	15	7	35	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	359	104	128	360	151	128	929	66	88	854	68
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	94	27	34	95	40	34	244	17	23	225	18
Total Analysis Volume [veh/h]	131	378	109	135	379	159	135	978	69	93	899	72
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	23	0	0	23	0	18	26	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	19	19	19	19	6	24	24	6	23	23
g / C, Green / Cycle	0.32	0.32	0.32	0.32	0.32	0.32	0.11	0.39	0.39	0.09	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.13	0.14	0.14	0.15	0.20	0.10	0.08	0.28	0.28	0.05	0.25	0.05
s, saturation flow rate [veh/h]	1000	1863	1722	905	1863	1583	1774	1863	1820	1774	3547	1583
c, Capacity [veh/h]	227	590	545	278	590	501	188	729	713	164	1341	599
d1, Uniform Delay [s]	27.42	16.25	16.28	24.04	17.64	15.62	26.03	15.56	15.57	26.14	15.59	12.19
k, delay calibration	0.11	0.11	0.11	0.11	0.17	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.30	0.49	0.54	1.31	1.88	0.36	5.07	6.22	6.38	3.05	2.68	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

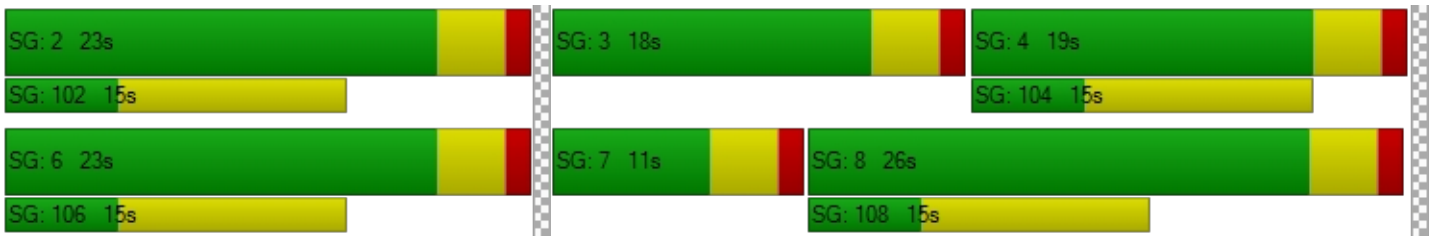
X, volume / capacity	0.58	0.43	0.43	0.48	0.64	0.32	0.72	0.73	0.73	0.57	0.67	0.12
d, Delay for Lane Group [s/veh]	29.71	16.74	16.82	25.34	19.52	15.98	31.10	21.78	21.95	29.20	18.27	12.60
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.95	2.56	2.40	1.83	4.36	1.56	2.03	6.64	6.52	1.34	5.01	0.63
50th-Percentile Queue Length [ft]	48.84	64.05	60.07	45.68	109.06	38.91	50.64	165.93	163.12	33.57	125.21	15.83
95th-Percentile Queue Length [veh]	3.52	4.61	4.32	3.29	7.79	2.80	3.65	10.86	10.71	2.42	8.68	1.14
95th-Percentile Queue Length [ft]	87.91	115.29	108.12	82.22	194.69	70.03	91.15	271.56	267.84	60.43	216.97	28.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.71	16.77	16.82	25.34	19.52	15.98	31.10	21.85	21.95	29.20	18.27	12.60
Movement LOS	C	B	B	C	B	B	C	C	C	C	B	B
d_A, Approach Delay [s/veh]	19.52			19.85			22.92			18.84		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	20.51											
Intersection LOS	C											
Intersection V/C	0.675											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

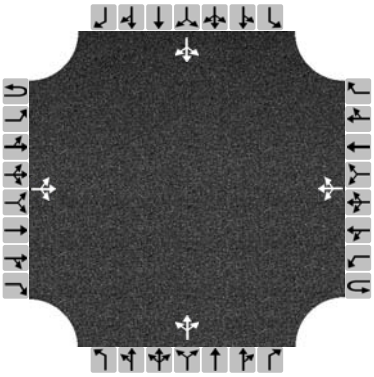
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2016
Time Analyzed	PM Existing Plus Project
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	28	5		7	25	28		8	546	3		31	459	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				8					625				563	
Capacity		1537				1565					734				633	
v/c Ratio		0.01				0.01					0.85				0.89	
95% Queue Length		0.0				0.0					10.0				10.8	
Control Delay (s/veh)		7.4				7.3					31.3				39.6	
Level of Service (LOS)		A				A					D				E	
Approach Delay (s/veh)	1.5				0.9				31.3				39.6			
Approach LOS									D				E			

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	34.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.772

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	40	323	41	41	344	20	30	273	49	37	215	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	8	2	20	24	0	0	13	-4	12	54	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	331	43	61	368	20	30	286	45	49	269	44
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	86	11	16	96	5	8	75	12	13	70	11
Total Analysis Volume [veh/h]	44	346	45	64	384	21	31	299	47	51	281	46
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	29	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	24	24	5	24	24	16	16	19
g / C, Green / Cycle	0.06	0.29	0.29	0.07	0.31	0.31	0.20	0.20	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.19	0.03	0.04	0.21	0.01	0.18	0.03	0.21
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1854	1583	1812
c, Capacity [veh/h]	98	546	464	119	568	483	380	325	426
d1, Uniform Delay [s]	36.64	24.58	20.60	36.16	24.38	19.62	30.79	26.08	29.63
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.16	0.11	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.16	5.52	0.42	3.71	6.35	0.17	8.75	0.20	11.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

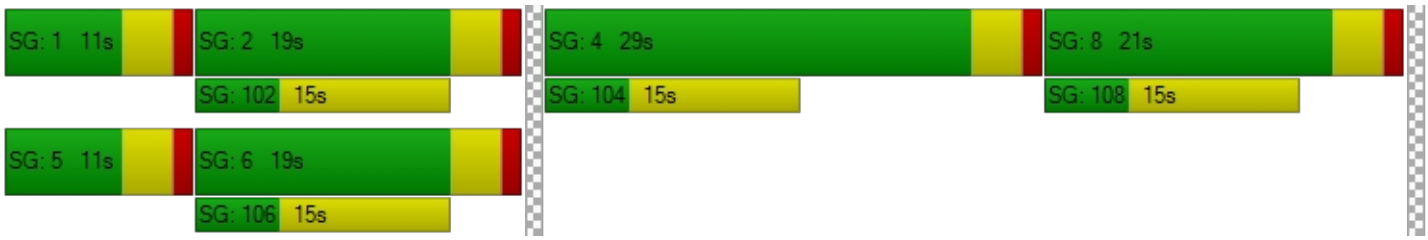
X, volume / capacity	0.45	0.63	0.10	0.54	0.68	0.04	0.87	0.14	0.89
d, Delay for Lane Group [s/veh]	39.80	30.10	21.02	39.87	30.73	19.79	39.54	26.29	40.73
Lane Group LOS	D	C	C	D	C	B	D	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.90	6.28	0.65	1.31	7.07	0.29	6.87	0.74	8.07
50th-Percentile Queue Length [ft]	22.61	157.05	16.18	32.73	176.80	7.25	171.65	18.38	201.67
95th-Percentile Queue Length [veh]	1.63	10.39	1.16	2.36	11.43	0.52	11.16	1.32	12.72
95th-Percentile Queue Length [ft]	40.69	259.81	29.12	58.92	285.84	13.04	279.09	33.08	318.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.80	30.10	21.02	39.87	30.73	19.79	39.54	39.54	26.29	40.73	40.73	40.73
Movement LOS	D	C	C	D	C	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	30.14			31.49			37.89			40.73		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.70											
Intersection LOS	C											
Intersection V/C	0.772											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	62	167	10	5	144	27	54	43	76	4	42	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	1	0	3	4	17	0	0	44	3
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	167	10	6	144	30	58	60	76	4	86	8
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	47	3	2	40	8	16	17	21	1	24	2
Total Analysis Volume [veh/h]	69	186	11	7	161	33	65	67	85	4	96	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.79	1.19	1.33	0.59
95th-Percentile Queue Length [ft]	44.74	29.65	33.28	14.83
Approach Delay [s/veh]	11.31	10.20	10.51	9.58
Approach LOS	B	B	B	A
Intersection Delay [s/veh]	10.57			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	33	124	41	49	151	39	32	1023	25	74	958	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	-1	58	0	0	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	124	41	49	151	40	31	1081	25	74	1007	24
Peak Hour Factor	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570	0.9570
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	32	11	13	39	10	8	282	7	19	263	6
Total Analysis Volume [veh/h]	34	130	43	51	158	42	32	1130	26	77	1052	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	25	25	25	32	32	32	32	32	32
g / C, Green / Cycle	0.39	0.39	0.39	0.39	0.39	0.49	0.49	0.49	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.03	0.10	0.04	0.08	0.03	0.06	0.31	0.31	0.16	0.30	0.02
s, saturation flow rate [veh/h]	1223	1784	1207	1863	1583	534	1863	1848	484	3547	1583
c, Capacity [veh/h]	473	699	457	730	620	244	904	896	224	1720	768
d1, Uniform Delay [s]	16.55	13.31	17.24	13.13	12.35	19.44	12.52	12.52	22.64	12.25	8.76
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.29	0.84	0.49	0.68	0.21	0.24	0.77	0.78	0.90	0.36	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

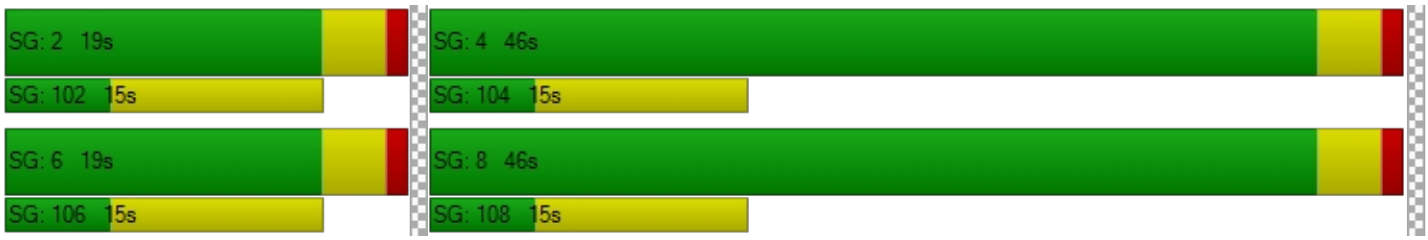
X, volume / capacity	0.07	0.25	0.11	0.22	0.07	0.13	0.64	0.64	0.34	0.61	0.03
d, Delay for Lane Group [s/veh]	16.84	14.15	17.73	13.81	12.56	19.68	13.29	13.30	23.54	12.61	8.77
Lane Group LOS	B	B	B	B	B	B	B	B	C	B	A
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.38	1.72	0.59	1.54	0.39	0.38	5.59	5.55	1.06	4.87	0.17
50th-Percentile Queue Length [ft]	9.56	42.92	14.87	38.43	9.65	9.46	139.71	138.73	26.41	121.83	4.16
95th-Percentile Queue Length [veh]	0.69	3.09	1.07	2.77	0.69	0.68	9.47	9.41	1.90	8.49	0.30
95th-Percentile Queue Length [ft]	17.21	77.26	26.77	69.18	17.37	17.04	236.63	235.31	47.54	212.34	7.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.84	14.15	14.15	17.73	13.81	12.56	19.68	13.29	13.30	23.54	12.61	8.77
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	A
d_A, Approach Delay [s/veh]	14.59			14.40			13.46			13.25		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	13.54											
Intersection LOS	B											
Intersection V/C	0.466											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	164	18	16	206	29	26	264	29	30	227	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	0	0	0	0	28	9	0	20	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	164	18	16	206	29	26	292	38	30	247	17
Peak Hour Factor	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580	0.9580
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	43	5	4	54	8	7	76	10	8	64	4
Total Analysis Volume [veh/h]	25	171	19	17	215	30	27	305	40	31	258	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.94	2.59	4.57	3.25
95th-Percentile Queue Length [ft]	48.39	64.64	114.25	81.34
Approach Delay [s/veh]	14.25	15.56	19.66	16.74
Approach LOS	B	C	C	C
Intersection Delay [s/veh]	16.95			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	40	77	61	22	85	53	19	1012	44	54	912	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	1	0	0	4	4	7	55	1	0	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	78	61	22	89	57	26	1067	45	54	941	21
Peak Hour Factor	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450	0.9450
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	21	16	6	24	15	7	282	12	14	249	6
Total Analysis Volume [veh/h]	44	83	65	23	94	60	28	1129	48	57	996	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	51	0	0	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	28	28	28	34	34	34	34	34	34
g / C, Green / Cycle	0.39	0.39	0.39	0.39	0.49	0.49	0.49	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.02	0.09	0.05	0.32	0.32	0.12	0.27	0.27
s, saturation flow rate [veh/h]	1228	1729	1235	1743	552	1863	1836	475	1863	1849
c, Capacity [veh/h]	511	681	515	687	232	916	903	190	916	909
d1, Uniform Delay [s]	16.18	14.06	15.81	14.10	21.68	13.26	13.26	26.47	12.46	12.46
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.33	0.73	0.16	0.76	0.23	0.77	0.79	0.87	0.53	0.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

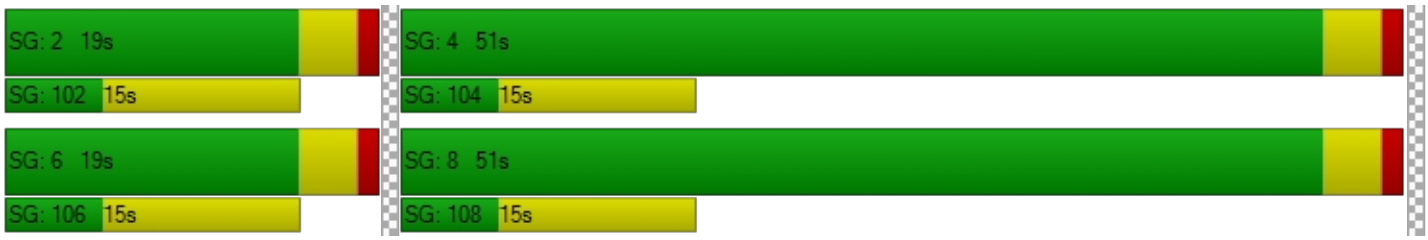
X, volume / capacity	0.09	0.22	0.04	0.22	0.12	0.65	0.65	0.30	0.56	0.56
d, Delay for Lane Group [s/veh]	16.52	14.79	15.97	14.85	21.91	14.03	14.05	27.34	12.99	12.99
Lane Group LOS	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.51	1.58	0.26	1.64	0.37	6.29	6.21	0.89	5.07	5.04
50th-Percentile Queue Length [ft]	12.68	39.40	6.47	41.12	9.25	157.28	155.29	22.19	126.85	125.92
95th-Percentile Queue Length [veh]	0.91	2.84	0.47	2.96	0.67	10.40	10.30	1.60	8.77	8.72
95th-Percentile Queue Length [ft]	22.82	70.93	11.65	74.01	16.65	260.11	257.48	39.95	219.20	217.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.52	14.79	14.79	15.97	14.85	14.85	21.91	14.04	14.05	27.34	12.99	12.99
Movement LOS	B	B	B	B	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	15.18			15.00			14.22			13.75		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.15											
Intersection LOS	B											
Intersection V/C	0.459											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	24	113	35	17	160	27	22	251	23	24	226	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	3	0	0	5	0	0	16	16	0	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	116	35	17	165	27	22	267	39	24	236	24
Peak Hour Factor	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130	0.9130
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	32	10	5	45	7	6	73	11	7	65	7
Total Analysis Volume [veh/h]	38	127	38	19	181	30	24	292	43	26	258	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.66	1.98	3.88	3.02
95th-Percentile Queue Length [ft]	41.43	49.54	97.05	75.54
Approach Delay [s/veh]	13.12	13.76	17.24	15.50
Approach LOS	B	B	C	C
Intersection Delay [s/veh]	15.26			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	34.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	67	303	65	243	226	229	212	811	68	97	646	113
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	4	0	55	0	0	25	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	303	65	243	226	233	212	866	68	97	671	113
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	80	17	64	59	61	56	228	18	25	176	30
Total Analysis Volume [veh/h]	70	319	68	256	238	245	223	911	72	102	706	119
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	20	0	17	25	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	15	11	23	23	6	18	18
g / C, Green / Cycle	0.20	0.20	0.20	0.20	0.20	0.20	0.15	0.31	0.31	0.08	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.04	0.11	0.11	0.14	0.14	0.15	0.13	0.27	0.27	0.06	0.20	0.08
s, saturation flow rate [veh/h]	1774	1863	1752	1774	1858	1583	1774	1863	1815	1774	3547	1583
c, Capacity [veh/h]	352	370	348	352	369	314	266	572	557	147	851	380
d1, Uniform Delay [s]	25.12	26.99	27.05	27.95	27.90	28.54	31.04	24.61	24.63	33.51	27.09	23.46
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.21	0.21	0.21	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.26	5.45	6.00	10.55	9.75	17.24	12.56	7.73	8.01	5.72	2.16	0.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

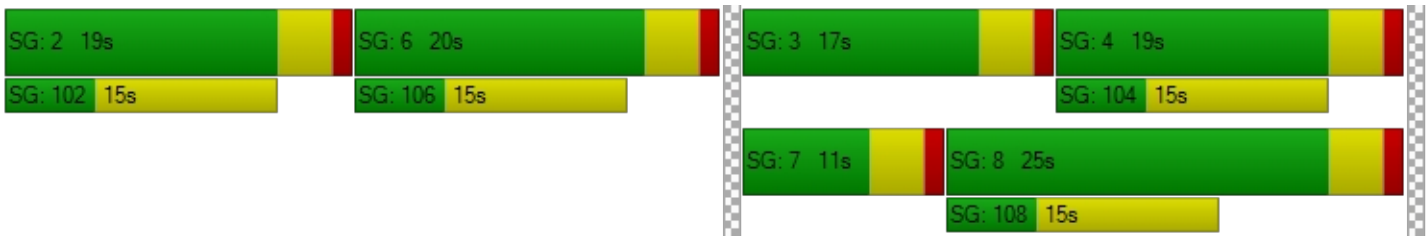
X, volume / capacity	0.20	0.53	0.54	0.69	0.68	0.78	0.84	0.87	0.87	0.69	0.83	0.31
d, Delay for Lane Group [s/veh]	26.38	32.45	33.05	38.50	37.65	45.78	43.60	32.34	32.63	39.24	29.25	23.92
Lane Group LOS	C	C	C	D	D	D	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.13	3.62	3.51	4.92	5.01	5.51	4.72	9.09	8.91	1.99	5.97	1.72
50th-Percentile Queue Length [ft]	28.27	90.47	87.76	122.98	125.33	137.76	117.88	227.13	222.80	49.80	149.29	42.95
95th-Percentile Queue Length [veh]	2.04	6.51	6.32	8.56	8.69	9.36	8.28	14.03	13.81	3.59	9.98	3.09
95th-Percentile Queue Length [ft]	50.88	162.84	157.97	213.91	217.14	234.00	206.91	350.71	345.19	89.64	249.48	77.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.38	32.68	33.05	38.47	37.65	45.78	43.60	32.48	32.63	39.24	29.25	23.92
Movement LOS	C	C	C	D	D	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	31.77			40.62			34.54			29.66		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	34.15											
Intersection LOS	C											
Intersection V/C	0.747											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	76	182	68	78	131	30	45	186	54	60	221	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	-1	0	0	0	0	33	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	187	67	78	131	30	45	219	54	60	226	138
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	19	22	38	9	13	63	15	17	65	40
Total Analysis Volume [veh/h]	87	214	77	89	150	34	52	251	62	69	259	158
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.71	3.84	0.76	1.83	1.82	1.69	5.02	1.20
95th-Percentile Queue Length [ft]	17.87	95.89	18.97	45.80	45.57	42.28	125.49	30.06
Approach Delay [s/veh]	18.62		14.50		14.73		20.38	
Approach LOS	C		B		B		C	
Intersection Delay [s/veh]	17.49							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	2	4	3	1	1	31	0	0	4	-1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	93	20	11	57	67	30	181	36	17	234	17
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	29	6	3	18	21	9	56	11	5	72	5
Total Analysis Volume [veh/h]	111	114	25	14	70	82	37	222	44	21	287	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.25	0.13	1.33	1.16	1.08	3.86
95th-Percentile Queue Length [ft]	56.13	3.33	33.37	28.93	27.06	96.50
Approach Delay [s/veh]	14.69		12.90	11.75		18.56
Approach LOS	B		B	B		C
Intersection Delay [s/veh]	14.77					
Intersection LOS	B					

HCS 2010 Two-Way Stop Control Summary Report

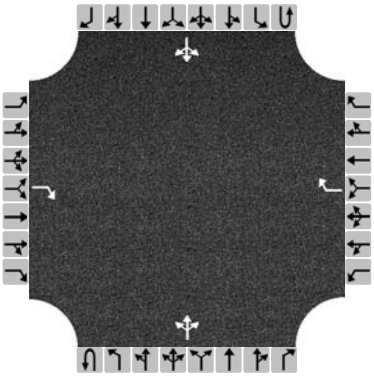
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM EP w/ Improv
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	1	0	0	1	0	0	0	1	0
Configuration				R				R			LTR				LTR	
Volume (veh/h)				21				39		3	379	7		13	409	11
Percent Heavy Vehicles				3				3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				22				41		3				14		
Capacity				617				646		1111				1146		
v/c Ratio				0.04				0.06		0.00				0.01		
95% Queue Length				0.1				0.2		0.0				0.0		
Control Delay (s/veh)				11.0				11.0		8.3				8.2		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)	11.0				11.0				0.1				0.4			
Approach LOS	B				B											

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Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	20.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	81	204	23	52	214	20	53	322	92	42	260	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	2	0	13	5	3	9	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	211	25	52	227	25	56	331	92	42	296	85
Peak Hour Factor	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	54	6	13	58	6	14	84	23	11	75	22
Total Analysis Volume [veh/h]	83	215	25	53	231	25	57	337	94	43	302	87
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.72	3.00	0.42	3.38	2.99	2.74	6.01	0.60
95th-Percentile Queue Length [ft]	17.92	75.10	10.58	84.57	74.78	68.48	150.29	14.88
Approach Delay [s/veh]	17.56		18.88		17.92		25.25	
Approach LOS	C		C		C		D	
Intersection Delay [s/veh]	20.08							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	31.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	41	104	22	16	93	42	18	388	45	19	293	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	2	9	18	3	5	6	0	3	33	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	119	24	25	111	45	23	394	45	22	326	36
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	36	7	8	33	14	7	119	14	7	98	11
Total Analysis Volume [veh/h]	49	143	29	30	134	54	28	475	54	27	393	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.36	0.20	2.84	3.73	3.56	11.96
95th-Percentile Queue Length [ft]	59.01	4.99	70.88	93.24	88.95	298.99
Approach Delay [s/veh]	17.50		19.98	20.16		58.36
Approach LOS	C		C	C		F
Intersection Delay [s/veh]	31.86					
Intersection LOS	D					

HCS 2010 Two-Way Stop Control Summary Report

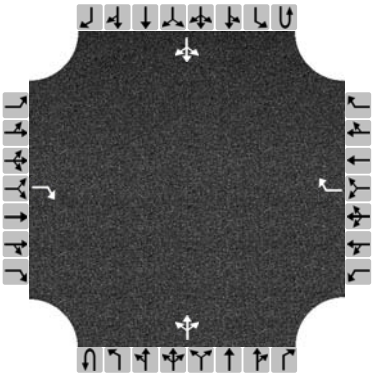
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM EP w/Improv
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	1	0	0	1	0	0	0	1	0
Configuration				R				R			LTR				LTR	
Volume (veh/h)				41				60		8	546	3		31	459	11
Percent Heavy Vehicles				3				3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				43				63		8				33		
Capacity				577				515		1062				990		
v/c Ratio				0.07				0.12		0.01				0.03		
95% Queue Length				0.2				0.4		0.0				0.1		
Control Delay (s/veh)				11.7				13.0		8.4				8.8		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)	11.7				13.0				0.2				0.9			
Approach LOS	B				B											

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General Plan Buildout Without Project

Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	15	182	3	26	188	11	17	215	26	10	113	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	182	3	26	188	11	17	215	26	10	113	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	48	1	7	49	3	4	57	7	3	30	3
Total Analysis Volume [veh/h]	16	192	3	27	198	12	18	226	27	11	119	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.41	1.65	2.00	0.12	0.87
95th-Percentile Queue Length [ft]	35.33	41.26	50.03	3.11	21.69
Approach Delay [s/veh]	11.22	11.59	12.46		10.48
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	11.59				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	88	153	119	23	166	25	15	682	73	55	821	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	153	119	23	166	25	15	682	73	55	821	21
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	40	31	6	44	7	4	179	19	14	216	6
Total Analysis Volume [veh/h]	93	161	125	24	175	26	16	718	77	58	864	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	27	35	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	31	2	17	17	5	20	20
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.48	0.03	0.26	0.26	0.07	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.08	0.09	0.08	0.02	0.11	0.01	0.22	0.22	0.03	0.24	0.24
s, saturation flow rate [veh/h]	1177	1863	1583	1220	1821	1774	1863	1800	1774	1863	1846
c, Capacity [veh/h]	556	892	759	592	873	51	493	477	127	573	568
d1, Uniform Delay [s]	13.64	9.67	9.60	12.17	9.94	30.99	22.48	22.49	29.01	20.51	20.51
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.65	0.44	0.47	0.13	0.62	3.37	3.43	3.56	2.52	2.30	2.32
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

