KUNZMAN ASSOCIATES, INC.

ZANDERSON PLAZA

TRAFFIC IMPACT ANALYSIS (REVISED)

June 20, 2017

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

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Prepared by:

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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 project site is located in the City of Hemet. Appendix B includes the scoping agreement and subsequent scoping discussion with City of Hemet staff. The study area includes the following intersections:

Sanderson Avenue (NS) at:
- Commonwealth Avenue (EW) - #1
- Eaton Avenue (EW) - #2
- Fruitvale Avenue (EW) - #3
- Project North Driveway (EW) - #4
- Project South Driveway (EW) - #5
- Menlo Avenue (EW) - #6
- Devonshire Avenue (EW) - #7

Project East Driveway (NS) at:
- Menlo Avenue (EW) - #8

Kirby Street (NS) at:
- Menlo Avenue (EW) - #9

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 project site is located on the northeast corner of the Sanderson Avenue and Menlo Avenue intersection in the City of Hemet.

2. Existing roadways in the vicinity of the project study area include Sanderson Avenue, Kirby Street, Commonwealth Avenue, Eaton Avenue, Fruitvale Avenue, Menlo Avenue, and Devonshire Avenue.

3. The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions.

D. Traffic Impacts

1. The project site is proposed to be developed with 42,230 square feet of commercial retail, 15,250 square feet of fast-food restaurant with drive-through, and a 20 fueling position service station with a convenience store and car wash. Access is proposed to be provided to Sanderson Avenue and Menlo Avenue.

   The project is proposed to be developed in two phases. The first phase will be completed in 2017 and will include 10,650 square feet of fast-food restaurant with drive-through and the 20 fueling position service station with a convenience store and car wash. The second phase will be completed in 2020 and will include 4,600 square feet of fast-food restaurant with drive through and the 42,230 square feet of retail.

2. The proposed project is projected to generate a total of approximately 6,261 daily vehicle trips, 385 of which will occur during the morning peak hour and 402 of which will occur 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, with the exception of the following intersections that are projected to operate at an unacceptable Levels of Service during the peak hours without improvements:

   Sanderson Avenue (NS) at:
   - Commonwealth Avenue (EW) - #1
   - Project North Driveway (EW) - #4

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. A traffic signal is projected to be warranted at the following study area intersection for Existing Plus Project traffic conditions (see Appendix E):

    Sanderson Avenue (NS) at:
        Project North Driveway (EW) - #4 [Opening Year Phase II (2020)]

    The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (2014 Edition).

5. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) Without Project traffic conditions.

6. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) With Project traffic conditions, with the exception of the following intersection that is projected to operate at an unacceptable Levels of Service during the evening peak hour without improvements:

    Sanderson Avenue (NS) at:
        Commonwealth Avenue (EW) - #1

    The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) With Project traffic conditions, with improvements.

7. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) Without Project traffic conditions, with the exception of the following intersection that is projected to operate at an unacceptable Levels of Service during the evening peak hour:

    Sanderson Avenue (NS) at:
        Commonwealth Avenue (EW) - #1

8. The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) With Project traffic conditions, with the exception of the following intersections that are projected to operate at unacceptable Levels of Service during the peak hours:

    Sanderson Avenue (NS) at:
        Commonwealth Avenue (EW) - #1
        Project North Driveway (EW) - #4

Kirby Street (NS) at:
Menlo Avenue (EW) - #9

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) With Project traffic conditions, with improvements.

9. A traffic signal is projected to be warranted at the following additional study area intersection for Opening Year Phase II (2020) With Project traffic conditions (see Appendix E):

Sanderson Avenue (NS) at:
Commonwealth Avenue (EW) - #1

The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (2014 Edition).

E. Recommendations

The following measures are recommended to mitigate the impact of the project on traffic circulation:

On-Site

1. Site-specific circulation and access recommendations are depicted on Figure 40.

2. Install a raised median on Sanderson Avenue along the project boundary as negotiated with the City.

3. Install a traffic signal at the following study area intersection for Opening Year Phase II (2020) traffic conditions:

Sanderson Avenue (NS) at:
Project North Driveway (EW) - #4

4. The project site should provide sufficient parking spaces to meet City of Hemet parking code requirements in order to service on-site parking demand.

5. Sight distance at the project accesses shall comply with standard California Department of Transportation and City of Hemet sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

6. On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

Off-Site

1. As is the case for any roadway design, the City of Hemet should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

2. Contribute to the City of Hemet Development Impact Fee (DIF) that includes traffic signal mitigation and to Western Riverside Council of Governments (WRCOG), which administers the Transportation Uniform Mitigation Fee (TUMF) for regional transportation improvements (see Appendix F) that include capacity enhancement projects (i.e., roadway widening).

3. To facilitate Opening Year Phase I (2017) project trips wishing to travel southbound from the site, the applicant has agreed to install signage allowing U-turns at the northbound approach of the Sanderson Avenue/Fruitvale Avenue intersection with the City's approval before the project is built. The available turning radius is shown on Figure 41.

II. PROJECT DESCRIPTION

This section discusses the project location and proposed development. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

A. Location

The project site is located on the northeast corner of the Sanderson Avenue and Menlo Avenue intersection in the City of Hemet.

B. Proposed Development

The project site is proposed to be developed with 42,230 square feet of commercial retail, 15,250 square feet of fast-food restaurant with drive-through, and a 20 fueling position service station with a convenience store and car wash. Access is proposed to be provided to Sanderson Avenue and Menlo Avenue.

The project is proposed to be developed in two phases. The first phase will be completed in 2017 and will include 10,650 square feet of fast-food restaurant with drive-through and the 20 fueling position service station with a convenience store and car wash. The second phase will be completed in 2020 and will include 4,600 square feet of fast-food restaurant with drive through and the 42,230 square feet of retail.

Figure 1
Project Location Map

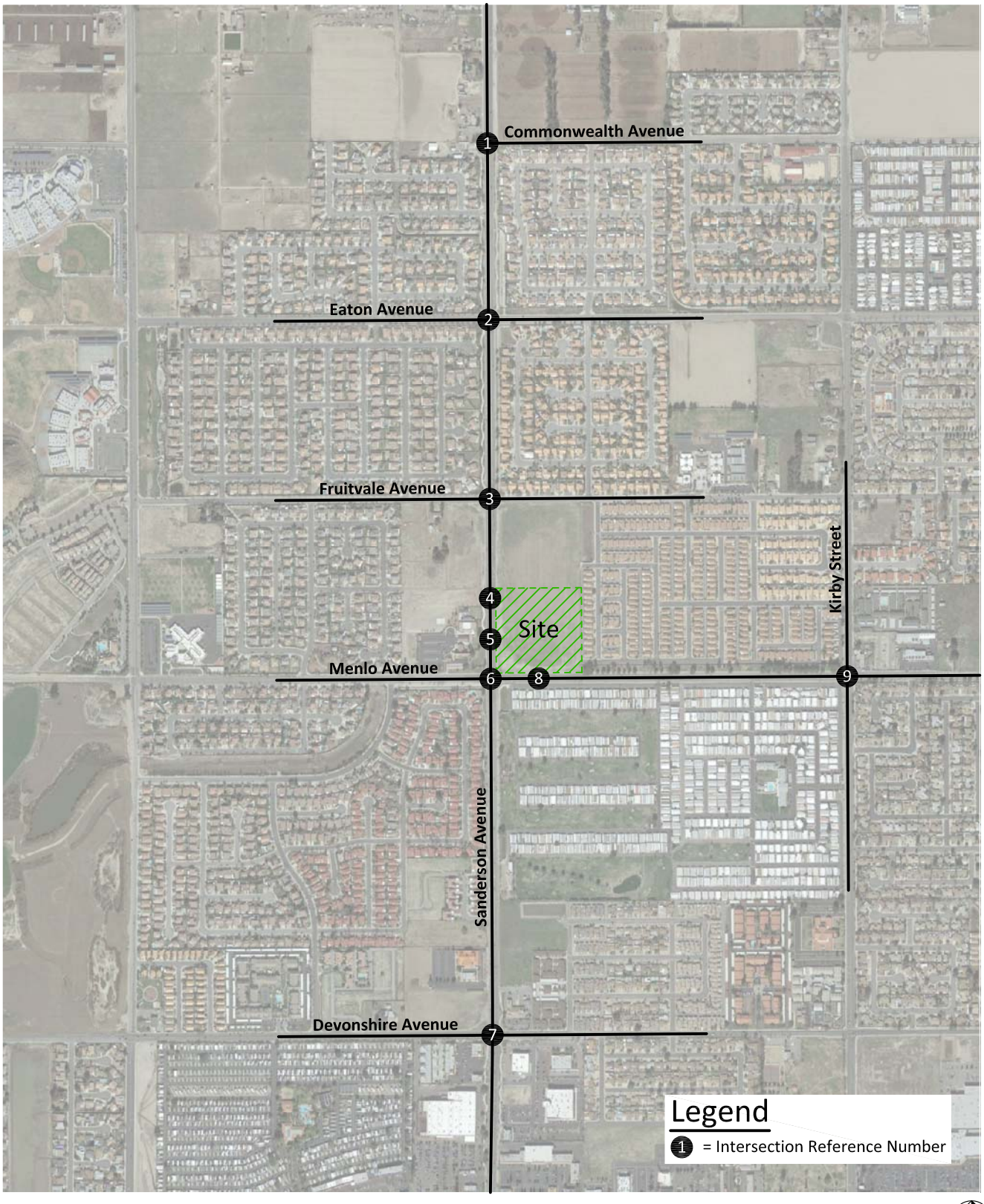

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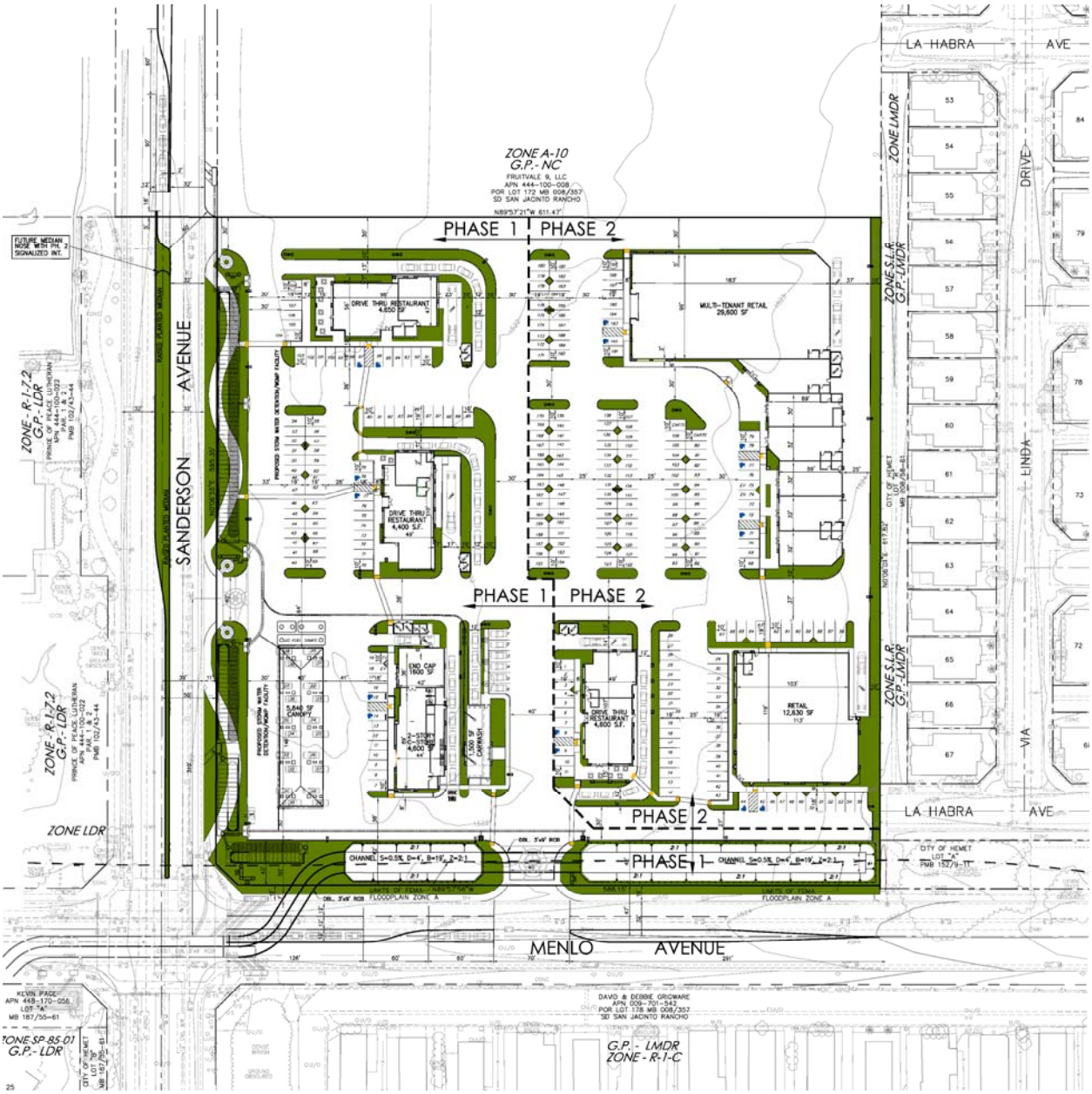
Figure 2
Site Plan



III. EXISTING TRAFFIC CONDITIONS

The traffic conditions as they exist today are discussed below and illustrated on Figures 3 to 11.

A. Surrounding Street System

Existing roadways in the vicinity of the project study area include Sanderson Avenue, Kirby Street, Commonwealth Avenue, Eaton Avenue, Fruitvale Avenue, Menlo Avenue, and Devonshire Avenue.

Sanderson Avenue: This north-south four lane divided roadway is classified as a Major roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 25,200 to 27,500 vehicles per day in the study area.

Kirby Street: This north-south three to four lane undivided roadway is classified as a Secondary roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 11,100 to 11,300 vehicles per day in the study area.

Commonwealth Avenue: This east-west two lane undivided roadway is classified as a collector roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 1,700 vehicles per day in the study area.

Eaton Avenue: This east-west two lane undivided roadway is classified as a Secondary roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 3,600 to 5,200 vehicles per day in the study area.

Fruitvale Avenue: This east-west two lane undivided roadway is classified as a collector roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 4,500 to 5,500 vehicles per day in the study area.

Menlo Avenue: This east-west two lane undivided to four lane divided roadway is classified as a Secondary roadway on the City of Hemet General Plan Circulation Element. It currently carries approximately 7,500 to 8,900 vehicles per day in the study area.

Devonshire Avenue: This east-west two lane undivided to four lane divided roadway is classified as a Divided Secondary-B roadway west of Kirby Street and an Express Collector east of Kirby Street on the City of Hemet General Plan Circulation Element. It currently carries approximately 10,900 to 11,800 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 Existing number of through lanes for roadways, intersection controls, and the intersection lane geometries are 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 factored from peak hour counts (see Appendix C) made for Kunzman Associates, Inc. in January/September 2016 using the following formula for each intersection leg:

AM + PM Peak Hour (Approach Volume + Exit Volume) / 14.1 = Leg Volume

This formula was obtained from the City of Hemet General Plan Circulation Element Update Transportation Study completed 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 January/September 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 were selected based on the 50 peak hour project trip contribution test as outlined in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guide and through consultation with City of Hemet staff.

The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions. Existing delay worksheets are provided in Appendix D.

E. Planned Transportation Improvements and Relationship to General Plan

Figure 7 shows the current City of Hemet General Plan Circulation Element. Both existing and future roadways are included in the Circulation Element of the General Plan and are graphically depicted on Figure 7. This figure shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the land use element of the General Plan. The City of Hemet General Plan roadway cross-sections are illustrated on Figure 8.

F. Truck Routes

The City of Hemet has designated the following roadways as truck routes in the study area:

- Sanderson Avenue
- Menlo Avenue between Sanderson Avenue and San Jacinto Street

G. Bicycle and Pedestrian Facilities

Existing pedestrian facilities adjacent to the project site are shown on Figure 9. The City of Hemet bikeway circulation plan is shown on Figure 10.

H. Transit Service

The study area is currently served by Riverside Transit Agency Route 33 on Sanderson Avenue, Devonshire Avenue, and Kirby Street as well as by Route 33 on Kirby Street. The Existing bus routes provided within the study area are shown on Figure 11.

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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	19.4-C	25.2-D
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	17.7-B	9.3-A
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	15.3-B	8.2-A
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	18.8-B	16.1-B
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	19.4-B	26.1-C
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	19.2-C	17.4-C

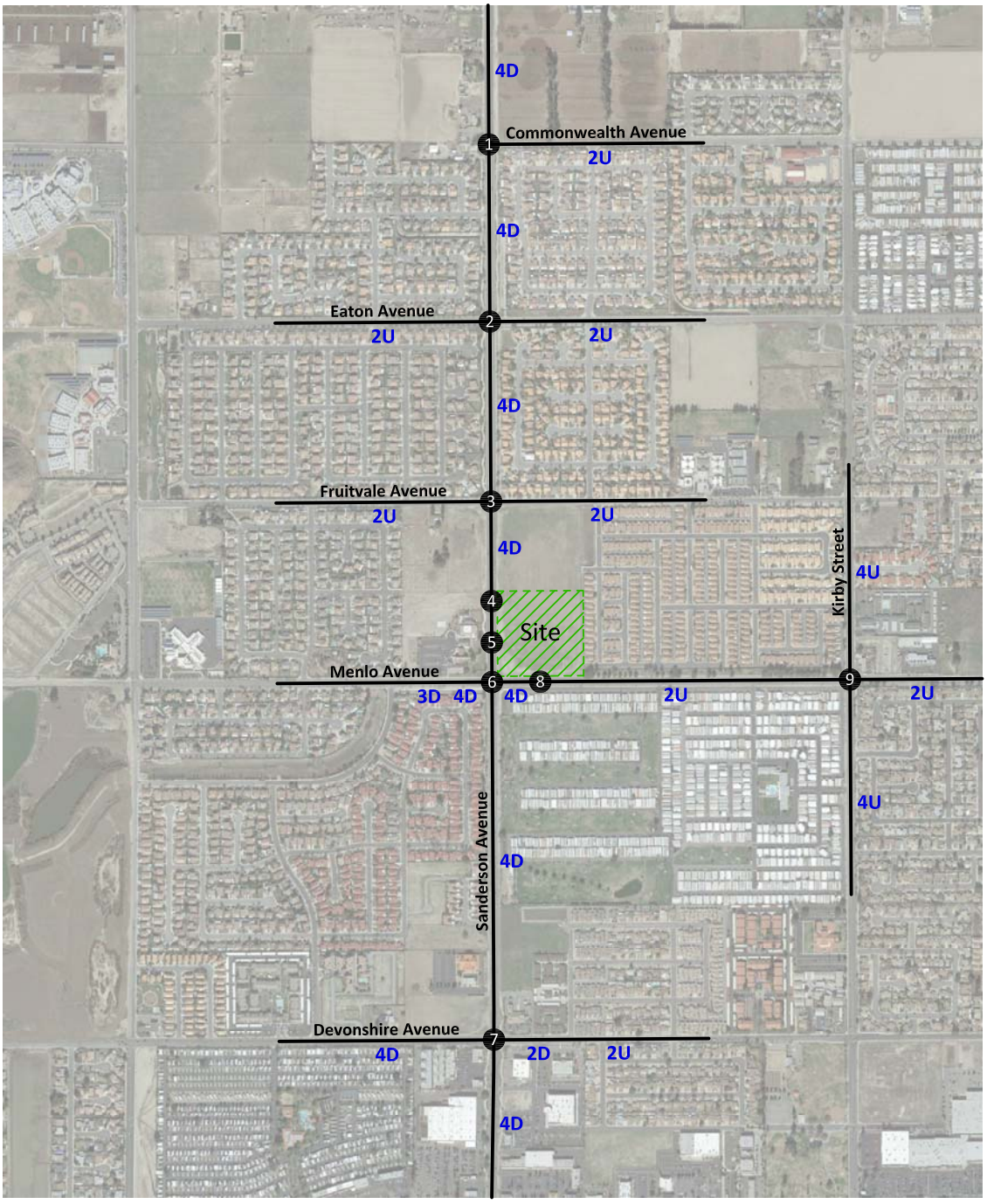
[1] When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outsid the through lanes.

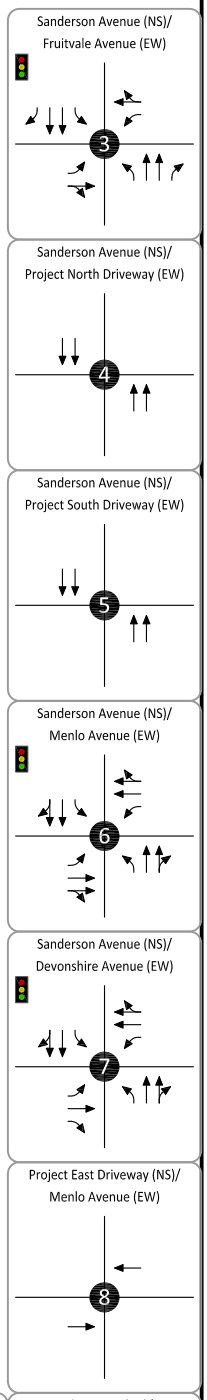
L = Left; T = Through; R = Right; d = De Facto Right Turn Lane

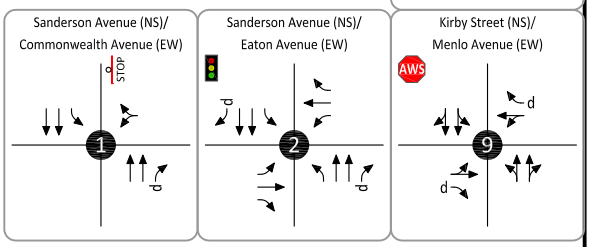
[2] Delay and level of service has been calculated using the following analysis software: Vistro, Version 4.00-00 (2015) for signalized and all-way stop controlled intersections and HCS 2010 6.80 (2016) for two-way stop controlled intersections. Per the Highway Capacity Manual, overall intersection delay and Level of Service are shown for intersections with traffic signal or 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 sho