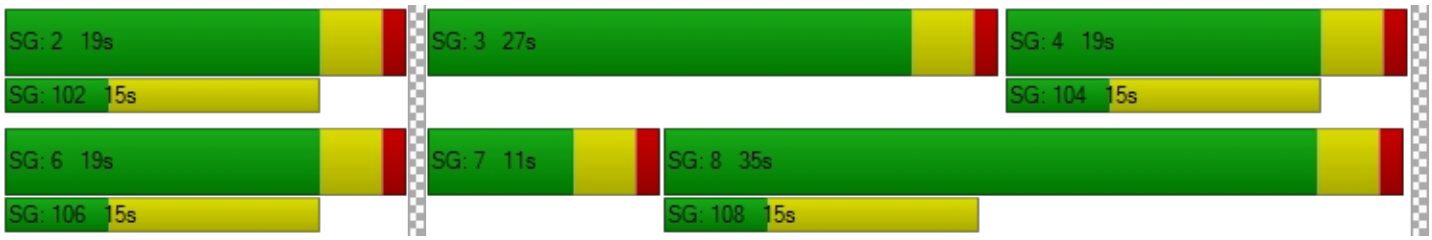
X, volume / capacity	0.17	0.18	0.16	0.04	0.23	0.31	0.82	0.82	0.45	0.78	0.78
d, Delay for Lane Group [s/veh]	14.29	10.12	10.06	12.30	10.55	34.36	25.91	26.04	31.53	22.81	22.83
Lane Group LOS	B	B	B	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.94	1.26	0.98	0.22	1.62	0.29	5.84	5.67	0.92	6.00	5.95
50th-Percentile Queue Length [ft]	23.50	31.42	24.54	5.44	40.49	7.13	146.11	141.79	23.08	150.04	148.82
95th-Percentile Queue Length [veh]	1.69	2.26	1.77	0.39	2.92	0.51	9.81	9.58	1.66	10.02	9.95
95th-Percentile Queue Length [ft]	42.31	56.55	44.18	9.80	72.88	12.84	245.23	239.43	41.55	250.49	248.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	14.29	10.12	10.06	12.30	10.55	10.55	34.36	25.97	26.04	31.53	22.82	22.83
Movement LOS	B	B	B	B	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	11.12			10.74			26.14			23.36		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.14											
Intersection LOS	C											
Intersection V/C	0.442											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	18.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	84	200	75	86	144	33	50	205	59	66	243	152
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	200	75	86	144	33	50	205	59	66	243	152
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	53	20	23	38	9	13	54	16	17	64	40
Total Analysis Volume [veh/h]	88	211	79	91	152	35	53	216	62	69	256	160
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.75	4.06	0.81	1.99	0.42	3.89	0.58	3.45	1.39
95th-Percentile Queue Length [ft]	18.75	101.54	20.32	49.83	10.55	97.21	14.39	86.34	34.76
Approach Delay [s/veh]	19.74		15.32		20.15		17.17		
Approach LOS	C		C		C		C		
Intersection Delay [s/veh]	18.15								
Intersection LOS	C								

HCS 2010 Two-Way Stop Control Summary Report

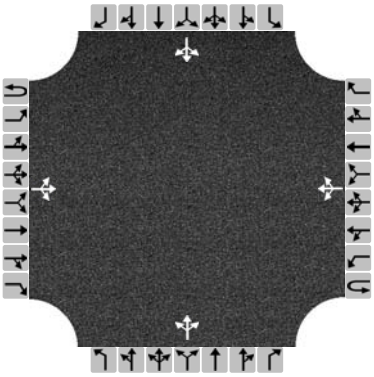
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	229	26		34	109	18		16	158	15		9	135	7
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				36					199				158	
Capacity		1443				1288					465				460	
v/c Ratio		0.01				0.03					0.43				0.34	
95% Queue Length		0.0				0.1					2.1				1.5	
Control Delay (s/veh)		7.5				7.9					18.4				16.9	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	0.3				1.9				18.4				16.9			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	12.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.534

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	58	97	65	12	86	31	29	790	63	70	916	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	97	65	12	86	31	29	790	63	70	916	34
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	26	17	3	23	8	8	208	17	18	241	9
Total Analysis Volume [veh/h]	61	102	68	13	91	33	31	832	66	74	964	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	3	32	32	5	34	34
g / C, Green / Cycle	0.18	0.18	0.18	0.05	0.54	0.54	0.08	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.14	0.04	0.12	0.02	0.23	0.04	0.04	0.27	0.27
s, saturation flow rate [veh/h]	1168	1583	1128	1774	3547	1583	1774	1863	1839
c, Capacity [veh/h]	292	284	268	84	1907	851	147	1068	1054
d1, Uniform Delay [s]	22.62	21.11	22.02	27.72	8.38	6.70	26.34	7.49	7.49
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.67	0.43	1.50	2.68	0.73	0.18	2.65	1.49	1.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

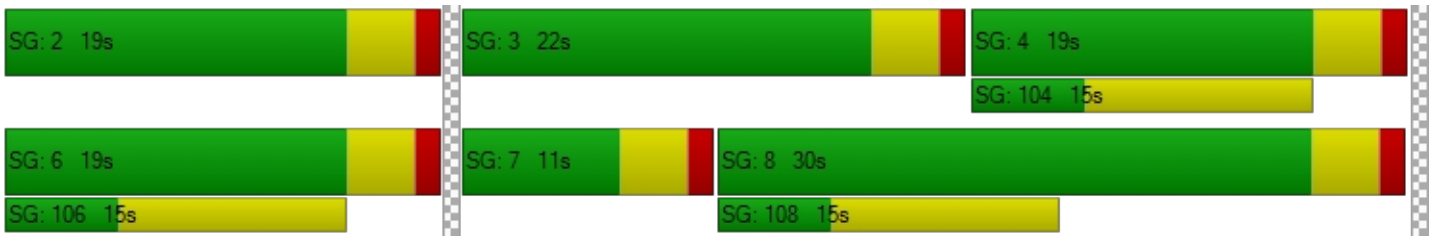
X, volume / capacity	0.56	0.24	0.51	0.37	0.44	0.08	0.50	0.47	0.47
d, Delay for Lane Group [s/veh]	24.29	21.54	23.52	30.39	9.11	6.87	28.98	8.99	9.01
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.12	0.80	1.71	0.47	2.82	0.38	1.07	3.37	3.33
50th-Percentile Queue Length [ft]	53.08	19.99	42.78	11.81	70.53	9.38	26.65	84.20	83.29
95th-Percentile Queue Length [veh]	3.82	1.44	3.08	0.85	5.08	0.68	1.92	6.06	6.00
95th-Percentile Queue Length [ft]	95.54	35.99	77.01	21.27	126.96	16.88	47.97	151.55	149.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.29	24.29	21.54	23.52	23.52	23.52	30.39	9.11	6.87	28.98	9.00	9.01
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	23.48			23.52			9.66			10.37		
Approach LOS	C			C			A			B		
d_I, Intersection Delay [s/veh]	12.13											
Intersection LOS	B											
Intersection V/C	0.534											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	27	6	2	17	20	9	46	11	5	71	6
Total Analysis Volume [veh/h]	111	109	22	9	66	81	36	184	44	21	283	22
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.01	0.11	1.04	2.07	2.92
95th-Percentile Queue Length [ft]	50.28	2.75	25.88	51.82	73.09
Approach Delay [s/veh]	13.66		11.10	12.79	14.42
Approach LOS	B		B	B	B
Intersection Delay [s/veh]	13.27				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	45.9
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.909

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	33	599	33	166	537	79	102	292	25	59	258	196
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	599	33	166	537	79	102	292	25	59	258	196
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	158	9	44	141	21	27	77	7	16	68	52
Total Analysis Volume [veh/h]	35	631	35	175	565	83	107	307	26	62	272	206
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	14	14	7	18	18	16	16	16
g / C, Green / Cycle	0.05	0.21	0.21	0.10	0.26	0.26	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.18	0.18	0.10	0.18	0.18	0.24	0.18	0.13
s, saturation flow rate [veh/h]	1774	1863	1829	1774	1863	1780	1822	1846	1583
c, Capacity [veh/h]	91	383	376	179	475	454	424	430	369
d1, Uniform Delay [s]	32.24	27.05	27.06	31.50	23.72	23.72	26.95	25.24	23.76
k, delay calibration	0.11	0.31	0.31	0.32	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.62	15.98	16.39	48.37	1.86	1.95	53.59	12.92	6.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

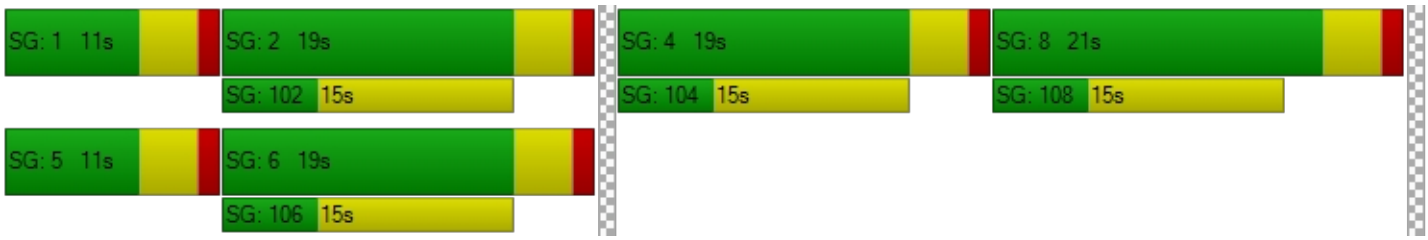
X, volume / capacity	0.38	0.88	0.88	0.98	0.70	0.70	1.04	0.78	0.56
d, Delay for Lane Group [s/veh]	34.86	43.03	43.45	79.87	25.58	25.68	80.54	38.16	29.76
Lane Group LOS	C	D	D	E	C	C	F	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.62	6.86	6.78	5.25	4.92	4.72	12.99	6.46	3.47
50th-Percentile Queue Length [ft]	15.60	171.39	169.52	131.19	123.05	118.04	324.72	161.55	86.77
95th-Percentile Queue Length [veh]	1.12	11.15	11.05	9.00	8.56	8.29	19.29	10.63	6.25
95th-Percentile Queue Length [ft]	28.07	278.73	276.28	225.11	214.01	207.13	482.16	265.78	156.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.86	43.23	43.45	79.87	25.62	25.68	80.54	80.54	80.54	38.16	38.16	29.76
Movement LOS	C	D	D	E	C	C	F	F	F	D	D	C
d_A, Approach Delay [s/veh]	42.82			37.16			80.54			34.95		
Approach LOS	D			D			F			C		
d_I, Intersection Delay [s/veh]	45.89											
Intersection LOS	D											
Intersection V/C	0.909											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.437

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	20	579	53	43	505	14	37	174	30	33	191	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	579	53	43	505	14	37	174	30	33	191	53
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	152	14	11	133	4	10	46	8	9	50	14
Total Analysis Volume [veh/h]	21	609	56	45	532	15	39	183	32	35	201	56
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	23	0	18	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	14	14	4	15	15	31	31	31	31
g / C, Green / Cycle	0.04	0.23	0.23	0.06	0.26	0.26	0.51	0.51	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.18	0.03	0.15	0.15	0.03	0.12	0.03	0.14
s, saturation flow rate [veh/h]	1774	1863	1808	1774	1863	1845	1118	1815	1162	1794
c, Capacity [veh/h]	65	429	416	113	480	475	550	919	587	908
d1, Uniform Delay [s]	28.25	21.76	21.77	27.05	19.45	19.46	11.78	8.32	11.09	8.56
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.82	3.21	3.34	2.24	1.08	1.09	0.25	0.60	0.19	0.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

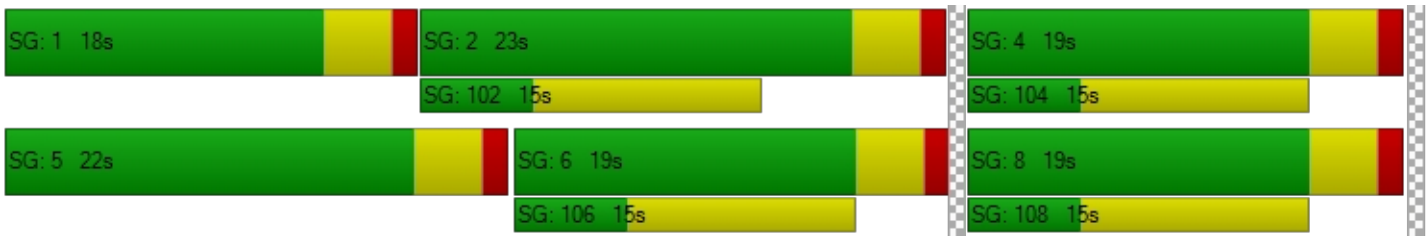
X, volume / capacity	0.32	0.79	0.79	0.40	0.57	0.57	0.07	0.23	0.06	0.28
d, Delay for Lane Group [s/veh]	31.06	24.97	25.11	29.29	20.53	20.55	12.03	8.91	11.29	9.34
Lane Group LOS	C	C	C	C	C	C	B	A	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.33	4.49	4.38	0.66	3.21	3.19	0.34	1.45	0.29	1.80
50th-Percentile Queue Length [ft]	8.29	112.15	109.56	16.49	80.26	79.66	8.38	36.30	7.17	44.89
95th-Percentile Queue Length [veh]	0.60	7.96	7.82	1.19	5.78	5.74	0.60	2.61	0.52	3.23
95th-Percentile Queue Length [ft]	14.93	198.99	195.39	29.68	144.46	143.39	15.09	65.35	12.91	80.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.06	25.03	25.11	29.29	20.54	20.55	12.03	8.91	8.91	11.29	9.34	9.34
Movement LOS	C	C	C	C	C	C	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	25.22			21.21			9.39			9.57		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	19.21											
Intersection LOS	B											
Intersection V/C	0.437											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.397

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	25	590	27	62	526	12	26	123	22	13	123	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	590	27	62	526	12	26	123	22	13	123	34
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	155	7	16	138	3	7	32	6	3	32	9
Total Analysis Volume [veh/h]	26	621	28	65	554	13	27	129	23	14	129	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	22	13	13	22	15	15	30	25	30	24	24
g / C, Green / Cycle	0.36	0.22	0.22	0.36	0.25	0.25	0.51	0.41	0.51	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.02	0.18	0.18	0.06	0.16	0.01	0.02	0.08	0.01	0.07	0.02
s, saturation flow rate [veh/h]	1047	1863	1835	1090	3547	1583	1336	1814	1294	1863	1583
c, Capacity [veh/h]	432	402	396	437	893	399	802	749	771	735	625
d1, Uniform Delay [s]	13.13	22.48	22.49	13.73	20.00	17.01	7.54	11.35	7.51	11.87	11.30
k, delay calibration	0.11	0.15	0.15	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	5.53	5.67	0.16	0.71	0.03	0.02	0.61	0.04	0.52	0.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.81	0.81	0.15	0.62	0.03	0.03	0.20	0.02	0.18	0.06
d, Delay for Lane Group [s/veh]	13.19	28.01	28.16	13.89	20.70	17.04	7.56	11.96	7.55	12.39	11.48
Lane Group LOS	B	C	C	B	C	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.21	4.67	4.62	0.54	3.24	0.13	0.15	1.27	0.09	1.11	0.30
50th-Percentile Queue Length [ft]	5.31	116.63	115.42	13.61	81.07	3.24	3.78	31.82	2.13	27.63	7.40
95th-Percentile Queue Length [veh]	0.38	8.21	8.14	0.98	5.84	0.23	0.27	2.29	0.15	1.99	0.53
95th-Percentile Queue Length [ft]	9.56	205.18	203.52	24.50	145.92	5.83	6.80	57.28	3.83	49.73	13.32

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.19	28.08	28.16	13.89	20.70	17.04	7.56	11.96	11.96	7.55	12.39	11.48
Movement LOS	B	C	C	B	C	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	27.51			19.93			11.30			11.83		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	21.20											
Intersection LOS	C											
Intersection V/C	0.397											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.424

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	25	501	49	102	465	34	38	119	22	35	116	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	501	49	102	465	34	38	119	22	35	116	71
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	132	13	27	122	9	10	31	6	9	31	19
Total Analysis Volume [veh/h]	26	527	52	107	489	36	40	125	23	37	122	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	11	11	6	15	15	3	24	3	23	23
g / C, Green / Cycle	0.04	0.19	0.19	0.10	0.24	0.24	0.06	0.39	0.05	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.01	0.15	0.03	0.06	0.14	0.14	0.02	0.08	0.02	0.07	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1818	1774	1813	1774	1863	1583
c, Capacity [veh/h]	78	670	299	176	455	444	104	709	99	722	614
d1, Uniform Delay [s]	27.98	23.29	20.51	26.03	20.07	20.08	27.33	12.18	27.46	12.09	11.86
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.51	2.09	0.27	3.36	1.18	1.22	2.31	0.67	2.34	0.51	0.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.79	0.17	0.61	0.58	0.58	0.38	0.21	0.37	0.17	0.12
d, Delay for Lane Group [s/veh]	30.49	25.39	20.78	29.39	21.25	21.30	29.64	12.85	29.80	12.60	12.27
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.40	3.50	0.60	1.55	3.16	3.10	0.59	1.30	0.55	1.06	0.65
50th-Percentile Queue Length [ft]	10.00	87.41	14.91	38.79	79.05	77.53	14.82	32.59	13.80	26.44	16.15
95th-Percentile Queue Length [veh]	0.72	6.29	1.07	2.79	5.69	5.58	1.07	2.35	0.99	1.90	1.16
95th-Percentile Queue Length [ft]	18.01	157.34	26.83	69.82	142.28	139.55	26.68	58.66	24.84	47.58	29.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.49	25.39	20.78	29.39	21.27	21.30	29.64	12.85	12.85	29.80	12.60	12.27
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.21			22.65			16.42			15.21		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	21.83											
Intersection LOS	C											
Intersection V/C	0.424											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.657

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	161	319	142	128	276	145	123	793	118	148	1001	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	161	319	142	128	276	145	123	793	118	148	1001	154
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	84	37	34	73	38	32	209	31	39	263	41
Total Analysis Volume [veh/h]	169	336	149	135	291	153	129	835	124	156	1054	162
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	21	0	0	21	0	11	19	0	20	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	17	17	17	17	6	24	24	7	25	25
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.28	0.10	0.40	0.40	0.11	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.16	0.14	0.14	0.15	0.16	0.10	0.07	0.26	0.26	0.09	0.30	0.10
s, saturation flow rate [veh/h]	1084	1863	1672	907	1863	1583	1774	1863	1780	1774	3547	1583
c, Capacity [veh/h]	247	528	474	243	528	449	182	749	716	204	1471	657
d1, Uniform Delay [s]	27.40	17.89	17.92	26.33	18.31	17.10	26.14	14.60	14.60	25.83	14.66	11.48
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.31	0.68	0.78	1.98	0.90	0.45	5.05	4.43	4.64	5.86	3.02	0.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

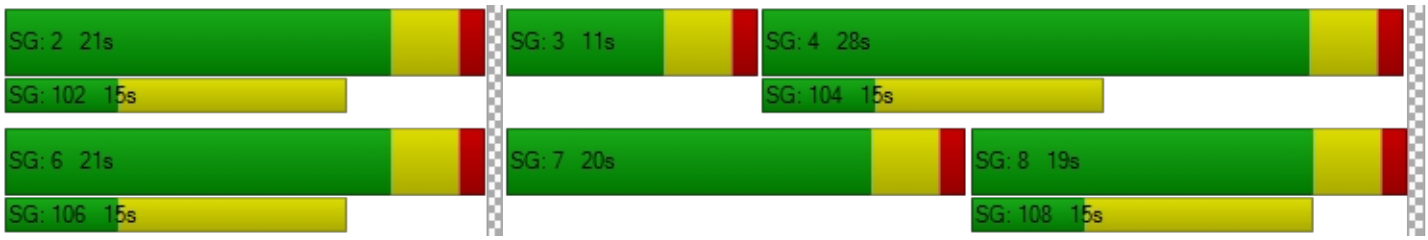
X, volume / capacity	0.68	0.48	0.49	0.56	0.55	0.34	0.71	0.65	0.65	0.76	0.72	0.25
d, Delay for Lane Group [s/veh]	30.71	18.57	18.70	28.31	19.21	17.55	31.19	19.02	19.24	31.69	17.68	12.37
Lane Group LOS	C	B	B	C	B	B	C	B	B	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.56	2.77	2.53	1.96	3.26	1.59	1.94	5.63	5.43	2.37	5.79	1.41
50th-Percentile Queue Length [ft]	64.01	69.30	63.30	49.08	81.56	39.82	48.42	140.87	135.72	59.19	144.66	35.18
95th-Percentile Queue Length [veh]	4.61	4.99	4.56	3.53	5.87	2.87	3.49	9.53	9.25	4.26	9.73	2.53
95th-Percentile Queue Length [ft]	115.22	124.75	113.94	88.34	146.80	71.68	87.16	238.19	231.24	106.54	243.28	63.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.71	18.60	18.70	28.31	19.21	17.55	31.19	19.11	19.24	31.69	17.68	12.37
Movement LOS	C	B	B	C	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	21.75			20.89			20.56			18.65		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	20.11											
Intersection LOS	C											
Intersection V/C	0.657											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

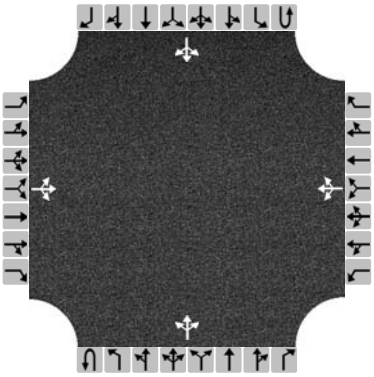
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		12	9	5		7	20	19		5	576	10		18	509	16
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			27				48			5				19		
Capacity			169				230			1011				957		
v/c Ratio			0.16				0.21			0.00				0.02		
95% Queue Length			0.6				0.8			0.0				0.1		
Control Delay (s/veh)			30.3				24.7			8.6				8.8		
Level of Service (LOS)			D				C			A				A		
Approach Delay (s/veh)	30.3				24.7				0.1				0.5			
Approach LOS	D				C											

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	34.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	40	558	52	38	481	29	10	209	12	64	235	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	558	52	38	481	29	10	209	12	64	235	54
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	147	14	10	127	8	3	55	3	17	62	14
Total Analysis Volume [veh/h]	42	587	55	40	506	31	11	220	13	67	247	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	15	23	0	0	19	0	0	32	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	32	32	4	32	32	13	13	20
g / C, Green / Cycle	0.05	0.38	0.38	0.05	0.38	0.38	0.15	0.15	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.32	0.03	0.02	0.27	0.02	0.12	0.01	0.21
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1858	1583	1798
c, Capacity [veh/h]	93	707	601	91	705	599	277	236	417
d1, Uniform Delay [s]	39.12	23.90	16.96	39.19	22.58	16.78	35.16	31.05	31.64
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.17
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.36	10.87	0.30	3.34	6.20	0.16	6.42	0.10	10.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

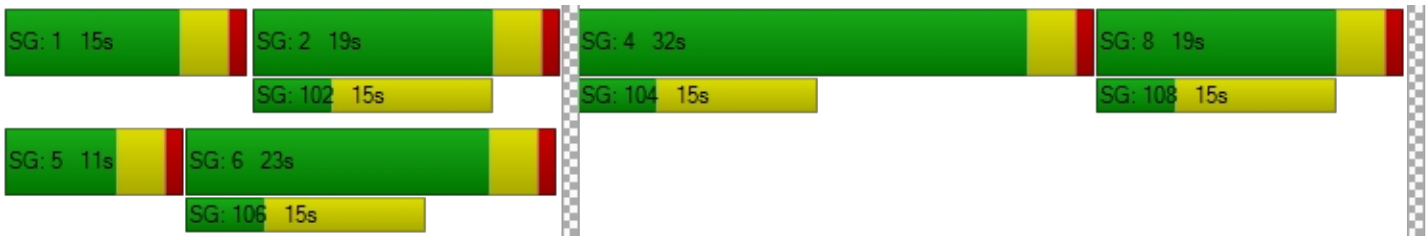
X, volume / capacity	0.45	0.83	0.09	0.44	0.72	0.05	0.83	0.05	0.89
d, Delay for Lane Group [s/veh]	42.48	34.77	17.26	42.53	28.79	16.94	41.59	31.14	41.80
Lane Group LOS	D	C	B	D	C	B	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.93	12.20	0.72	0.88	9.40	0.40	5.04	0.23	8.32
50th-Percentile Queue Length [ft]	23.16	305.07	17.99	22.10	234.96	9.99	125.95	5.80	207.92
95th-Percentile Queue Length [veh]	1.67	17.93	1.30	1.59	14.43	0.72	8.72	0.42	13.05
95th-Percentile Queue Length [ft]	41.69	448.29	32.38	39.77	360.66	17.99	217.98	10.44	326.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.48	34.77	17.26	42.53	28.79	16.94	41.59	41.59	31.14	41.80	41.80	41.80
Movement LOS	D	C	B	D	C	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	33.84			29.10			41.03			41.80		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.89											
Intersection LOS	C											
Intersection V/C	0.823											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	61	176	2	4	146	61	39	50	98	2	23	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	176	2	4	146	61	39	50	98	2	23	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	46	1	1	38	16	10	13	26	1	6	0
Total Analysis Volume [veh/h]	64	185	2	4	154	64	41	53	103	2	24	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.49	1.19	1.06	0.13
95th-Percentile Queue Length [ft]	37.22	29.76	26.61	3.14
Approach Delay [s/veh]	10.27	9.54	9.58	8.60
Approach LOS	B	A	A	A
Intersection Delay [s/veh]	9.78			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.506

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	47	191	52	30	99	33	25	857	20	40	1029	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	191	52	30	99	33	25	857	20	40	1029	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	50	14	8	26	9	7	226	5	11	271	4
Total Analysis Volume [veh/h]	49	201	55	32	104	35	26	902	21	42	1083	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	51	0	0	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	33	29	29	29	29	29	29
g / C, Green / Cycle	0.47	0.47	0.47	0.47	0.47	0.41	0.41	0.41	0.41	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.04	0.14	0.03	0.06	0.02	0.05	0.25	0.25	0.07	0.31	0.01
s, saturation flow rate [veh/h]	1285	1795	1119	1863	1583	519	1863	1848	603	3547	1583
c, Capacity [veh/h]	645	848	514	880	748	160	769	763	209	1465	654
d1, Uniform Delay [s]	12.14	11.35	14.41	10.31	9.95	29.15	16.05	16.05	25.56	17.35	12.19
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.91	0.23	0.27	0.12	0.47	0.76	0.77	0.47	0.75	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

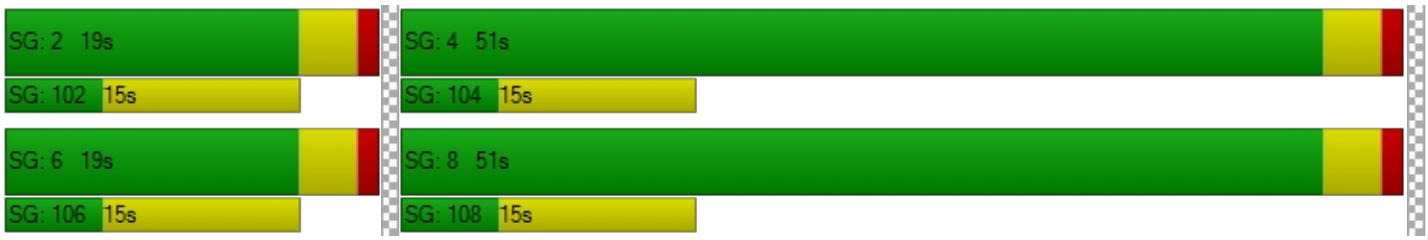
X, volume / capacity	0.08	0.30	0.06	0.12	0.05	0.16	0.60	0.60	0.20	0.74	0.03
d, Delay for Lane Group [s/veh]	12.37	12.27	14.64	10.58	10.07	29.62	16.81	16.81	26.02	18.10	12.21
Lane Group LOS	B	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.47	2.42	0.34	0.88	0.29	0.42	5.42	5.38	0.62	6.80	0.16
50th-Percentile Queue Length [ft]	11.66	60.43	8.58	21.98	7.21	10.38	135.50	134.45	15.51	169.92	3.96
95th-Percentile Queue Length [veh]	0.84	4.35	0.62	1.58	0.52	0.75	9.24	9.18	1.12	11.07	0.28
95th-Percentile Queue Length [ft]	21.00	108.77	15.45	39.56	12.98	18.69	230.96	229.53	27.91	276.81	7.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.37	12.27	12.27	14.64	10.58	10.07	29.62	16.81	16.81	26.02	18.10	12.21
Movement LOS	B	B	B	B	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	12.28			11.24			17.16			18.30		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.70											
Intersection LOS	B											
Intersection V/C	0.506											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	13	315	32	14	152	13	17	164	9	33	265	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	315	32	14	152	13	17	164	9	33	265	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	83	8	4	40	3	4	43	2	9	70	3
Total Analysis Volume [veh/h]	14	332	34	15	160	14	18	173	9	35	279	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.46	1.48	1.62	3.43
95th-Percentile Queue Length [ft]	111.56	37.12	40.60	85.78
Approach Delay [s/veh]	18.80	12.70	13.05	16.74
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	16.08			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.457

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	41	146	54	18	73	53	46	670	26	58	957	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	146	54	18	73	53	46	670	26	58	957	36
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	38	14	5	19	14	12	176	7	15	252	9
Total Analysis Volume [veh/h]	43	154	57	19	77	56	48	705	27	61	1007	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	46	0	0	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	31	31	26	26	26	26	26	26
g / C, Green / Cycle	0.47	0.47	0.47	0.47	0.40	0.40	0.40	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.02	0.08	0.09	0.20	0.20	0.08	0.28	0.28
s, saturation flow rate [veh/h]	1252	1778	1166	1734	538	1863	1839	721	1863	1839
c, Capacity [veh/h]	603	841	537	820	190	752	743	279	752	743
d1, Uniform Delay [s]	12.39	10.24	13.30	9.78	25.98	14.39	14.39	20.89	16.09	16.09
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.72	0.12	0.42	0.69	0.49	0.50	0.39	1.19	1.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

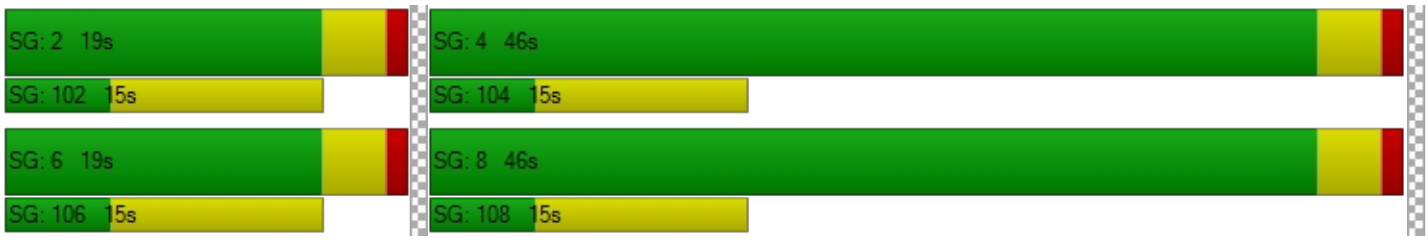
X, volume / capacity	0.07	0.25	0.04	0.16	0.25	0.49	0.49	0.22	0.70	0.70
d, Delay for Lane Group [s/veh]	12.62	10.96	13.42	10.20	26.67	14.89	14.90	21.28	17.28	17.29
Lane Group LOS	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.40	1.75	0.18	1.05	0.70	3.72	3.68	0.76	6.02	5.95
50th-Percentile Queue Length [ft]	9.94	43.84	4.60	26.28	17.42	93.05	91.94	19.03	150.58	148.79
95th-Percentile Queue Length [veh]	0.72	3.16	0.33	1.89	1.25	6.70	6.62	1.37	10.05	9.95
95th-Percentile Queue Length [ft]	17.89	78.91	8.27	47.30	31.35	167.49	165.49	34.25	251.21	248.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.62	10.96	10.96	13.42	10.20	10.20	26.67	14.89	14.90	21.28	17.29	17.29
Movement LOS	B	B	B	B	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	11.24			10.60			15.62			17.51		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.71											
Intersection LOS	B											
Intersection V/C	0.457											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Peak Hour Factor	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	11	7	30	9	10	40	5	6	69	13
Total Analysis Volume [veh/h]	19	228	46	28	121	35	40	160	21	25	277	53
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.68	1.37	1.74	3.63
95th-Percentile Queue Length [ft]	66.97	34.22	43.60	90.74
Approach Delay [s/veh]	14.60	12.15	12.78	16.32
Approach LOS	B	B	B	C
Intersection Delay [s/veh]	14.37			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	89	230	81	157	202	173	124	595	56	83	843	183
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	230	81	157	202	173	124	595	56	83	843	183
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	61	21	41	53	46	33	157	15	22	222	48
Total Analysis Volume [veh/h]	94	242	85	165	213	182	131	626	59	87	887	193
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	18	19	0	18	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	16	7	22	22	6	21	21
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.10	0.29	0.29	0.08	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.05	0.09	0.09	0.09	0.11	0.11	0.07	0.19	0.19	0.05	0.25	0.12
s, saturation flow rate [veh/h]	1774	1863	1702	1774	1863	1583	1774	1863	1807	1774	3547	1583
c, Capacity [veh/h]	369	388	354	369	388	329	170	543	527	141	976	436
d1, Uniform Delay [s]	24.91	25.94	26.01	26.01	26.64	26.66	33.19	23.21	23.22	33.51	26.36	22.51
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.66	3.53	4.05	3.88	5.52	6.53	7.11	1.26	1.30	4.30	3.65	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

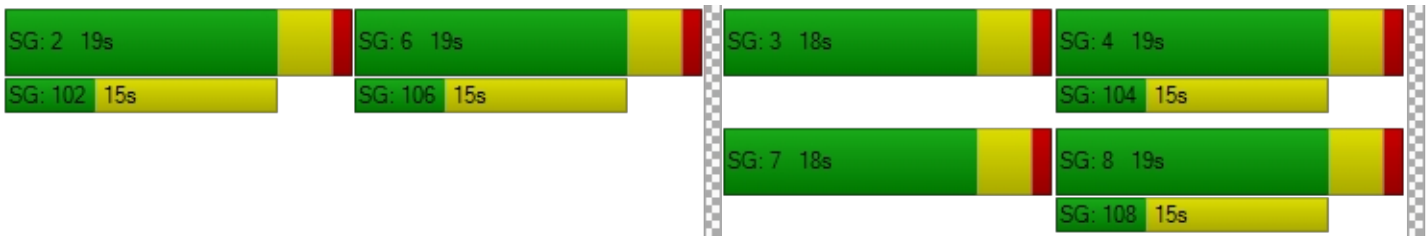
X, volume / capacity	0.25	0.43	0.45	0.45	0.55	0.55	0.77	0.64	0.64	0.62	0.91	0.44
d, Delay for Lane Group [s/veh]	26.57	29.47	30.06	29.89	32.15	33.19	40.31	24.48	24.52	37.81	30.01	23.22
Lane Group LOS	C	C	C	C	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.52	2.91	2.78	2.88	3.88	3.40	2.60	5.26	5.12	1.66	7.72	2.77
50th-Percentile Queue Length [ft]	38.12	72.74	69.57	72.03	96.91	85.12	64.99	131.59	127.92	41.58	192.89	69.23
95th-Percentile Queue Length [veh]	2.74	5.24	5.01	5.19	6.98	6.13	4.68	9.03	8.83	2.99	12.27	4.98
95th-Percentile Queue Length [ft]	68.62	130.94	125.22	129.65	174.45	153.21	116.97	225.65	220.66	74.85	306.78	124.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.57	29.65	30.06	29.89	32.15	33.19	40.31	24.50	24.52	37.81	30.01	23.22
Movement LOS	C	C	C	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	29.04			31.82			27.04			29.46		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.18											
Intersection LOS	C											
Intersection V/C	0.676											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	35	230	13	14	231	25	24	219	36	11	201	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	230	13	14	231	25	24	219	36	11	201	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	61	3	4	61	7	6	58	9	3	53	4
Total Analysis Volume [veh/h]	37	242	14	15	243	26	25	231	38	12	212	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.95	2.77	2.71	0.21	2.23
95th-Percentile Queue Length [ft]	73.69	69.32	67.85	5.23	55.68
Approach Delay [s/veh]	15.91	15.46	15.39		14.68
Approach LOS	C	C	C		B
Intersection Delay [s/veh]	15.39				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	26.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	91	231	88	37	204	50	53	1151	91	70	970	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	231	88	37	204	50	53	1151	91	70	970	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	61	23	10	54	13	14	303	24	18	255	7
Total Analysis Volume [veh/h]	96	243	93	39	215	53	56	1212	96	74	1021	27
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	52	19	0	52	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	5	36	36	6	36	36
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.06	0.40	0.40	0.07	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.09	0.13	0.06	0.03	0.15	0.03	0.35	0.36	0.04	0.28	0.28
s, saturation flow rate [veh/h]	1107	1863	1583	1132	1800	1774	1863	1815	1774	1863	1846
c, Capacity [veh/h]	386	750	638	410	725	106	740	721	118	753	746
d1, Uniform Delay [s]	25.82	18.46	17.06	23.43	18.86	41.10	25.36	25.42	40.93	22.28	22.28
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.14	0.14	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.54	1.14	0.48	0.46	1.45	4.04	5.21	5.57	5.34	1.19	1.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.32	0.15	0.10	0.37	0.53	0.89	0.90	0.63	0.70	0.70
d, Delay for Lane Group [s/veh]	27.36	19.61	17.54	23.89	20.31	45.14	30.56	30.98	46.27	23.47	23.49
Lane Group LOS	C	B	B	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.76	3.60	1.27	0.65	4.08	1.31	13.56	13.37	1.76	9.07	8.99
50th-Percentile Queue Length [ft]	44.07	90.03	31.85	16.29	102.02	32.81	339.09	334.20	43.90	226.63	224.71
95th-Percentile Queue Length [veh]	3.17	6.48	2.29	1.17	7.35	2.36	19.60	19.36	3.16	14.00	13.91
95th-Percentile Queue Length [ft]	79.32	162.06	57.34	29.32	183.63	59.06	490.08	484.11	79.01	350.08	347.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.36	19.61	17.54	23.89	20.31	20.31	45.14	30.75	30.98	46.27	23.48	23.49
Movement LOS	C	B	B	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	20.88			20.77			31.36			24.98		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.73											
Intersection LOS	C											
Intersection V/C	0.631											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	49.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	89	224	25	57	235	22	58	354	101	46	286	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	224	25	57	235	22	58	354	101	46	286	94
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	59	7	15	62	6	15	93	27	12	75	25
Total Analysis Volume [veh/h]	94	236	26	60	247	23	61	373	106	48	301	99
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.94	4.32	0.54	4.61	0.54	17.22	0.43	6.09	0.87
95th-Percentile Queue Length [ft]	23.52	107.95	13.62	115.32	13.54	430.47	10.73	152.18	21.74
Approach Delay [s/veh]	22.97		24.65		100.48		27.45		
Approach LOS	C		C		F		D		
Intersection Delay [s/veh]	49.50								
Intersection LOS	E								

HCS 2010 Two-Way Stop Control Summary Report

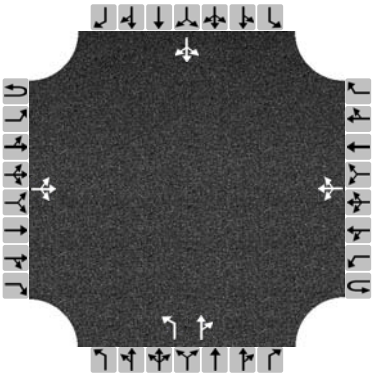
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	1	0		0	1	0
Configuration			LTR				LTR			L		TR			LTR	
Volume (veh/h)		20	238	10		18	207	29		28	214	21		7	107	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		21				19				29		247			132	
Capacity		1309				1295				296		424			404	
v/c Ratio		0.02				0.01				0.10		0.58			0.33	
95% Queue Length		0.0				0.0				0.3		3.6			1.4	
Control Delay (s/veh)		7.8				7.8				18.5		24.7			18.2	
Level of Service (LOS)		A				A				C		C			C	
Approach Delay (s/veh)	0.7				0.7				24.0				18.2			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	58	115	72	16	81	53	41	1186	73	55	1103	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	115	72	16	81	53	41	1186	73	55	1103	24
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	30	19	4	21	14	11	312	19	14	290	6
Total Analysis Volume [veh/h]	61	121	76	17	85	56	43	1248	77	58	1161	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	27	35	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	4	35	35	5	36	36
g / C, Green / Cycle	0.20	0.20	0.20	0.06	0.55	0.55	0.07	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.16	0.05	0.14	0.02	0.35	0.05	0.03	0.32	0.32
s, saturation flow rate [veh/h]	1169	1583	1100	1774	3547	1583	1774	1863	1849
c, Capacity [veh/h]	306	314	280	104	1939	865	125	1040	1032
d1, Uniform Delay [s]	23.68	21.94	23.15	29.53	10.31	7.03	29.06	9.32	9.33
k, delay calibration	0.18	0.11	0.15	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.11	0.39	2.42	2.60	1.66	0.20	2.68	2.29	2.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

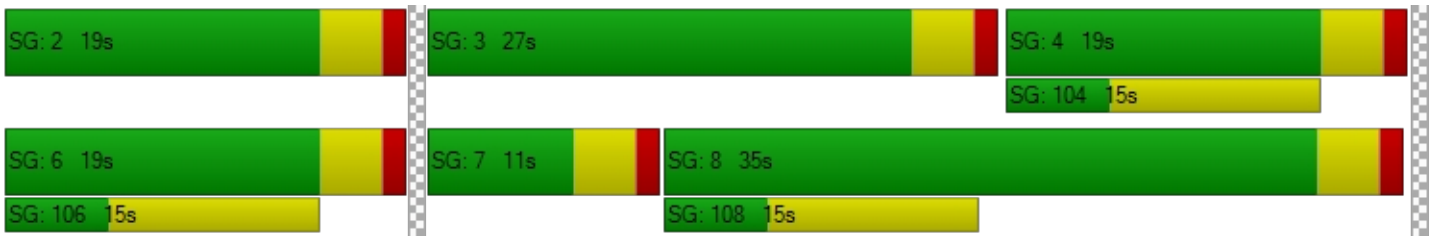
X, volume / capacity	0.59	0.24	0.56	0.41	0.64	0.09	0.47	0.57	0.57
d, Delay for Lane Group [s/veh]	26.78	22.33	25.57	32.13	11.97	7.23	31.74	11.61	11.64
Lane Group LOS	C	C	C	C	B	A	C	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.68	0.96	2.20	0.70	5.57	0.48	0.93	5.13	5.10
50th-Percentile Queue Length [ft]	67.01	23.95	54.93	17.44	139.26	11.99	23.17	128.23	127.52
95th-Percentile Queue Length [veh]	4.82	1.72	3.96	1.26	9.44	0.86	1.67	8.84	8.80
95th-Percentile Queue Length [ft]	120.61	43.11	98.88	31.39	236.03	21.58	41.71	221.09	220.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.78	26.78	22.33	25.57	25.57	25.57	32.13	11.97	7.23	31.74	11.62	11.64
Movement LOS	C	C	C	C	C	C	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	25.47			25.57			12.34			12.56		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.24											
Intersection LOS	B											
Intersection V/C	0.663											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	32.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	45	138	24	18	124	46	20	427	50	21	322	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	138	24	18	124	46	20	427	50	21	322	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	36	6	5	33	12	5	112	13	6	85	6
Total Analysis Volume [veh/h]	47	145	25	19	131	48	21	449	53	22	339	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.19	0.16	2.08	12.02	5.95
95th-Percentile Queue Length [ft]	54.78	4.04	52.04	300.40	148.84
Approach Delay [s/veh]	16.44		16.28	49.59	25.65
Approach LOS	C		C	E	D
Intersection Delay [s/veh]	32.21				
Intersection LOS	D				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	74.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.072

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	47	645	81	171	682	120	73	357	71	57	336	167
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	645	81	171	682	120	73	357	71	57	336	167
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	170	21	45	179	32	19	94	19	15	88	44
Total Analysis Volume [veh/h]	49	679	85	180	718	126	77	376	75	60	354	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	17	17	7	19	19	15	15	15
g / C, Green / Cycle	0.06	0.24	0.24	0.10	0.28	0.28	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.21	0.10	0.23	0.23	0.29	0.22	0.11
s, saturation flow rate [veh/h]	1774	1863	1791	1774	1863	1767	1804	1849	1583
c, Capacity [veh/h]	111	444	427	178	514	488	391	401	343
d1, Uniform Delay [s]	31.69	25.73	25.74	31.54	23.94	23.95	27.47	27.47	24.21
k, delay calibration	0.11	0.40	0.40	0.34	0.12	0.12	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.74	17.47	18.16	57.83	4.08	4.30	173.96	53.84	5.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

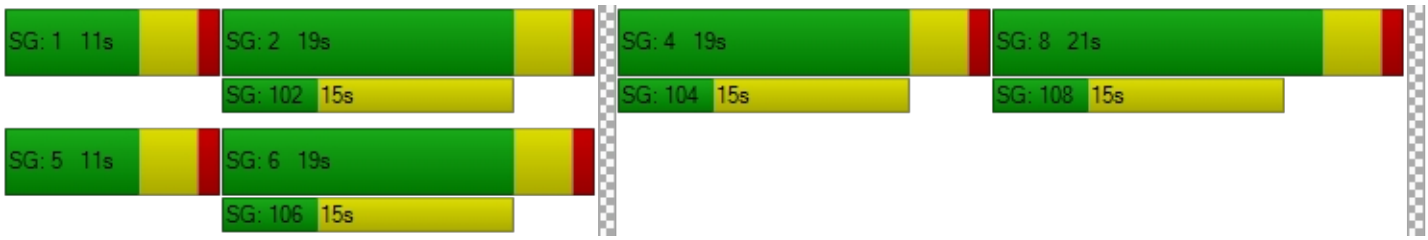
X, volume / capacity	0.44	0.88	0.88	1.01	0.84	0.84	1.35	1.03	0.51
d, Delay for Lane Group [s/veh]	34.43	43.20	43.89	89.37	28.03	28.24	201.43	81.31	29.61
Lane Group LOS	C	D	D	F	C	C	F	F	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.86	8.04	7.82	5.76	6.91	6.59	25.05	12.31	2.96
50th-Percentile Queue Length [ft]	21.48	200.99	195.46	144.02	172.82	164.70	626.30	307.72	74.01
95th-Percentile Queue Length [veh]	1.55	12.69	12.40	9.73	11.22	10.80	38.42	18.39	5.33
95th-Percentile Queue Length [ft]	38.66	317.24	310.10	243.33	280.62	269.94	960.40	459.68	133.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.43	43.50	43.89	89.37	28.11	28.24	201.43	201.43	201.43	81.31	81.31	29.61
Movement LOS	C	D	D	F	C	C	F	F	F	F	F	C
d_A, Approach Delay [s/veh]	42.99			38.90			201.43			65.89		
Approach LOS	D			D			F			E		
d_I, Intersection Delay [s/veh]	74.45											
Intersection LOS	E											
Intersection V/C	1.072											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	33	735	61	54	686	31	20	129	33	48	204	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	735	61	54	686	31	20	129	33	48	204	54
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	193	16	14	181	8	5	34	9	13	54	14
Total Analysis Volume [veh/h]	35	774	64	57	722	33	21	136	35	51	215	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	21	0	20	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	17	17	4	18	18	27	27	27	27
g / C, Green / Cycle	0.05	0.28	0.28	0.07	0.30	0.30	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.23	0.03	0.20	0.20	0.02	0.10	0.04	0.15
s, saturation flow rate [veh/h]	1774	1863	1813	1774	1863	1834	1103	1798	1209	1796
c, Capacity [veh/h]	96	520	506	131	557	548	464	805	548	804
d1, Uniform Delay [s]	27.47	20.26	20.26	26.66	18.58	18.58	14.50	10.14	13.10	10.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	3.22	3.31	2.27	1.49	1.51	0.18	0.60	0.34	1.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