[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

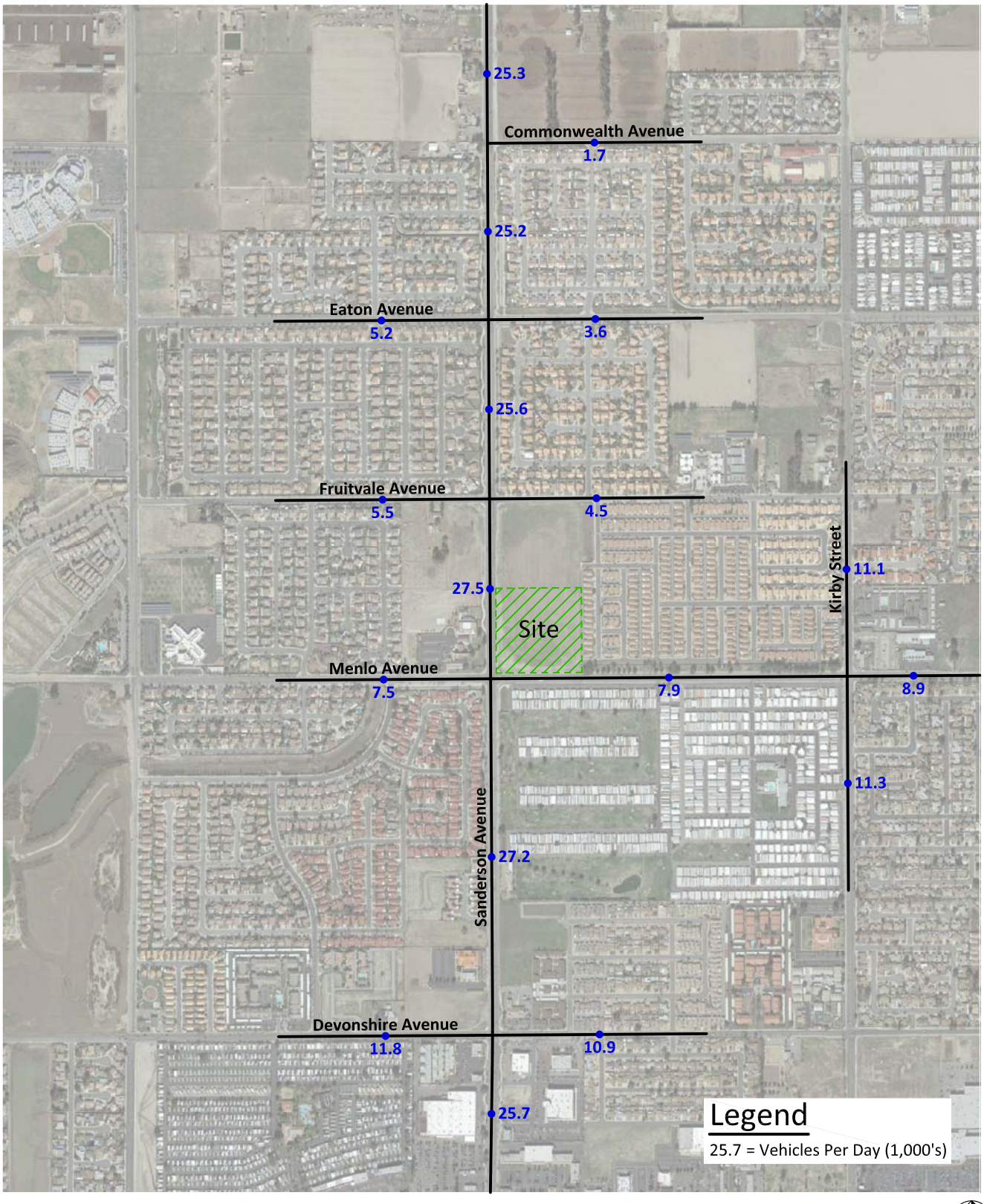
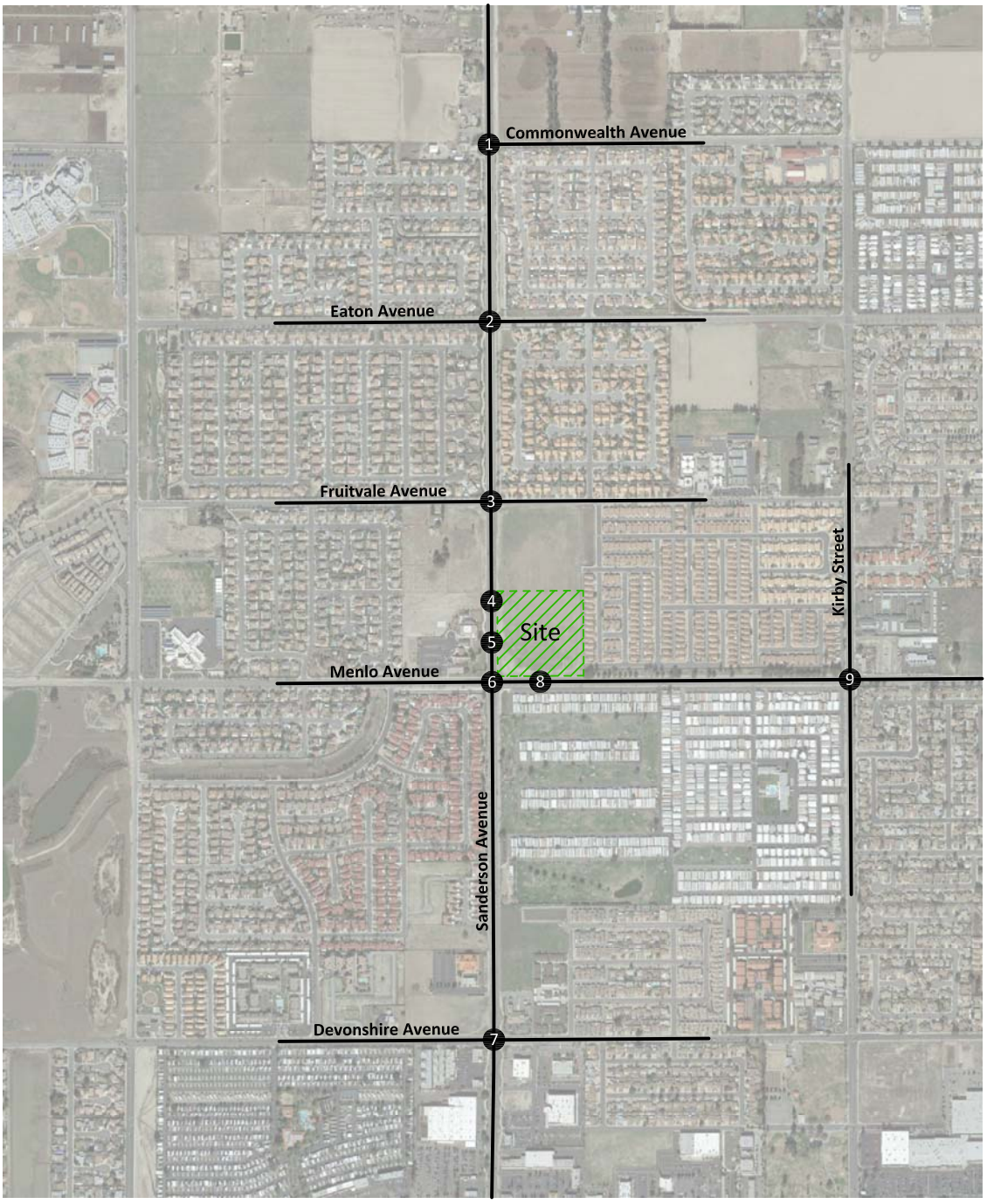
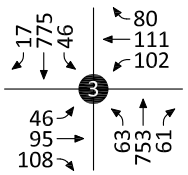


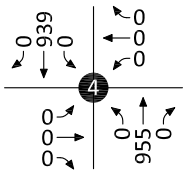
Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes



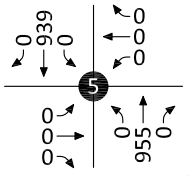
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



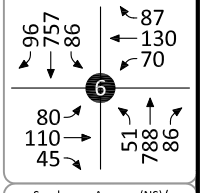
Sanderson Avenue (NS)/ Project North Driveway (EW)



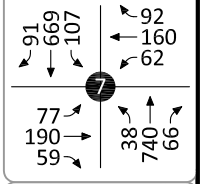
Sanderson Avenue (NS)/ Project South Driveway (EW)



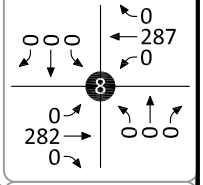
Sanderson Avenue (NS)/ Menlo Avenue (EW)



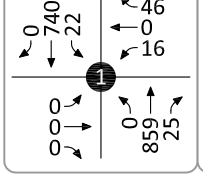
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



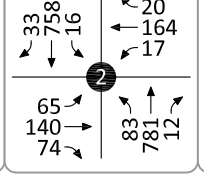
Project East Driveway (NS)/ Menlo Avenue (EW)



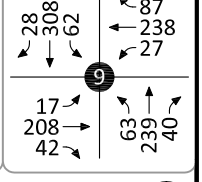
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

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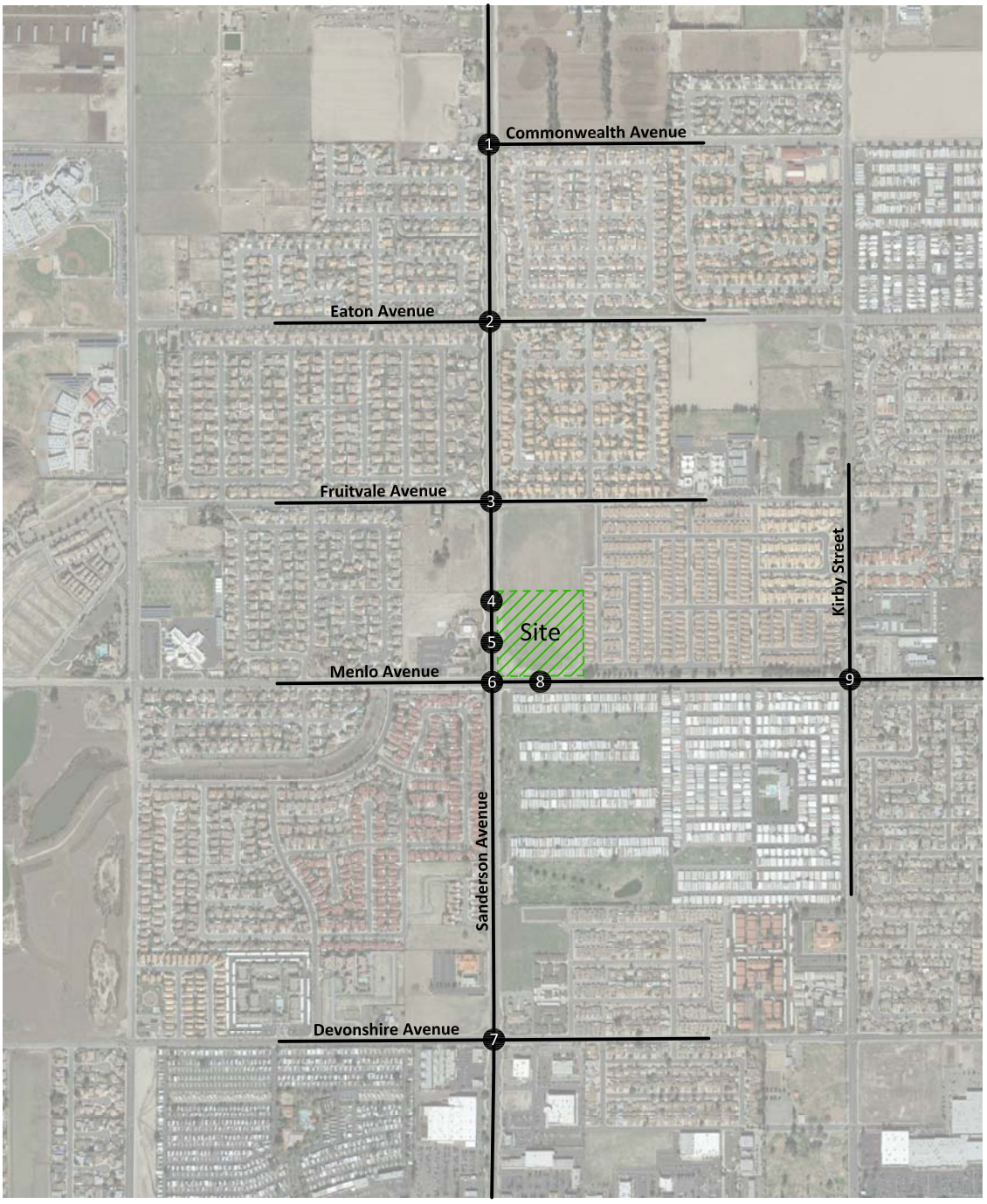
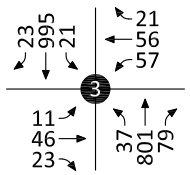
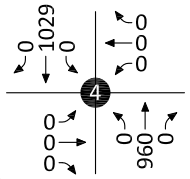
Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes



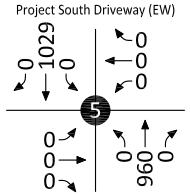
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



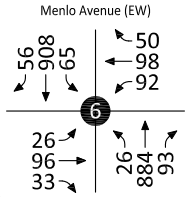
Sanderson Avenue (NS)/ Project North Driveway (EW)



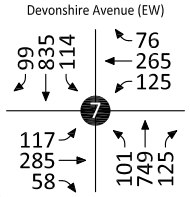
Sanderson Avenue (NS)/ Project South Driveway (EW)



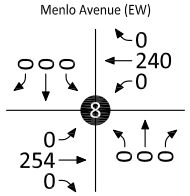
Sanderson Avenue (NS)/ Menlo Avenue (EW)



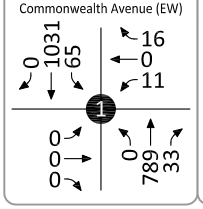
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



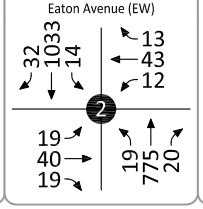
Project East Driveway (NS)/ Menlo Avenue (EW)



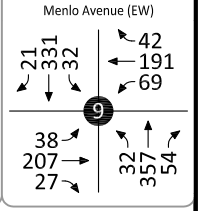
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



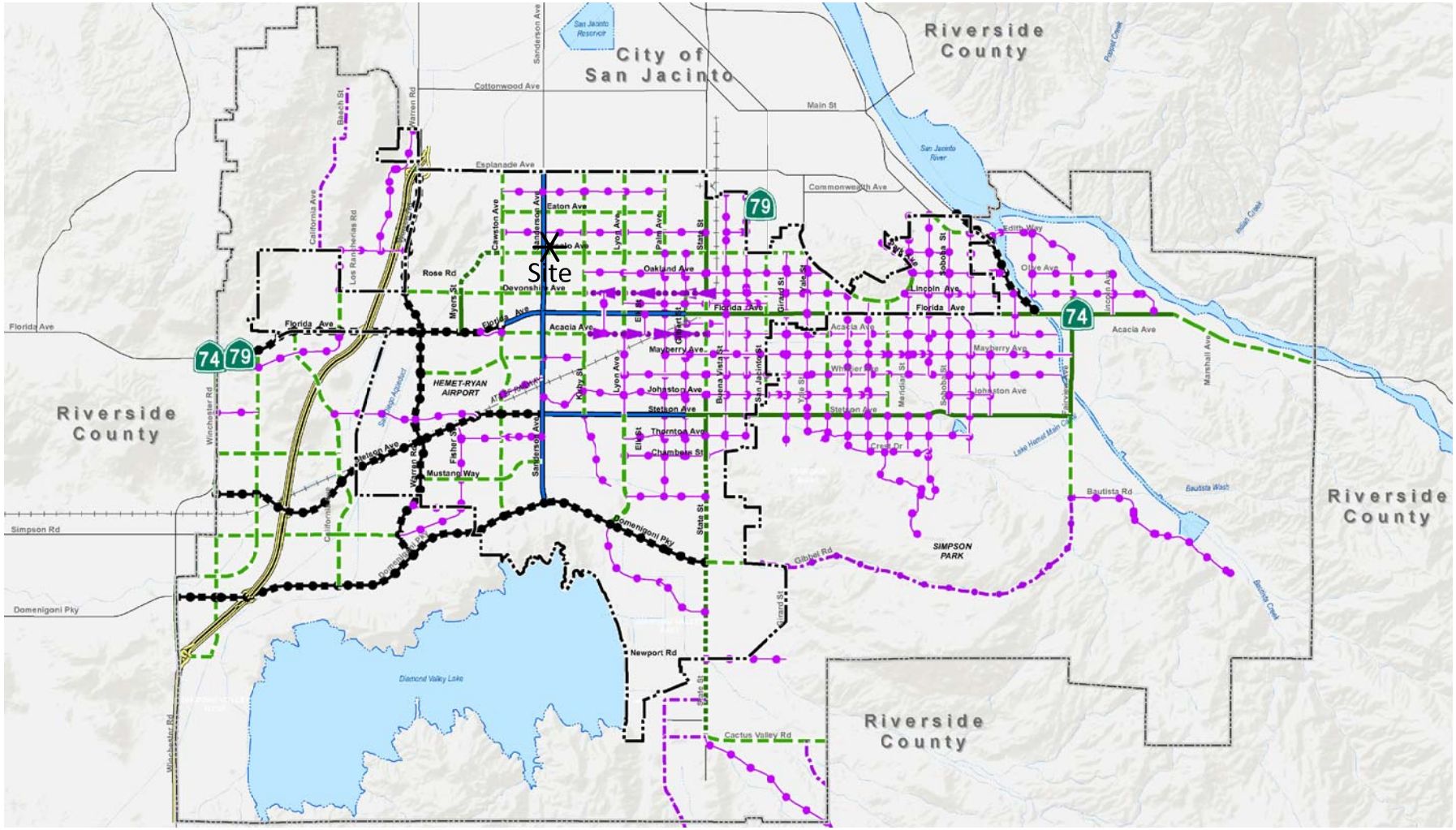
Kirby Street (NS)/ Menlo Avenue (EW)



Legend

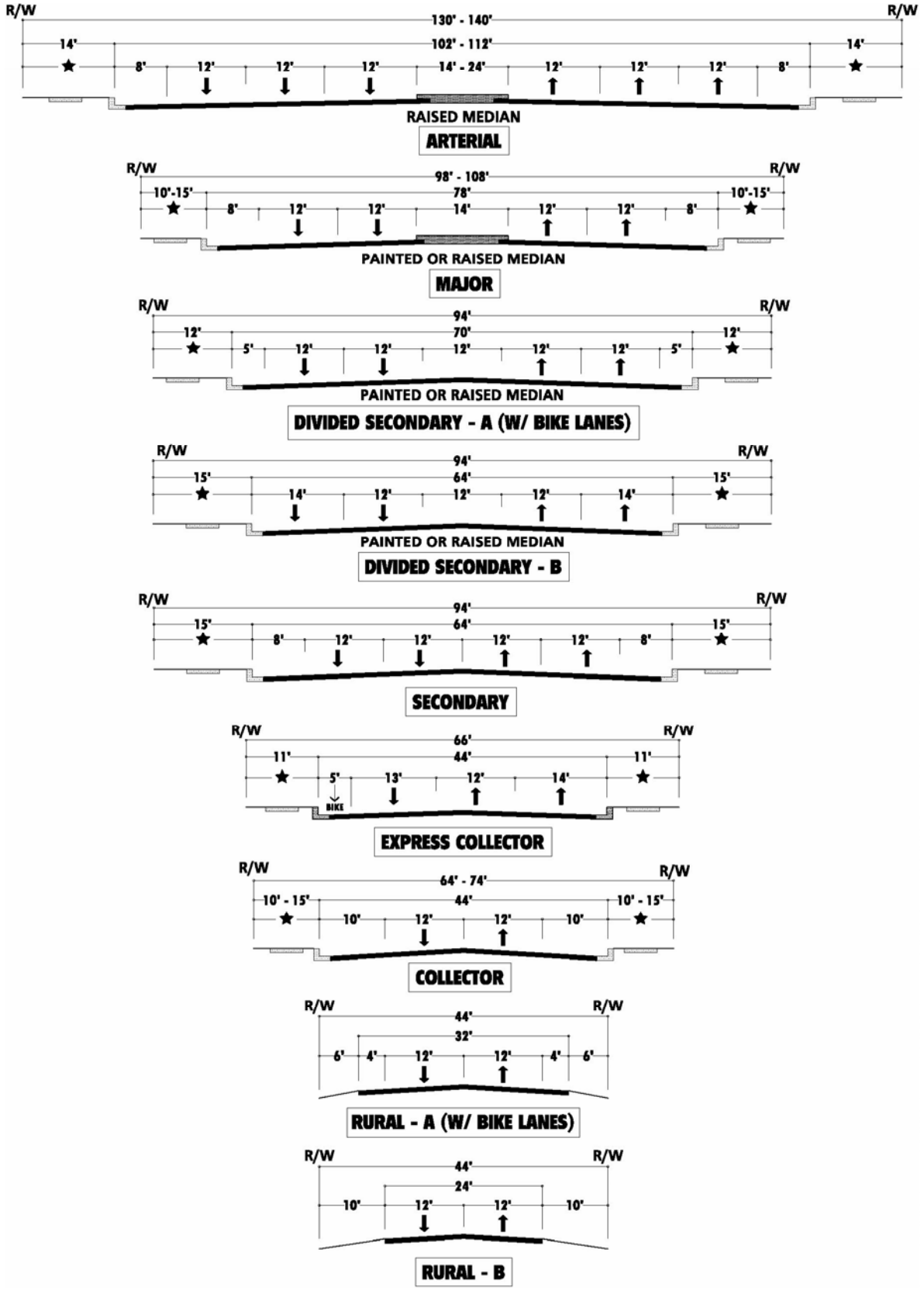
1 = Intersection Reference Number

Figure 7
City of Hemet General Plan Circulation Element



Source: City of Hemet

Figure 8
City of Hemet General Plan Roadway Cross-Sections



Source: City of Hemet

Figure 9
Existing Pedestrian Facilities

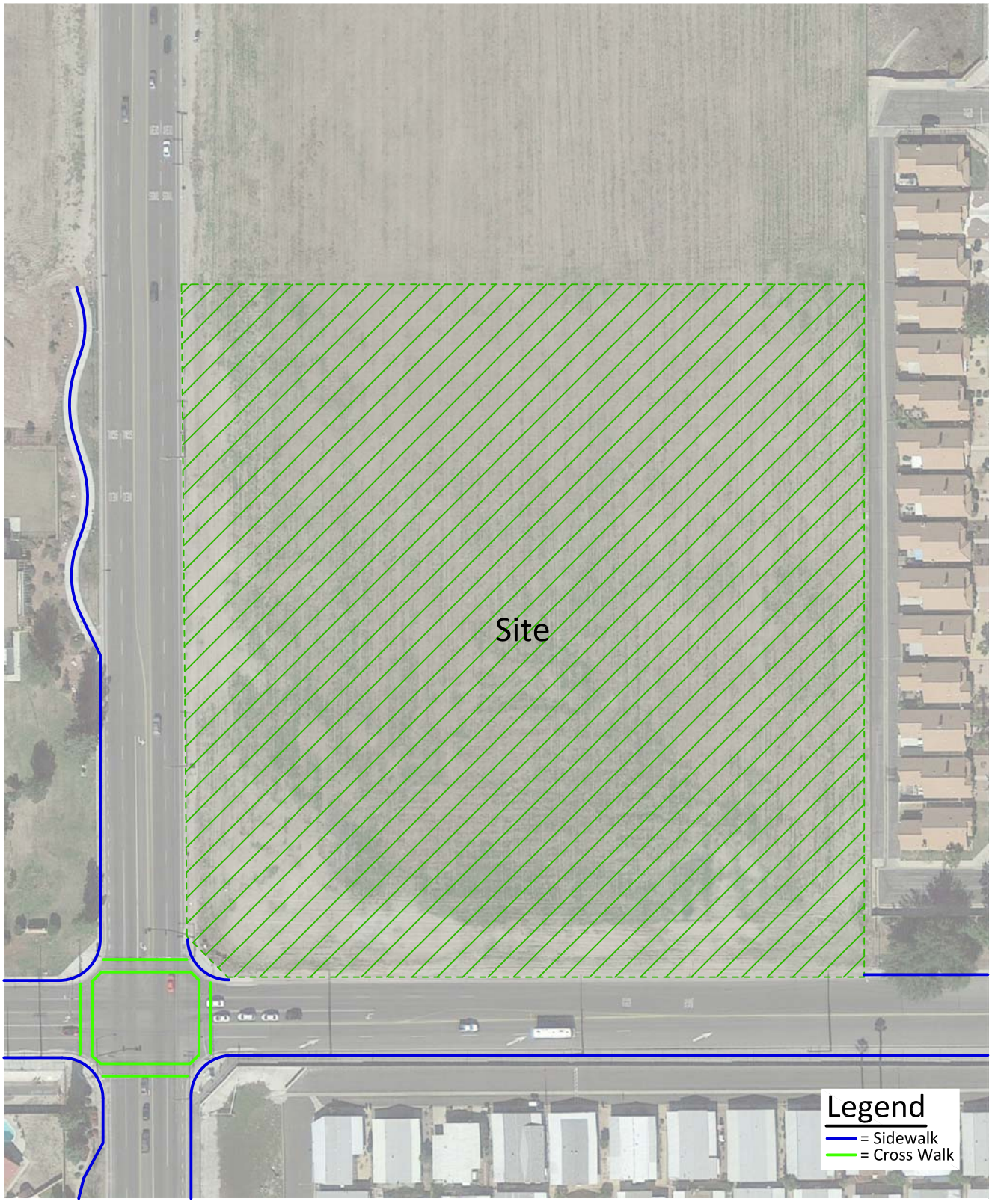
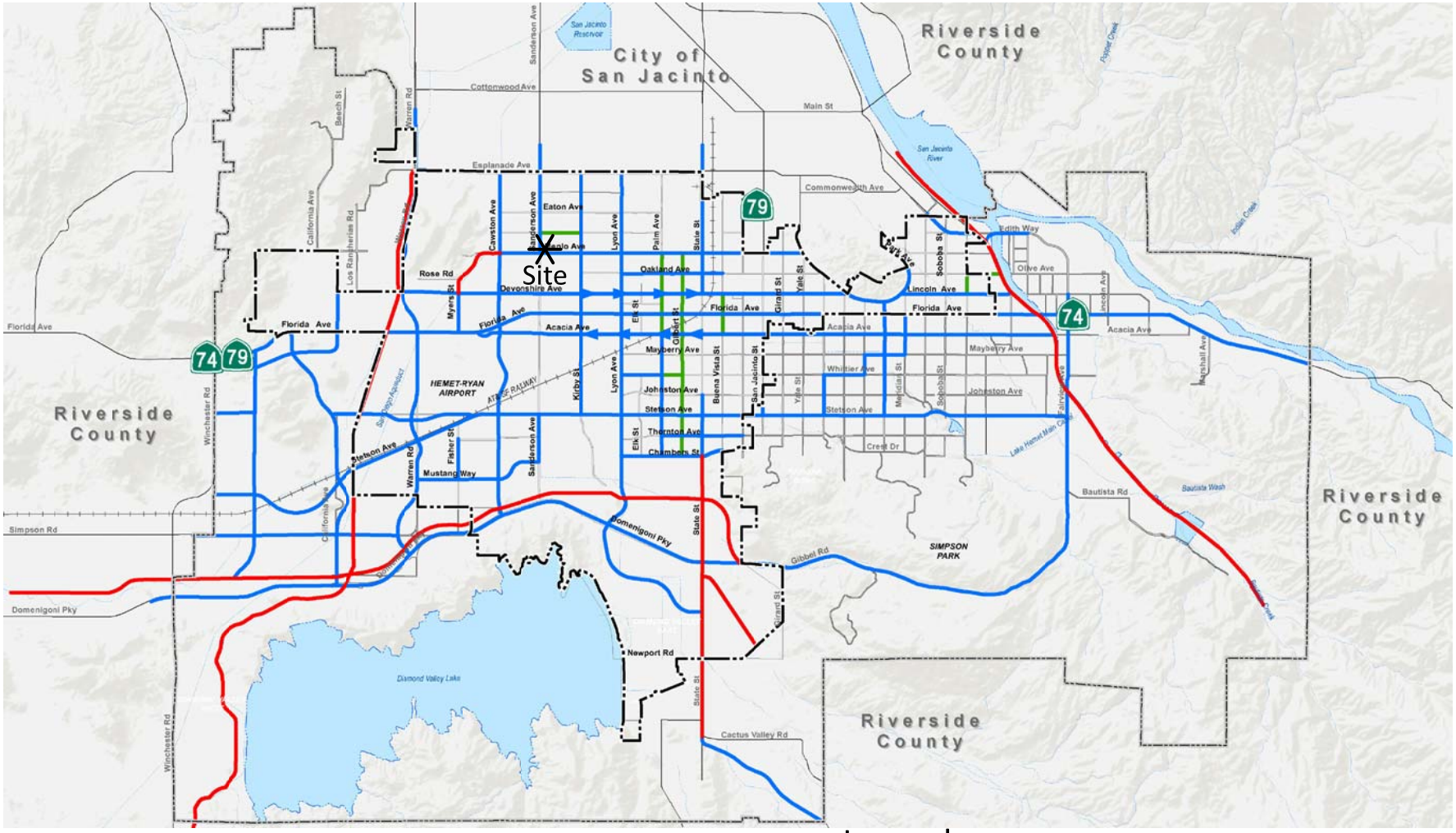


Figure 10
City of Hemet Bikeway Circulation Plan



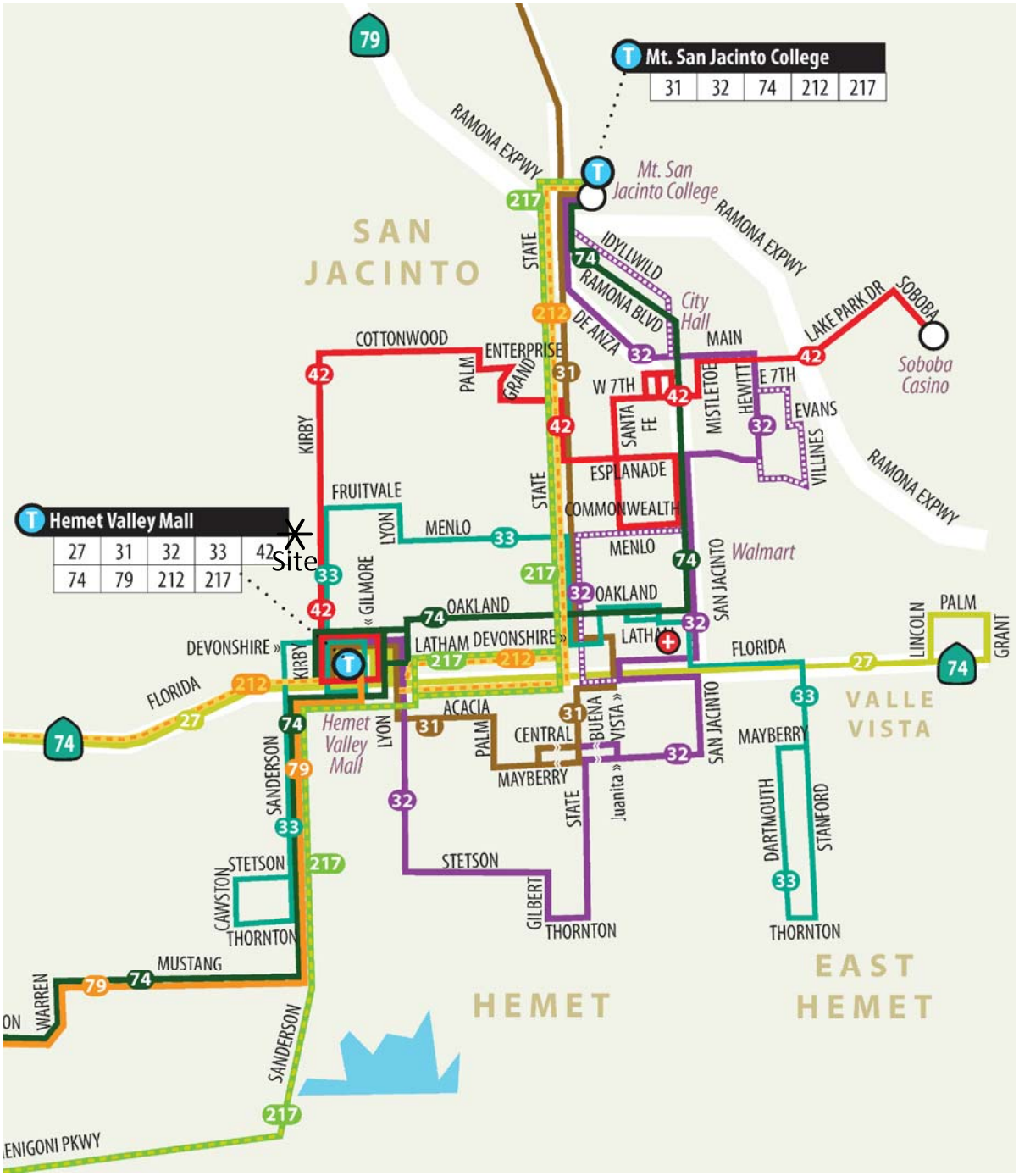
Legend

Bikeways
- Class 1 (Off Road)
- Class 2 (On Road, Two Way Striped Lanes)
- Class 2 (On Road, One Way Striped Lane)
- Class 3 (On Road, Designated Shared Use)

- Hemet City Boundary
- Planning Area
- River/Lake
- Creek/Canal
- Street
- Railroad

Source: City of Hemet

Figure 11
Riverside Transit Agency System Map



Source: Riverside Transit Agency

IV. PROJECT TRAFFIC

The project site is proposed to be developed with 42,230 square feet of commercial retail, 15,250 square feet of fast-food restaurant with drive-through, and a 20 fueling position service station with a convenience store and car wash. Access is proposed to be provided to Sanderson Avenue and Menlo Avenue.

The project is proposed to be developed in two phases. The first phase will be completed in 2017 and will include 10,650 square feet of fast-food restaurant with drive-through and the 20 fueling position service station with a convenience store and car wash. The second phase will be completed in 2020 and will include 4,600 square feet of fast-food restaurant with drive through and the 42,230 square feet of retail.

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. Tables 2 and 3 show the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012.

The proposed project is projected to generate a total of approximately 6,261 daily vehicle trips, 385 of which will occur during the morning peak hour and 402 of which will occur during the evening peak hour.

It should be noted that for the proposed land uses, a portion of the trips would come from pass-by trips from adjacent roadways, trips that are currently on the roadway system. In order to analyze pass-by trips, the traffic volumes from the project have been reduced as a result of pass-by trips (see Tables 2and 3) based upon the Institute of Transportation Engineers, Trip Generation Handbook, 2004.

Traffic volumes shown in Tables 2 and 3 consist of the total trips generated for each project land use. As a fast-food restaurant trip generated by the project will also be making trips to the service station land use within the project, a double counting of those trips occurs. The trips generated by the project have been reduced as a result of the internal interaction between the proposed land uses.

B. Trip Distribution

Figures 12 and 13 contain the Opening Year Phase I (2017) directional distributions of the project trips for the proposed land uses. To facilitate Opening Year Phase I (2017) project trips wishing to travel southbound from the site, the applicant has agreed to install signage allowing U-turns at the northbound approach of the Sanderson Avenue/Fruitvale Avenue intersection with the City's approval before the project is built.

Figures 14 and 15 contain the Opening Year Phase II (2020) directional distributions of the project 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, Opening Year Phase I (2017) project average daily traffic volumes have been calculated and shown on Figure 16. Morning and evening peak hour intersection turning movement volumes expected from the Opening Year Phase I (2017) project are shown on Figures 17 and 18, respectively.

Based on the identified trip generation and distributions, Opening Year Phase II (2020) project average daily traffic volumes have been calculated and shown on Figure 19. Morning and evening peak hour intersection turning movement volumes expected from the Opening Year Phase II (2020) project are shown on Figures 20 and 21, 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

Phase I Trip Generation[1]

Land Use	Quantity	Units[2]	Trips Per Unit and Trips Generated						
			Morning Peak Hour			Evening Peak Hour			
			In	Out	Total	In	Out	Total	Daily
Trip Generation Rates									
Gasoline/Service Station with Convenience Market and Car Wash		FP	6.04	5.80	11.84	7.07	6.79	13.86	152.84
Fast-Food Restaurant With Drive-Through Window		TSF	23.16	22.26	45.42	16.98	15.67	32.65	496.12
Trips Generated									
Gasoline/Service Station with Convenience Market and Car Wash	20	FP	121	116	237	141	136	277	3,057
Fast-Food Restaurant With Drive-Through Window	10.650	TSF	247	237	484	181	167	348	5,284
Subtotal			368	353	721	322	303	625	8,341
Internal Capture									
Gasoline/Service Station with Convenience Market and Car Wash			-34	-32	-66	-45	-44	-89	-856
Fast-Food Restaurant With Drive-Through Window			-69	-67	-136	-58	-53	-111	-1,480
Subtotal			-103	-99	-202	-103	-97	-200	-2,336
External Trips									
Gasoline/Service Station with Convenience Market and Car Wash			87	84	171	96	92	188	2,201
Fast-Food Restaurant With Drive-Through Window			178	170	348	123	114	237	3,804
Subtotal			265	254	519	219	206	425	6,005
Pass-By Trip Reductions[3]									
Gasoline/Service Station with Convenience Market and Car Wash			-54	-52	-106	-54	-51	-105	-1,233
Fast-Food Restaurant With Drive-Through Window			-87	-84	-171	-62	-57	-119	-1,864
Pass-By Subtotal			-141	-136	-277	-116	-108	-224	-3,097
Total Trips Generated			124	118	242	103	98	201	2,908

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, Land Use Codes 934 and 946.

[2] TSF = Thousand Square Feet, FP = Vehicle Fueling Positions

[3] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, average pass-by trip percentages for Land Use Codes 934 and 945. As daily pass-by rates are not available, the lowest peak hour pass-by rate was used for daily trips.

Table 3

Project Trip Generation (Phase I & II)[1]

Land Use	Quantity	Units[2]	Trips Per Unit and Trips Generated						
			Morning Peak Hour			Evening Peak Hour			
			In	Out	Total	In	Out	Total	Daily
Trip Generation Rates									
Gasoline/Service Station with Convenience Market and Car Wash		FP	6.04	5.80	11.84	7.07	6.79	13.86	152.84
Fast-Food Restaurant With Drive-Through Window		TSF	23.16	22.26	45.42	16.98	15.67	32.65	496.12
Shopping Center		TSF	1.35	0.83	2.18	3.82	4.13	7.95	91.92
Trips Generated									
Gasoline/Service Station with Convenience Market and Car Wash	20	FP	121	116	237	141	136	277	3,057
Fast-Food Restaurant With Drive-Through Window	15.250	TSF	353	340	693	259	239	498	7,566
Shopping Center	42.230	TSF	57	35	92	161	175	336	3,882
Subtotal			531	491	1,022	561	550	1,111	14,505
Internal Capture									
Gasoline/Service Station with Convenience Market and Car Wash			-34	-32	-66	-45	-44	-89	-856
Fast-Food Restaurant With Drive-Through Window			-99	-95	-194	-83	-76	-159	-2,118
Shopping Center			-16	-10	-26	-52	-56	-108	-1,087
Subtotal			-149	-137	-286	-180	-176	-356	-4,061
External Trips									
Gasoline/Service Station with Convenience Market and Car Wash			87	84	171	96	92	188	2,201
Fast-Food Restaurant With Drive-Through Window			254	245	499	176	163	339	5,448
Shopping Center			41	25	66	109	119	228	2,795
Subtotal			382	354	736	381	374	755	10,444
Pass-By Trip Reductions[3]									
Gasoline/Service Station with Convenience Market and Car Wash			-54	-52	-106	-54	-51	-105	-1,233
Fast-Food Restaurant With Drive-Through Window			-124	-121	-245	-88	-82	-170	-2,670
Shopping Center						-37	-41	-78	-280
Pass-By Subtotal			-178	-173	-351	-179	-174	-353	-4,183
Total Trips Generated			204	181	385	202	200	402	6,261

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, Land Use Codes 820, 934, and 946.

[2] TSF = Thousand Square Feet, FP = Vehicle Fueling Positions

[3] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, average pass-by trip percentages for Land Use Codes 820, 934 and 945. As daily pass-by rates are not available, the lowest peak hour pass-by rate was used for daily trips.

Figure 12
Opening Year Phase I (2017) Project Outbound Trip Distribution

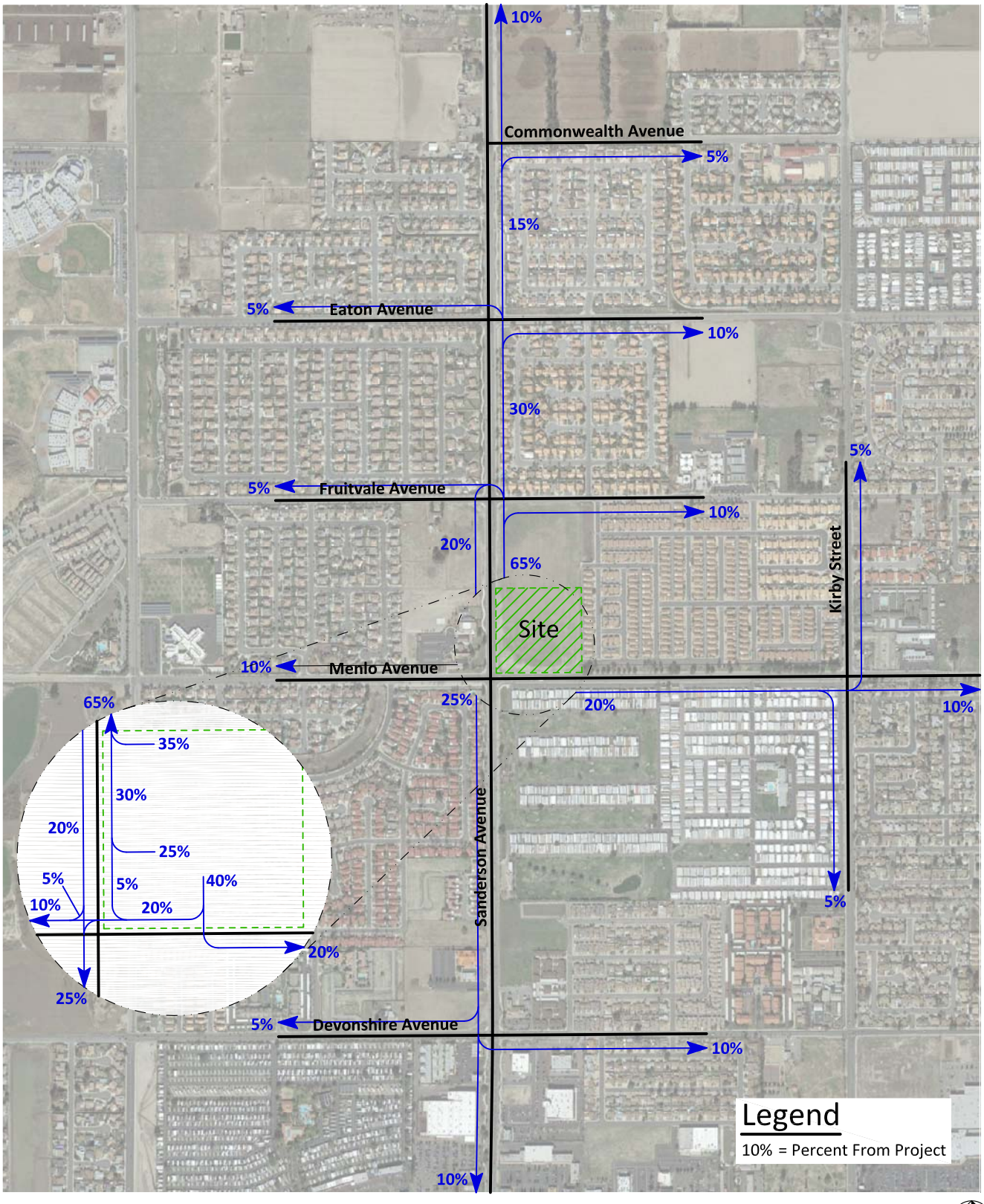


Figure 13
Opening Year Phase I (2017) Project Inbound Trip Distribution

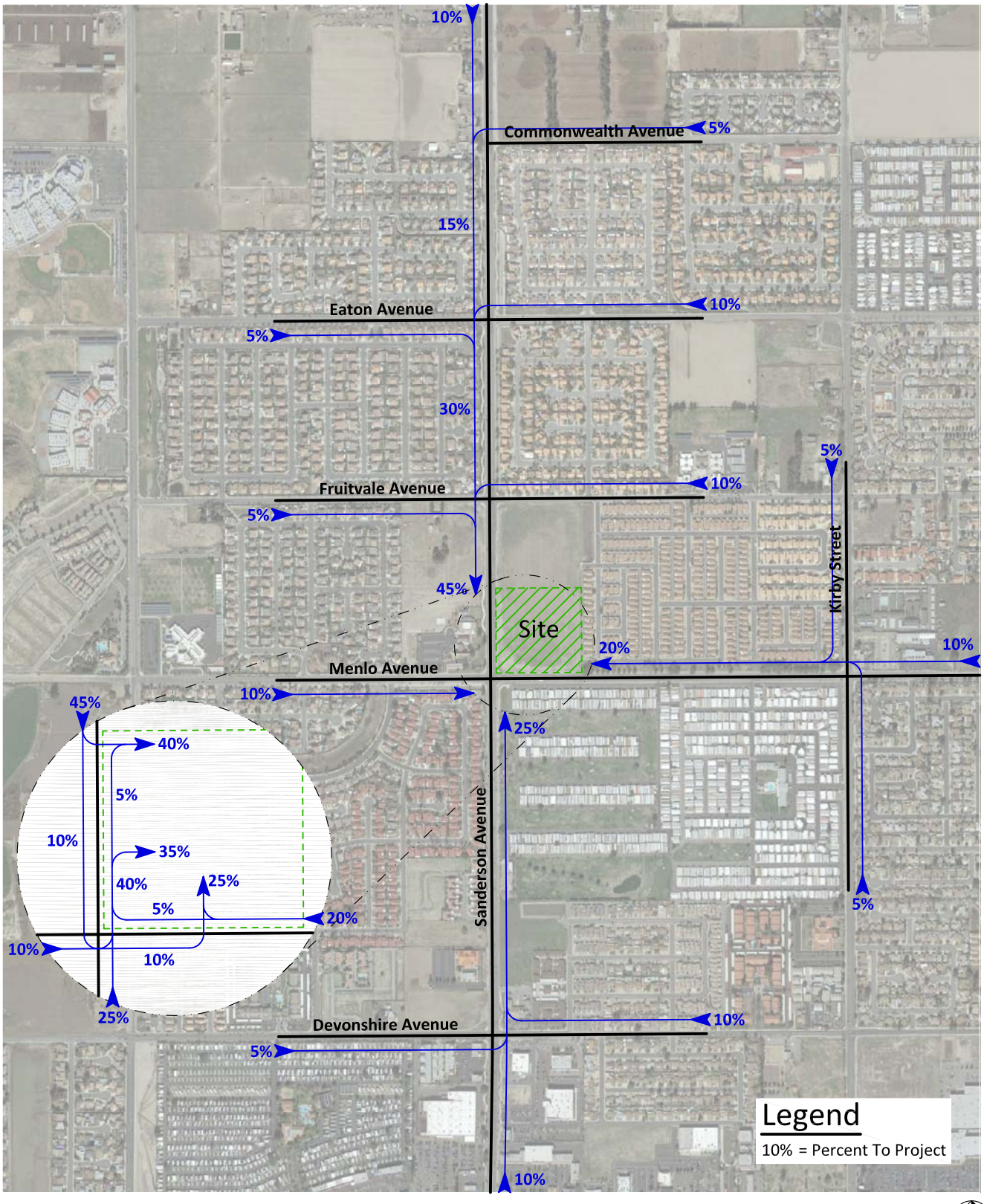


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Figure 14
Opening Year Phase II (2020) Project Outbound Trip Distribution

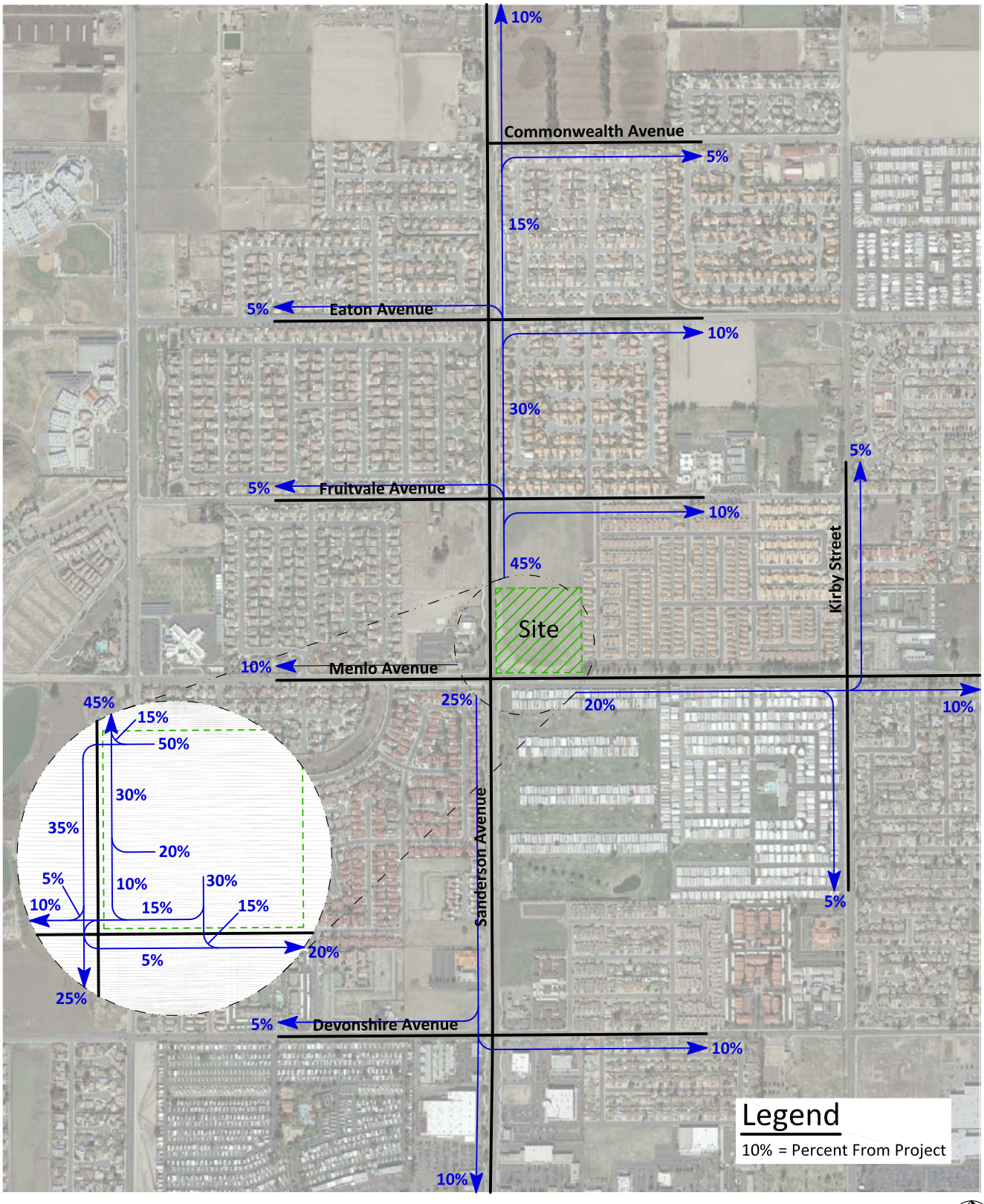

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Figure 15
Opening Year Phase II (2020) Project Inbound Trip Distribution