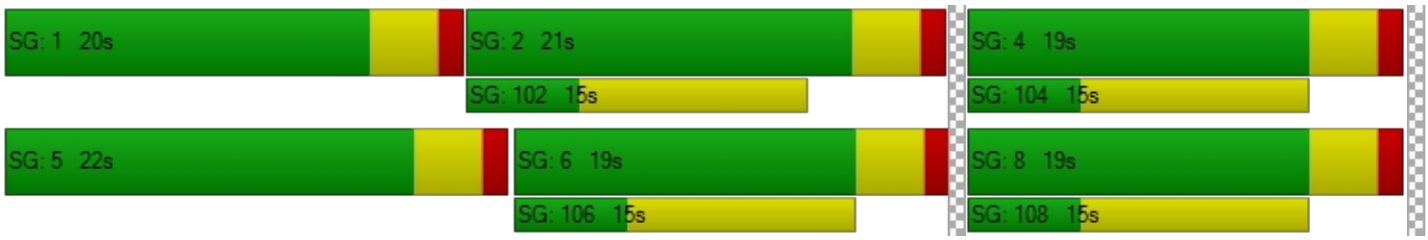
X, volume / capacity	0.37	0.82	0.82	0.44	0.68	0.68	0.05	0.21	0.09	0.34
d, Delay for Lane Group [s/veh]	29.80	23.47	23.56	28.93	20.07	20.10	14.68	10.74	13.44	11.95
Lane Group LOS	C	C	C	C	C	C	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	5.50	5.37	0.82	4.45	4.39	0.21	1.33	0.47	2.28
50th-Percentile Queue Length [ft]	13.08	137.53	134.23	20.60	111.21	109.66	5.18	33.17	11.76	56.92
95th-Percentile Queue Length [veh]	0.94	9.35	9.17	1.48	7.91	7.82	0.37	2.39	0.85	4.10
95th-Percentile Queue Length [ft]	23.55	233.70	229.24	37.08	197.69	195.53	9.32	59.71	21.17	102.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.80	23.51	23.56	28.93	20.08	20.10	14.68	10.74	10.74	13.44	11.95	11.95
Movement LOS	C	C	C	C	C	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	23.77			20.70			11.17			12.18		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.84											
Intersection LOS	B											
Intersection V/C	0.514											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	27	774	24	58	685	17	13	124	25	32	127	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	774	24	58	685	17	13	124	25	32	127	86
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	204	6	15	180	4	3	33	7	8	33	23
Total Analysis Volume [veh/h]	28	815	25	61	721	18	14	131	26	34	134	91
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	24	16	16	24	18	18	28	21	28	22	22
g / C, Green / Cycle	0.40	0.26	0.26	0.40	0.29	0.29	0.46	0.35	0.46	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.06	0.20	0.01	0.01	0.09	0.03	0.07	0.06
s, saturation flow rate [veh/h]	932	1863	1843	956	3547	1583	1317	1810	1325	1863	1583
c, Capacity [veh/h]	412	484	479	417	1032	461	740	627	729	694	590
d1, Uniform Delay [s]	12.09	21.30	21.30	12.81	18.98	15.29	8.74	14.06	8.88	12.75	12.55
k, delay calibration	0.11	0.27	0.27	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	11.33	11.44	0.16	0.87	0.03	0.01	0.96	0.12	0.62	0.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.87	0.87	0.15	0.70	0.04	0.02	0.25	0.05	0.19	0.15
d, Delay for Lane Group [s/veh]	12.16	32.63	32.74	12.97	19.85	15.33	8.75	15.02	9.00	13.37	13.11
Lane Group LOS	B	C	C	B	B	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.21	6.68	6.63	0.47	4.16	0.17	0.09	1.55	0.23	1.22	0.82
50th-Percentile Queue Length [ft]	5.23	167.01	165.66	11.64	104.11	4.17	2.19	38.65	5.86	30.38	20.59
95th-Percentile Queue Length [veh]	0.38	10.92	10.85	0.84	7.50	0.30	0.16	2.78	0.42	2.19	1.48
95th-Percentile Queue Length [ft]	9.42	272.98	271.21	20.96	187.40	7.51	3.94	69.58	10.56	54.68	37.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.16	32.68	32.74	12.97	19.85	15.33	8.75	15.02	15.02	9.00	13.37	13.11
Movement LOS	B	C	C	B	B	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	32.02			19.22			14.50			12.70		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	23.33											
Intersection LOS	C											
Intersection V/C	0.476											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	27	672	62	113	600	32	65	146	24	71	205	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	672	62	113	600	32	65	146	24	71	205	120
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	177	16	30	158	8	17	38	6	19	54	32
Total Analysis Volume [veh/h]	28	707	65	119	632	34	68	154	25	75	216	126
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	14	14	6	18	18	5	19	5	19	19
g / C, Green / Cycle	0.04	0.23	0.23	0.10	0.29	0.29	0.08	0.31	0.08	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.02	0.20	0.04	0.07	0.18	0.18	0.04	0.10	0.04	0.12	0.08
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1829	1774	1818	1774	1863	1583
c, Capacity [veh/h]	80	829	370	180	541	531	142	572	149	594	505
d1, Uniform Delay [s]	27.87	22.06	18.42	26.01	18.47	18.48	26.47	15.67	26.35	15.79	15.17
k, delay calibration	0.11	0.11	0.11	0.11	0.12	0.12	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.62	2.62	0.22	4.07	1.26	1.29	2.50	1.43	2.61	1.72	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.85	0.18	0.66	0.62	0.62	0.48	0.31	0.50	0.36	0.25
d, Delay for Lane Group [s/veh]	30.49	24.68	18.64	30.08	19.74	19.77	28.97	17.10	28.95	17.52	16.35
Lane Group LOS	C	C	B	C	B	B	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.43	4.67	0.69	1.75	3.85	3.79	0.98	1.93	1.08	2.36	1.33
50th-Percentile Queue Length [ft]	10.74	116.72	17.34	43.73	96.34	94.80	24.51	48.15	26.99	58.96	33.20
95th-Percentile Queue Length [veh]	0.77	8.21	1.25	3.15	6.94	6.83	1.76	3.47	1.94	4.25	2.39
95th-Percentile Queue Length [ft]	19.33	205.31	31.20	78.71	173.42	170.64	44.12	86.67	48.58	106.14	59.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.49	24.68	18.64	30.08	19.75	19.77	28.97	17.10	17.10	28.95	17.52	16.35
Movement LOS	C	C	B	C	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	24.39			21.32			20.37			19.22		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	21.92											
Intersection LOS	C											
Intersection V/C	0.573											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	41.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.935

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	159	431	213	199	384	148	175	1077	167	186	946	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	431	213	199	384	148	175	1077	167	186	946	195
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	113	56	52	101	39	46	283	44	49	249	51
Total Analysis Volume [veh/h]	167	454	224	209	404	156	184	1134	176	196	996	205
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	15	8	26	26	7	25	25
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.25	0.13	0.43	0.43	0.12	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.17	0.19	0.19	0.28	0.22	0.10	0.10	0.36	0.36	0.11	0.28	0.13
s, saturation flow rate [veh/h]	977	1863	1658	758	1863	1583	1774	1863	1777	1774	3547	1583
c, Capacity [veh/h]	129	466	415	149	466	396	235	811	774	203	1481	661
d1, Uniform Delay [s]	30.00	20.91	20.92	29.80	21.56	18.73	25.21	14.90	15.01	26.45	14.16	11.69
k, delay calibration	0.19	0.25	0.25	0.48	0.32	0.11	0.11	0.50	0.50	0.30	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	153.63	6.06	6.85	216.75	13.11	0.64	5.66	9.16	10.17	40.13	2.45	1.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

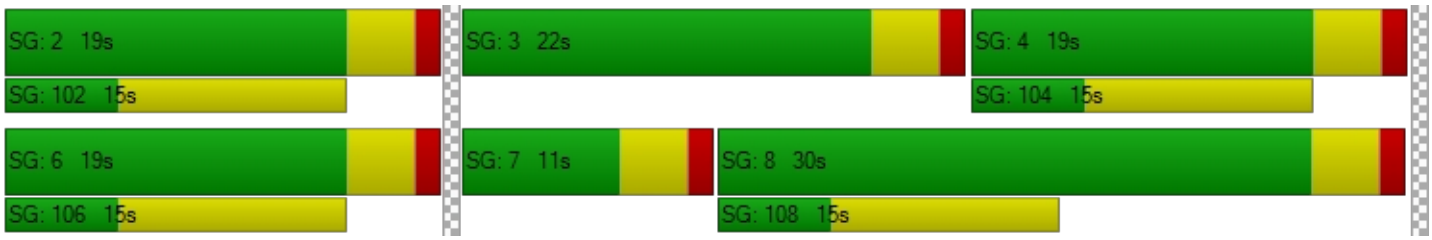
X, volume / capacity	1.30	0.77	0.77	1.41	0.87	0.39	0.78	0.82	0.83	0.96	0.67	0.31
d, Delay for Lane Group [s/veh]	183.64	26.97	27.76	246.55	34.67	19.37	30.87	24.05	25.18	66.58	16.61	12.91
Lane Group LOS	F	C	C	F	C	B	C	C	C	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	7.27	5.05	4.60	11.00	6.66	1.73	2.75	8.85	8.79	4.88	5.23	1.83
50th-Percentile Queue Length [ft]	181.79	126.35	114.92	274.91	166.47	43.37	68.69	221.20	219.87	122.03	130.70	45.75
95th-Percentile Queue Length [veh]	13.09	8.74	8.11	19.05	10.89	3.12	4.95	13.73	13.66	8.50	8.98	3.29
95th-Percentile Queue Length [ft]	327.15	218.52	202.82	476.27	272.27	78.06	123.64	343.15	341.46	212.61	224.45	82.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	183.64	27.14	27.76	246.55	34.67	19.37	30.87	24.52	25.18	66.58	16.61	12.91
Movement LOS	F	C	C	F	C	B	C	C	C	E	B	B
d_A, Approach Delay [s/veh]	58.23			89.15			25.38			23.08		
Approach LOS	E			F			C			C		
d_I, Intersection Delay [s/veh]	41.71											
Intersection LOS	D											
Intersection V/C	0.935											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

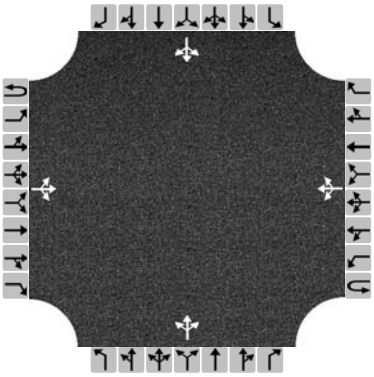
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	31	7		10	28	33		14	743	6		42	659	15
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11				11					803				754	
Capacity		1530				1561					647					
v/c Ratio		0.01				0.01					1.24					
95% Queue Length		0.0				0.0					29.7					
Control Delay (s/veh)		7.4				7.3					142.7					
Level of Service (LOS)		A				A					F					
Approach Delay (s/veh)	1.6				1.1				142.7							
Approach LOS									F							

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	138.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.068

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	24	644	65	68	619	25	94	286	87	59	221	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	644	65	68	619	25	94	286	87	59	221	64
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	169	17	18	163	7	25	75	23	16	58	17
Total Analysis Volume [veh/h]	25	678	68	72	652	26	99	301	92	62	233	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	19	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	17	17	5	19	19	16	16	16
g / C, Green / Cycle	0.04	0.24	0.24	0.08	0.28	0.28	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.01	0.36	0.04	0.04	0.35	0.02	0.22	0.06	0.20
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1840	1583	1789
c, Capacity [veh/h]	69	449	382	134	518	440	419	361	406
d1, Uniform Delay [s]	32.81	26.57	21.07	31.19	25.28	18.56	26.68	22.17	26.24
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.38	0.11	0.30
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.19	240.35	1.02	3.30	131.49	0.26	28.36	0.37	16.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

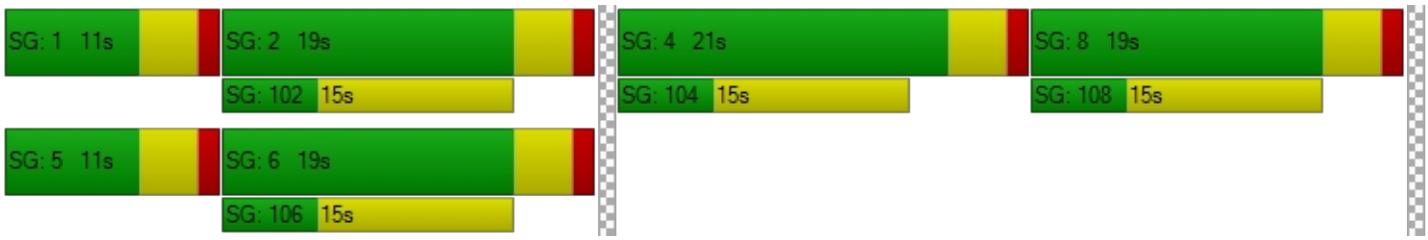
X, volume / capacity	0.36	1.51	0.18	0.54	1.26	0.06	0.95	0.26	0.89
d, Delay for Lane Group [s/veh]	36.00	266.92	22.08	34.49	156.77	18.81	55.04	22.54	42.67
Lane Group LOS	D	F	C	C	F	B	E	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.46	37.04	0.95	1.26	26.93	0.33	9.49	1.22	7.37
50th-Percentile Queue Length [ft]	11.55	926.00	23.82	31.40	673.32	8.17	237.31	30.50	184.24
95th-Percentile Queue Length [veh]	0.83	57.00	1.72	2.26	40.26	0.59	14.55	2.20	11.82
95th-Percentile Queue Length [ft]	20.79	1425.11	42.88	56.52	1006.49	14.70	363.63	54.90	295.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.00	266.92	22.08	34.49	156.77	18.81	55.04	55.04	22.54	42.67	42.67	42.67
Movement LOS	D	F	C	C	F	B	E	E	C	D	D	D
d_A, Approach Delay [s/veh]	237.84			140.25			48.96			42.67		
Approach LOS	F			F			D			D		
d_I, Intersection Delay [s/veh]	138.15											
Intersection LOS	F											
Intersection V/C	1.068											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	104	184	11	6	158	46	59	47	84	4	71	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	184	11	6	158	46	59	47	84	4	71	6
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	48	3	2	42	12	16	12	22	1	19	2
Total Analysis Volume [veh/h]	109	194	12	6	166	48	62	49	88	4	75	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.31	1.32	1.21	0.46
95th-Percentile Queue Length [ft]	57.67	32.94	30.20	11.45
Approach Delay [s/veh]	12.14	10.32	10.42	9.51
Approach LOS	B	B	B	A
Intersection Delay [s/veh]	10.96			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	36	136	45	54	166	43	37	1199	30	81	1059	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	136	45	54	166	43	37	1199	30	81	1059	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	36	12	14	44	11	10	316	8	21	279	7
Total Analysis Volume [veh/h]	38	143	47	57	175	45	39	1262	32	85	1115	27
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20	20	20	32	32	32	32	32	32
g / C, Green / Cycle	0.33	0.33	0.33	0.33	0.33	0.54	0.54	0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.05	0.09	0.03	0.08	0.35	0.35	0.20	0.31	0.02
s, saturation flow rate [veh/h]	1205	1785	1188	1863	1583	503	1863	1847	425	3547	1583
c, Capacity [veh/h]	382	583	366	608	517	274	1006	998	235	1916	855
d1, Uniform Delay [s]	18.95	15.24	19.80	15.03	14.01	15.71	9.73	9.74	19.99	9.25	6.45
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.14	0.14	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	1.49	0.90	1.19	0.33	0.24	0.88	0.90	0.94	0.28	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

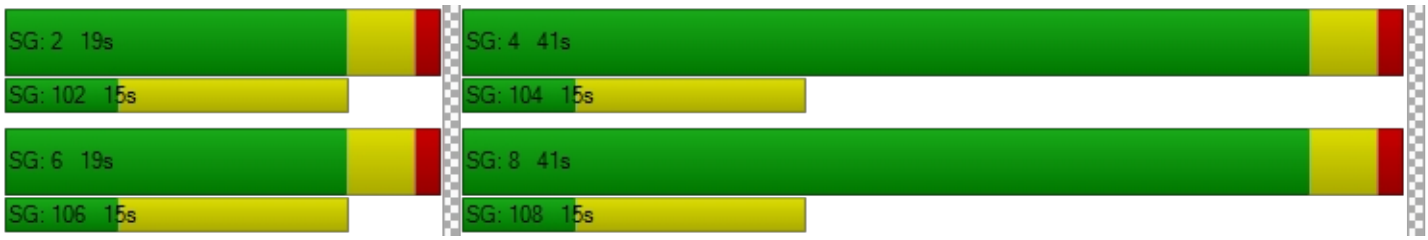
X, volume / capacity	0.10	0.33	0.16	0.29	0.09	0.14	0.65	0.65	0.36	0.58	0.03
d, Delay for Lane Group [s/veh]	19.47	16.72	20.71	16.22	14.34	15.94	10.62	10.64	20.93	9.53	6.47
Lane Group LOS	B	B	C	B	B	B	B	B	C	A	A
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.45	2.02	0.71	1.81	0.43	0.39	5.01	4.98	1.05	3.96	0.13
50th-Percentile Queue Length [ft]	11.34	50.40	17.76	45.35	10.86	9.64	125.15	124.38	26.18	98.90	3.37
95th-Percentile Queue Length [veh]	0.82	3.63	1.28	3.26	0.78	0.69	8.68	8.63	1.89	7.12	0.24
95th-Percentile Queue Length [ft]	20.41	90.72	31.98	81.62	19.54	17.35	216.89	215.83	47.13	178.03	6.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.47	16.72	16.72	20.71	16.22	14.34	15.94	10.63	10.64	20.93	9.53	6.47
Movement LOS	B	B	B	C	B	B	B	B	B	C	A	A
d_A, Approach Delay [s/veh]	17.18			16.84			10.78			10.25		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	11.59											
Intersection LOS	B											
Intersection V/C	0.526											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	18	180	20	18	227	32	29	290	32	33	250	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	180	20	18	227	32	29	290	32	33	250	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	47	5	5	60	8	8	76	8	9	66	5
Total Analysis Volume [veh/h]	19	189	21	19	239	34	31	305	34	35	263	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.29	3.36	5.06	3.82
95th-Percentile Queue Length [ft]	57.32	84.03	126.50	95.60
Approach Delay [s/veh]	15.67	18.06	22.06	18.98
Approach LOS	C	C	C	C
Intersection Delay [s/veh]	19.07			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	44	85	67	24	94	58	21	1113	48	59	1003	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	85	67	24	94	58	21	1113	48	59	1003	23
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	22	18	6	25	15	6	293	13	16	264	6
Total Analysis Volume [veh/h]	46	89	71	25	99	61	22	1172	51	62	1056	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23	23	23	23	29	29	29	29	29	29
g / C, Green / Cycle	0.38	0.38	0.38	0.38	0.48	0.48	0.48	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.02	0.09	0.04	0.33	0.33	0.14	0.29	0.29
s, saturation flow rate [veh/h]	1221	1727	1221	1745	520	1863	1836	454	1863	1848
c, Capacity [veh/h]	465	663	464	670	248	899	886	213	899	892
d1, Uniform Delay [s]	16.05	12.55	15.80	12.54	17.79	11.99	11.99	22.03	11.32	11.32
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.42	0.86	0.22	0.84	0.15	0.99	1.01	0.75	0.65	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

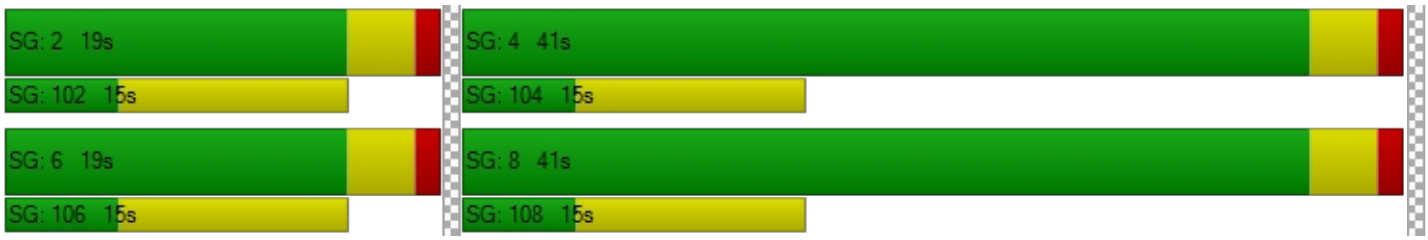
X, volume / capacity	0.10	0.24	0.05	0.24	0.09	0.68	0.69	0.29	0.60	0.60
d, Delay for Lane Group [s/veh]	16.48	13.41	16.02	13.38	17.95	12.97	13.00	22.78	11.97	11.98
Lane Group LOS	B	B	B	B	B	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.49	1.47	0.26	1.46	0.23	5.50	5.43	0.79	4.53	4.50
50th-Percentile Queue Length [ft]	12.25	36.63	6.53	36.55	5.81	137.45	135.80	19.71	113.22	112.41
95th-Percentile Queue Length [veh]	0.88	2.64	0.47	2.63	0.42	9.34	9.25	1.42	8.02	7.97
95th-Percentile Queue Length [ft]	22.05	65.94	11.75	65.79	10.45	233.59	231.36	35.48	200.48	199.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.48	13.41	13.41	16.02	13.38	13.38	17.95	12.99	13.00	22.78	11.97	11.98
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	14.10			13.74			13.08			12.56		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	12.98											
Intersection LOS	B											
Intersection V/C	0.489											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	26	124	39	19	176	30	24	276	25	26	249	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	124	39	19	176	30	24	276	25	26	249	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	33	10	5	46	8	6	73	7	7	66	7
Total Analysis Volume [veh/h]	27	131	41	20	185	32	25	291	26	27	262	27
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.59	2.05	3.56	3.10
95th-Percentile Queue Length [ft]	39.85	51.34	89.03	77.54
Approach Delay [s/veh]	12.91	13.84	16.57	15.61
Approach LOS	B	B	C	C
Intersection Delay [s/veh]	15.04			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	40.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.860

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	76	305	105	250	340	180	228	907	107	117	759	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	305	105	250	340	180	228	907	107	117	759	250
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	80	28	66	89	47	60	239	28	31	200	66
Total Analysis Volume [veh/h]	80	321	111	263	358	189	240	955	113	123	799	263
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	18	26	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	12	25	25	7	20	20
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.33	0.33	0.09	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.05	0.12	0.12	0.15	0.19	0.12	0.14	0.29	0.29	0.07	0.23	0.17
s, saturation flow rate [veh/h]	1774	1863	1703	1774	1863	1583	1774	1863	1795	1774	3547	1583
c, Capacity [veh/h]	324	340	311	324	340	289	284	616	594	162	929	415
d1, Uniform Delay [s]	26.28	28.52	28.60	29.47	30.70	28.50	30.66	23.74	23.78	33.34	26.40	24.53
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.21	0.25	0.25	0.11	0.11	0.23
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.81	9.57	10.97	19.52	63.35	10.99	12.63	9.30	9.96	7.16	2.47	3.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

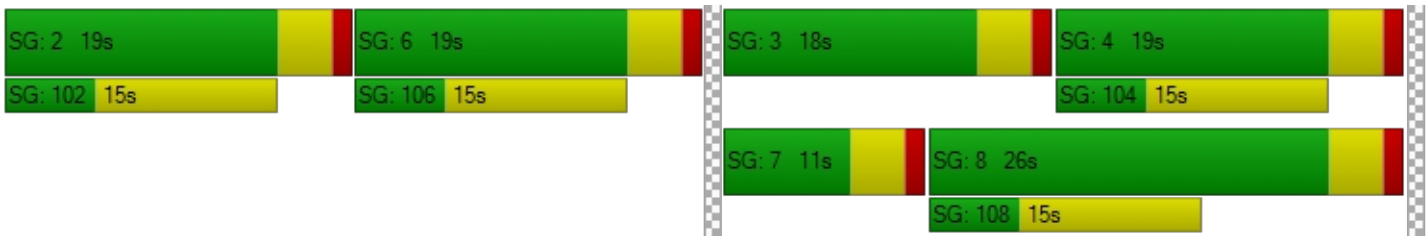
X, volume / capacity	0.25	0.66	0.67	0.81	1.05	0.65	0.85	0.88	0.88	0.76	0.86	0.63
d, Delay for Lane Group [s/veh]	28.10	38.09	39.57	48.98	94.05	39.49	43.29	33.04	33.74	40.50	28.87	27.97
Lane Group LOS	C	D	D	D	F	D	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.35	4.50	4.31	6.13	11.87	3.92	5.06	10.08	9.87	2.45	6.77	4.34
50th-Percentile Queue Length [ft]	33.72	112.49	107.69	153.13	296.75	97.98	126.48	251.97	246.72	61.16	169.28	108.57
95th-Percentile Queue Length [veh]	2.43	7.98	7.71	10.18	17.98	7.05	8.75	15.29	15.02	4.40	11.04	7.76
95th-Percentile Queue Length [ft]	60.69	199.46	192.79	254.60	449.48	176.37	218.70	382.14	375.51	110.09	275.97	194.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.10	38.54	39.57	48.98	94.05	39.49	43.29	33.34	33.74	40.50	28.87	27.97
Movement LOS	C	D	D	D	F	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	37.13			66.69			35.20			29.88		
Approach LOS	D			E			D			C		
d_I, Intersection Delay [s/veh]	40.49											
Intersection LOS	D											
Intersection V/C	0.860											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