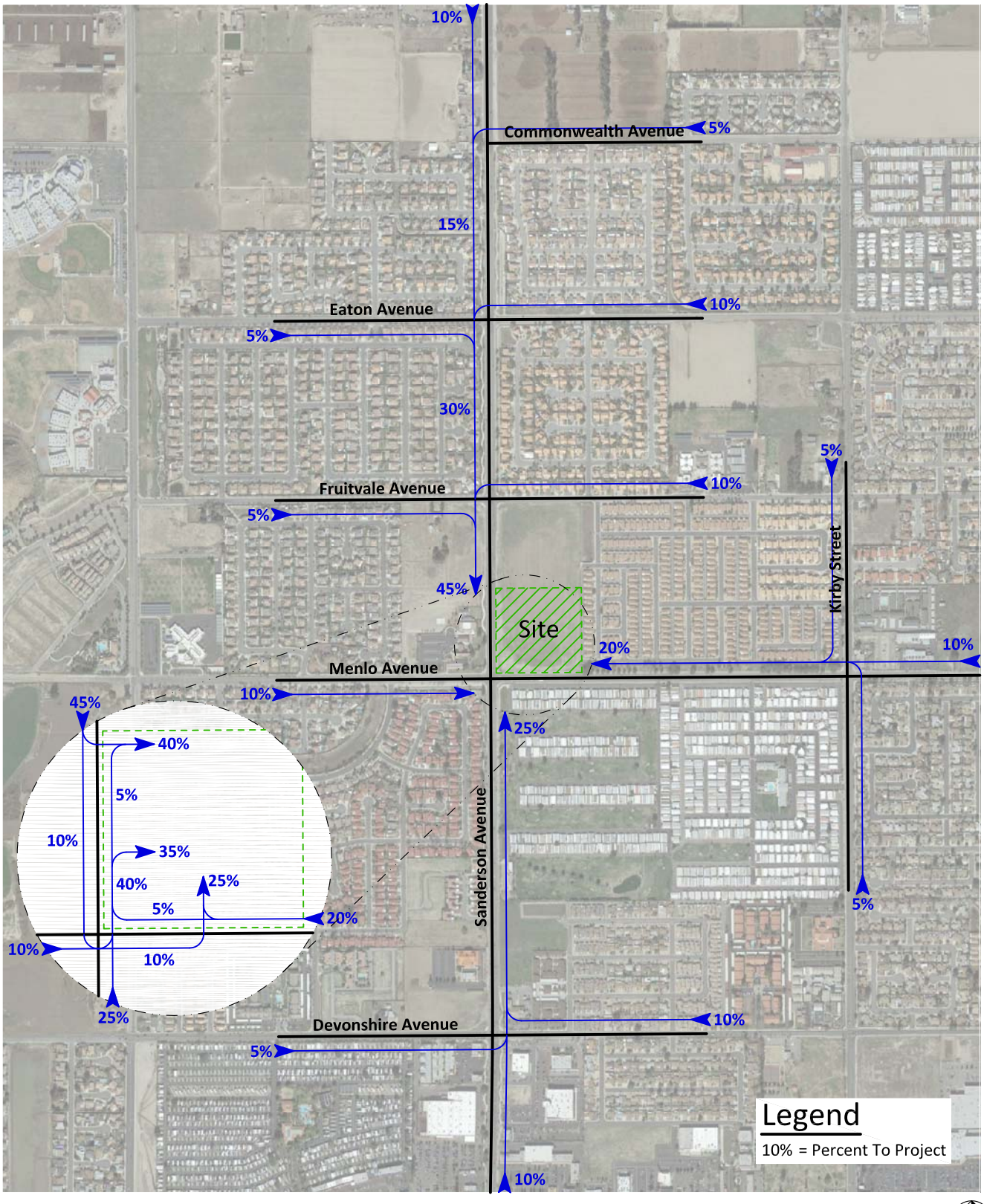

Figure 16
Opening Year Phase I (2017) Project Average Daily Traffic Volumes

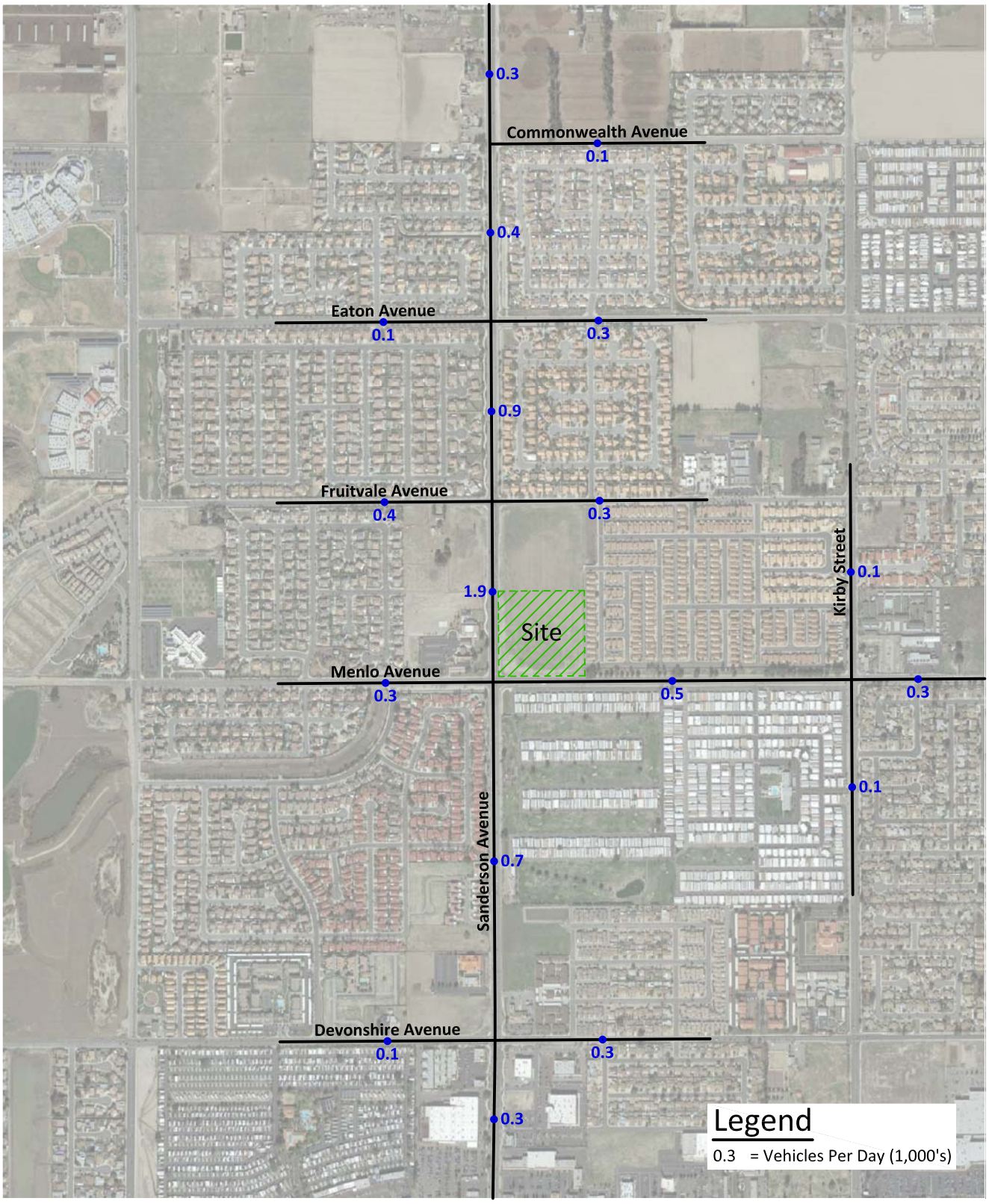

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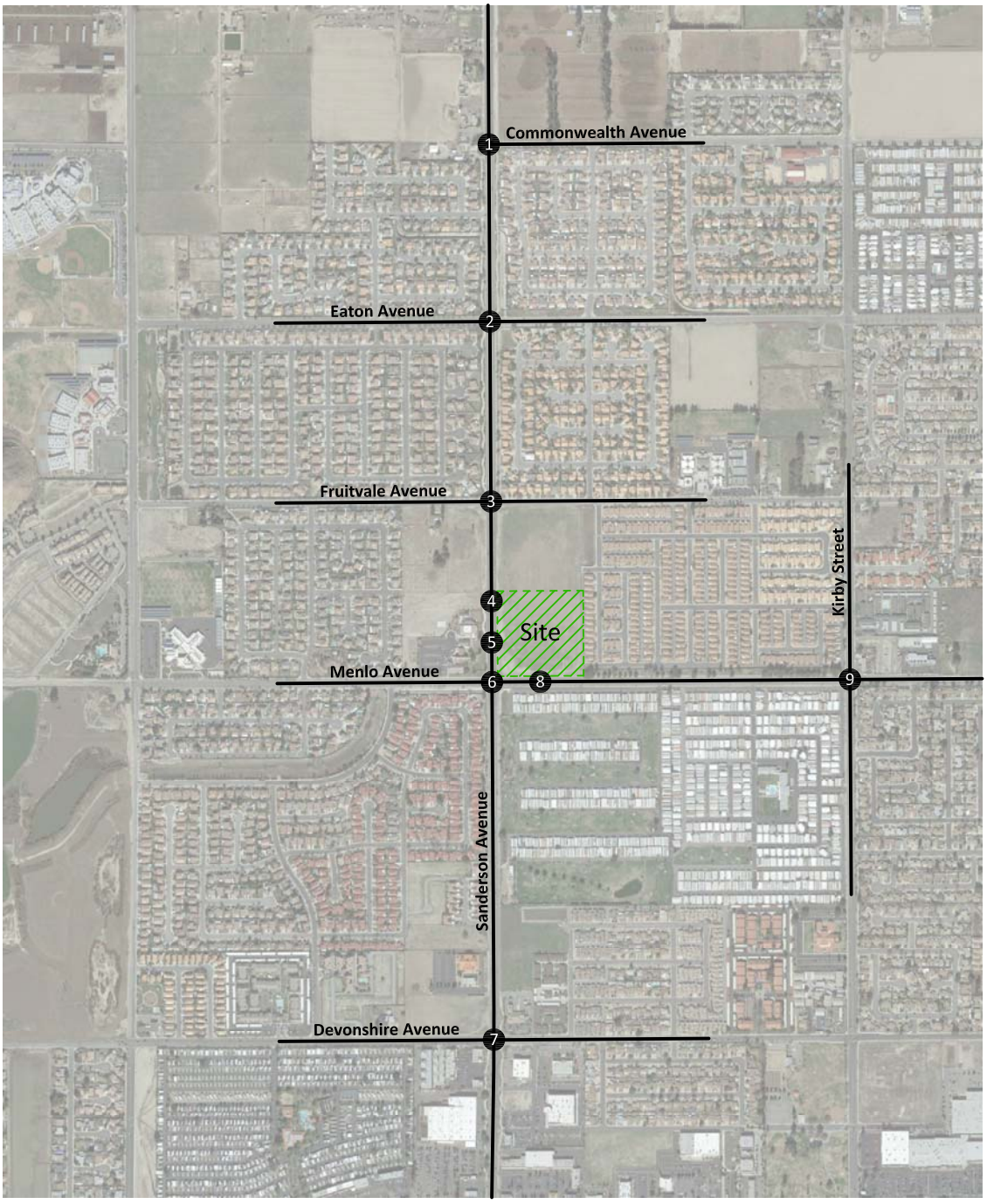
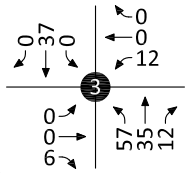
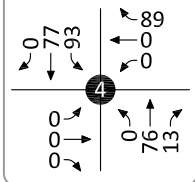
Figure 17
Opening Year Phase I (2017) Project
Morning Peak Hour Intersection Turning Movement Volumes



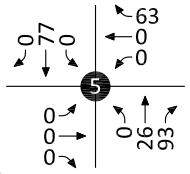
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



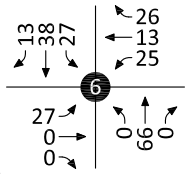
Sanderson Avenue (NS)/ Project North Driveway (EW)



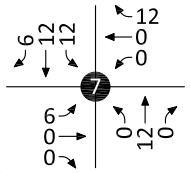
Sanderson Avenue (NS)/ Project South Driveway (EW)



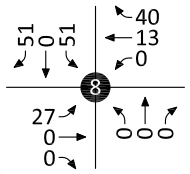
Sanderson Avenue (NS)/ Menlo Avenue (EW)



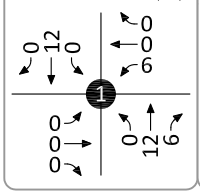
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



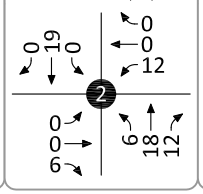
Project East Driveway (NS)/ Menlo Avenue (EW)



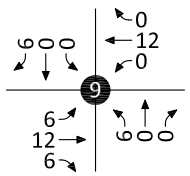
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

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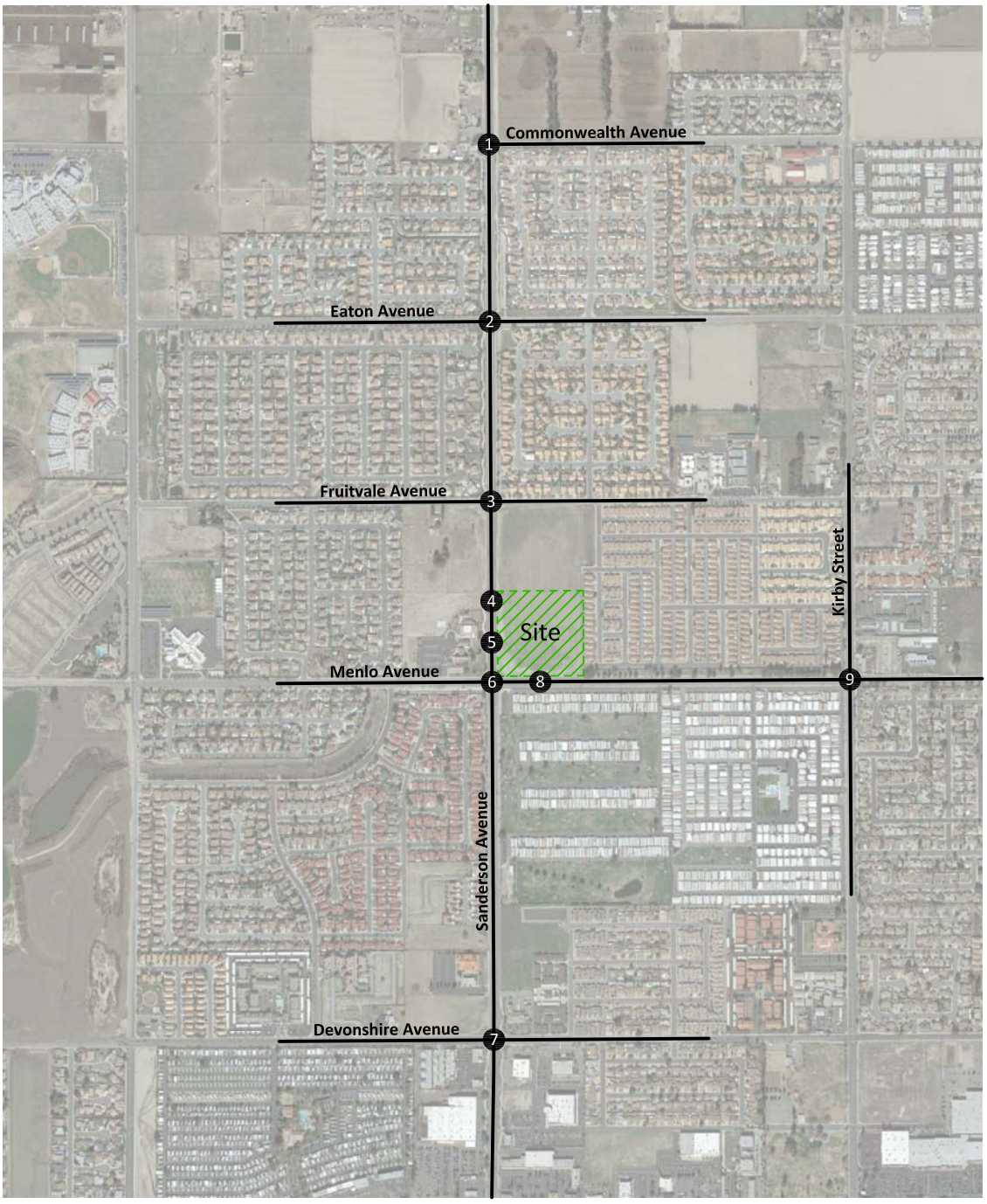
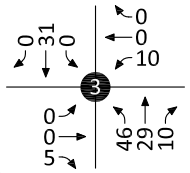
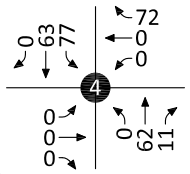
Figure 18
Opening Year Phase I (2017) Project
Evening Peak Hour Intersection Turning Movement Volumes



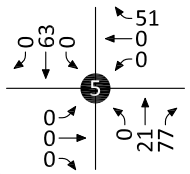
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



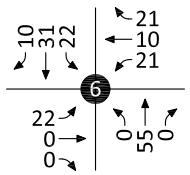
Sanderson Avenue (NS)/ Project North Driveway (EW)



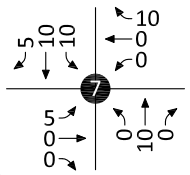
Sanderson Avenue (NS)/ Project South Driveway (EW)



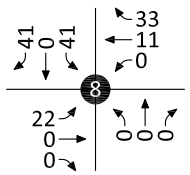
Sanderson Avenue (NS)/ Menlo Avenue (EW)



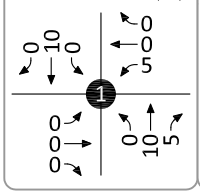
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



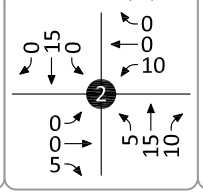
Project East Driveway (NS)/ Menlo Avenue (EW)



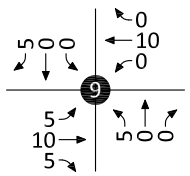
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

Figure 19
Opening Year Phase II (2020) Project Average Daily Traffic Volumes

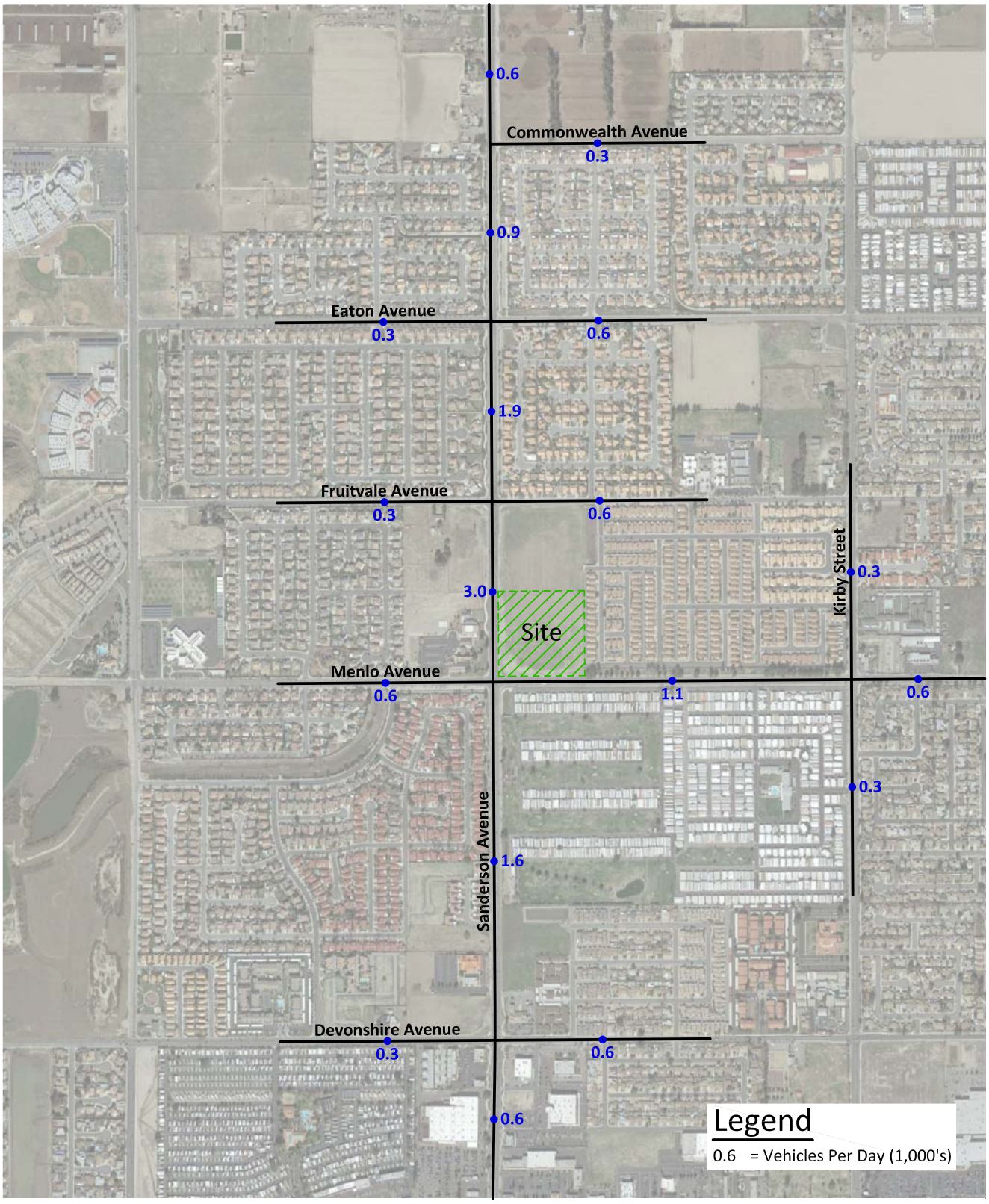
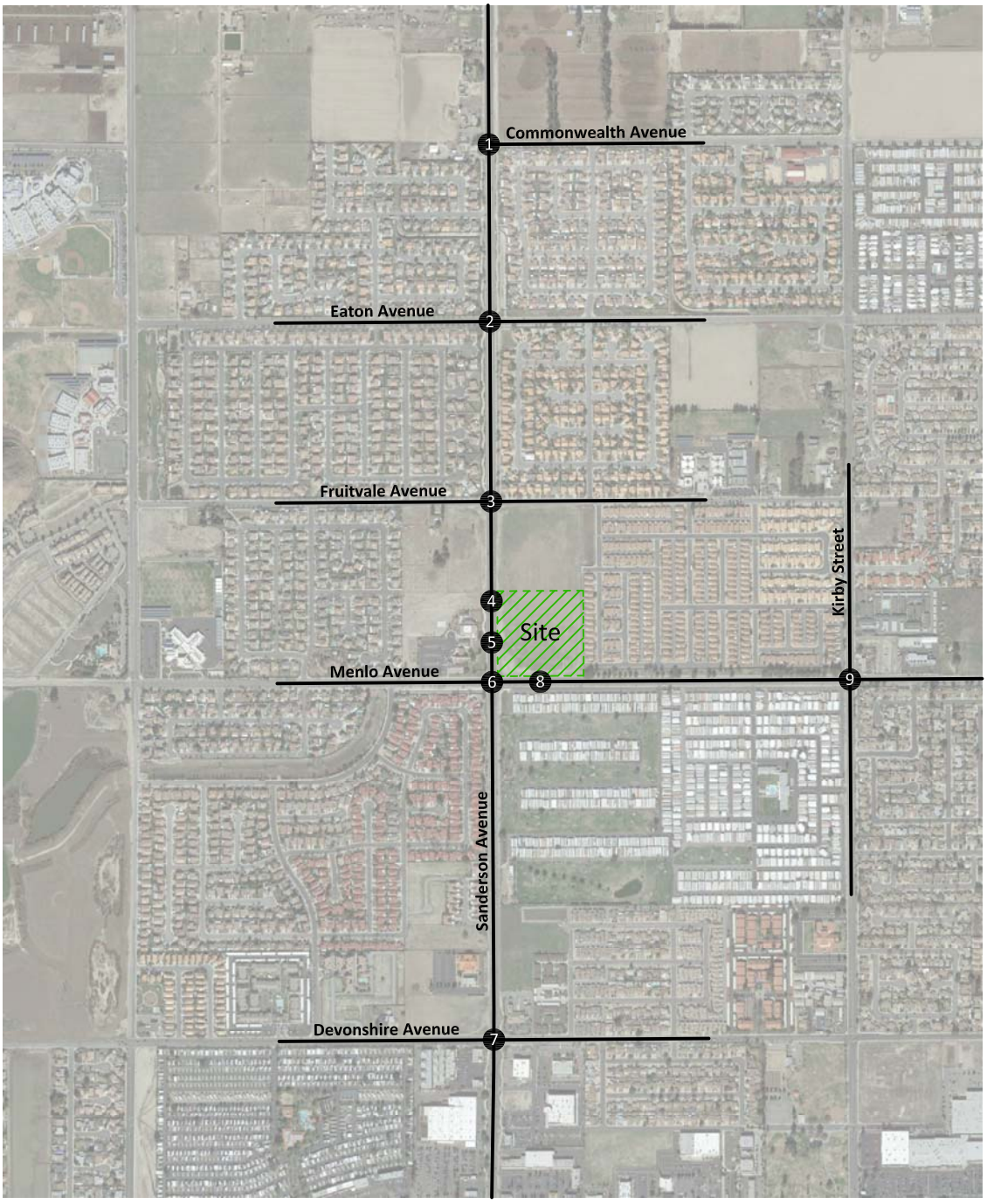
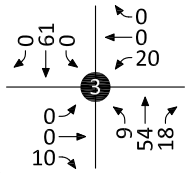


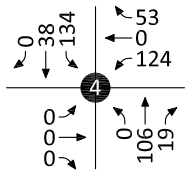
Figure 20
Opening Year Phase II (2020) Project
Morning Peak Hour Intersection Turning Movement Volumes



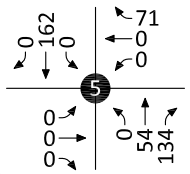
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



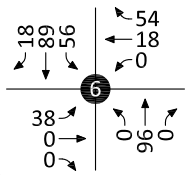
Sanderson Avenue (NS)/ Project North Driveway (EW)



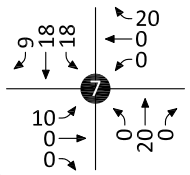
Sanderson Avenue (NS)/ Project South Driveway (EW)



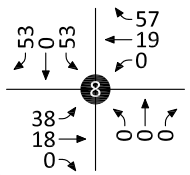
Sanderson Avenue (NS)/ Menlo Avenue (EW)



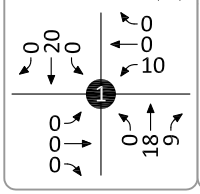
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



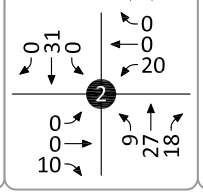
Project East Driveway (NS)/ Menlo Avenue (EW)



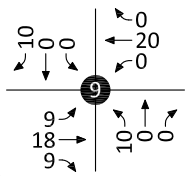
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



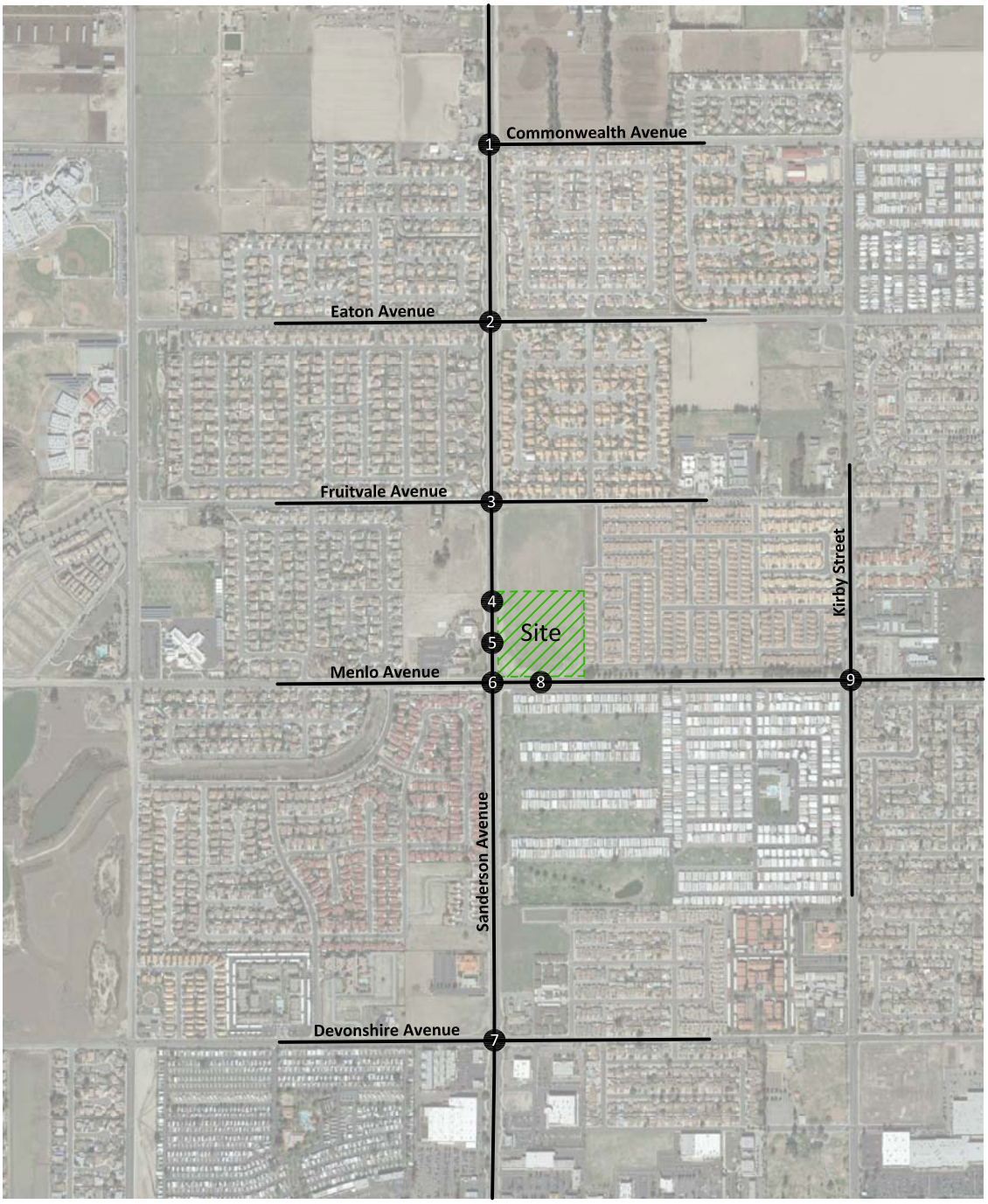
Kirby Street (NS)/ Menlo Avenue (EW)



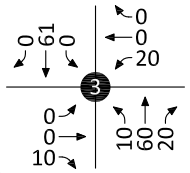
Legend

1 = Intersection Reference Number

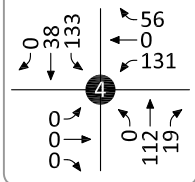
Figure 21
Opening Year Phase II (2020) Project
Evening Peak Hour Intersection Turning Movement Volumes



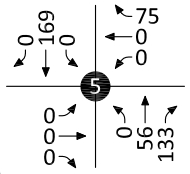
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



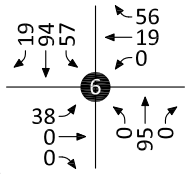
Sanderson Avenue (NS)/ Project North Driveway (EW)



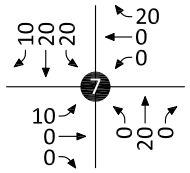
Sanderson Avenue (NS)/ Project South Driveway (EW)



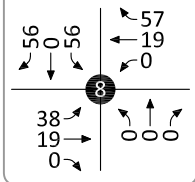
Sanderson Avenue (NS)/ Menlo Avenue (EW)



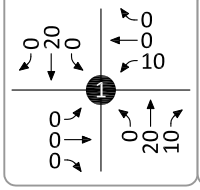
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



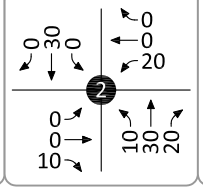
Project East Driveway (NS)/ Menlo Avenue (EW)



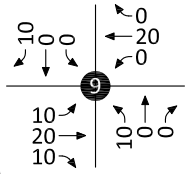
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

V. FUTURE CONDITIONS

A. Future Areawide Development

1. Method of Projection

To assess future traffic conditions, project traffic is combined with existing traffic, ambient growth, and other development. The opening year for analysis purposes in this report is 2017 for Phase I and 2020 for Phase II.

2. Ambient Growth

To account for ambient growth on roadways, Opening Year traffic volumes have been calculated based on a 2.0 percent annual growth rate of existing traffic volumes over a one year period for Phase I and over a four year period for Phase II. The 2.0 percent rate was recommended by the City of Hemet and is a conservative estimate.

3. Other Development

Table 3 lists the proposed land uses for the nearby development for Opening Year traffic conditions provided by City Hemet staff. Table 3 shows the daily and peak hour vehicle trips generated by the surrounding approved development in the study area. Figure 22 shows the average daily traffic volumes that can be expected for the other development traffic conditions. Other development morning and evening peak hour intersection turning movement volumes are shown on Figures 23 and 24, respectively.

B. Future Average Daily Traffic

1. Existing Plus Project

For Existing Plus Project traffic conditions, existing traffic is combined with project traffic. Figure 25 shows the average daily traffic volumes that can be expected for Existing Plus Project traffic conditions.

2. Opening Year Phase I (2017) Without Project

For Opening Year Phase I (2017) Without Project traffic conditions, existing traffic is combined with ambient growth. Figure 26 shows the average daily traffic volumes that can be expected for Opening Year Phase I (2017) Without Project traffic conditions.

3. Opening Year Phase I (2017) With Project

For Opening Year Phase I (2017) With Project traffic conditions, existing traffic is combined with ambient growth and project traffic. Figure 27 shows the average daily

traffic volumes that can be expected for Opening Year Phase I (2017) With Project traffic conditions.

4. Opening Year Phase II (2020) Without Project

For Opening Year Phase II (2020) Without Project traffic conditions, existing traffic is combined with ambient growth, project traffic, and traffic from other development. Figure 28 shows the average daily traffic volumes that can be expected for Opening Year Phase II (2020) Without Project traffic conditions.

5. Opening Year Phase II (2020) With Project

For Opening Year Phase II (2020) With Project traffic conditions, existing traffic is combined with ambient growth, project traffic, and traffic from other development. Figure 29 shows the average daily traffic volumes that can be expected for Opening Year Phase II (2020) 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 4. Table 4 shows delay values based on the geometrics at the study area intersections. 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 30 and 31, respectively.

As shown in Table 4, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Existing Plus Project traffic conditions, with the exception of the following intersections that are projected to operate at an unacceptable Levels of Service during the peak hours without improvements:

Sanderson Avenue (NS) at:
- Commonwealth Avenue (EW) - #1
- Project North Driveway (EW) - #4

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. Opening Year Phase I (2017) Without Project

The Opening Year Phase I (2017) Without Project delay and Level of Service for the study area roadway network without the proposed project are shown in Table 5. Table 5 shows delay values based on the geometrics at the study area intersections.

Opening Year Phase I (2017) Without Project delay calculation worksheets are provided in Appendix D. Opening Year Phase I (2017) Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 32 and 33, respectively.

As shown in Table 5, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) Without Project traffic conditions.

3. Opening Year Phase I (2017) With Project

The Opening Year Phase I (2017) With Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 6. Table 6 shows delay values based on the geometrics at the study area intersections. Opening Year Phase I (2017) With Project delay calculation worksheets are provided in Appendix D. Opening Year Phase I (2017) With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 34 and 35, respectively.

As shown in Table 6, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) With Project traffic conditions, with the exception of the following intersection that is projected to operate at an unacceptable Level of Service during the evening peak hour without improvements:

Sanderson Avenue (NS) at:
Commonwealth Avenue (EW) - #1

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase I (2017) With Project traffic conditions, with improvements.

4. Opening Year Phase II (2020) Without Project

The Opening Year Phase II (2020) Without Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 7. Table 7 shows delay values based on the geometrics at the study area intersections, without and with improvements. Opening Year Phase II (2020) Without Project delay calculation worksheets are provided in Appendix D. Opening Year Phase II (2020) Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 36 and 37, respectively.

As shown in Table 7, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) Without Project traffic conditions, with the exception of the following intersection that is projected to operate at an unacceptable Level of Service during the evening peak hour without improvements:

Sanderson Avenue (NS) at:
Commonwealth Avenue (EW) - #1

5. Opening Year Phase II (2020) With Project

The Opening Year Phase II (2020) With Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 8. Table 8 shows delay values based on the geometrics at the study area intersections, without and with improvements. Opening Year Phase II (2020) With Project delay calculation worksheets are provided in Appendix D. Opening Year Phase II (2020) With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 38 and 39, respectively.

As shown in Table 8, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) Without Project traffic conditions, with the exception of the following intersections that are projected to operate at unacceptable Levels of Service during the peak hours without improvements:

Sanderson Avenue (NS) at:
Commonwealth Avenue (EW) - #1
Project North Driveway (EW) - #4

Kirby Street (NS) at:
Menlo Avenue (EW) - #9

The study area intersections are projected to operate within acceptable Levels of Service during the peak hours for Opening Year Phase II (2020) With Project traffic conditions, with improvements.

D. Future Traffic Signal Warrant Analysis

A traffic signal is projected to be warranted at the following study area intersection for Existing Plus Project traffic conditions (see Appendix E):

Sanderson Avenue (NS) at:
Project North Driveway (EW) - #4 [Opening Year Phase II (2020)]

A traffic signal is projected to be warranted at the following additional study area intersection for Opening Year Phase II (2020) With Project traffic conditions (see Appendix E):

Sanderson Avenue (NS) at:
Commonwealth Avenue (EW) - #1

The unsignalized intersections have been evaluated for traffic signals using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the California Manual of Uniform Traffic Control Devices (2014 Edition).

Table 4

Other Development Trip Generation

TAZ	No.	Project	Land Use	Total Quantity	Projected Quantity Opening Year (2020)[3]	Units	Peak Hour						Daily
							Morning			Evening			
							Inbound	Outbound	Total	Inbound	Outbound	Total	
1	H13	Stoney Mountain Ranch (TTM 29129)	Single-Family Detached Residential	92	50	DU	10	28	38	32	19	51	476
	H11	TTM 29581 (Covenant)	Single-Family Detached Residential	71	50	DU	10	28	38	32	19	51	476
	SJ4	TR30597	Single-Family Detached Residential	116	50	DU	10	28	38	32	19	51	476
			Subtotal				30	84	114	96	57	153	1,428
2	SJ28	TR33420A1	Single-Family Detached Residential	161	50	DU	10	28	38	32	19	51	476
	SJ32	PM35626	Shopping Center	195.740	19.574	TSF	15	9	24	45	49	94	1,051
			Apartments	150	50	DU	5	21	26	20	11	31	333
			Subtotal				30	58	88	97	79	176	1,860
3	H7	Tres Cerritos West (VTTM 31513)	Single-Family Detached Residential	178	50	DU	10	28	38	32	19	51	476
	H8	Montero (VTTM 31146)	Single-Family Detached Residential	16	16	DU	3	9	12	10	6	16	152
			Subtotal				13	37	50	42	25	67	628
4	H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Adult Detached Residential	449	50	DU	4	7	11	8	6	14	184
5	H16	Tres Cerritos East (SPA 06-1)	Single-Family Detached Residential	775	50	DU	10	28	38	32	19	51	476
6	H2	Florida Promenade Residential	Senior Adult Attached Residential	440	50	DU	4	7	11	7	6	13	172
			Single-Family Detached Residential	145	50	DU	10	28	38	32	19	51	476
			Subtotal				14	35	49	39	25	64	648
7	H1	Florida Promenade (SP 06-04)	Commercial	100.000	10.000	TSF	8	5	13	23	25	48	533
8	H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108.000	10.800	TSF	10	6	16	30	33	63	714
9	H31	Cawston Plaza (CUP 07-26)	Commercial	21.000	10.000	TSF	8	4	12	12	15	27	443
	H34	Hemet 63 (ZC 05-04)	Commercial	260.000	26.000	TSF	17	11	28	55	59	114	1,264
			Subtotal				25	15	40	67	74	141	1,707
10	H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single-Family Detached Residential	73	50	DU	10	28	38	32	19	51	476
	H15	CUP 05-02 (Terra West)	Senior Adult Attached Residential	240	50	DU	4	7	11	7	6	13	172
							14	35	49	39	25	64	648
11	H35	JAKS LLC (ZC 04-13)	Commercial	170.000	17.000	TSF	13	8	21	41	45	86	959
	H36	Sanderson Square	Commercial	243.000	24.300	TSF	17	10	27	52	57	109	1,209
			Office/Industrial	186.700	50.000	TSF	60	11	71	16	47	63	622
			Subtotal				90	29	119	109	149	258	2,790
12	H21	Stetson Crossing (SP 07-4)	Commercial	189.000	18.900	TSF	14	9	23	44	48	92	1,027
13	H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	76.000	10.000	TSF	19	5	24	10	26	36	361
14	H10	The Boardwalk (CUP 06-4)	Commercial	74.000	10.000	TSF	7	5	12	22	24	46	513
15	H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	50	DU	5	21	26	20	11	31	333
16	H20	St. Deminia Center (CUP 07-16)	Commercial	33.480	10.000	TSF	8	4	12	12	15	27	443
	H32	Scripps West (CUP 08-14)	Commercial	5.300	5.300	TSF	4	2	6	6	8	14	235
			Subtotal				12	6	18	18	23	41	678
17	H37	Ramona Creek (SP12-001)	Residential	954	-	DU	95	395	491	321	160	481	5,030
			Elementary School (K-6)	750	-	STU	158	129	287	45	51	96	822
			General Office	113.256	-	TSF	181	20	202	24	153	177	1,162
			Junior/Community College	166.000	-	TSF	349	123	472	232	169	401	4,335
			Shopping Center	113.256	-	TSF	198	118	317	406	427	833	13,605
			Passive Park	25.9	-	AC	3	3	5	2	2	4	41
			Community Park	11.2	-	AC	36	36	73	25	25	50	560
			Opening Year Subtotal (10%)				102	82	184	106	99	205	2,556
Total (Opening Year)							407	467	874	802	748	1,550	17,084

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, Land Use Codes: 210, 220,251, 252 ,720,770, 820, and 826. The trip generation rates for Specialty Retail AM peak hour were obtained from San Diego Association of Governments (SANDAG), Traffic Generators, April 2002.

[2] DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acres; STU = Students

[3] The trip generation for each development has been scaled to represent the percent completion likely by 2020. For residential projects, 10% of the development or a minimum of 50 dwelling units was assumed to be complete. For commercial development, 10% of the development or a minimum of 10,000 square feet was assumed to be complete. For industrial development, 10% of the development or a minimum of 50,000 square feet was assumed to be complete.

Table 5

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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1																
- Without Improvements	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	24.3-C	36.4-E
- With Improvements	Hemet	**TS**	0	2	d	1	2	0	0	0	0	0.5	0	0.5	4.9-A	4.7-A
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	18.2-B	11.0-B
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	17.4-B	10.8-B
Project North Driveway (EW) - #4																
- Without Improvements	Hemet	**CSS**	0	1.5	**0.5**	**1**	2	0	0	0	0	**0.5**	0	**0.5**	99.9-F[4]	99.9-F[4]
- With Improvements	Hemet	**TS**	0	1.5	**0.5**	**1**	2	0	0	0	0	**0.5**	0	**0.5**	10.5-B	10.6-B
Project South Driveway (EW) - #5	Hemet	**CSS**	1	1.5	**0.5**	0	2	0	0	0	0	0	0	**1**	14.8-B	15.0-B
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	22.7-C	19.0-C
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	20.0-B	27.1-C
Project East Driveway (NS) at:																
Menlo Avenue (EW) - #8	Hemet	**CSS**	0	0	0	**0.5**	0	**0.5**	**1**	1	0	0	1	d	13.1-B	12.5-B
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	22.3-C	19.6-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 traffic signal or a 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 show

[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 6

Opening Year Phase I (2017) 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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	21.0-C	32.3-D
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	18.2-B	9.6-A
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	15.8-B	8.6-A
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	19.8-B	17.2-B
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	20.5-C	28.9-C
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	22.1-C	19.9-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 outsic the through lanes.

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

[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 o 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 shc

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

Table 7

Opening Year Phase I (2017) 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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1																
- Without Improvements	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	24.5-C	43.8-E
- With Improvements	Hemet	**TS**	0	2	d	1	2	0	0	0	0	0.5	0	0.5	4.8-A	4.6-A
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	18.7-B	10.8-B
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	16.9-B	11.0-B
Project North Driveway (EW) - #4	Hemet	**CSS**	0	1.5	**0.5**	**1**	2	0	0	0	0	0	0	**1**	15.0-B	14.8-B
Project South Driveway (EW) - #5	Hemet	**CSS**	1	1.5	**0.5**	0	2	0	0	0	0	0	0	**1**	14.5-B	14.5-B
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	22.8-C	19.1-B
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	21.0-C	29.4-C
Project East Driveway (NS) at:																
Menlo Avenue (EW) - #8	Hemet	**CSS**	0	0	0	**0.5**	0	**0.5**	**1**	1	0	0	1	d	12.8-B	11.8-B
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	24.7-C	21.3-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

Table 8

Opening Year Phase II (2020) 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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	25.0-D	42.0-E
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	19.6-B	10.3-B
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	16.7-B	9.5-A
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	21.6-C	18.8-B
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	22.8-C	34.6-C
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	30.3-D	26.5-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 outsid the through lanes.

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

[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 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 sho

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

Table 9

Opening Year Phase II (2020) 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
Sanderson Avenue (NS) at:																
Commonwealth Avenue (EW) - #1																
- Without Improvements	Hemet	CSS	0	2	d	1	2	0	0	0	0	0.5	0	0.5	33.9-D	71.5-F
- With Improvements	Hemet	**TS**	0	2	d	1	2	0	0	0	0	0.5	0	0.5	5.1-A	5.1-A
Eaton Avenue (EW) - #2	Hemet	TS	1	2	d	1	2	d	1	1	1	1	1	1	20.4-C	12.1-B
Fruitvale Avenue (EW) - #3	Hemet	TS	1	2	1	1	2	1	1	0.5	0.5	1	0.5	0.5	20.1-C	12.8-B
Project North Driveway (EW) - #4																
- Without Improvements	Hemet	**CSS**	0	1.5	**0.5**	**1**	2	0	0	0	0	**0.5**	0	**0.5**	99.9-F[4]	99.9-F[4]
- With Improvements	Hemet	**TS**	0	1.5	**0.5**	**1**	2	0	0	0	0	**0.5**	0	**0.5**	10.9-B	11.7-B
Project South Driveway (EW) - #5	Hemet	**CSS**	1	1.5	**0.5**	0	2	0	0	0	0	0	0	**1**	16.5-C	17.8-C
Menlo Avenue (EW) - #6	Hemet	TS	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	27.8-C	22.4-C
Devonshire Avenue (EW) - #7	Hemet	TS	1	2	d	1	1.5	0.5	1	1	1	1	1.5	0.5	23.5-C	36.7-D
Project East Driveway (NS) at:																
Menlo Avenue (EW) - #8	Hemet	**CSS**	0	0	0	**0.5**	0	**0.5**	**1**	1	0	0	1	d	14.3-B	15.3-C
Kirby Street (NS) at:																
Menlo Avenue (EW) - #9																
- Without Improvements	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	0.5	d	42.6-E	33.2-D
- With Improvements	Hemet	AWS	0.5	1	0.5	0.5	1	0.5	0.5	0.5	d	0.5	**1**	**0.5**	28.5-D	24.1-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 al 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 showr

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

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

Figure 22
Other Development Average Daily Traffic Volumes

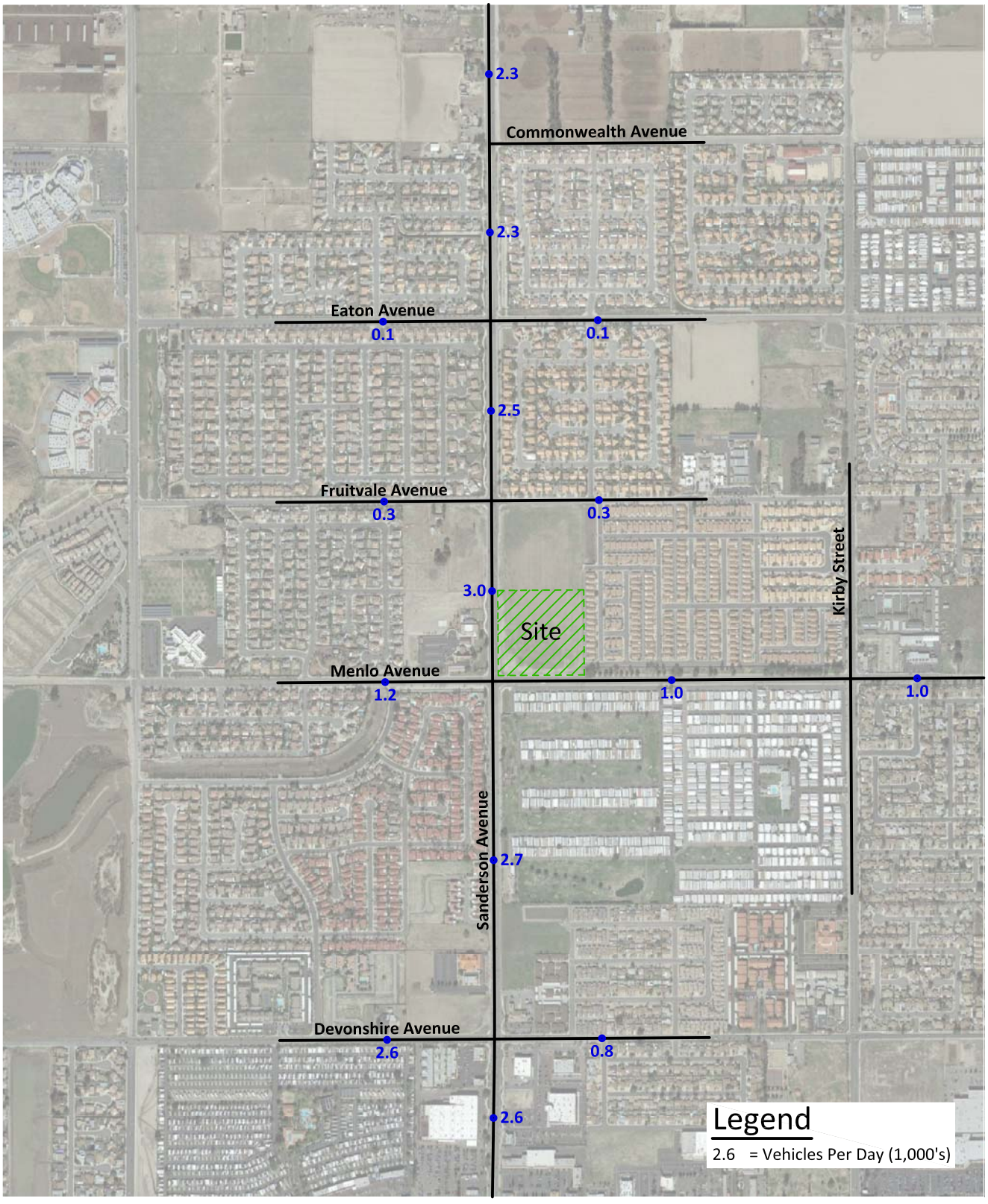
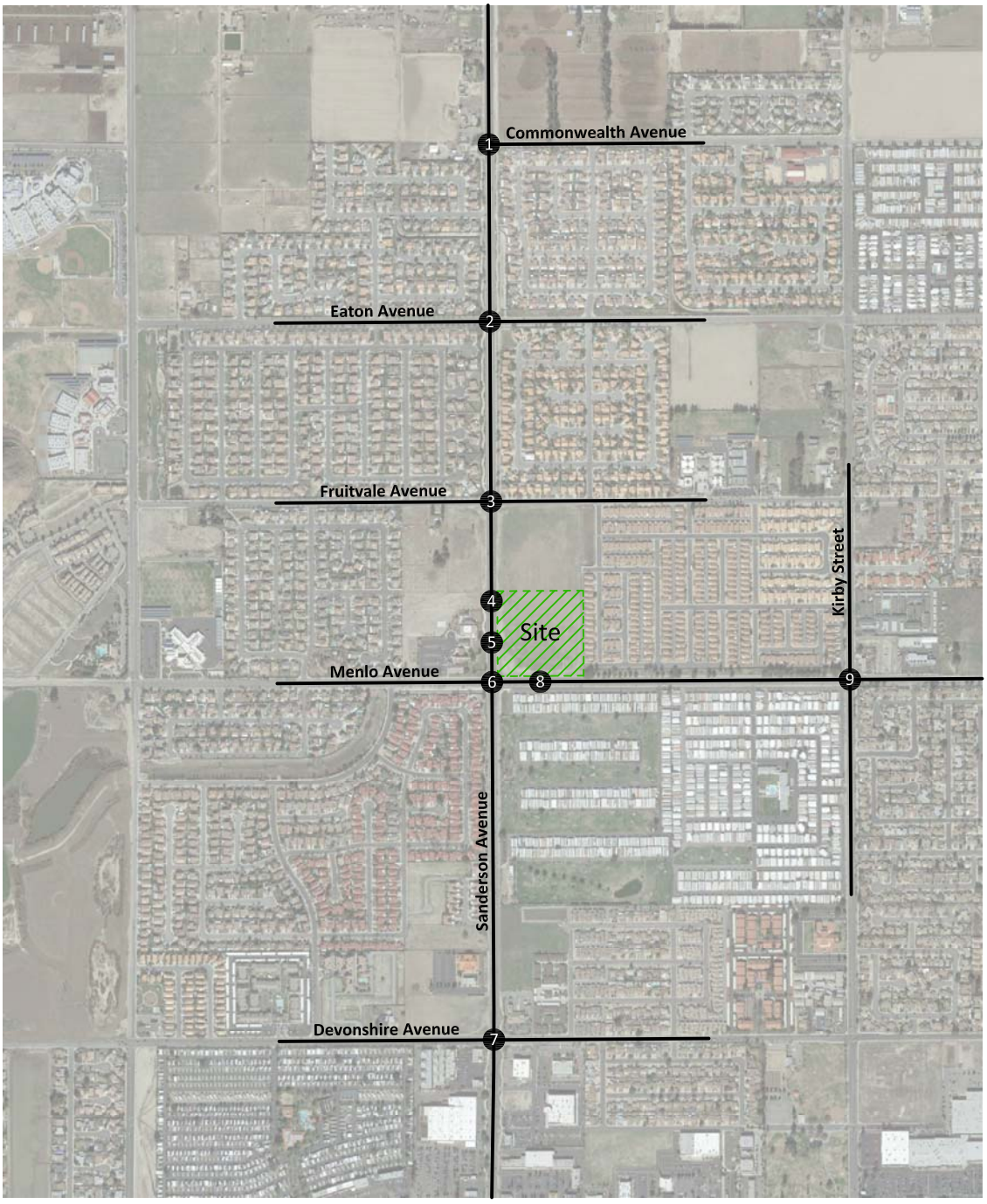
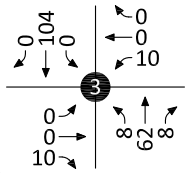