General Plan Buildout With Project

Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	15	182	3	26	188	11	17	215	26	10	113	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	5	6	0	0	14	0	0	10	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	183	3	31	194	11	17	229	26	10	123	11
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	48	1	8	51	3	4	60	7	3	32	3
Total Analysis Volume [veh/h]	16	193	3	33	204	12	18	241	27	11	129	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.47	1.84	2.26	0.13	0.98
95th-Percentile Queue Length [ft]	36.79	45.92	56.40	3.16	24.46
Approach Delay [s/veh]	11.54	12.14	13.14		10.85
Approach LOS	B	B	B		B
Intersection Delay [s/veh]	12.10				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.454

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	88	153	119	23	166	25	15	682	73	55	821	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	5	0	0	0	57	0	0	-3	1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	88	153	124	28	166	25	15	739	73	55	818	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	40	33	7	44	7	4	194	19	14	215	6
Total Analysis Volume [veh/h]	93	161	131	29	175	26	16	778	77	58	861	23
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	32	37	0	14	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	34	34	34	2	19	19	5	22	22
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.48	0.03	0.28	0.28	0.07	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.08	0.09	0.08	0.02	0.11	0.01	0.23	0.23	0.03	0.24	0.24
s, saturation flow rate [veh/h]	1177	1863	1583	1220	1821	1774	1863	1804	1774	1863	1846
c, Capacity [veh/h]	553	896	761	589	876	51	519	503	123	595	590
d1, Uniform Delay [s]	14.51	10.35	10.31	13.00	10.63	33.39	23.78	23.79	31.39	21.31	21.31
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.66	0.44	0.49	0.16	0.61	3.51	3.64	3.76	2.79	1.89	1.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

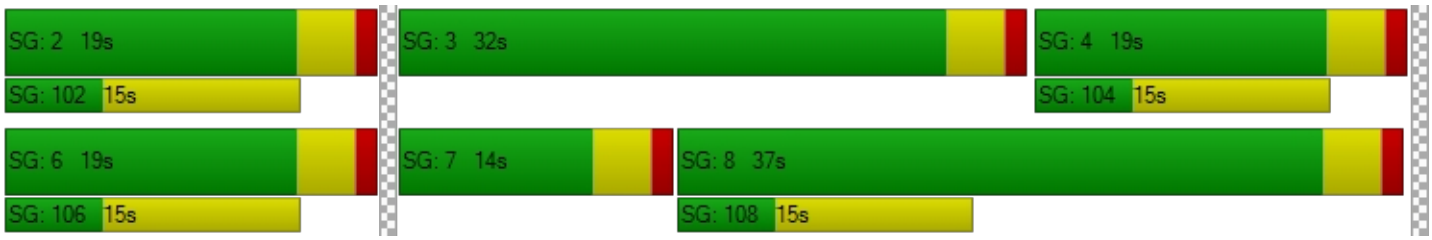
X, volume / capacity	0.17	0.18	0.17	0.05	0.23	0.32	0.84	0.84	0.47	0.75	0.75
d, Delay for Lane Group [s/veh]	15.17	10.79	10.80	13.16	11.24	36.90	27.43	27.55	34.18	23.20	23.22
Lane Group LOS	B	B	B	B	B	D	C	C	C	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.02	1.38	1.13	0.29	1.77	0.31	6.85	6.65	1.01	6.36	6.30
50th-Percentile Queue Length [ft]	25.52	34.45	28.29	7.18	44.37	7.71	171.15	166.28	25.23	158.90	157.52
95th-Percentile Queue Length [veh]	1.84	2.48	2.04	0.52	3.19	0.55	11.14	10.88	1.82	10.49	10.42
95th-Percentile Queue Length [ft]	45.94	62.01	50.93	12.93	79.87	13.87	278.42	272.02	45.42	262.27	260.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.17	10.79	10.80	13.16	11.24	11.24	36.90	27.48	27.55	34.18	23.21	23.22
Movement LOS	B	B	B	B	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	11.85			11.48			27.66			23.88		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.16											
Intersection LOS	C											
Intersection V/C	0.454											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	20.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	84	200	75	86	144	33	50	205	59	66	243	152
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	-1	0	0	0	0	33	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	205	74	86	144	33	50	238	59	66	248	152
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	19	23	38	9	13	63	16	17	65	40
Total Analysis Volume [veh/h]	88	216	78	91	152	35	53	251	62	69	261	160
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.77	4.39	0.84	2.08	0.43	5.13	0.59	3.75	1.44
95th-Percentile Queue Length [ft]	19.30	109.86	20.98	52.00	10.68	128.31	14.78	93.73	36.07
Approach Delay [s/veh]	21.11		15.87		24.31		18.17		
Approach LOS	C		C		C		C		
Intersection Delay [s/veh]	19.97								
Intersection LOS	C								

HCS 2010 Two-Way Stop Control Summary Report

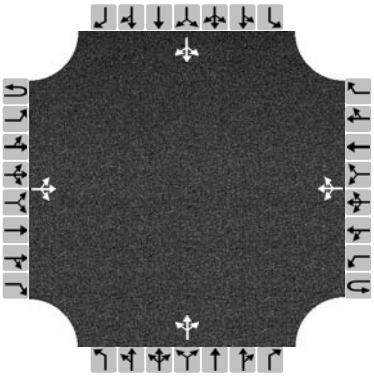
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM w/ Project
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	247	27		35	120	17		16	159	16		9	134	7
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				37					201				157	
Capacity		1431				1267					446				439	
v/c Ratio		0.01				0.03					0.45				0.36	
95% Queue Length		0.0				0.1					2.3				1.6	
Control Delay (s/veh)		7.5				7.9					19.5				17.7	
Level of Service (LOS)		A				A					C				C	
Approach Delay (s/veh)	0.3				1.8				19.5				17.7			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.544

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	58	97	65	12	86	31	29	790	63	70	916	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-4	8	3	-1	0	-3	15	57	-5	-9	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	105	68	11	86	28	44	847	58	61	921	36
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	28	18	3	23	7	12	223	15	16	242	9
Total Analysis Volume [veh/h]	57	111	72	12	91	29	46	892	61	64	969	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	11	4	33	33	5	34	34
g / C, Green / Cycle	0.18	0.18	0.18	0.06	0.55	0.55	0.08	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.14	0.05	0.12	0.03	0.25	0.04	0.04	0.27	0.27
s, saturation flow rate [veh/h]	1224	1583	1134	1774	3547	1583	1774	1863	1838
c, Capacity [veh/h]	296	279	265	111	1941	867	136	1046	1032
d1, Uniform Delay [s]	22.85	21.35	22.13	27.06	8.21	6.39	26.54	7.93	7.93
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.72	0.49	1.45	2.43	0.79	0.16	2.51	1.61	1.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

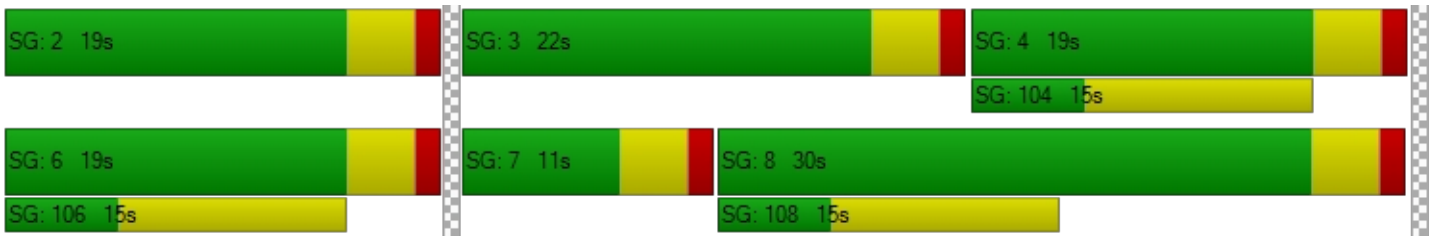
X, volume / capacity	0.57	0.26	0.50	0.41	0.46	0.07	0.47	0.48	0.48
d, Delay for Lane Group [s/veh]	24.57	21.84	23.58	29.49	9.00	6.55	29.04	9.54	9.56
Lane Group LOS	C	C	C	C	A	A	C	A	A
Critical Lane Group	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	2.20	0.86	1.65	0.68	2.99	0.33	0.93	3.56	3.52
50th-Percentile Queue Length [ft]	55.07	21.39	41.29	16.92	74.87	8.35	23.13	88.90	87.90
95th-Percentile Queue Length [veh]	3.96	1.54	2.97	1.22	5.39	0.60	1.67	6.40	6.33
95th-Percentile Queue Length [ft]	99.12	38.49	74.32	30.46	134.76	15.04	41.63	160.03	158.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.57	24.57	21.84	23.58	23.58	23.58	29.49	9.00	6.55	29.04	9.55	9.56
Movement LOS	C	C	C	C	C	C	C	A	A	C	A	A
d_A, Approach Delay [s/veh]	23.75			23.58			9.79			10.72		
Approach LOS	C			C			A			B		
d_I, Intersection Delay [s/veh]	12.31											
Intersection LOS	B											
Intersection V/C	0.544											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	2	4	3	1	1	31	0	0	4	-1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	93	20	11	57	67	30	181	36	17	234	17
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	29	6	3	18	21	9	56	11	5	72	5
Total Analysis Volume [veh/h]	111	114	25	14	70	82	37	222	44	21	287	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.20	0.13	1.20	2.76	3.19
95th-Percentile Queue Length [ft]	55.01	3.28	29.91	68.88	79.84
Approach Delay [s/veh]	14.43		11.83	14.55	15.49
Approach LOS	B		B	B	C
Intersection Delay [s/veh]	14.39				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	46.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.912

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	33	599	33	166	537	79	102	292	25	59	258	196
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	58	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	608	33	166	595	79	102	292	25	59	258	196
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	160	9	44	157	21	27	77	7	16	68	52
Total Analysis Volume [veh/h]	35	640	35	175	626	83	107	307	26	62	272	206
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	15	15	7	18	18	16	16	16
g / C, Green / Cycle	0.05	0.21	0.21	0.10	0.26	0.26	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.02	0.18	0.18	0.10	0.19	0.19	0.24	0.18	0.13
s, saturation flow rate [veh/h]	1774	1863	1829	1774	1863	1787	1822	1846	1583
c, Capacity [veh/h]	91	387	380	179	479	460	422	428	367
d1, Uniform Delay [s]	32.24	26.97	26.98	31.50	24.05	24.05	26.99	25.31	23.83
k, delay calibration	0.11	0.31	0.32	0.32	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.62	16.34	16.74	48.37	2.45	2.55	55.23	13.22	6.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

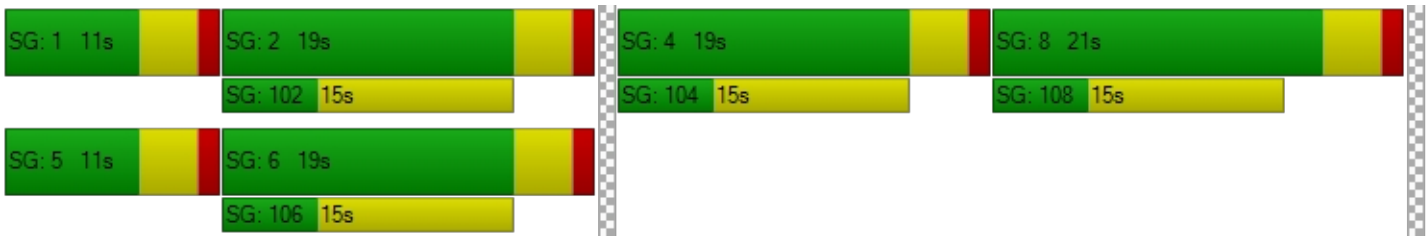
X, volume / capacity	0.38	0.88	0.88	0.98	0.75	0.76	1.04	0.78	0.56
d, Delay for Lane Group [s/veh]	34.86	43.32	43.72	79.87	26.50	26.60	82.21	38.54	29.93
Lane Group LOS	C	D	D	E	C	C	F	D	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.62	6.98	6.91	5.25	5.52	5.31	13.12	6.50	3.48
50th-Percentile Queue Length [ft]	15.60	174.54	172.63	131.19	138.00	132.80	327.90	162.46	87.05
95th-Percentile Queue Length [veh]	1.12	11.31	11.21	9.00	9.37	9.09	19.50	10.68	6.27
95th-Percentile Queue Length [ft]	28.07	282.87	280.37	225.11	234.33	227.30	487.47	266.98	156.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.86	43.50	43.72	79.87	26.54	26.60	82.21	82.21	82.21	38.54	38.54	29.93
Movement LOS	C	D	D	E	C	C	F	F	F	D	D	C
d_A, Approach Delay [s/veh]	43.09			37.10			82.21			35.25		
Approach LOS	D			D			F			D		
d_I, Intersection Delay [s/veh]	46.08											
Intersection LOS	D											
Intersection V/C	0.912											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	20	579	53	43	505	14	37	174	30	33	191	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	2	0	58	0	0	0	0	1	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	588	55	43	563	14	37	174	30	34	191	53
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	155	14	11	148	4	10	46	8	9	50	14
Total Analysis Volume [veh/h]	21	619	58	45	593	15	39	183	32	36	201	56
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	22	0	19	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	14	14	4	16	16	30	30	30	30
g / C, Green / Cycle	0.04	0.23	0.23	0.06	0.26	0.26	0.50	0.50	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.01	0.18	0.18	0.03	0.16	0.16	0.03	0.12	0.03	0.14
s, saturation flow rate [veh/h]	1774	1863	1807	1774	1863	1847	1118	1815	1162	1794
c, Capacity [veh/h]	65	436	423	113	486	482	546	913	582	902
d1, Uniform Delay [s]	28.25	21.65	21.66	27.05	19.65	19.65	11.94	8.43	11.25	8.68
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.82	3.21	3.34	2.24	1.34	1.35	0.25	0.61	0.20	0.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

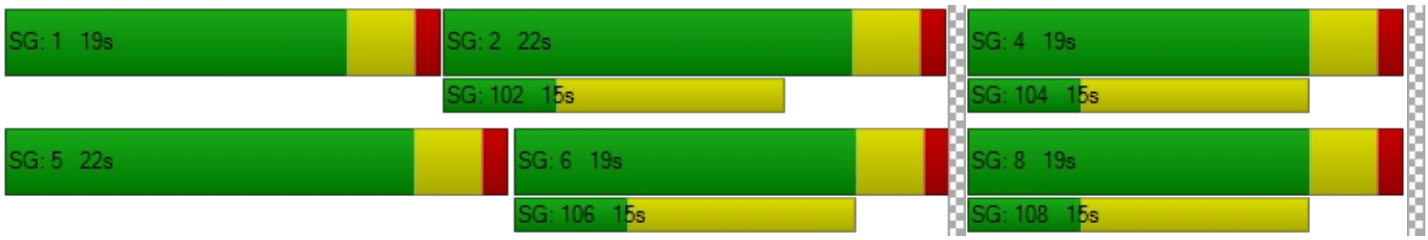
X, volume / capacity	0.32	0.79	0.79	0.40	0.63	0.63	0.07	0.24	0.06	0.28
d, Delay for Lane Group [s/veh]	31.06	24.86	25.00	29.29	20.99	21.01	12.19	9.04	11.45	9.47
Lane Group LOS	C	C	C	C	C	C	B	A	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.33	4.56	4.45	0.66	3.63	3.61	0.34	1.47	0.30	1.81
50th-Percentile Queue Length [ft]	8.29	113.99	111.28	16.49	90.85	90.21	8.46	36.69	7.45	45.37
95th-Percentile Queue Length [veh]	0.60	8.06	7.91	1.19	6.54	6.49	0.61	2.64	0.54	3.27
95th-Percentile Queue Length [ft]	14.93	201.54	197.78	29.68	163.53	162.37	15.23	66.05	13.42	81.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.06	24.92	25.00	29.29	21.00	21.01	12.19	9.04	9.04	11.45	9.47	9.47
Movement LOS	C	C	C	C	C	C	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	25.11			21.57			9.52			9.71		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	19.43											
Intersection LOS	B											
Intersection V/C	0.442											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.414

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	25	590	27	62	526	12	26	123	22	13	123	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	10	5	46	7	4	7	0	2	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	597	37	67	572	19	30	130	22	15	126	34
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	157	10	18	151	5	8	34	6	4	33	9
Total Analysis Volume [veh/h]	26	628	39	71	602	20	32	137	23	16	133	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	22	13	13	22	16	16	30	24	30	23	23
g / C, Green / Cycle	0.37	0.22	0.22	0.37	0.26	0.26	0.50	0.40	0.50	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.03	0.18	0.18	0.07	0.17	0.01	0.02	0.09	0.01	0.07	0.02
s, saturation flow rate [veh/h]	1013	1863	1825	1084	3547	1583	1339	1817	1291	1863	1583
c, Capacity [veh/h]	421	410	402	442	922	411	793	730	756	709	603
d1, Uniform Delay [s]	12.97	22.39	22.39	13.54	19.89	16.73	7.81	11.83	7.77	12.44	11.82
k, delay calibration	0.11	0.17	0.17	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	6.37	6.57	0.17	0.79	0.05	0.02	0.69	0.05	0.58	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.82	0.82	0.16	0.65	0.05	0.04	0.22	0.02	0.19	0.06
d, Delay for Lane Group [s/veh]	13.03	28.75	28.97	13.71	20.68	16.78	7.83	12.52	7.82	13.03	12.01
Lane Group LOS	B	C	C	B	C	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.21	4.89	4.82	0.59	3.54	0.20	0.18	1.38	0.10	1.18	0.31
50th-Percentile Queue Length [ft]	5.23	122.29	120.58	14.67	88.39	4.94	4.60	34.62	2.49	29.53	7.65
95th-Percentile Queue Length [veh]	0.38	8.52	8.42	1.06	6.36	0.36	0.33	2.49	0.18	2.13	0.55
95th-Percentile Queue Length [ft]	9.41	212.97	210.62	26.40	159.10	8.88	8.28	62.32	4.49	53.16	13.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.03	28.85	28.97	13.71	20.68	16.78	7.83	12.52	12.52	7.82	13.03	12.01
Movement LOS	B	C	C	B	C	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	28.27			19.86			11.74			12.38		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	21.49											
Intersection LOS	C											
Intersection V/C	0.414											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	22.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	25	501	49	102	465	34	38	119	22	35	116	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	14	0	0	48	0	2	1	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	515	49	102	513	34	40	120	37	35	116	71
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	136	13	27	135	9	11	32	10	9	31	19
Total Analysis Volume [veh/h]	39	542	52	107	540	36	42	126	39	37	122	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	12	12	6	14	14	4	23	3	23	23
g / C, Green / Cycle	0.06	0.19	0.19	0.10	0.23	0.23	0.06	0.39	0.05	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.15	0.03	0.06	0.16	0.16	0.02	0.09	0.02	0.07	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1822	1774	1788	1774	1863	1583
c, Capacity [veh/h]	104	684	305	176	435	426	108	692	99	711	605
d1, Uniform Delay [s]	27.32	23.18	20.31	26.03	20.98	20.99	27.25	12.49	27.46	12.33	12.09
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.24	2.12	0.26	3.36	1.78	1.83	2.30	0.81	2.34	0.52	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.79	0.17	0.61	0.67	0.67	0.39	0.24	0.37	0.17	0.12
d, Delay for Lane Group [s/veh]	29.56	25.30	20.57	29.39	22.76	22.82	29.55	13.30	29.80	12.85	12.51
Lane Group LOS	C	C	C	C	C	C	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.58	3.59	0.59	1.55	3.63	3.57	0.62	1.49	0.55	1.07	0.66
50th-Percentile Queue Length [ft]	14.44	89.81	14.80	38.79	90.84	89.20	15.51	37.26	13.80	26.81	16.38
95th-Percentile Queue Length [veh]	1.04	6.47	1.07	2.79	6.54	6.42	1.12	2.68	0.99	1.93	1.18
95th-Percentile Queue Length [ft]	25.99	161.66	26.65	69.82	163.51	160.56	27.92	67.06	24.84	48.26	29.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.56	25.30	20.57	29.39	22.79	22.82	29.55	13.30	13.30	29.80	12.85	12.51
Movement LOS	C	C	C	C	C	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	25.17			23.83			16.60			15.42		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	22.34											
Intersection LOS	C											
Intersection V/C	0.445											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	23.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.708

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	161	319	142	128	276	145	123	793	118	148	1001	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	16	4	15	58	-9	9	5	64	24	-7	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	335	146	143	334	136	132	798	182	172	994	156
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	88	38	38	88	36	35	210	48	45	262	41
Total Analysis Volume [veh/h]	171	353	154	151	352	143	139	840	192	181	1046	164
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	24	0	0	24	0	22	25	0	16	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20	20	20	20	7	25	25	8	26	26
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.31	0.31	0.10	0.38	0.38	0.13	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.17	0.14	0.14	0.17	0.19	0.09	0.08	0.29	0.29	0.10	0.29	0.10
s, saturation flow rate [veh/h]	1025	1863	1674	889	1863	1583	1774	1863	1744	1774	3547	1583
c, Capacity [veh/h]	229	573	515	253	573	487	183	708	663	227	1437	642
d1, Uniform Delay [s]	29.99	18.21	18.24	27.63	19.25	17.17	28.44	17.53	17.55	27.57	16.34	12.86
k, delay calibration	0.11	0.11	0.11	0.11	0.15	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.85	0.59	0.66	2.29	1.53	0.33	6.39	7.24	7.77	6.25	3.26	0.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

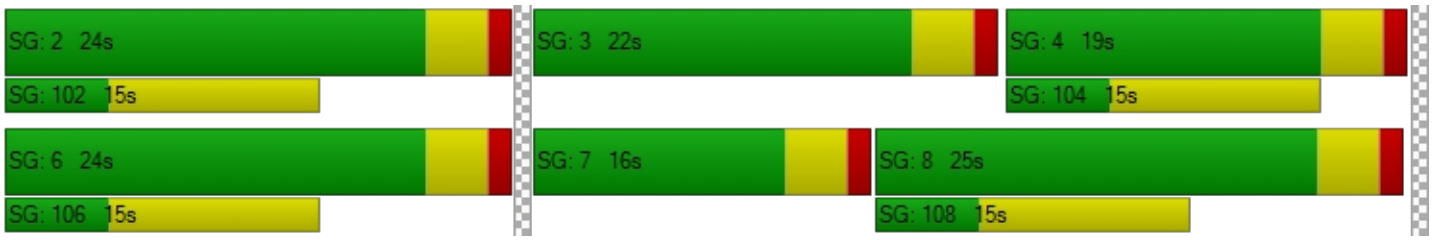
X, volume / capacity	0.75	0.46	0.47	0.60	0.61	0.29	0.76	0.75	0.75	0.80	0.73	0.26
d, Delay for Lane Group [s/veh]	34.84	18.80	18.91	29.92	20.79	17.50	34.82	24.77	25.32	33.82	19.61	13.82
Lane Group LOS	C	B	B	C	C	B	C	C	C	C	B	B
Critical Lane Group	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	2.91	3.08	2.81	2.40	4.42	1.56	2.34	7.62	7.26	2.99	6.48	1.61
50th-Percentile Queue Length [ft]	72.64	76.99	70.21	59.92	110.60	38.97	58.42	190.50	181.40	74.80	161.98	40.21
95th-Percentile Queue Length [veh]	5.23	5.54	5.05	4.31	7.87	2.81	4.21	12.15	11.67	5.39	10.65	2.90
95th-Percentile Queue Length [ft]	130.76	138.58	126.37	107.86	196.84	70.14	105.16	303.67	291.84	134.64	266.34	72.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.84	18.83	18.91	29.92	20.79	17.50	34.82	24.97	25.32	33.82	19.61	13.82
Movement LOS	C	B	B	C	C	B	C	C	C	C	B	B
d_A, Approach Delay [s/veh]	22.88			22.19			26.20			20.77		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	23.01											
Intersection LOS	C											
Intersection V/C	0.708											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

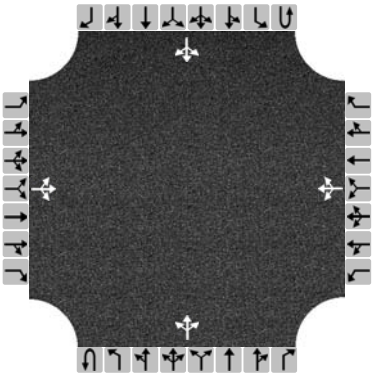
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM w/ Project
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		12	9	5		7	20	19		5	597	10		18	655	16
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			27				48			5				19		
Capacity			127				184			887				939		
v/c Ratio			0.21				0.26			0.01				0.02		
95% Queue Length			0.8				1.0			0.0				0.1		
Control Delay (s/veh)			40.9				31.3			9.1				8.9		
Level of Service (LOS)			E				D			A				A		
Approach Delay (s/veh)	40.9				31.3				0.1				0.5			
Approach LOS	E				D											

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	38.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.854