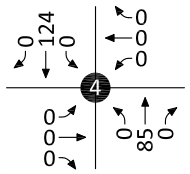
Figure 23
Other Development
Morning Peak Hour Intersection Turning Movement Volumes



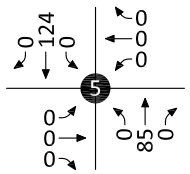
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



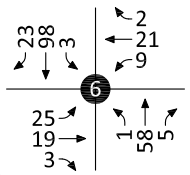
Sanderson Avenue (NS)/ Project North Driveway (EW)



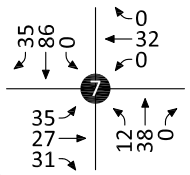
Sanderson Avenue (NS)/ Project South Driveway (EW)



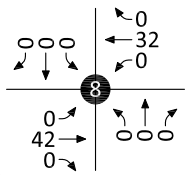
Sanderson Avenue (NS)/ Menlo Avenue (EW)



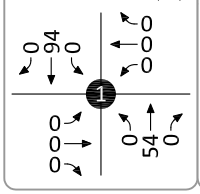
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



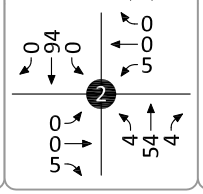
Project East Driveway (NS)/ Menlo Avenue (EW)



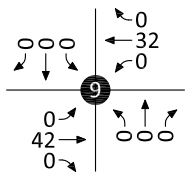
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

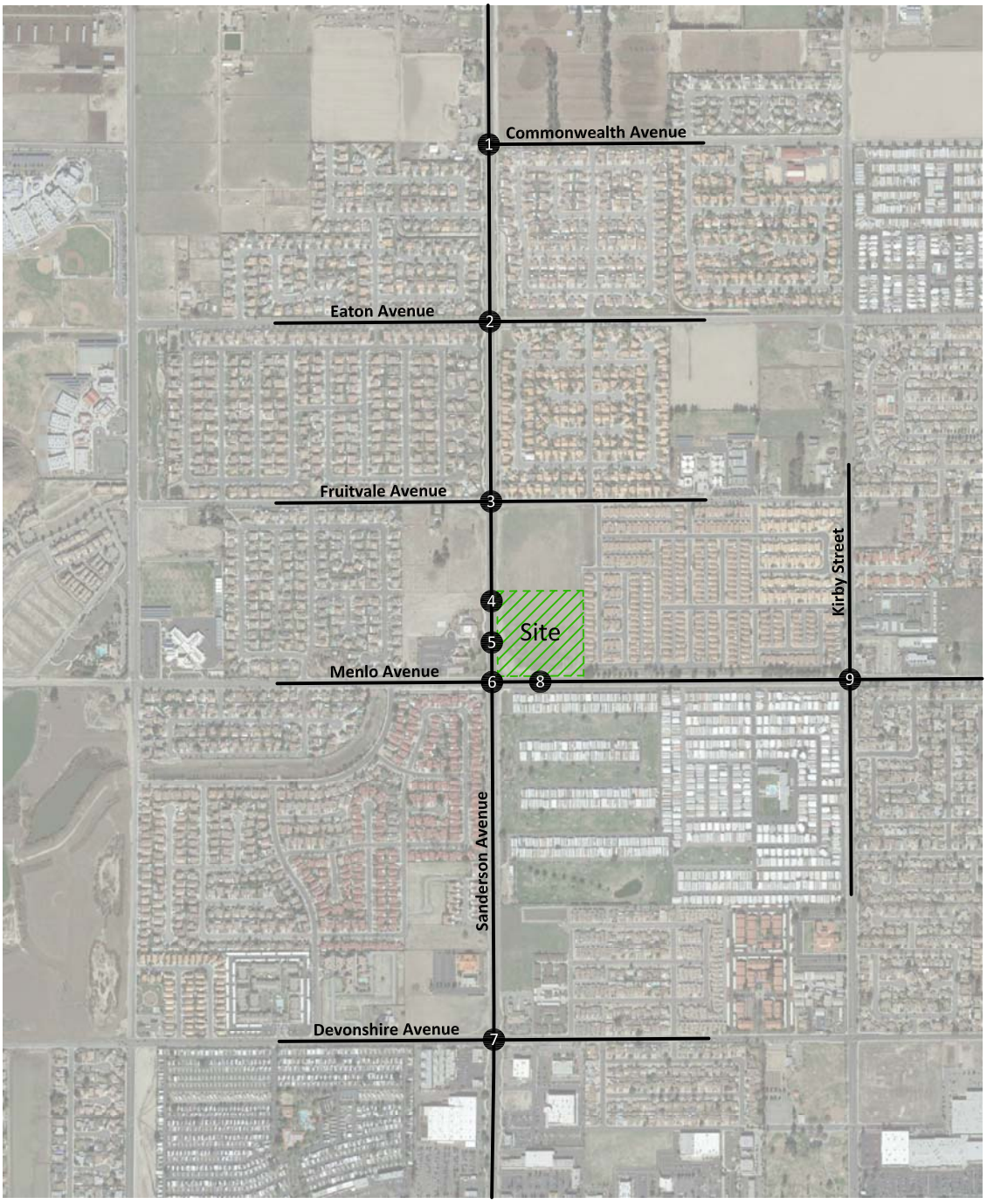
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

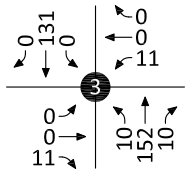
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

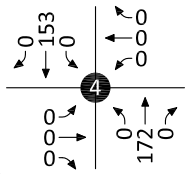
Figure 24
Other Development
Evening Peak Hour Intersection Turning Movement Volumes



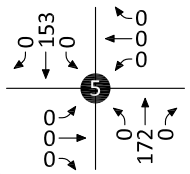
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



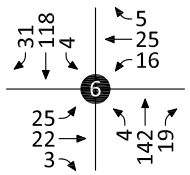
Sanderson Avenue (NS)/ Project North Driveway (EW)



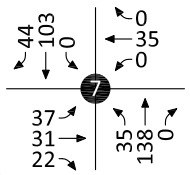
Sanderson Avenue (NS)/ Project South Driveway (EW)



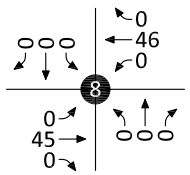
Sanderson Avenue (NS)/ Menlo Avenue (EW)



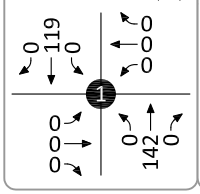
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



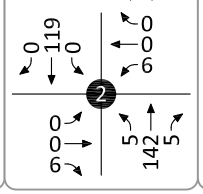
Project East Driveway (NS)/ Menlo Avenue (EW)



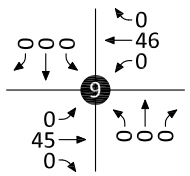
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

Figure 25
Existing Plus Project Average Daily Traffic Volumes

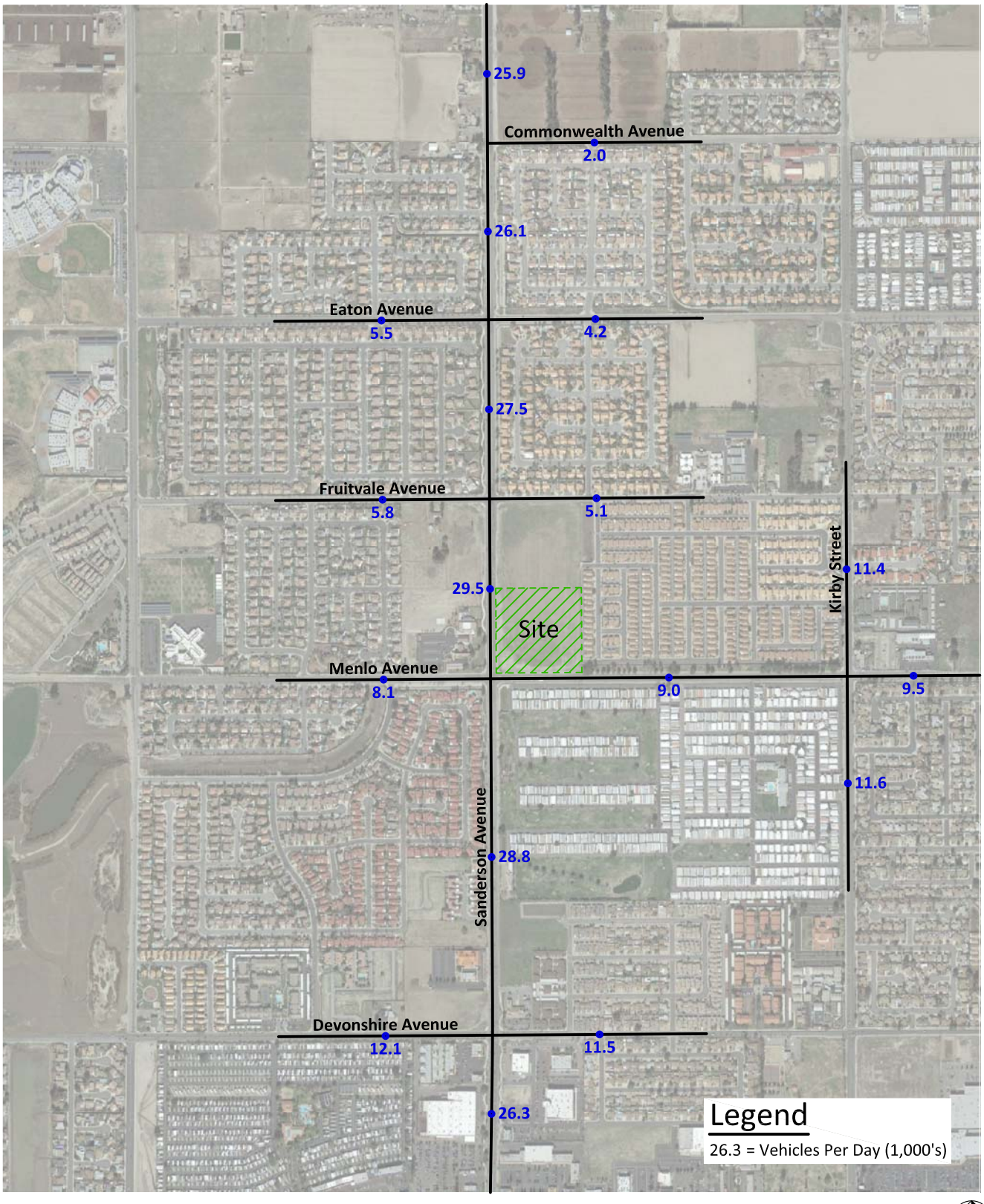


Figure 26
Opening Year Phase I (2017) Without Project Average Daily Traffic Volumes

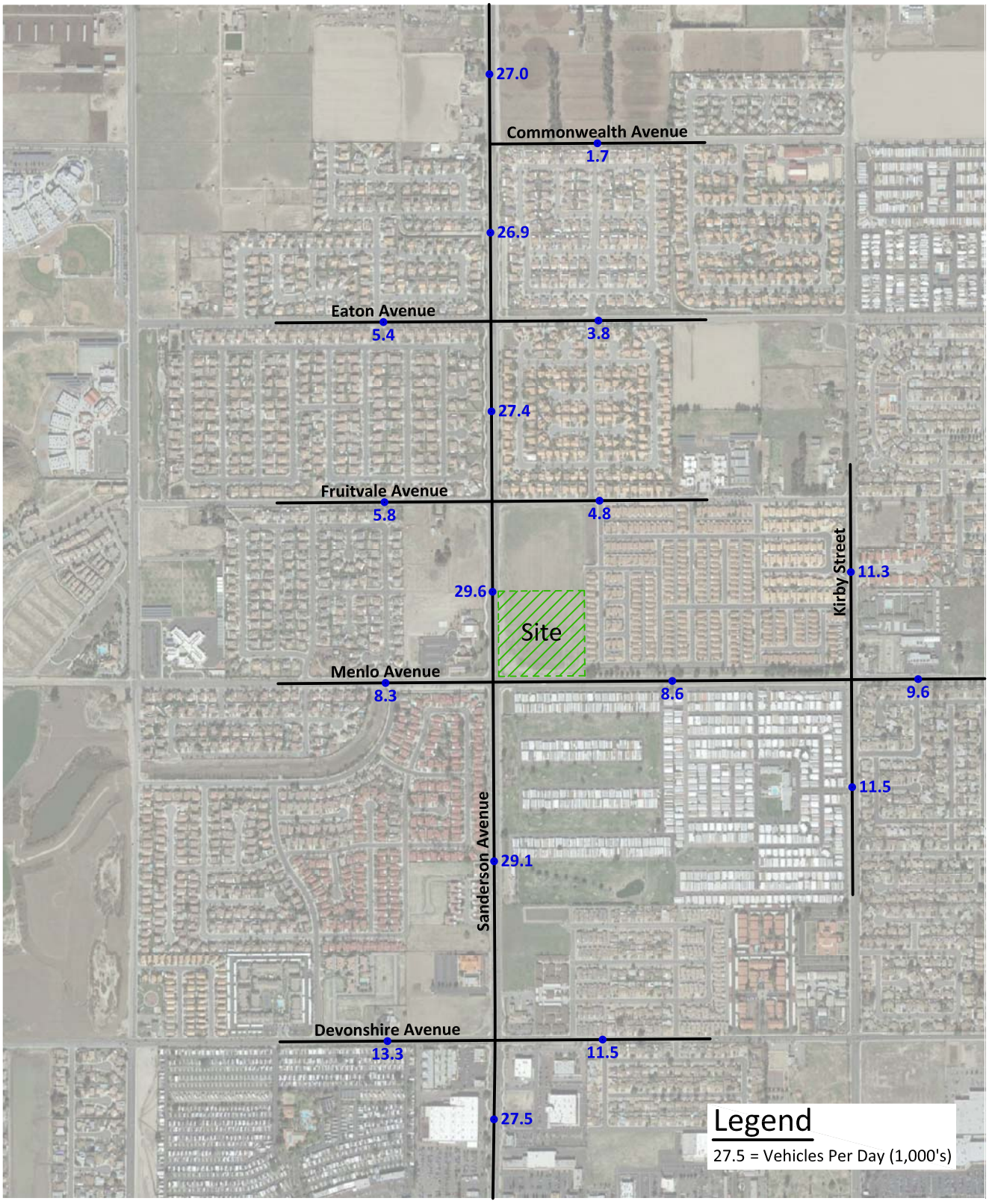


Figure 27
Opening Year Phase I (2017) With Project Average Daily Traffic Volumes

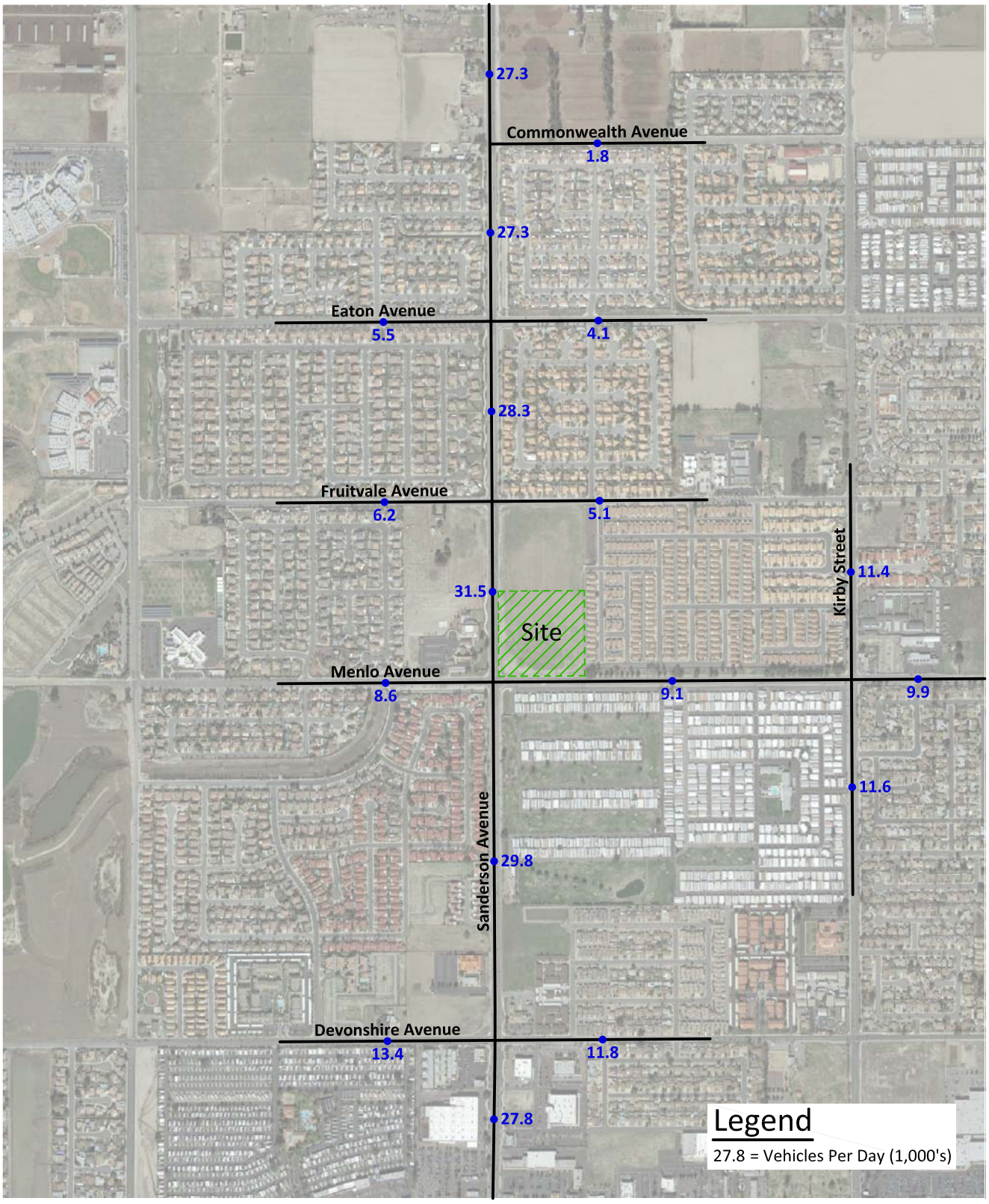


Figure 28
Opening Year Phase II (2020) Without Project Average Daily Traffic Volumes

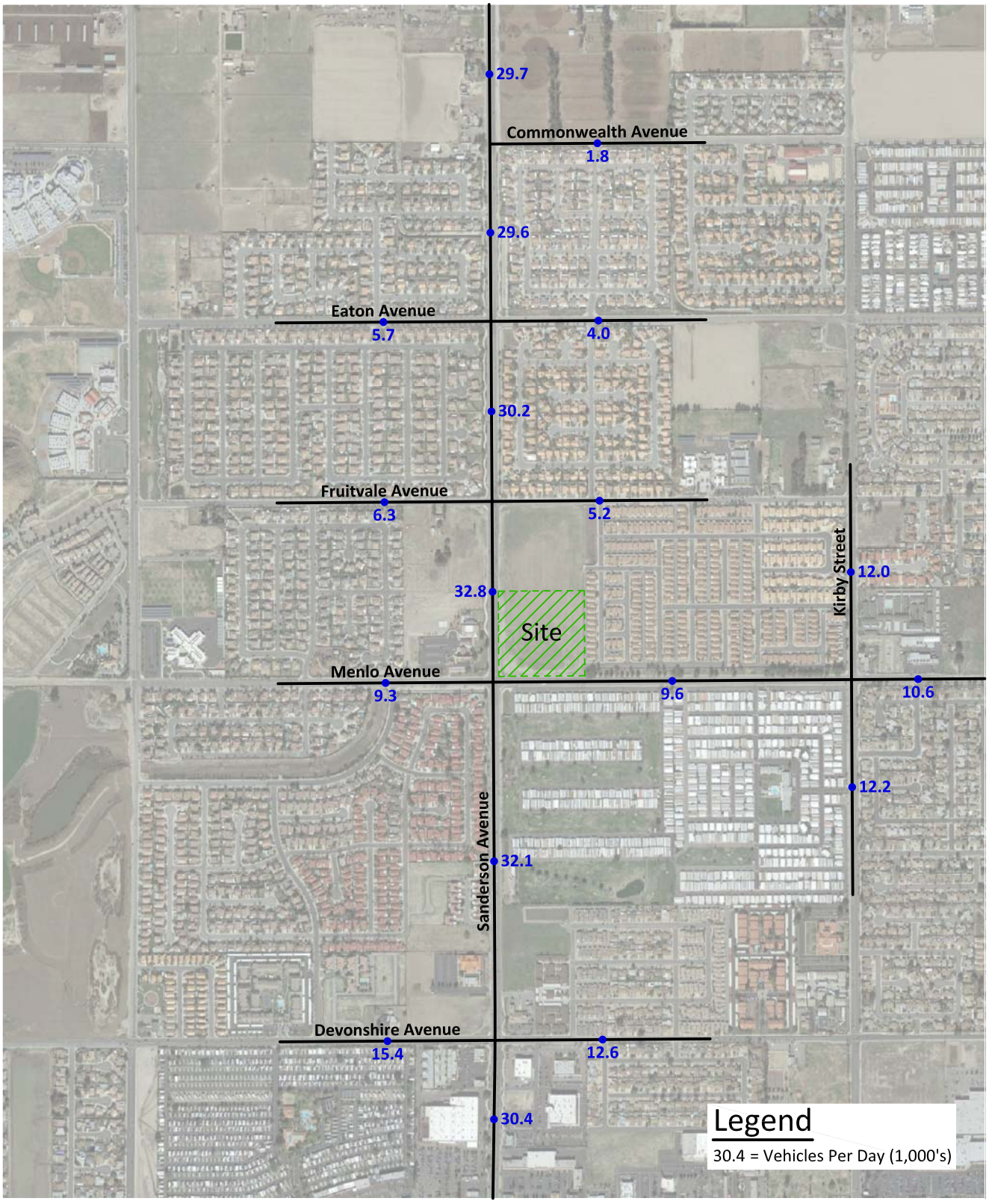


Figure 29
Opening Year Phase II (2020) With Project Average Daily Traffic Volumes

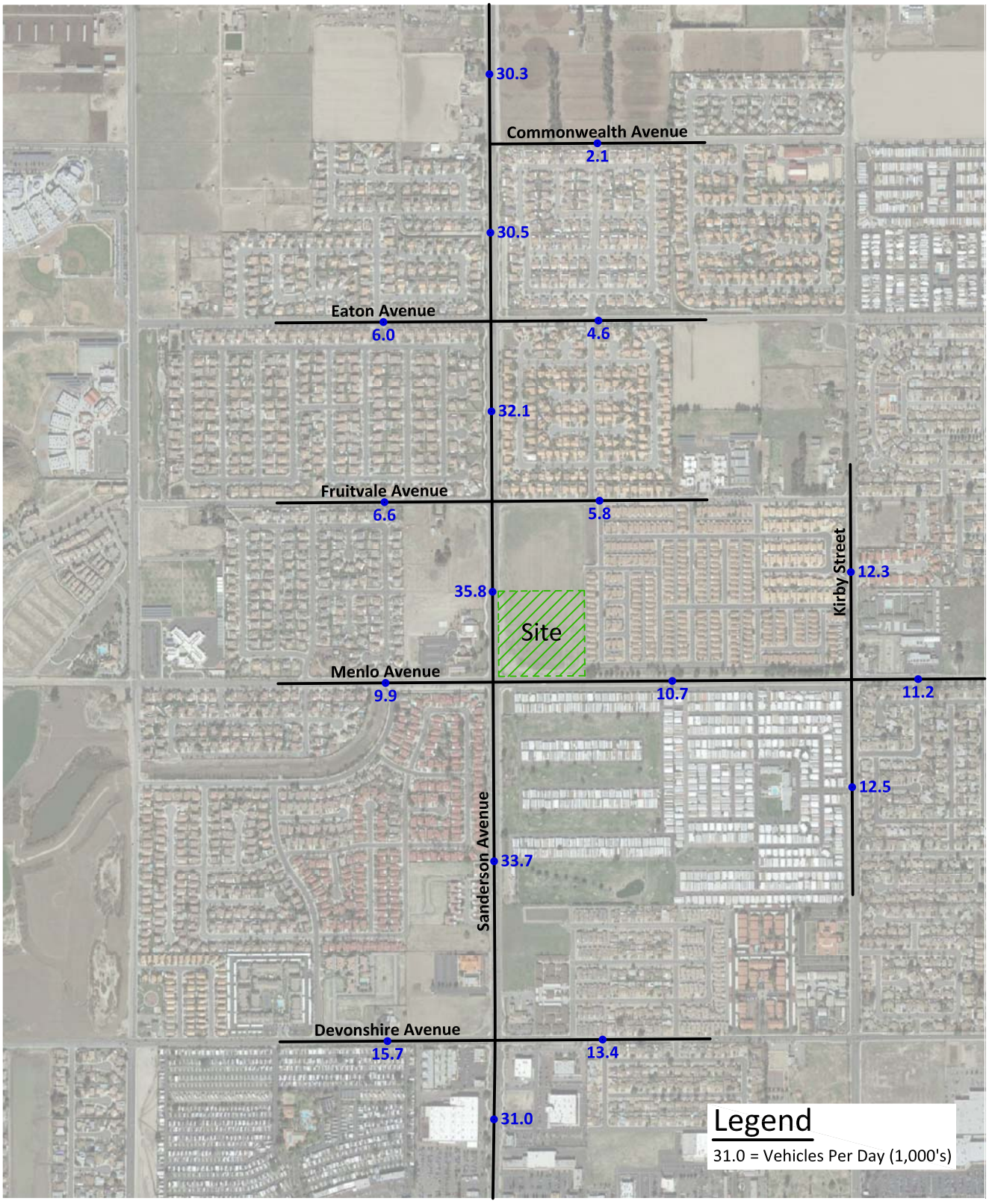
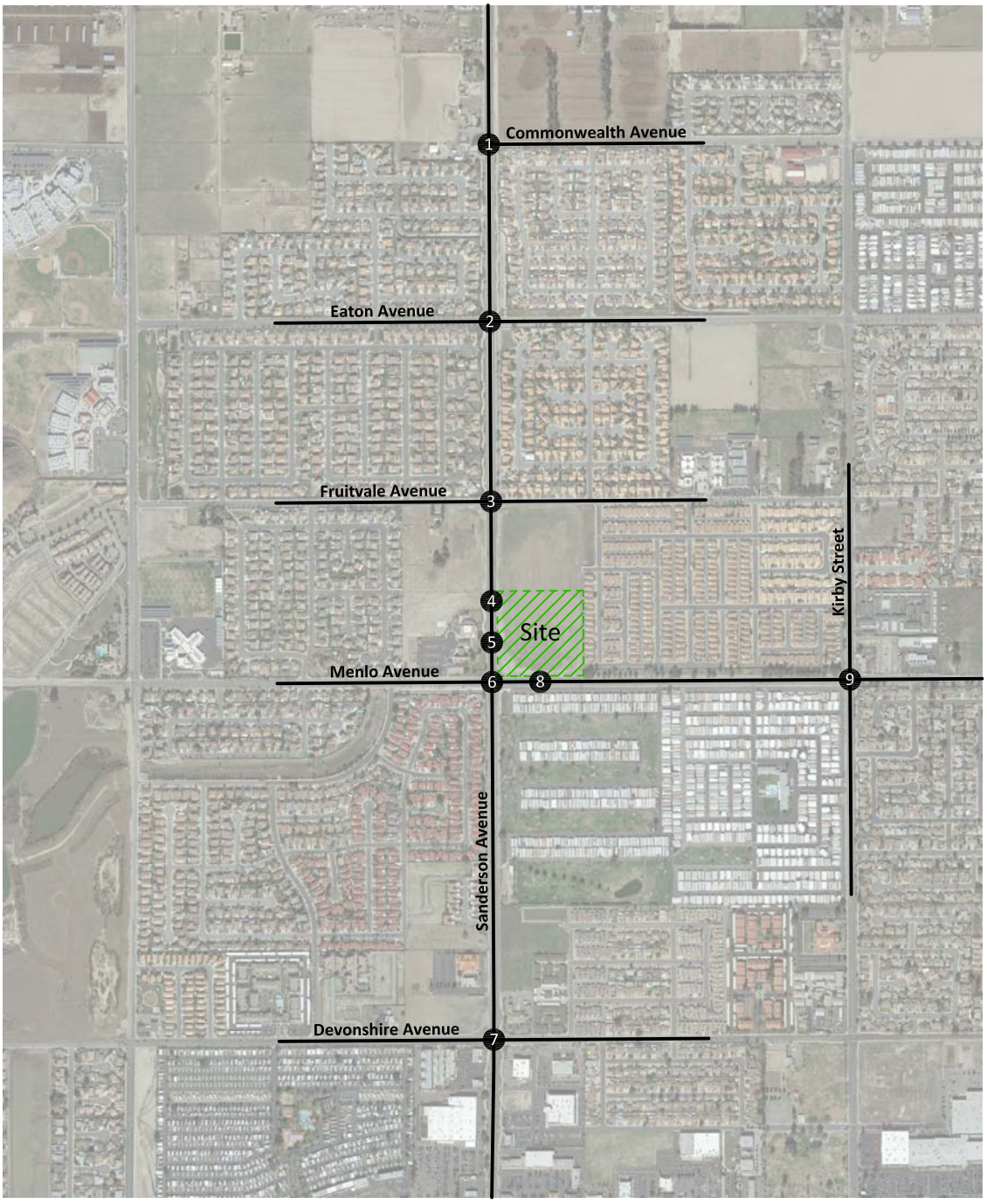
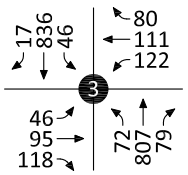


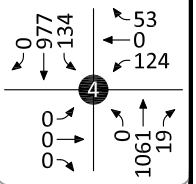
Figure 30
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes



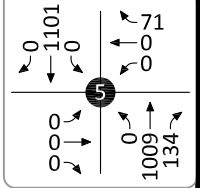
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



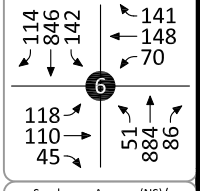
Sanderson Avenue (NS)/ Project North Driveway (EW)



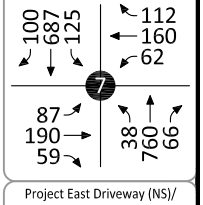
Sanderson Avenue (NS)/ Project South Driveway (EW)



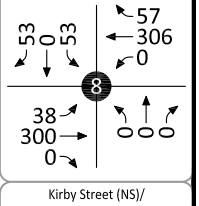
Sanderson Avenue (NS)/ Menlo Avenue (EW)



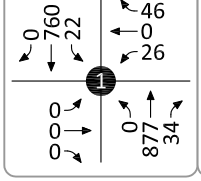
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



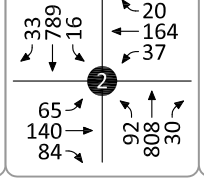
Project East Driveway (NS)/ Menlo Avenue (EW)



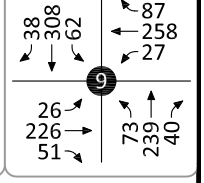
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



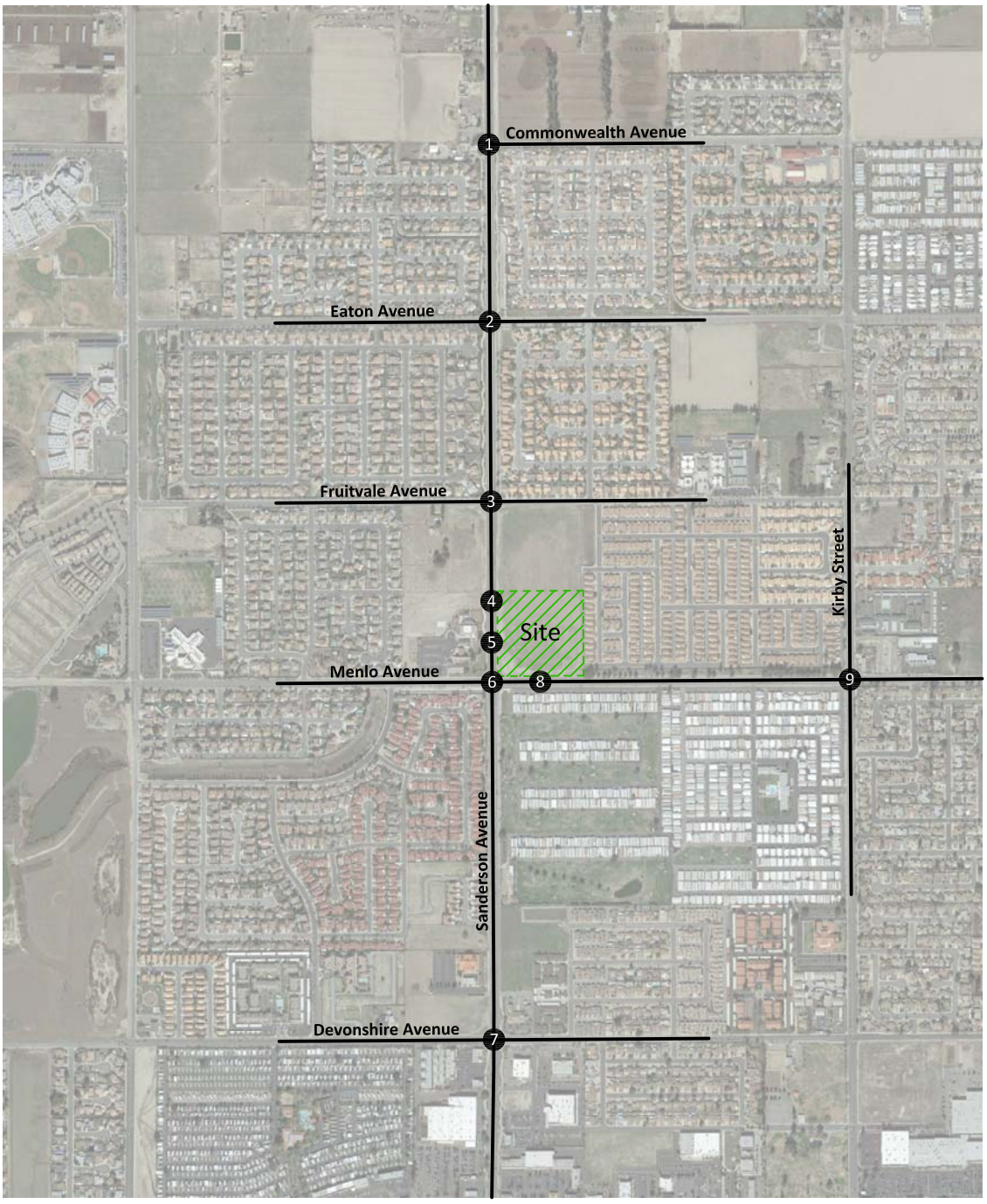
Kirby Street (NS)/ Menlo Avenue (EW)



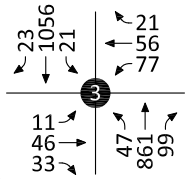
Legend

1 = Intersection Reference Number

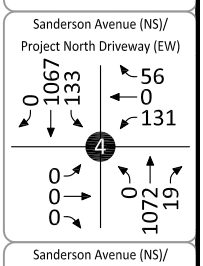
Figure 31
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes



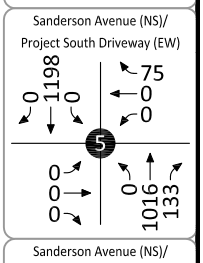
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



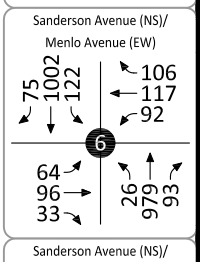
Sanderson Avenue (NS)/ Project North Driveway (EW)



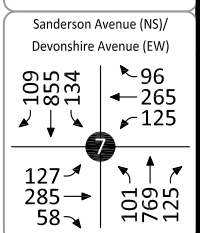
Sanderson Avenue (NS)/ Project South Driveway (EW)



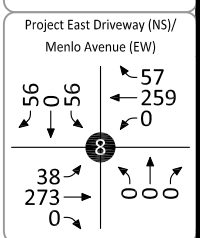
Sanderson Avenue (NS)/ Menlo Avenue (EW)



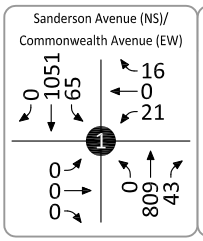
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



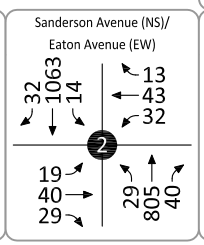
Project East Driveway (NS)/ Menlo Avenue (EW)



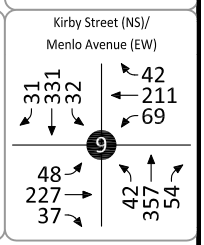
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

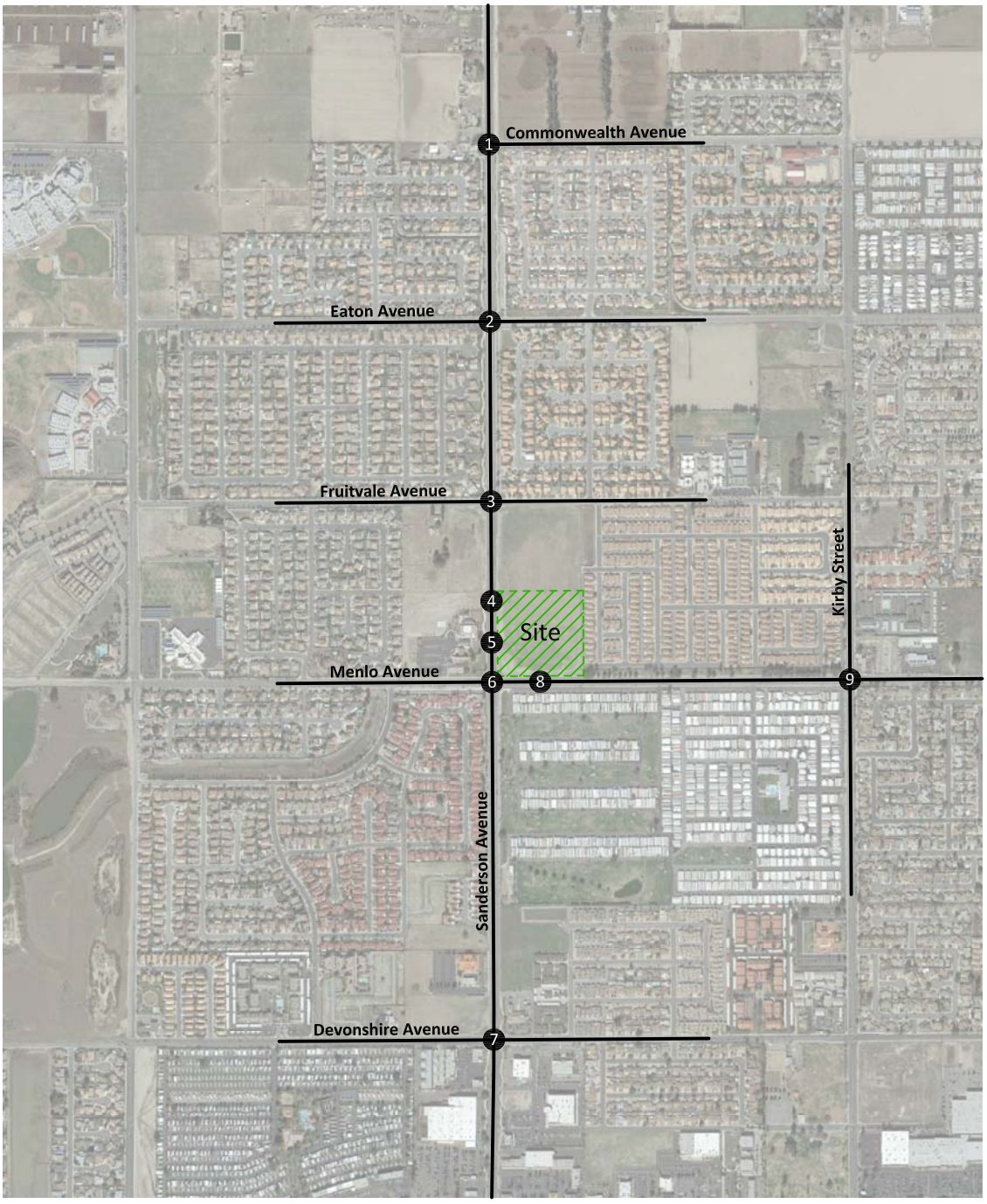
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

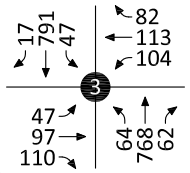
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

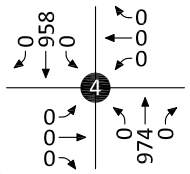
Figure 32
Opening Year Phase I (2017) Without Project
Morning Peak Hour Intersection Turning Movement Volumes



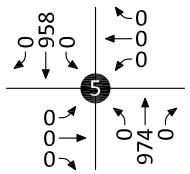
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



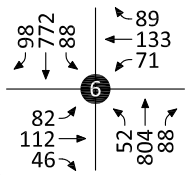
Sanderson Avenue (NS)/ Project North Driveway (EW)



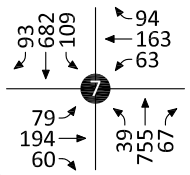
Sanderson Avenue (NS)/ Project South Driveway (EW)



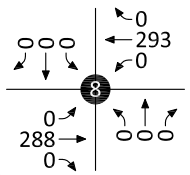
Sanderson Avenue (NS)/ Menlo Avenue (EW)



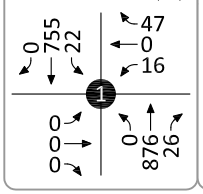
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



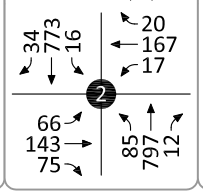
Project East Driveway (NS)/ Menlo Avenue (EW)



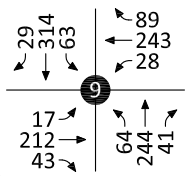
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

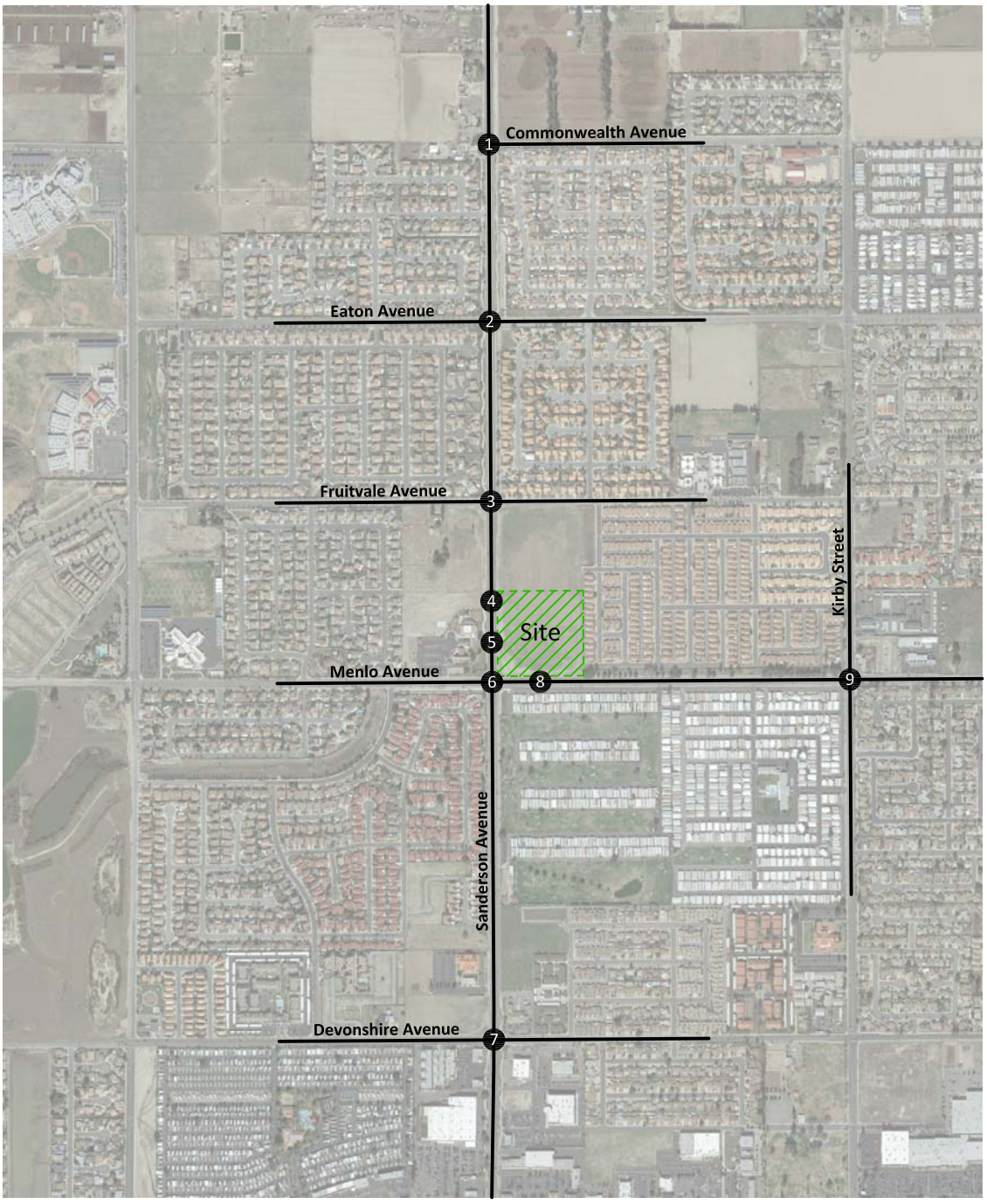
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

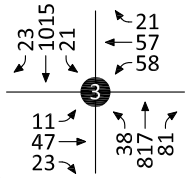
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

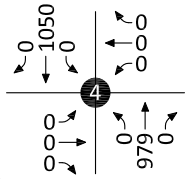
Figure 33
Opening Year Phase I (2017) Without Project
Evening Peak Hour Intersection Turning Movement Volumes



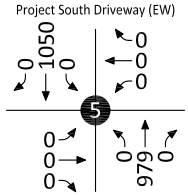
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



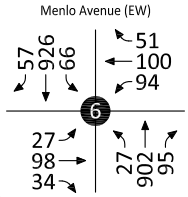
Sanderson Avenue (NS)/ Project North Driveway (EW)



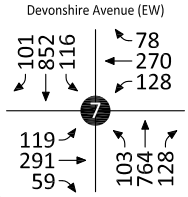
Sanderson Avenue (NS)/ Project South Driveway (EW)



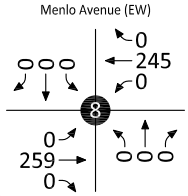
Sanderson Avenue (NS)/ Menlo Avenue (EW)



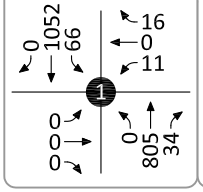
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



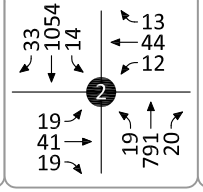
Project East Driveway (NS)/ Menlo Avenue (EW)



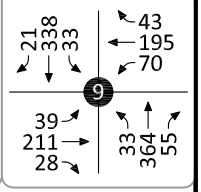
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