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	40	558	52	38	481	29	10	209	12	64	235	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-6	9	11	0	0	0	0	40	0	2	2	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	567	63	38	481	29	10	249	12	66	237	60
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	149	17	10	127	8	3	66	3	17	62	16
Total Analysis Volume [veh/h]	36	597	66	40	506	31	11	262	13	69	249	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	17	22	0	14	19	0	0	20	0	0	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	33	33	4	33	33	15	15	21
g / C, Green / Cycle	0.05	0.37	0.37	0.05	0.37	0.37	0.17	0.17	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.32	0.04	0.02	0.27	0.02	0.15	0.01	0.21
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1859	1583	1794
c, Capacity [veh/h]	83	681	578	89	686	583	317	270	424
d1, Uniform Delay [s]	41.77	26.70	18.93	41.60	24.68	18.33	36.31	31.24	33.34
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.18
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.52	14.89	0.40	3.57	6.96	0.17	6.82	0.07	11.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

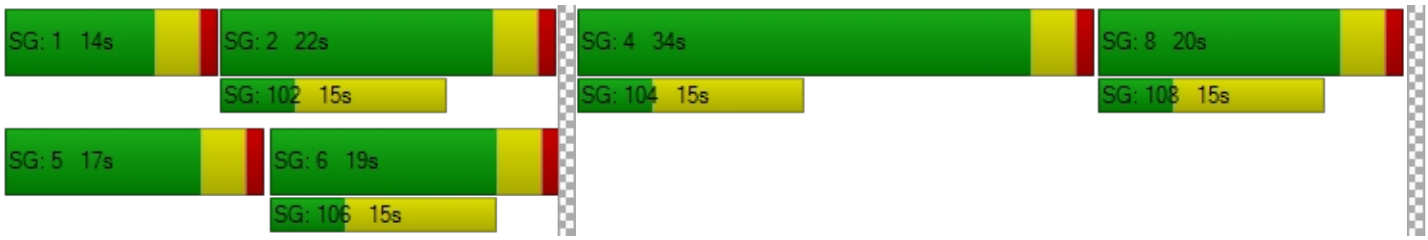
X, volume / capacity	0.43	0.88	0.11	0.45	0.74	0.05	0.86	0.05	0.90
d, Delay for Lane Group [s/veh]	45.29	41.60	19.33	45.17	31.64	18.51	43.13	31.31	44.44
Lane Group LOS	D	D	B	D	C	B	D	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.85	14.21	0.96	0.94	10.28	0.44	6.32	0.24	9.15
50th-Percentile Queue Length [ft]	21.29	355.23	23.94	23.57	257.10	10.89	157.95	5.99	228.87
95th-Percentile Queue Length [veh]	1.53	20.39	1.72	1.70	15.54	0.78	10.44	0.43	14.12
95th-Percentile Queue Length [ft]	38.32	509.78	43.09	42.42	388.58	19.61	261.00	10.78	352.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.29	41.60	19.33	45.17	31.64	18.51	43.13	43.13	31.31	44.44	44.44	44.44
Movement LOS	D	D	B	D	C	B	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	39.68			31.87			42.59			44.44		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	38.72											
Intersection LOS	D											
Intersection V/C	0.854											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	61	176	2	4	146	61	39	50	98	2	23	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	0	0	0	22	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	176	2	6	146	61	39	72	98	2	28	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	46	1	2	38	16	10	19	26	1	7	0
Total Analysis Volume [veh/h]	64	185	2	6	154	64	41	76	103	2	29	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.53	1.24	1.26	0.15
95th-Percentile Queue Length [ft]	38.26	30.97	31.46	3.80
Approach Delay [s/veh]	10.48	9.75	9.99	8.72
Approach LOS	B	A	A	A
Intersection Delay [s/veh]	10.03			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	17.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	47	191	52	30	99	33	25	857	20	40	1029	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	-2	0	25	0	0	32	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	191	52	30	99	31	25	882	20	40	1061	17
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	50	14	8	26	8	7	232	5	11	279	4
Total Analysis Volume [veh/h]	49	201	55	32	104	33	26	928	21	42	1117	18
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	56	0	0	56	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	31	31	31	31	31	31
g / C, Green / Cycle	0.47	0.47	0.47	0.47	0.47	0.42	0.42	0.42	0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.04	0.14	0.03	0.06	0.02	0.05	0.26	0.26	0.07	0.31	0.01
s, saturation flow rate [veh/h]	1285	1795	1119	1863	1583	502	1863	1848	589	3547	1583
c, Capacity [veh/h]	641	849	509	881	749	152	783	777	202	1491	666
d1, Uniform Delay [s]	12.94	12.15	15.35	11.04	10.64	31.24	16.91	16.91	27.14	18.38	12.73
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	0.91	0.24	0.27	0.11	0.53	0.77	0.77	0.50	0.77	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

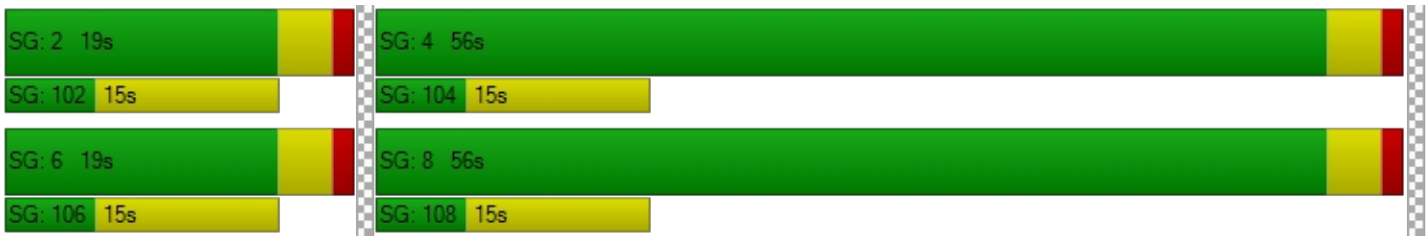
X, volume / capacity	0.08	0.30	0.06	0.12	0.04	0.17	0.61	0.61	0.21	0.75	0.03
d, Delay for Lane Group [s/veh]	13.17	13.07	15.59	11.31	10.75	31.76	17.68	17.69	27.65	19.15	12.75
Lane Group LOS	B	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.51	2.63	0.37	0.96	0.30	0.45	6.06	6.01	0.67	7.66	0.17
50th-Percentile Queue Length [ft]	12.63	65.72	9.27	23.93	7.39	11.28	151.38	150.24	16.77	191.52	4.26
95th-Percentile Queue Length [veh]	0.91	4.73	0.67	1.72	0.53	0.81	10.09	10.03	1.21	12.20	0.31
95th-Percentile Queue Length [ft]	22.73	118.30	16.68	43.08	13.30	20.31	252.27	250.75	30.19	305.00	7.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.17	13.07	13.07	15.59	11.31	10.75	31.76	17.68	17.69	27.65	19.15	12.75
Movement LOS	B	B	B	B	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	13.08			12.01			18.06			19.35		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	17.67											
Intersection LOS	B											
Intersection V/C	0.512											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	13	315	32	14	152	13	17	164	9	33	265	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	3	0	0	0	0	0	0	3	1	0	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	315	32	14	152	13	17	167	10	33	276	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	83	8	4	40	3	4	44	3	9	73	3
Total Analysis Volume [veh/h]	17	332	34	15	160	14	18	176	11	35	291	11
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.67	1.52	1.71	3.75
95th-Percentile Queue Length [ft]	116.78	37.97	42.81	93.75
Approach Delay [s/veh]	19.57	12.93	13.37	17.65
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	16.72			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.464

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	41	146	54	18	73	53	46	670	26	58	957	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	2	0	0	0	6	1	14	2	0	31	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	148	54	18	73	59	47	684	28	58	988	36
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	39	14	5	19	16	12	180	7	15	260	9
Total Analysis Volume [veh/h]	43	156	57	19	77	62	49	720	29	61	1040	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	51	0	0	51	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	33	33	29	29	29	29	29	29
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.41	0.41	0.41	0.41	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.03	0.12	0.02	0.08	0.09	0.20	0.20	0.09	0.29	0.29
s, saturation flow rate [veh/h]	1245	1779	1164	1727	521	1863	1837	710	1863	1840
c, Capacity [veh/h]	595	846	532	821	180	764	754	273	764	754
d1, Uniform Delay [s]	13.27	10.93	14.16	10.47	28.00	15.27	15.27	22.14	17.18	17.18
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	0.71	0.13	0.45	0.80	0.49	0.50	0.41	1.23	1.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

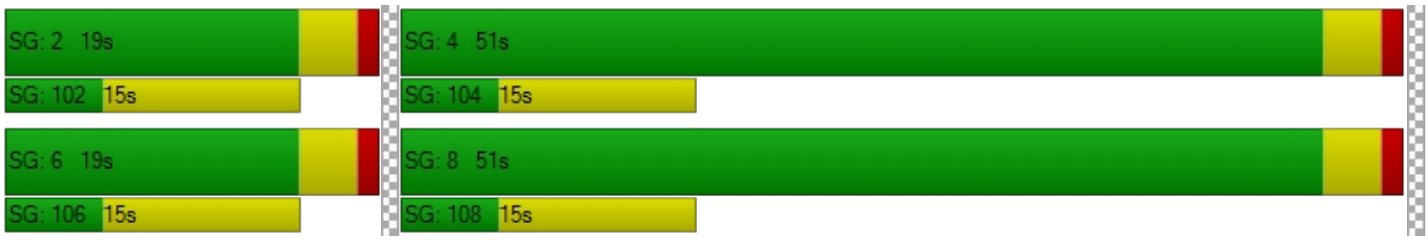
X, volume / capacity	0.07	0.25	0.04	0.17	0.27	0.49	0.49	0.22	0.71	0.71
d, Delay for Lane Group [s/veh]	13.50	11.65	14.29	10.91	28.81	15.76	15.77	22.55	18.41	18.43
Lane Group LOS	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.43	1.94	0.20	1.21	0.78	4.16	4.11	0.83	6.83	6.75
50th-Percentile Queue Length [ft]	10.86	48.41	4.99	30.17	19.49	104.11	102.79	20.64	170.80	168.86
95th-Percentile Queue Length [veh]	0.78	3.49	0.36	2.17	1.40	7.50	7.40	1.49	11.12	11.02
95th-Percentile Queue Length [ft]	19.54	87.14	8.99	54.30	35.09	187.40	185.03	37.15	277.97	275.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.50	11.65	11.65	14.29	10.91	10.91	28.81	15.77	15.77	22.55	18.42	18.43
Movement LOS	B	B	B	B	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	11.96			11.32			16.57			18.65		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	16.72											
Intersection LOS	B											
Intersection V/C	0.464											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	16	194	39	24	103	30	34	136	18	21	236	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	2	0	0	2	0	0	1	2	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	196	39	24	105	30	34	137	20	21	241	45
Peak Hour Factor	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520	0.8520
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	58	11	7	31	9	10	40	6	6	71	13
Total Analysis Volume [veh/h]	28	230	46	28	123	35	40	161	23	25	283	53
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.92	1.42	1.82	3.86
95th-Percentile Queue Length [ft]	73.11	35.48	45.46	96.39
Approach Delay [s/veh]	15.30	12.40	13.09	17.04
Approach LOS	C	B	B	C
Intersection Delay [s/veh]	14.92			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.678

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	89	230	81	157	202	173	124	595	56	83	843	183
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	-4	1	13	0	0	35	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	230	81	157	202	169	125	608	56	83	878	183
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	61	21	41	53	44	33	160	15	22	231	48
Total Analysis Volume [veh/h]	94	242	85	165	213	178	132	640	59	87	924	193
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	23	31	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	16	16	16	16	8	25	25	6	24	24
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.21	0.10	0.31	0.31	0.08	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.05	0.09	0.09	0.09	0.11	0.11	0.07	0.19	0.19	0.05	0.26	0.12
s, saturation flow rate [veh/h]	1774	1863	1702	1774	1863	1583	1774	1863	1808	1774	3547	1583
c, Capacity [veh/h]	364	382	349	364	382	325	171	584	567	135	1041	465
d1, Uniform Delay [s]	26.75	27.85	27.93	27.93	28.60	28.54	35.38	23.33	23.33	35.99	27.07	22.80
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.71	3.66	4.21	4.03	5.75	6.50	7.16	1.02	1.05	5.03	2.79	0.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

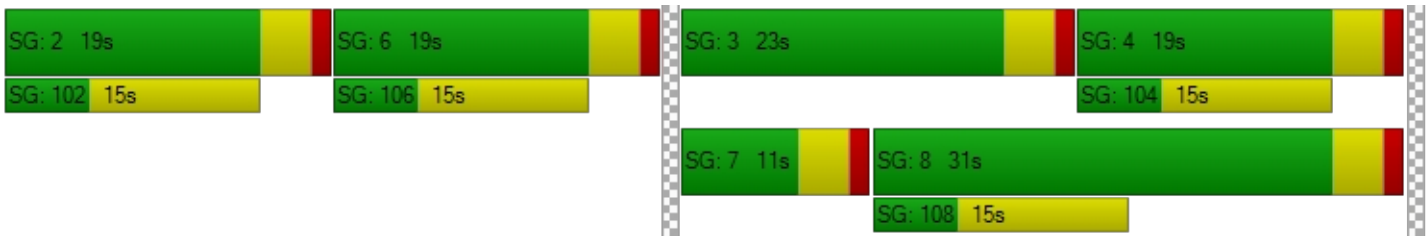
X, volume / capacity	0.26	0.44	0.45	0.45	0.56	0.55	0.77	0.61	0.61	0.64	0.89	0.42
d, Delay for Lane Group [s/veh]	28.46	31.51	32.14	31.96	34.36	35.04	42.54	24.35	24.38	41.02	29.87	23.39
Lane Group LOS	C	C	C	C	C	D	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.64	3.13	2.99	3.10	4.17	3.55	2.80	5.59	5.43	1.81	8.42	2.90
50th-Percentile Queue Length [ft]	41.05	78.30	74.83	77.50	104.26	88.87	69.98	139.69	135.82	45.17	210.45	72.40
95th-Percentile Queue Length [veh]	2.96	5.64	5.39	5.58	7.51	6.40	5.04	9.46	9.26	3.25	13.18	5.21
95th-Percentile Queue Length [ft]	73.89	140.94	134.69	139.50	187.67	159.96	125.96	236.61	231.39	81.31	329.40	130.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.46	31.70	32.14	31.96	34.36	35.04	42.54	24.36	24.38	41.02	29.87	23.39
Movement LOS	C	C	C	C	C	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	31.07			33.87			27.25			29.63		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.96											
Intersection LOS	C											
Intersection V/C	0.678											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: Palm Avenue (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	35	230	13	14	231	25	24	219	36	11	201	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	230	13	14	231	25	24	219	36	11	201	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	61	3	4	61	7	6	58	9	3	53	4
Total Analysis Volume [veh/h]	37	242	14	15	243	26	25	231	38	12	212	16
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.95	2.77	2.71	0.21	2.23
95th-Percentile Queue Length [ft]	73.69	69.32	67.85	5.23	55.68
Approach Delay [s/veh]	15.91	15.46	15.39		14.68
Approach LOS	C	C	C		B
Intersection Delay [s/veh]	15.39				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 2: Palm Avenue (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	26.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.631

Intersection Setup

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

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	91	231	88	37	204	50	53	1151	91	70	970	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	231	88	37	204	50	53	1151	91	70	970	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	61	23	10	54	13	14	303	24	18	255	7
Total Analysis Volume [veh/h]	96	243	93	39	215	53	56	1212	96	74	1021	27
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	52	19	0	52	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	36	36	36	36	36	5	36	36	6	36	36
g / C, Green / Cycle	0.40	0.40	0.40	0.40	0.40	0.06	0.40	0.40	0.07	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.09	0.13	0.06	0.03	0.15	0.03	0.35	0.36	0.04	0.28	0.28
s, saturation flow rate [veh/h]	1107	1863	1583	1132	1800	1774	1863	1815	1774	1863	1846
c, Capacity [veh/h]	386	750	638	410	725	106	740	721	118	753	746
d1, Uniform Delay [s]	25.82	18.46	17.06	23.43	18.86	41.10	25.36	25.42	40.93	22.28	22.28
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.14	0.14	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.54	1.14	0.48	0.46	1.45	4.04	5.21	5.57	5.34	1.19	1.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.32	0.15	0.10	0.37	0.53	0.89	0.90	0.63	0.70	0.70
d, Delay for Lane Group [s/veh]	27.36	19.61	17.54	23.89	20.31	45.14	30.56	30.98	46.27	23.47	23.49
Lane Group LOS	C	B	B	C	C	D	C	C	D	C	C
Critical Lane Group	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.76	3.60	1.27	0.65	4.08	1.31	13.56	13.37	1.76	9.07	8.99
50th-Percentile Queue Length [ft]	44.07	90.03	31.85	16.29	102.02	32.81	339.09	334.20	43.90	226.63	224.71
95th-Percentile Queue Length [veh]	3.17	6.48	2.29	1.17	7.35	2.36	19.60	19.36	3.16	14.00	13.91
95th-Percentile Queue Length [ft]	79.32	162.06	57.34	29.32	183.63	59.06	490.08	484.11	79.01	350.08	347.63

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.36	19.61	17.54	23.89	20.31	20.31	45.14	30.75	30.98	46.27	23.48	23.49
Movement LOS	C	B	B	C	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	20.88			20.77			31.36			24.98		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.73											
Intersection LOS	C											
Intersection V/C	0.631											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	49.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	89	224	25	57	235	22	58	354	101	46	286	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	224	25	57	235	22	58	354	101	46	286	94
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	59	7	15	62	6	15	93	27	12	75	25
Total Analysis Volume [veh/h]	94	236	26	60	247	23	61	373	106	48	301	99
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.94	4.32	0.54	4.61	0.54	17.22	0.43	6.09	0.87
95th-Percentile Queue Length [ft]	23.52	107.95	13.62	115.32	13.54	430.47	10.73	152.18	21.74
Approach Delay [s/veh]	22.97		24.65		100.48		27.45		
Approach LOS	C		C		F		D		
Intersection Delay [s/veh]	49.50								
Intersection LOS	E								

HCS 2010 Two-Way Stop Control Summary Report

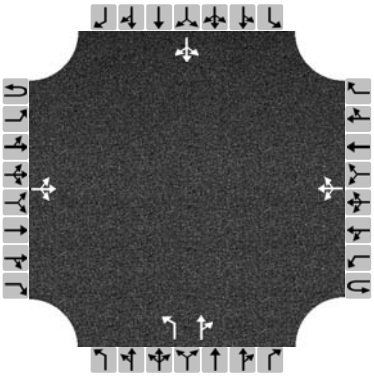
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	1	0		0	1	0
Configuration			LTR				LTR			L		TR			LTR	
Volume (veh/h)		20	238	10		18	207	29		28	214	21		7	107	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		21				19				29		247			132	
Capacity		1309				1295				296		424			404	
v/c Ratio		0.02				0.01				0.10		0.58			0.33	
95% Queue Length		0.0				0.0				0.3		3.6			1.4	
Control Delay (s/veh)		7.8				7.8				18.5		24.7			18.2	
Level of Service (LOS)		A				A				C		C			C	
Approach Delay (s/veh)	0.7				0.7				24.0				18.2			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 5: Gilbert Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

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

volumes

Name							Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	58	115	72	16	81	53	41	1186	73	55	1103	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	115	72	16	81	53	41	1186	73	55	1103	24
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	30	19	4	21	14	11	312	19	14	290	6
Total Analysis Volume [veh/h]	61	121	76	17	85	56	43	1248	77	58	1161	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	27	35	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	C	L	C	R	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	4	35	35	5	36	36
g / C, Green / Cycle	0.20	0.20	0.20	0.06	0.55	0.55	0.07	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.16	0.05	0.14	0.02	0.35	0.05	0.03	0.32	0.32
s, saturation flow rate [veh/h]	1169	1583	1100	1774	3547	1583	1774	1863	1849
c, Capacity [veh/h]	306	314	280	104	1939	865	125	1040	1032
d1, Uniform Delay [s]	23.68	21.94	23.15	29.53	10.31	7.03	29.06	9.32	9.33
k, delay calibration	0.18	0.11	0.15	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.11	0.39	2.42	2.60	1.66	0.20	2.68	2.29	2.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

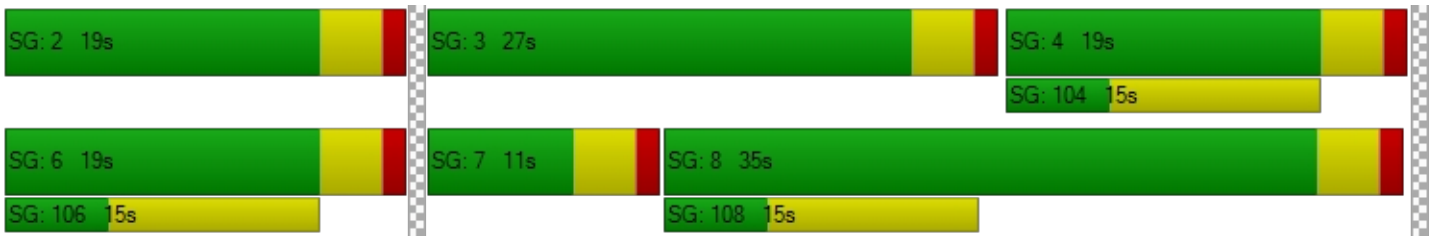
X, volume / capacity	0.59	0.24	0.56	0.41	0.64	0.09	0.47	0.57	0.57
d, Delay for Lane Group [s/veh]	26.78	22.33	25.57	32.13	11.97	7.23	31.74	11.61	11.64
Lane Group LOS	C	C	C	C	B	A	C	B	B
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.68	0.96	2.20	0.70	5.57	0.48	0.93	5.13	5.10
50th-Percentile Queue Length [ft]	67.01	23.95	54.93	17.44	139.26	11.99	23.17	128.23	127.52
95th-Percentile Queue Length [veh]	4.82	1.72	3.96	1.26	9.44	0.86	1.67	8.84	8.80
95th-Percentile Queue Length [ft]	120.61	43.11	98.88	31.39	236.03	21.58	41.71	221.09	220.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.78	26.78	22.33	25.57	25.57	25.57	32.13	11.97	7.23	31.74	11.62	11.64
Movement LOS	C	C	C	C	C	C	C	B	A	C	B	B
d_A, Approach Delay [s/veh]	25.47			25.57			12.34			12.56		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.24											
Intersection LOS	B											
Intersection V/C	0.663											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	32.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	45	138	24	18	124	46	20	427	50	21	322	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	138	24	18	124	46	20	427	50	21	322	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	36	6	5	33	12	5	112	13	6	85	6
Total Analysis Volume [veh/h]	47	145	25	19	131	48	21	449	53	22	339	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.19	0.16	2.08	12.02	5.95
95th-Percentile Queue Length [ft]	54.78	4.04	52.04	300.40	148.84
Approach Delay [s/veh]	16.44		16.28	49.59	25.65
Approach LOS	C		C	E	D
Intersection Delay [s/veh]	32.21				
Intersection LOS	D				

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	74.5
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.072

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	47	645	81	171	682	120	73	357	71	57	336	167
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	645	81	171	682	120	73	357	71	57	336	167
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	170	21	45	179	32	19	94	19	15	88	44
Total Analysis Volume [veh/h]	49	679	85	180	718	126	77	376	75	60	354	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	21	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	17	17	7	19	19	15	15	15
g / C, Green / Cycle	0.06	0.24	0.24	0.10	0.28	0.28	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.21	0.10	0.23	0.23	0.29	0.22	0.11
s, saturation flow rate [veh/h]	1774	1863	1791	1774	1863	1767	1804	1849	1583
c, Capacity [veh/h]	111	444	427	178	514	488	391	401	343
d1, Uniform Delay [s]	31.69	25.73	25.74	31.54	23.94	23.95	27.47	27.47	24.21
k, delay calibration	0.11	0.40	0.40	0.34	0.12	0.12	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.74	17.47	18.16	57.83	4.08	4.30	173.96	53.84	5.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

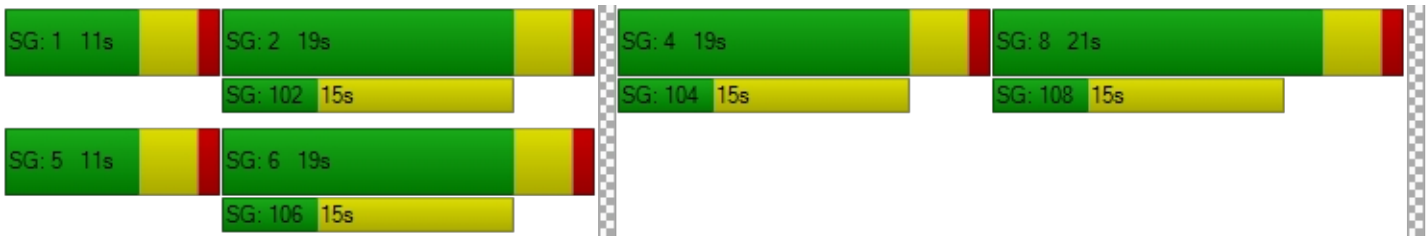
X, volume / capacity	0.44	0.88	0.88	1.01	0.84	0.84	1.35	1.03	0.51
d, Delay for Lane Group [s/veh]	34.43	43.20	43.89	89.37	28.03	28.24	201.43	81.31	29.61
Lane Group LOS	C	D	D	F	C	C	F	F	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.86	8.04	7.82	5.76	6.91	6.59	25.05	12.31	2.96
50th-Percentile Queue Length [ft]	21.48	200.99	195.46	144.02	172.82	164.70	626.30	307.72	74.01
95th-Percentile Queue Length [veh]	1.55	12.69	12.40	9.73	11.22	10.80	38.42	18.39	5.33
95th-Percentile Queue Length [ft]	38.66	317.24	310.10	243.33	280.62	269.94	960.40	459.68	133.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.43	43.50	43.89	89.37	28.11	28.24	201.43	201.43	201.43	81.31	81.31	29.61
Movement LOS	C	D	D	F	C	C	F	F	F	F	F	C
d_A, Approach Delay [s/veh]	42.99			38.90			201.43			65.89		
Approach LOS	D			D			F			E		
d_I, Intersection Delay [s/veh]	74.45											
Intersection LOS	E											
Intersection V/C	1.072											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: State Street (NS) at Oakland Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Oakland Avenue (EW)			Oakland Avenue (EW)		
Base Volume Input [veh/h]	33	735	61	54	686	31	20	129	33	48	204	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	735	61	54	686	31	20	129	33	48	204	54
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	193	16	14	181	8	5	34	9	13	54	14
Total Analysis Volume [veh/h]	35	774	64	57	722	33	21	136	35	51	215	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	22	21	0	20	19	0	0	19	0	0	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	17	17	4	18	18	27	27	27	27
g / C, Green / Cycle	0.05	0.28	0.28	0.07	0.30	0.30	0.45	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.23	0.03	0.20	0.20	0.02	0.10	0.04	0.15
s, saturation flow rate [veh/h]	1774	1863	1813	1774	1863	1834	1103	1798	1209	1796
c, Capacity [veh/h]	96	520	506	131	557	548	464	805	548	804
d1, Uniform Delay [s]	27.47	20.26	20.26	26.66	18.58	18.58	14.50	10.14	13.10	10.81
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.33	3.22	3.31	2.27	1.49	1.51	0.18	0.60	0.34	1.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

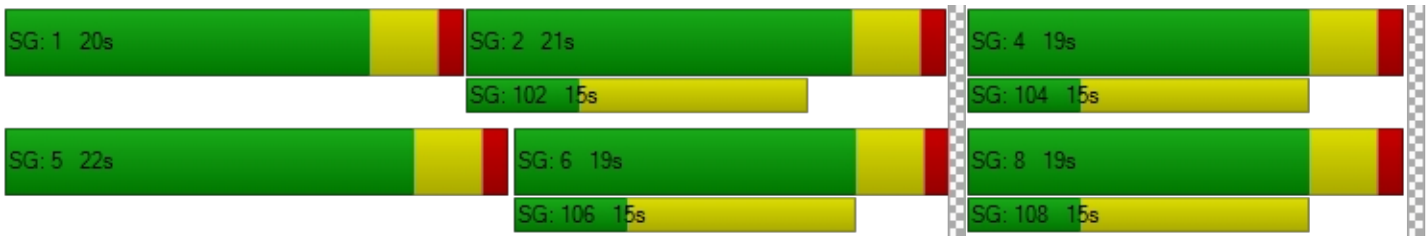
X, volume / capacity	0.37	0.82	0.82	0.44	0.68	0.68	0.05	0.21	0.09	0.34
d, Delay for Lane Group [s/veh]	29.80	23.47	23.56	28.93	20.07	20.10	14.68	10.74	13.44	11.95
Lane Group LOS	C	C	C	C	C	C	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.52	5.50	5.37	0.82	4.45	4.39	0.21	1.33	0.47	2.28
50th-Percentile Queue Length [ft]	13.08	137.53	134.23	20.60	111.21	109.66	5.18	33.17	11.76	56.92
95th-Percentile Queue Length [veh]	0.94	9.35	9.17	1.48	7.91	7.82	0.37	2.39	0.85	4.10
95th-Percentile Queue Length [ft]	23.55	233.70	229.24	37.08	197.69	195.53	9.32	59.71	21.17	102.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.80	23.51	23.56	28.93	20.08	20.10	14.68	10.74	10.74	13.44	11.95	11.95
Movement LOS	C	C	C	C	C	C	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	23.77			20.70			11.17			12.18		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	19.84											
Intersection LOS	B											
Intersection V/C	0.514											

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: State Street (NS) at Devonshire Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.476

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)						Devonshire Avenue (EW)		
Base Volume Input [veh/h]	27	774	24	58	685	17	13	124	25	32	127	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	774	24	58	685	17	13	124	25	32	127	86
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	204	6	15	180	4	3	33	7	8	33	23
Total Analysis Volume [veh/h]	28	815	25	61	721	18	14	131	26	34	134	91
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	2.00	2.00	0.00	2.00	2.00	0.00	2.00	0.00	2.00	2.00
g_i, Effective Green Time [s]	24	16	16	24	18	18	28	21	28	22	22
g / C, Green / Cycle	0.40	0.26	0.26	0.40	0.29	0.29	0.46	0.35	0.46	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.06	0.20	0.01	0.01	0.09	0.03	0.07	0.06
s, saturation flow rate [veh/h]	932	1863	1843	956	3547	1583	1317	1810	1325	1863	1583
c, Capacity [veh/h]	412	484	479	417	1032	461	740	627	729	694	590
d1, Uniform Delay [s]	12.09	21.30	21.30	12.81	18.98	15.29	8.74	14.06	8.88	12.75	12.55
k, delay calibration	0.11	0.27	0.27	0.11	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	11.33	11.44	0.16	0.87	0.03	0.01	0.96	0.12	0.62	0.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.87	0.87	0.15	0.70	0.04	0.02	0.25	0.05	0.19	0.15
d, Delay for Lane Group [s/veh]	12.16	32.63	32.74	12.97	19.85	15.33	8.75	15.02	9.00	13.37	13.11
Lane Group LOS	B	C	C	B	B	B	A	B	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.21	6.68	6.63	0.47	4.16	0.17	0.09	1.55	0.23	1.22	0.82
50th-Percentile Queue Length [ft]	5.23	167.01	165.66	11.64	104.11	4.17	2.19	38.65	5.86	30.38	20.59
95th-Percentile Queue Length [veh]	0.38	10.92	10.85	0.84	7.50	0.30	0.16	2.78	0.42	2.19	1.48
95th-Percentile Queue Length [ft]	9.42	272.98	271.21	20.96	187.40	7.51	3.94	69.58	10.56	54.68	37.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.16	32.68	32.74	12.97	19.85	15.33	8.75	15.02	15.02	9.00	13.37	13.11
Movement LOS	B	C	C	B	B	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	32.02			19.22			14.50			12.70		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	23.33											
Intersection LOS	C											
Intersection V/C	0.476											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 10: State Street (NS) at Latham Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Latham Avenue (EW)			Latham Avenue (EW)		
Base Volume Input [veh/h]	27	672	62	113	600	32	65	146	24	71	205	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	672	62	113	600	32	65	146	24	71	205	120
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	177	16	30	158	8	17	38	6	19	54	32
Total Analysis Volume [veh/h]	28	707	65	119	632	34	68	154	25	75	216	126
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	C	L	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	14	14	6	18	18	5	19	5	19	19
g / C, Green / Cycle	0.04	0.23	0.23	0.10	0.29	0.29	0.08	0.31	0.08	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.02	0.20	0.04	0.07	0.18	0.18	0.04	0.10	0.04	0.12	0.08
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1829	1774	1818	1774	1863	1583
c, Capacity [veh/h]	80	829	370	180	541	531	142	572	149	594	505
d1, Uniform Delay [s]	27.87	22.06	18.42	26.01	18.47	18.48	26.47	15.67	26.35	15.79	15.17
k, delay calibration	0.11	0.11	0.11	0.11	0.12	0.12	0.11	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.62	2.62	0.22	4.07	1.26	1.29	2.50	1.43	2.61	1.72	1.18
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.85	0.18	0.66	0.62	0.62	0.48	0.31	0.50	0.36	0.25
d, Delay for Lane Group [s/veh]	30.49	24.68	18.64	30.08	19.74	19.77	28.97	17.10	28.95	17.52	16.35
Lane Group LOS	C	C	B	C	B	B	C	B	C	B	B
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.43	4.67	0.69	1.75	3.85	3.79	0.98	1.93	1.08	2.36	1.33
50th-Percentile Queue Length [ft]	10.74	116.72	17.34	43.73	96.34	94.80	24.51	48.15	26.99	58.96	33.20
95th-Percentile Queue Length [veh]	0.77	8.21	1.25	3.15	6.94	6.83	1.76	3.47	1.94	4.25	2.39
95th-Percentile Queue Length [ft]	19.33	205.31	31.20	78.71	173.42	170.64	44.12	86.67	48.58	106.14	59.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.49	24.68	18.64	30.08	19.75	19.77	28.97	17.10	17.10	28.95	17.52	16.35
Movement LOS	C	C	B	C	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	24.39			21.32			20.37			19.22		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	21.92											
Intersection LOS	C											
Intersection V/C	0.573											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 11: State Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	41.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.935

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	159	431	213	199	384	148	175	1077	167	186	946	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	431	213	199	384	148	175	1077	167	186	946	195
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	42	113	56	52	101	39	46	283	44	49	249	51
Total Analysis Volume [veh/h]	167	454	224	209	404	156	184	1134	176	196	996	205
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	22	30	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	15	15	15	8	26	26	7	25	25
g / C, Green / Cycle	0.25	0.25	0.25	0.25	0.25	0.25	0.13	0.43	0.43	0.12	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.17	0.19	0.19	0.28	0.22	0.10	0.10	0.36	0.36	0.11	0.28	0.13
s, saturation flow rate [veh/h]	977	1863	1658	758	1863	1583	1774	1863	1777	1774	3547	1583
c, Capacity [veh/h]	129	466	415	149	466	396	235	811	774	203	1481	661
d1, Uniform Delay [s]	30.00	20.91	20.92	29.80	21.56	18.73	25.21	14.90	15.01	26.45	14.16	11.69
k, delay calibration	0.19	0.25	0.25	0.48	0.32	0.11	0.11	0.50	0.50	0.30	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	153.63	6.06	6.85	216.75	13.11	0.64	5.66	9.16	10.17	40.13	2.45	1.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

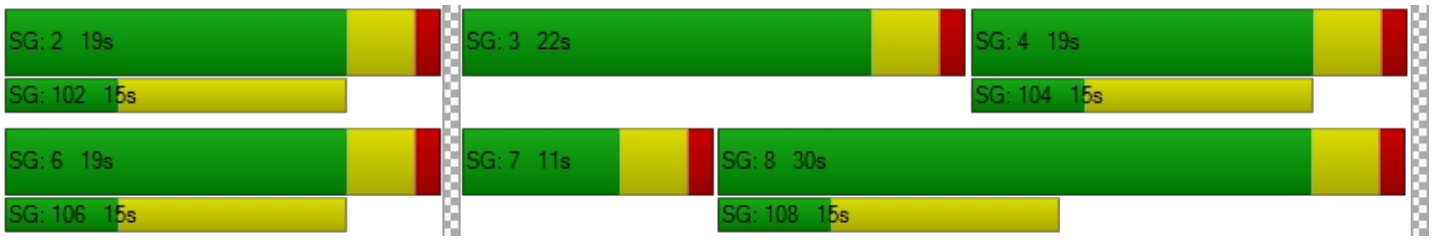
X, volume / capacity	1.30	0.77	0.77	1.41	0.87	0.39	0.78	0.82	0.83	0.96	0.67	0.31
d, Delay for Lane Group [s/veh]	183.64	26.97	27.76	246.55	34.67	19.37	30.87	24.05	25.18	66.58	16.61	12.91
Lane Group LOS	F	C	C	F	C	B	C	C	C	E	B	B
Critical Lane Group	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	7.27	5.05	4.60	11.00	6.66	1.73	2.75	8.85	8.79	4.88	5.23	1.83
50th-Percentile Queue Length [ft]	181.79	126.35	114.92	274.91	166.47	43.37	68.69	221.20	219.87	122.03	130.70	45.75
95th-Percentile Queue Length [veh]	13.09	8.74	8.11	19.05	10.89	3.12	4.95	13.73	13.66	8.50	8.98	3.29
95th-Percentile Queue Length [ft]	327.15	218.52	202.82	476.27	272.27	78.06	123.64	343.15	341.46	212.61	224.45	82.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	183.64	27.14	27.76	246.55	34.67	19.37	30.87	24.52	25.18	66.58	16.61	12.91
Movement LOS	F	C	C	F	C	B	C	C	C	E	B	B
d_A, Approach Delay [s/veh]	58.23			89.15			25.38			23.08		
Approach LOS	E			F			C			C		
d_I, Intersection Delay [s/veh]	41.71											
Intersection LOS	D											
Intersection V/C	0.935											

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HCS 2010 Two-Way Stop Control Summary Report

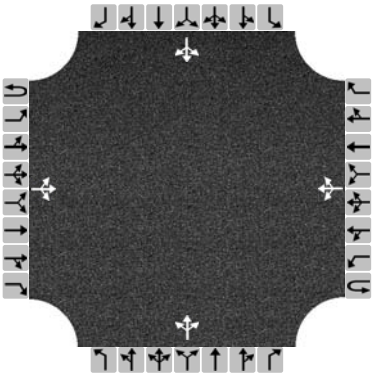
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	31	7		10	28	33		14	743	6		42	659	15
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11				11					803				754	
Capacity		1530				1561					647					
v/c Ratio		0.01				0.01					1.24					
95% Queue Length		0.0				0.0					29.7					
Control Delay (s/veh)		7.4				7.3					142.7					
Level of Service (LOS)		A				A					F					
Approach Delay (s/veh)	1.6				1.1				142.7							
Approach LOS									F							

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	138.1
Analysis Method:	HCM 2010	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.068

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	24	644	65	68	619	25	94	286	87	59	221	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	24	644	65	68	619	25	94	286	87	59	221	64
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	169	17	18	163	7	25	75	23	16	58	17
Total Analysis Volume [veh/h]	25	678	68	72	652	26	99	301	92	62	233	67
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Split	Split	Split	Split	Split	Split
Signal group	5	2	0	1	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	7	0	7	7	0	0	7	0	0	7	0
Maximum Green [s]	30	30	0	30	30	0	0	30	0	0	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	11	19	0	11	19	0	0	19	0	0	21	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall	No	No		No	No			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	C	R	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	17	17	5	19	19	16	16	16
g / C, Green / Cycle	0.04	0.24	0.24	0.08	0.28	0.28	0.23	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.01	0.36	0.04	0.04	0.35	0.02	0.22	0.06	0.20
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1840	1583	1789
c, Capacity [veh/h]	69	449	382	134	518	440	419	361	406
d1, Uniform Delay [s]	32.81	26.57	21.07	31.19	25.28	18.56	26.68	22.17	26.24
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.38	0.11	0.30
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.19	240.35	1.02	3.30	131.49	0.26	28.36	0.37	16.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

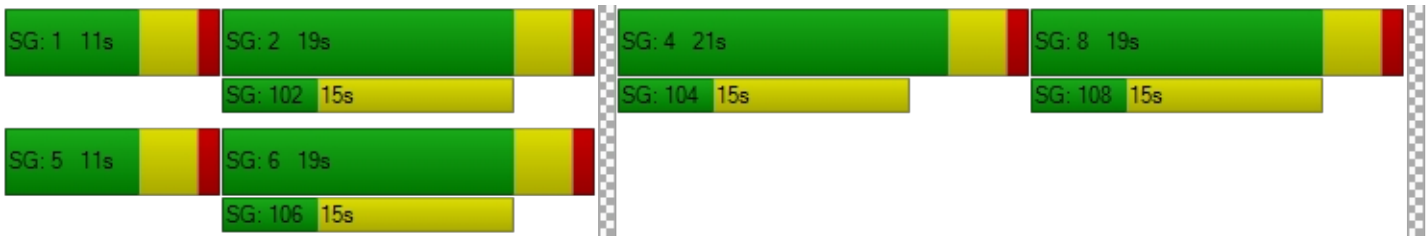
X, volume / capacity	0.36	1.51	0.18	0.54	1.26	0.06	0.95	0.26	0.89
d, Delay for Lane Group [s/veh]	36.00	266.92	22.08	34.49	156.77	18.81	55.04	22.54	42.67
Lane Group LOS	D	F	C	C	F	B	E	C	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	0.46	37.04	0.95	1.26	26.93	0.33	9.49	1.22	7.37
50th-Percentile Queue Length [ft]	11.55	926.00	23.82	31.40	673.32	8.17	237.31	30.50	184.24
95th-Percentile Queue Length [veh]	0.83	57.00	1.72	2.26	40.26	0.59	14.55	2.20	11.82
95th-Percentile Queue Length [ft]	20.79	1425.11	42.88	56.52	1006.49	14.70	363.63	54.90	295.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.00	266.92	22.08	34.49	156.77	18.81	55.04	55.04	22.54	42.67	42.67	42.67
Movement LOS	D	F	C	C	F	B	E	E	C	D	D	D
d_A, Approach Delay [s/veh]	237.84			140.25			48.96			42.67		
Approach LOS	F			F			D			D		
d_I, Intersection Delay [s/veh]	138.15											
Intersection LOS	F											
Intersection V/C	1.068											

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 14: Buena Vista Street (NS) at Devonshire Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Devonshire Avenue (EW)			Devonshire Avenue (EW)		
Base Volume Input [veh/h]	104	184	11	6	158	46	59	47	84	4	71	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	104	184	11	6	158	46	59	47	84	4	71	6
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	48	3	2	42	12	16	12	22	1	19	2
Total Analysis Volume [veh/h]	109	194	12	6	166	48	62	49	88	4	75	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.31	1.32	1.21	0.46
95th-Percentile Queue Length [ft]	57.67	32.94	30.20	11.45
Approach Delay [s/veh]	12.14	10.32	10.42	9.51
Approach LOS	B	B	B	A
Intersection Delay [s/veh]	10.96			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 15: Buena Vista Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	11.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Florida AVenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	36	136	45	54	166	43	37	1199	30	81	1059	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	136	45	54	166	43	37	1199	30	81	1059	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	36	12	14	44	11	10	316	8	21	279	7
Total Analysis Volume [veh/h]	38	143	47	57	175	45	39	1262	32	85	1115	27
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20	20	20	32	32	32	32	32	32
g / C, Green / Cycle	0.33	0.33	0.33	0.33	0.33	0.54	0.54	0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.03	0.11	0.05	0.09	0.03	0.08	0.35	0.35	0.20	0.31	0.02
s, saturation flow rate [veh/h]	1205	1785	1188	1863	1583	503	1863	1847	425	3547	1583
c, Capacity [veh/h]	382	583	366	608	517	274	1006	998	235	1916	855
d1, Uniform Delay [s]	18.95	15.24	19.80	15.03	14.01	15.71	9.73	9.74	19.99	9.25	6.45
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.11	0.14	0.14	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	1.49	0.90	1.19	0.33	0.24	0.88	0.90	0.94	0.28	0.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

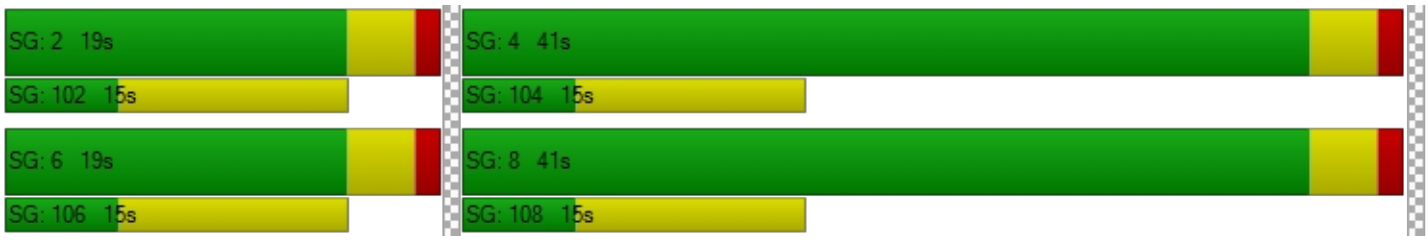
X, volume / capacity	0.10	0.33	0.16	0.29	0.09	0.14	0.65	0.65	0.36	0.58	0.03
d, Delay for Lane Group [s/veh]	19.47	16.72	20.71	16.22	14.34	15.94	10.62	10.64	20.93	9.53	6.47
Lane Group LOS	B	B	C	B	B	B	B	B	C	A	A
Critical Lane Group	No	Yes	No	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.45	2.02	0.71	1.81	0.43	0.39	5.01	4.98	1.05	3.96	0.13
50th-Percentile Queue Length [ft]	11.34	50.40	17.76	45.35	10.86	9.64	125.15	124.38	26.18	98.90	3.37
95th-Percentile Queue Length [veh]	0.82	3.63	1.28	3.26	0.78	0.69	8.68	8.63	1.89	7.12	0.24
95th-Percentile Queue Length [ft]	20.41	90.72	31.98	81.62	19.54	17.35	216.89	215.83	47.13	178.03	6.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.47	16.72	16.72	20.71	16.22	14.34	15.94	10.63	10.64	20.93	9.53	6.47
Movement LOS	B	B	B	C	B	B	B	B	B	C	A	A
d_A, Approach Delay [s/veh]	17.18			16.84			10.78			10.25		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	11.59											
Intersection LOS	B											
Intersection V/C	0.526											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 16: Buena Vista Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Buena Vista Street (NS)			Buena Vista Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	18	180	20	18	227	32	29	290	32	33	250	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	180	20	18	227	32	29	290	32	33	250	19
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	47	5	5	60	8	8	76	8	9	66	5
Total Analysis Volume [veh/h]	19	189	21	19	239	34	31	305	34	35	263	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.29	3.36	5.06	3.82
95th-Percentile Queue Length [ft]	57.32	84.03	126.50	95.60
Approach Delay [s/veh]	15.67	18.06	22.06	18.98
Approach LOS	C	C	C	C
Intersection Delay [s/veh]	19.07			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 17: Santa Fe Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.489

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	44	85	67	24	94	58	21	1113	48	59	1003	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	85	67	24	94	58	21	1113	48	59	1003	23
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	22	18	6	25	15	6	293	13	16	264	6
Total Analysis Volume [veh/h]	46	89	71	25	99	61	22	1172	51	62	1056	24
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal group	0	2	0	0	6	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	7	0	0	7	0	0	7	0	0	7	0
Maximum Green [s]	0	30	0	0	30	0	0	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	19	0	0	19	0	0	41	0	0	41	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	C	L	C	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23	23	23	23	29	29	29	29	29	29
g / C, Green / Cycle	0.38	0.38	0.38	0.38	0.48	0.48	0.48	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.02	0.09	0.04	0.33	0.33	0.14	0.29	0.29
s, saturation flow rate [veh/h]	1221	1727	1221	1745	520	1863	1836	454	1863	1848
c, Capacity [veh/h]	465	663	464	670	248	899	886	213	899	892
d1, Uniform Delay [s]	16.05	12.55	15.80	12.54	17.79	11.99	11.99	22.03	11.32	11.32
k, delay calibration	0.50	0.50	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.42	0.86	0.22	0.84	0.15	0.99	1.01	0.75	0.65	0.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

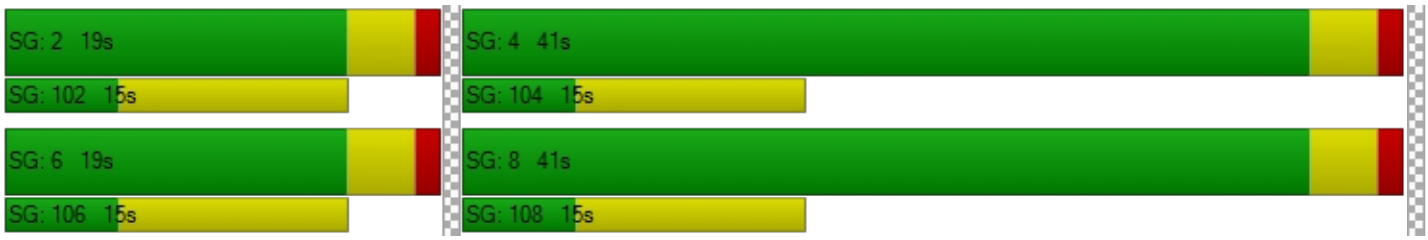
X, volume / capacity	0.10	0.24	0.05	0.24	0.09	0.68	0.69	0.29	0.60	0.60
d, Delay for Lane Group [s/veh]	16.48	13.41	16.02	13.38	17.95	12.97	13.00	22.78	11.97	11.98
Lane Group LOS	B	B	B	B	B	B	B	C	B	B
Critical Lane Group	No	Yes	No	No	No	No	Yes	No	No	No
50th-Percentile Queue Length [veh]	0.49	1.47	0.26	1.46	0.23	5.50	5.43	0.79	4.53	4.50
50th-Percentile Queue Length [ft]	12.25	36.63	6.53	36.55	5.81	137.45	135.80	19.71	113.22	112.41
95th-Percentile Queue Length [veh]	0.88	2.64	0.47	2.63	0.42	9.34	9.25	1.42	8.02	7.97
95th-Percentile Queue Length [ft]	22.05	65.94	11.75	65.79	10.45	233.59	231.36	35.48	200.48	199.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.48	13.41	13.41	16.02	13.38	13.38	17.95	12.99	13.00	22.78	11.97	11.98
Movement LOS	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	14.10			13.74			13.08			12.56		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	12.98											
Intersection LOS	B											
Intersection V/C	0.489											

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: Santa Fe Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	Santa Fe Street (NS)			Santa Fe Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	26	124	39	19	176	30	24	276	25	26	249	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	124	39	19	176	30	24	276	25	26	249	26
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	33	10	5	46	8	6	73	7	7	66	7
Total Analysis Volume [veh/h]	27	131	41	20	185	32	25	291	26	27	262	27
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.59	2.05	3.56	3.10
95th-Percentile Queue Length [ft]	39.85	51.34	89.03	77.54
Approach Delay [s/veh]	12.91	13.84	16.57	15.61
Approach LOS	B	B	C	C
Intersection Delay [s/veh]	15.04			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 19: San Jacinto Street (NS) at Florida Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	40.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.860

Intersection Setup

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

volumes

Name	San Jacinto Street (NS)			San Jacinto Street (NS)			Florida Avenue (EW)			Florida Avenue (EW)		
Base Volume Input [veh/h]	76	305	105	250	340	180	228	907	107	117	759	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	305	105	250	340	180	228	907	107	117	759	250
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	80	28	66	89	47	60	239	28	31	200	66
Total Analysis Volume [veh/h]	80	321	111	263	358	189	240	955	113	123	799	263
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	19	0	0	19	0	18	26	0	11	19	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	14	12	25	25	7	20	20
g / C, Green / Cycle	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.33	0.33	0.09	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.05	0.12	0.12	0.15	0.19	0.12	0.14	0.29	0.29	0.07	0.23	0.17
s, saturation flow rate [veh/h]	1774	1863	1703	1774	1863	1583	1774	1863	1795	1774	3547	1583
c, Capacity [veh/h]	324	340	311	324	340	289	284	616	594	162	929	415
d1, Uniform Delay [s]	26.28	28.52	28.60	29.47	30.70	28.50	30.66	23.74	23.78	33.34	26.40	24.53
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.21	0.25	0.25	0.11	0.11	0.23
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.81	9.57	10.97	19.52	63.35	10.99	12.63	9.30	9.96	7.16	2.47	3.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

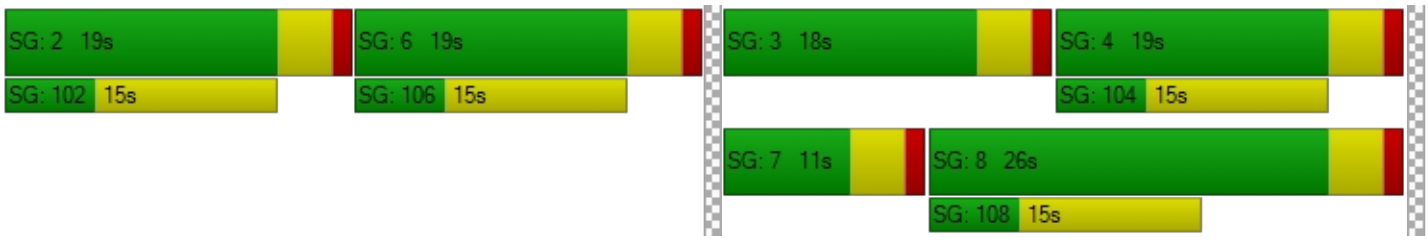
X, volume / capacity	0.25	0.66	0.67	0.81	1.05	0.65	0.85	0.88	0.88	0.76	0.86	0.63
d, Delay for Lane Group [s/veh]	28.10	38.09	39.57	48.98	94.05	39.49	43.29	33.04	33.74	40.50	28.87	27.97
Lane Group LOS	C	D	D	D	F	D	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.35	4.50	4.31	6.13	11.87	3.92	5.06	10.08	9.87	2.45	6.77	4.34
50th-Percentile Queue Length [ft]	33.72	112.49	107.69	153.13	296.75	97.98	126.48	251.97	246.72	61.16	169.28	108.57
95th-Percentile Queue Length [veh]	2.43	7.98	7.71	10.18	17.98	7.05	8.75	15.29	15.02	4.40	11.04	7.76
95th-Percentile Queue Length [ft]	60.69	199.46	192.79	254.60	449.48	176.37	218.70	382.14	375.51	110.09	275.97	194.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.10	38.54	39.57	48.98	94.05	39.49	43.29	33.34	33.74	40.50	28.87	27.97
Movement LOS	C	D	D	D	F	D	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	37.13			66.69			35.20			29.88		
Approach LOS	D			E			D			C		
d_I, Intersection Delay [s/veh]	40.49											
Intersection LOS	D											
Intersection V/C	0.860											

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	84	200	75	86	144	33	50	205	59	66	243	152
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	5	-1	0	0	0	0	33	0	0	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	205	74	86	144	33	50	238	59	66	248	152
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	54	19	23	38	9	13	63	16	17	65	40
Total Analysis Volume [veh/h]	88	216	78	91	152	35	53	251	62	69	261	160
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.73	3.95	0.78	1.89	1.85	1.71	5.14	1.23
95th-Percentile Queue Length [ft]	18.21	98.75	19.59	47.25	46.18	42.84	128.55	30.82
Approach Delay [s/veh]	18.98		14.67		14.87		20.77	
Approach LOS	C		B		B		C	
Intersection Delay [s/veh]	17.77							
Intersection LOS	C							

HCS 2010 Two-Way Stop Control Summary Report

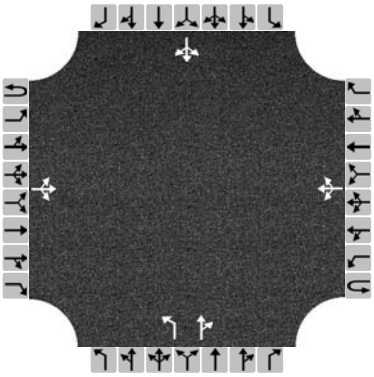
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM w/ Project, w/Improv
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	1	0		0	1	0
Configuration			LTR				LTR			L		TR			LTR	
Volume (veh/h)		9	247	27		35	120	17		16	159	16		9	134	7
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9				37				17		184			157	
Capacity		1431				1267				311		465			439	
v/c Ratio		0.01				0.03				0.05		0.40			0.36	
95% Queue Length		0.0				0.1				0.2		1.9			1.6	
Control Delay (s/veh)		7.5				7.9				17.3		17.7			17.7	
Level of Service (LOS)		A				A				C		C			C	
Approach Delay (s/veh)	0.3				1.8				17.7				17.7			
Approach LOS									C				C			

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Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	90	89	18	7	54	66	29	150	36	17	230	18
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	2	4	3	1	1	31	0	0	4	-1
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	93	20	11	57	67	30	181	36	17	234	17
Peak Hour Factor	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140	0.8140
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	29	6	3	18	21	9	56	11	5	72	5
Total Analysis Volume [veh/h]	111	114	25	14	70	82	37	222	44	21	287	21
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.25	0.13	1.33	1.16	1.08	3.86
95th-Percentile Queue Length [ft]	56.13	3.33	33.37	28.93	27.06	96.50
Approach Delay [s/veh]	14.69		12.90	11.75		18.56
Approach LOS	B		B	B		C
Intersection Delay [s/veh]	14.77					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	25.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.647

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	33	599	33	166	537	79	102	292	25	59	258	196
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	0	0	58	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	33	608	33	166	595	79	102	292	25	59	258	196
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	160	9	44	157	21	27	77	7	16	68	52
Total Analysis Volume [veh/h]	35	640	35	175	626	83	107	307	26	62	272	206
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	16	24	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	L	C	R	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	14	14	8	19	19	6	22	22	5	21	21
g / C, Green / Cycle	0.05	0.22	0.22	0.12	0.29	0.29	0.09	0.34	0.34	0.07	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.02	0.18	0.18	0.10	0.19	0.19	0.06	0.16	0.02	0.03	0.15	0.13
s, saturation flow rate [veh/h]	1774	1863	1829	1774	1863	1787	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	94	410	403	223	546	524	165	624	530	131	589	500
d1, Uniform Delay [s]	29.87	24.28	24.29	27.67	20.23	20.23	28.59	17.29	14.68	29.01	17.88	17.56
k, delay calibration	0.11	0.17	0.17	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.45	6.68	6.86	5.95	1.38	1.44	4.27	2.76	0.17	2.64	2.60	2.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.83	0.83	0.78	0.66	0.66	0.65	0.49	0.05	0.47	0.46	0.41
d, Delay for Lane Group [s/veh]	32.32	30.96	31.15	33.61	21.61	21.67	32.86	20.05	14.85	31.64	20.48	20.05
Lane Group LOS	C	C	C	C	C	C	C	C	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.57	5.43	5.36	2.88	4.66	4.48	1.74	3.83	0.27	0.99	3.44	2.59
50th-Percentile Queue Length [ft]	14.34	135.87	134.10	72.10	116.40	111.95	43.42	95.86	6.68	24.70	86.09	64.77
95th-Percentile Queue Length [veh]	1.03	9.26	9.16	5.19	8.19	7.95	3.13	6.90	0.48	1.78	6.20	4.66
95th-Percentile Queue Length [ft]	25.80	231.45	229.06	129.78	204.87	198.71	78.15	172.55	12.02	44.46	154.95	116.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.32	31.05	31.15	33.61	21.64	21.67	32.86	20.05	14.85	31.64	20.48	20.05
Movement LOS	C	C	C	C	C	C	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	31.11			24.01			22.86			21.60		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	25.27											
Intersection LOS	C											
Intersection V/C	0.647											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

HCS 2010 Two-Way Stop Control Summary Report

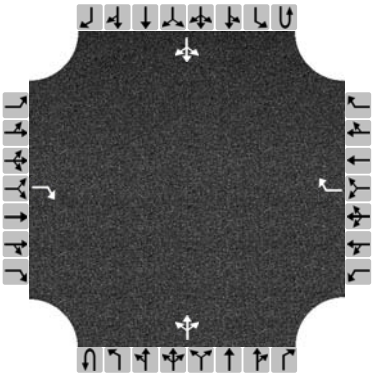
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	AM w/ Project w/Improv
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	1	0	0	1	0	0	0	1	0
Configuration				R				R			LTR				LTR	
Volume (veh/h)				26				46		5	597	10		18	655	16
Percent Heavy Vehicles				3				3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				27				48		5				19		
Capacity				439				477		887				939		
v/c Ratio				0.06				0.10		0.01				0.02		
95% Queue Length				0.2				0.3		0.0				0.1		
Control Delay (s/veh)				13.7				13.4		9.1				8.9		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)	13.7				13.4				0.1				0.5			
Approach LOS	B				B											

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	40	558	52	38	481	29	10	209	12	64	235	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	-6	9	11	0	0	0	0	40	0	2	2	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	567	63	38	481	29	10	249	12	66	237	60
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	149	17	10	127	8	3	66	3	17	62	16
Total Analysis Volume [veh/h]	36	597	66	40	506	31	11	262	13	69	249	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	11	19	0	16	24	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	29	29	4	29	29	1	12	5	15
g / C, Green / Cycle	0.05	0.44	0.44	0.06	0.44	0.44	0.02	0.18	0.08	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.32	0.04	0.02	0.27	0.02	0.01	0.15	0.04	0.17
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1774	1847	1774	1799
c, Capacity [veh/h]	94	817	695	101	824	701	36	335	138	429
d1, Uniform Delay [s]	29.83	15.10	10.71	29.65	13.89	10.32	31.44	25.66	28.81	22.85
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.57	5.70	0.27	2.53	3.40	0.12	4.56	5.05	2.77	2.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

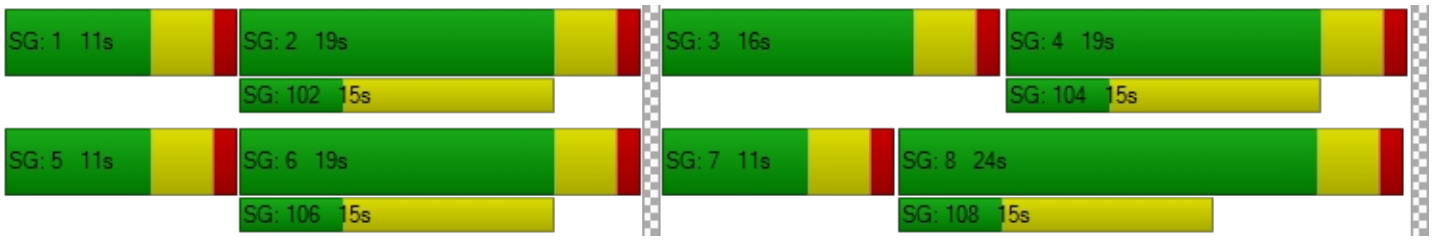
X, volume / capacity	0.38	0.73	0.10	0.40	0.61	0.04	0.30	0.82	0.50	0.73
d, Delay for Lane Group [s/veh]	32.40	20.81	10.98	32.18	17.29	10.44	36.00	30.71	31.58	25.22
Lane Group LOS	C	C	B	C	B	B	D	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.59	7.65	0.55	0.65	5.76	0.25	0.21	4.32	1.10	4.39
50th-Percentile Queue Length [ft]	14.76	191.30	13.77	16.27	143.92	6.24	5.26	108.07	27.41	109.83
95th-Percentile Queue Length [veh]	1.06	12.19	0.99	1.17	9.69	0.45	0.38	7.73	1.97	7.83
95th-Percentile Queue Length [ft]	26.57	304.72	24.79	29.29	242.29	11.24	9.46	193.31	49.35	195.77

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.40	20.81	10.98	32.18	17.29	10.44	36.00	30.71	30.71	31.58	25.22	25.22
Movement LOS	C	C	B	C	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	20.48			17.96			30.91			26.38		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	22.42											
Intersection LOS	C											
Intersection V/C	0.704											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Palm Avenue (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	29.1
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Palm Avenue (NS)			Palm Avenue (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	89	224	25	57	235	22	58	354	101	46	286	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	2	0	13	5	3	9	0	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	89	231	27	57	248	27	61	363	101	46	322	94
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	61	7	15	65	7	16	96	27	12	85	25
Total Analysis Volume [veh/h]	94	243	28	60	261	28	64	382	106	48	339	99
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.92	4.43	0.53	5.07	4.47	4.08	9.49	0.77
95th-Percentile Queue Length [ft]	23.03	110.70	13.33	126.68	111.64	102.03	237.30	19.31
Approach Delay [s/veh]	22.87		25.69		24.22		41.92	
Approach LOS	C		D		C		E	
Intersection Delay [s/veh]	29.14							
Intersection LOS	D							

HCS 2010 Two-Way Stop Control Summary Report

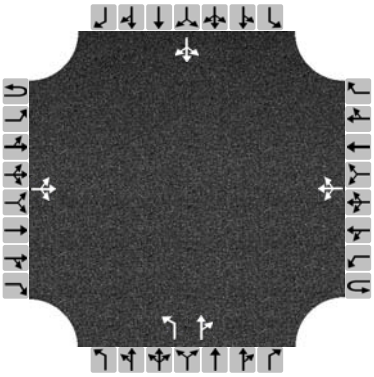
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM w/ Project, w/ Improv
Intersection Orientation	East-West
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Devonshire Avenue
North/South Street	Gilbert Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		1	1	0		0	1	0
Configuration			LTR				LTR			L		TR			LTR	
Volume (veh/h)		20	264	12		21	246	34		30	216	24		8	112	11
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		21				22				32		252			138	
Capacity		1259				1264				249		383			354	
v/c Ratio		0.02				0.02				0.13		0.66			0.39	
95% Queue Length		0.1				0.1				0.4		4.5			1.8	
Control Delay (s/veh)		7.9				7.9				21.6		30.7			21.5	
Level of Service (LOS)		A				A				C		D			C	
Approach Delay (s/veh)	0.7				0.7				29.7				21.5			
Approach LOS									D				C			

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Intersection Level Of Service Report
Intersection 6: Gilbert Street (NS) at Acacia Avenue (EW)

Control Type:	All-way stop	Delay (sec / veh):	34.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

volumes

Name	Gilbert Street (NS)			Gilbert Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	45	138	24	18	124	46	20	427	50	21	322	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	15	2	9	18	3	5	6	0	3	33	16
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	153	26	27	142	49	25	433	50	24	355	38
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	40	7	7	37	13	7	114	13	6	93	10
Total Analysis Volume [veh/h]	47	161	27	28	149	52	26	456	53	25	374	40
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.68	0.18	3.14	0.15	8.21	10.94
95th-Percentile Queue Length [ft]	67.12	4.61	78.54	3.66	205.20	273.55
Approach Delay [s/veh]	18.49		21.15	30.76		53.63
Approach LOS	C		C	D		F
Intersection Delay [s/veh]	34.34					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 7: State Street (NS) at Menlo Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.738

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Menlo Avenue (EW)			Menlo Avenue (EW)		
Base Volume Input [veh/h]	47	645	81	171	682	120	73	357	71	57	336	167
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	82	0	0	26	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	47	727	81	171	708	120	73	357	71	57	336	167
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	191	21	45	186	32	19	94	19	15	88	44
Total Analysis Volume [veh/h]	49	765	85	180	745	126	77	376	75	60	354	176
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	23	0	17	29	0	11	19	0	11	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	R	L	C	R
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	19	19	9	23	23	5	22	22	5	21	21
g / C, Green / Cycle	0.06	0.27	0.27	0.13	0.33	0.33	0.08	0.31	0.31	0.07	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.03	0.23	0.23	0.10	0.21	0.08	0.04	0.20	0.05	0.03	0.19	0.11
s, saturation flow rate [veh/h]	1774	1863	1798	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	113	499	482	227	1179	526	140	570	485	125	554	471
d1, Uniform Delay [s]	31.68	24.51	24.51	29.75	19.82	17.01	31.15	21.20	17.76	31.42	21.40	19.51
k, delay calibration	0.11	0.23	0.23	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.63	9.29	9.60	6.21	0.56	0.23	3.34	5.89	0.68	2.85	5.56	2.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.87	0.87	0.79	0.63	0.24	0.55	0.66	0.15	0.48	0.64	0.37
d, Delay for Lane Group [s/veh]	34.31	33.80	34.11	35.96	20.39	17.25	34.49	27.09	18.44	34.26	26.96	21.77
Lane Group LOS	C	C	C	D	C	B	C	C	B	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.86	7.69	7.47	3.22	4.86	1.42	1.34	5.93	0.93	1.05	5.57	2.43
50th-Percentile Queue Length [ft]	21.43	192.29	186.70	80.54	121.60	35.48	33.57	148.33	23.18	26.13	139.19	60.77
95th-Percentile Queue Length [veh]	1.54	12.24	11.95	5.80	8.48	2.55	2.42	9.93	1.67	1.88	9.44	4.38
95th-Percentile Queue Length [ft]	38.57	306.00	298.74	144.96	212.03	63.86	60.43	248.19	41.72	47.03	235.93	109.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.31	33.93	34.11	35.96	20.39	17.25	34.49	27.09	18.44	34.26	26.96	21.77
Movement LOS	C	C	C	D	C	B	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	33.97			22.68			26.94			26.15		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.39											
Intersection LOS	C											
Intersection V/C	0.738											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

HCS 2010 Two-Way Stop Control Summary Report

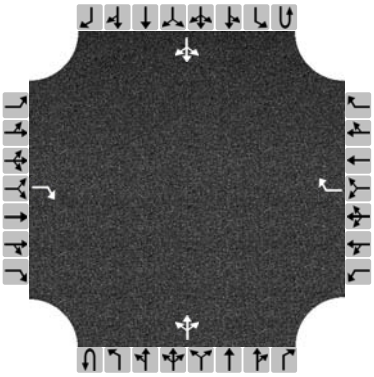
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	12/8/2016
Analysis Year	2035
Time Analyzed	PM w/ Project, w/ Improv
Intersection Orientation	North-South
Project Description	Downtown Hemet Specific Plan

Site Information

Intersection	Gilbert/Devonshire
Jurisdiction	City of Hemet
East/West Street	Kimball Avenue
North/South Street	State Street
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	1		0	0	1	0	0	1	0	0	0	1	0
Configuration				R				R			LTR				LTR	
Volume (veh/h)				48				71		14	916	6		42	723	15
Percent Heavy Vehicles				3				3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)				51				75		15				44		
Capacity				399				307		834				706		
v/c Ratio				0.13				0.24		0.02				0.06		
95% Queue Length				0.4				0.9		0.1				0.2		
Control Delay (s/veh)				15.3				20.5		9.4				10.4		
Level of Service (LOS)				C				C		A				B		
Approach Delay (s/veh)	15.3				20.5				0.5				1.6			
Approach LOS	C				C											

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Intersection Level Of Service Report
Intersection 13: State Street (NS) at Acacia Avenue (EW)

Control Type:	Signalized	Delay (sec / veh):	34.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.835

Intersection Setup

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

volumes

Name	State Street (NS)			State Street (NS)			Acacia Avenue (EW)			Acacia Avenue (EW)		
Base Volume Input [veh/h]	24	644	65	68	619	25	94	286	87	59	221	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	8	2	20	24	0	0	13	-4	12	54	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	652	67	88	643	25	94	299	83	71	275	76
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	172	18	23	169	7	25	79	22	19	72	20
Total Analysis Volume [veh/h]	27	686	71	93	677	26	99	315	87	75	289	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	5	2	0	1	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	0	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	19	0	12	20	0	40	41	0	18	19	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	10	0	0	10	0	0	10	0
l1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
l2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	39	39	6	42	42	7	23	6	22
g / C, Green / Cycle	0.04	0.44	0.44	0.07	0.47	0.47	0.07	0.25	0.07	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.37	0.04	0.05	0.36	0.02	0.06	0.22	0.04	0.21
s, saturation flow rate [veh/h]	1774	1863	1583	1774	1863	1583	1774	1794	1774	1794
c, Capacity [veh/h]	69	810	689	126	869	739	130	449	118	437
d1, Uniform Delay [s]	42.25	22.77	15.06	41.05	20.12	13.02	40.97	32.64	40.99	32.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.57	10.63	0.30	8.27	6.81	0.09	8.83	6.52	5.57	4.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

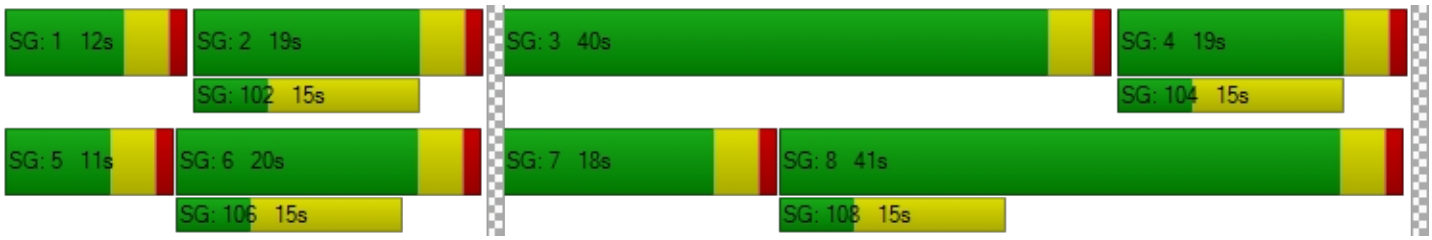
X, volume / capacity	0.39	0.85	0.10	0.74	0.78	0.04	0.76	0.90	0.64	0.84
d, Delay for Lane Group [s/veh]	45.82	33.40	15.36	49.32	26.93	13.11	49.81	39.15	46.56	37.01
Lane Group LOS	D	C	B	D	C	B	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh]	0.65	14.59	0.89	2.29	12.74	0.29	2.45	9.04	1.79	8.01
50th-Percentile Queue Length [ft]	16.22	364.65	22.30	57.18	318.47	7.35	61.20	225.96	44.64	200.17
95th-Percentile Queue Length [veh]	1.17	20.85	1.61	4.12	18.59	0.53	4.41	13.97	3.21	12.65
95th-Percentile Queue Length [ft]	29.19	521.24	40.14	102.92	464.81	13.23	110.16	349.23	80.36	316.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.82	33.40	15.36	49.32	26.93	13.11	49.81	39.15	39.15	46.56	37.01	37.01
Movement LOS	D	C	B	D	C	B	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	32.19			29.10			41.26			38.63		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.15											
Intersection LOS	C											
Intersection V/C	0.835											

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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