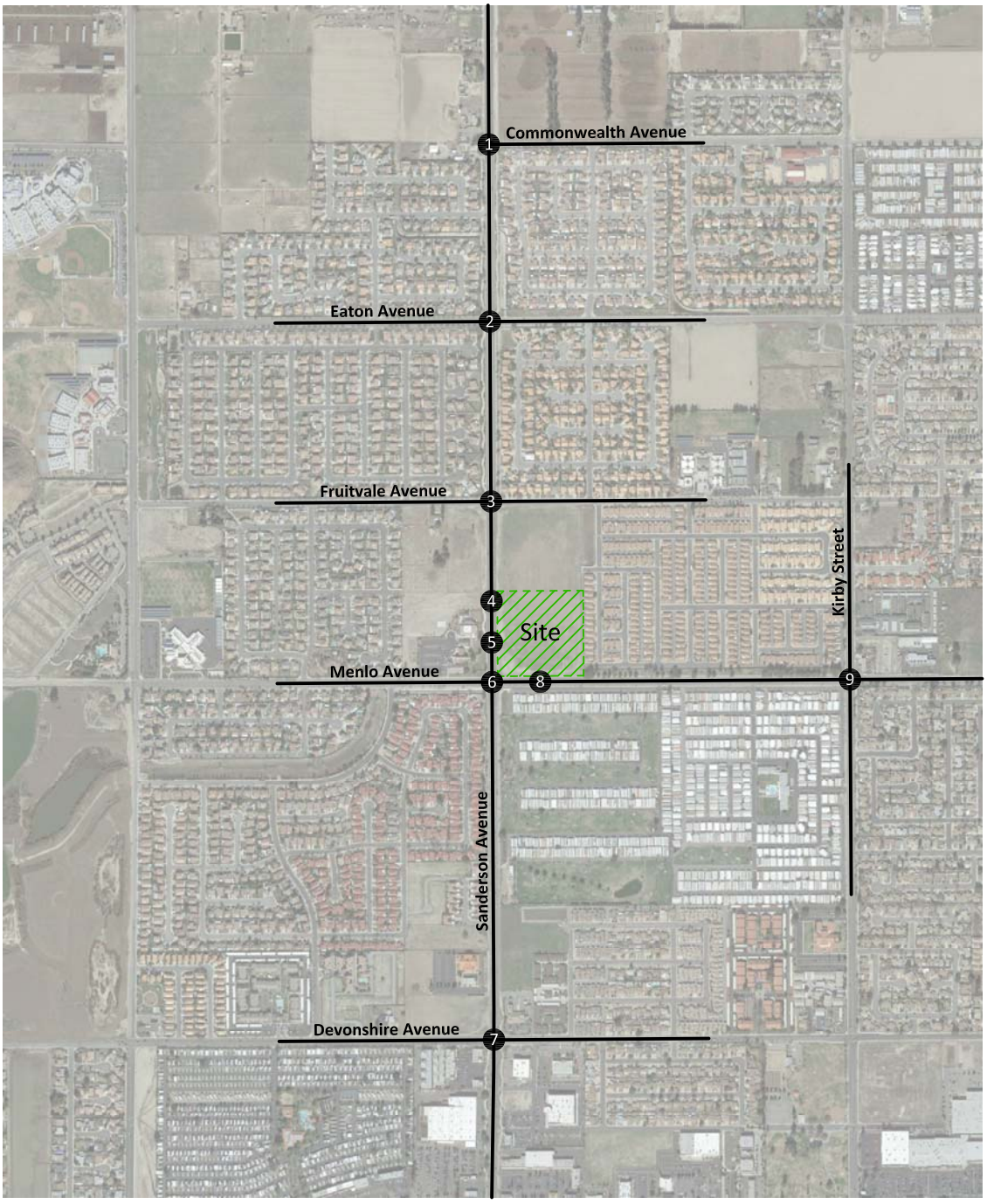
Kirby Street (NS)/ Menlo Avenue (EW)



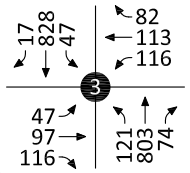
Legend

1 = Intersection Reference Number

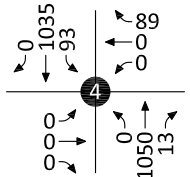
Figure 34
Opening Year Phase I (2017) With Project
Morning Peak Hour Intersection Turning Movement Volumes



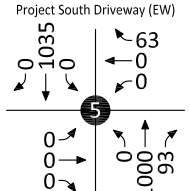
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



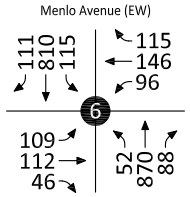
Sanderson Avenue (NS)/ Project North Driveway (EW)



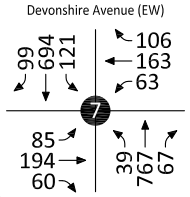
Sanderson Avenue (NS)/ Project South Driveway (EW)



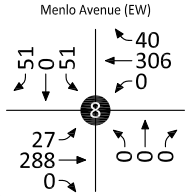
Sanderson Avenue (NS)/ Menlo Avenue (EW)



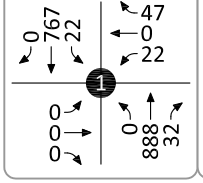
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



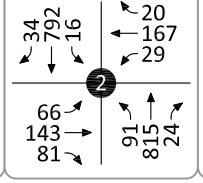
Project East Driveway (NS)/ Menlo Avenue (EW)



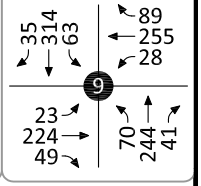
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

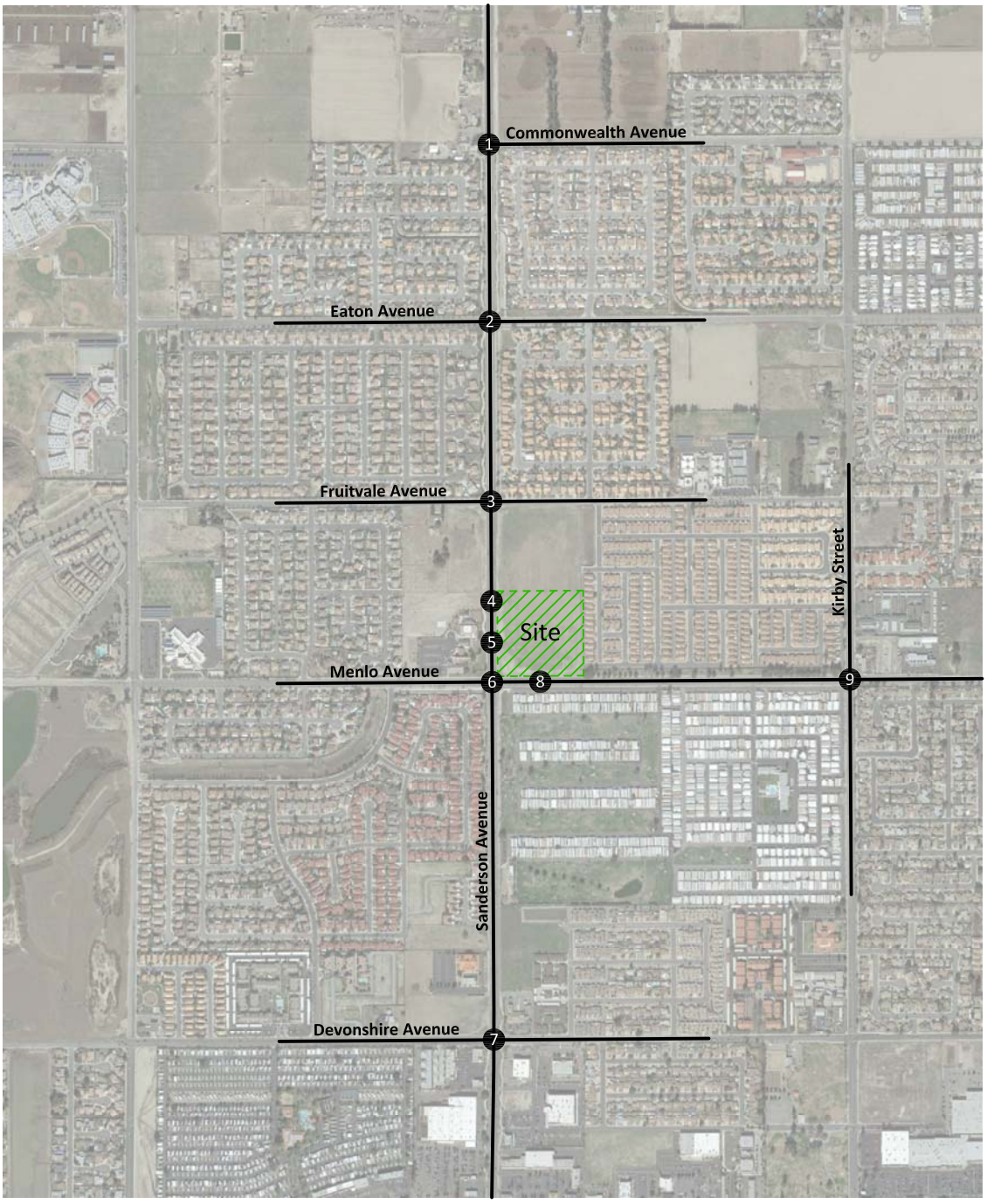
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

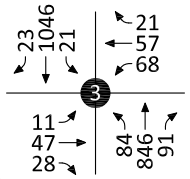
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

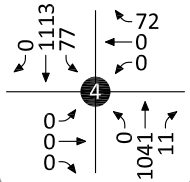
Figure 35
Opening Year Phase I (2017) With Project
Evening Peak Hour Intersection Turning Movement Volumes



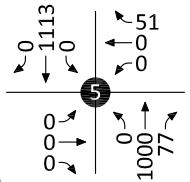
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



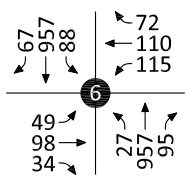
Sanderson Avenue (NS)/ Project North Driveway (EW)



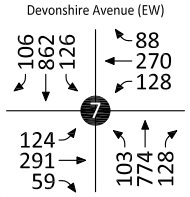
Sanderson Avenue (NS)/ Project South Driveway (EW)



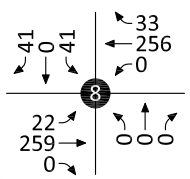
Sanderson Avenue (NS)/ Menlo Avenue (EW)



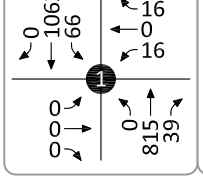
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



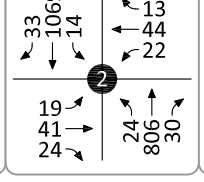
Project East Driveway (NS)/ Menlo Avenue (EW)



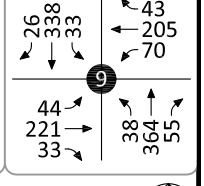
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



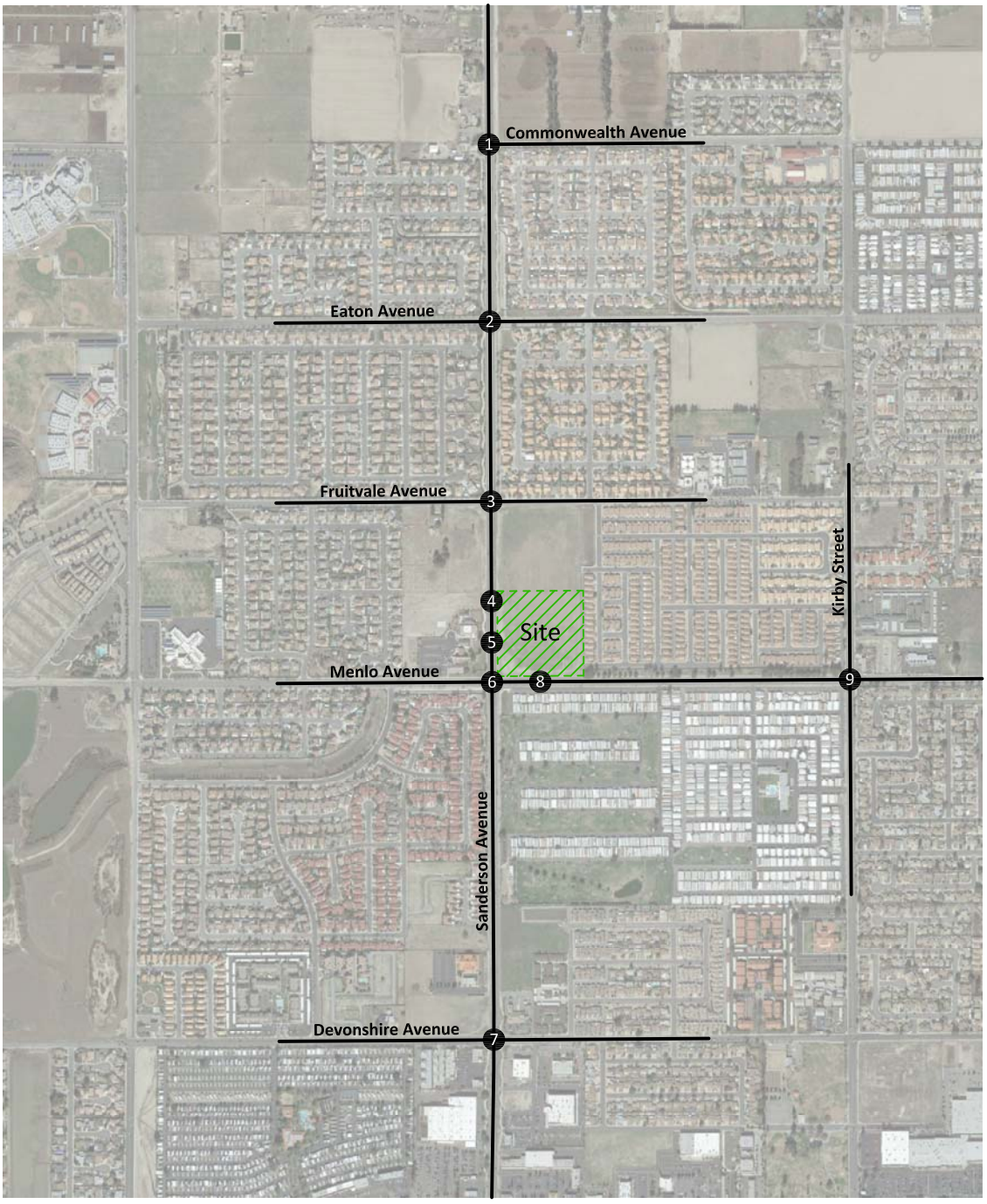
Kirby Street (NS)/ Menlo Avenue (EW)



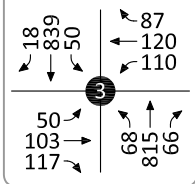
Legend

1 = Intersection Reference Number

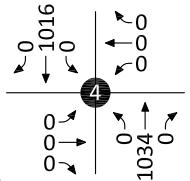
Figure 36
Opening Year Phase II (2020) Without Project
Morning Peak Hour Intersection Turning Movement Volumes



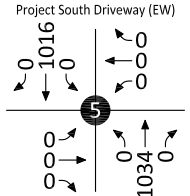
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



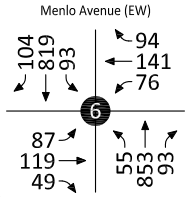
Sanderson Avenue (NS)/ Project North Driveway (EW)



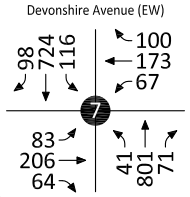
Sanderson Avenue (NS)/ Project South Driveway (EW)



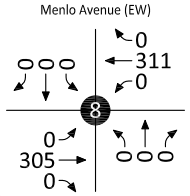
Sanderson Avenue (NS)/ Menlo Avenue (EW)



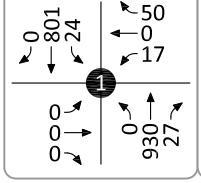
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



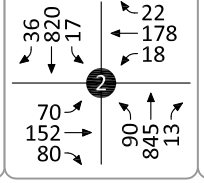
Project East Driveway (NS)/ Menlo Avenue (EW)



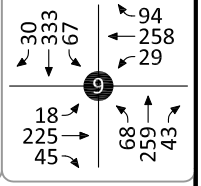
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

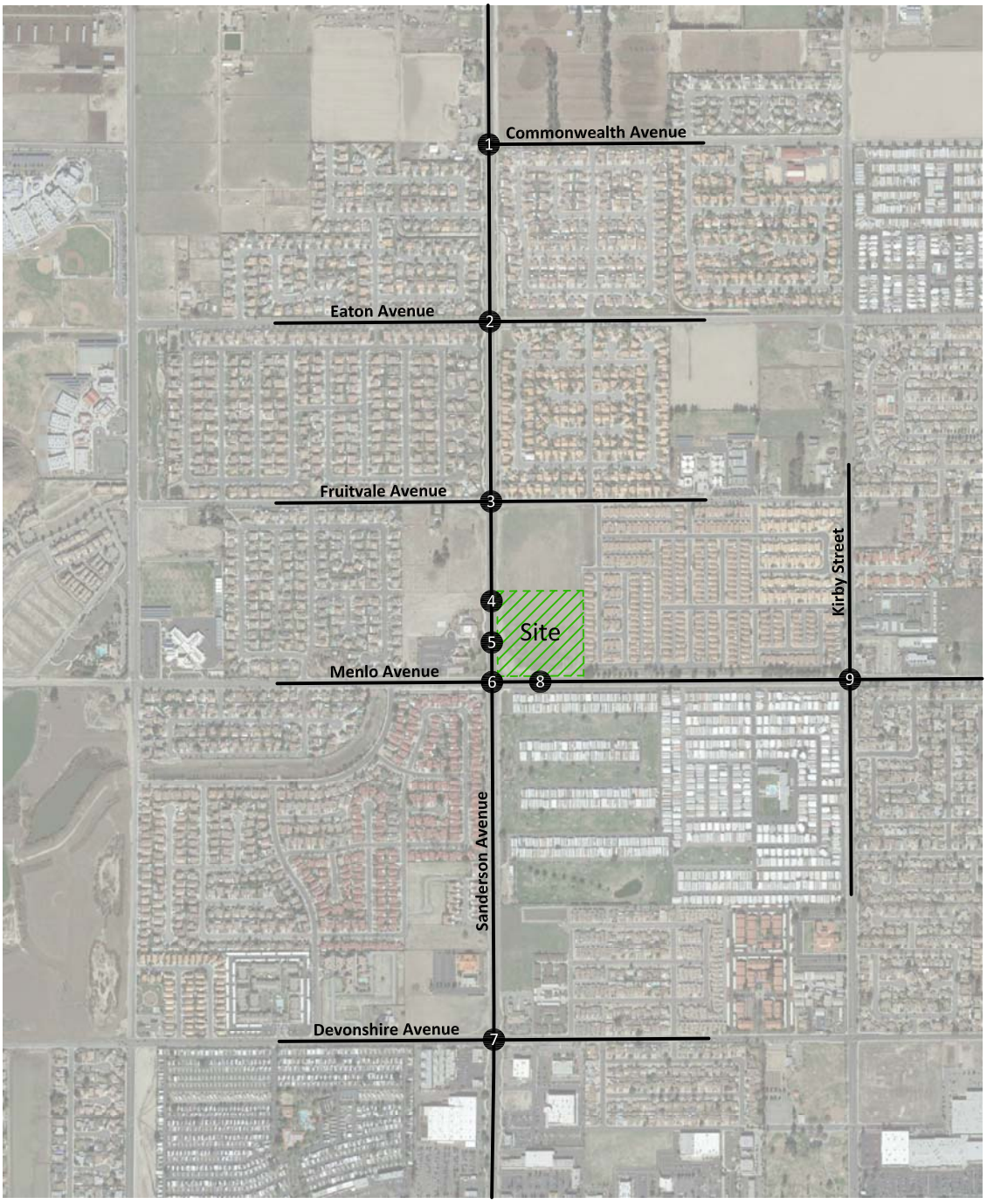
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

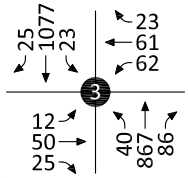
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

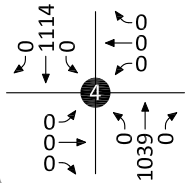
Figure 37
Opening Year Phase II (2020) Without Project
Evening Peak Hour Intersection Turning Movement Volumes



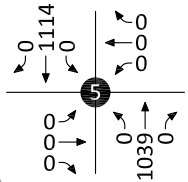
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



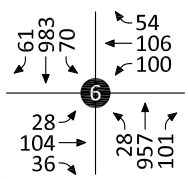
Sanderson Avenue (NS)/ Project North Driveway (EW)



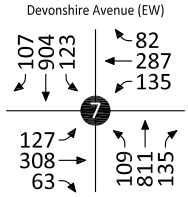
Sanderson Avenue (NS)/ Project South Driveway (EW)



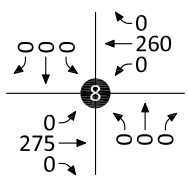
Sanderson Avenue (NS)/ Menlo Avenue (EW)



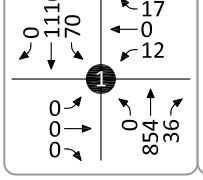
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



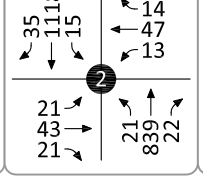
Project East Driveway (NS)/ Menlo Avenue (EW)



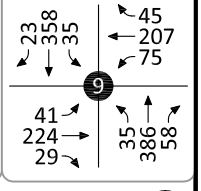
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



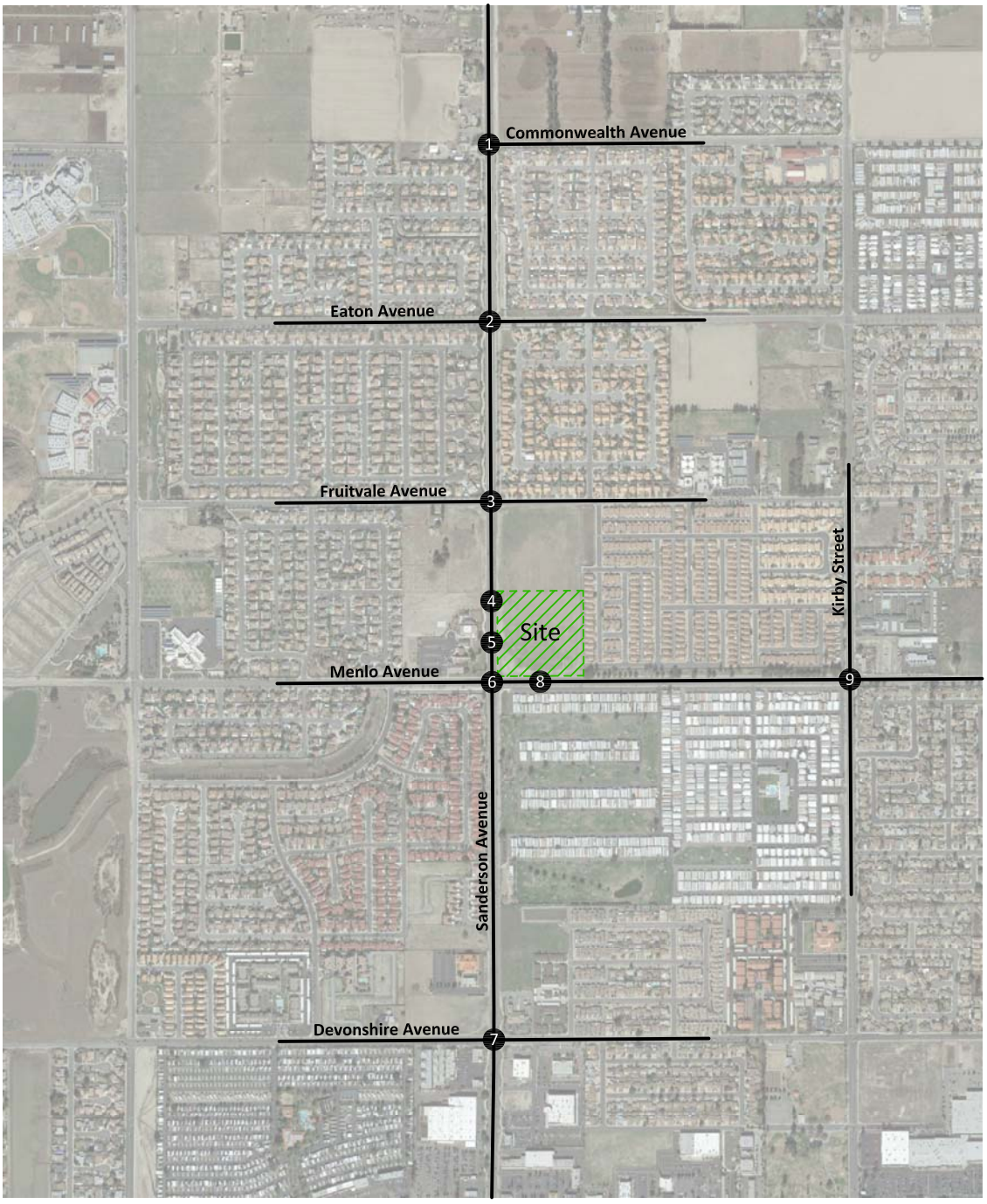
Kirby Street (NS)/ Menlo Avenue (EW)



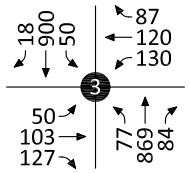
Legend

1 = Intersection Reference Number

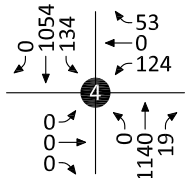
Figure 38
Opening Year Phase II (2020) With Project
Morning Peak Hour Intersection Turning Movement Volumes



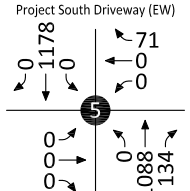
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



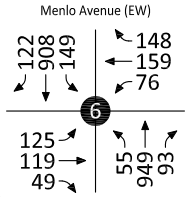
Sanderson Avenue (NS)/ Project North Driveway (EW)



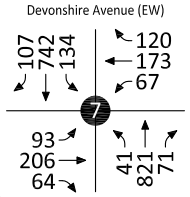
Sanderson Avenue (NS)/ Project South Driveway (EW)



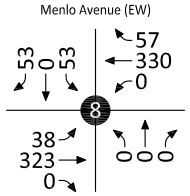
Sanderson Avenue (NS)/ Menlo Avenue (EW)



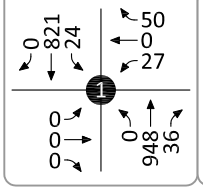
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



Project East Driveway (NS)/ Menlo Avenue (EW)



Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



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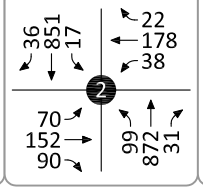
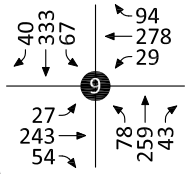


Kirby Street (NS)/ Menlo Avenue (EW)



Legend

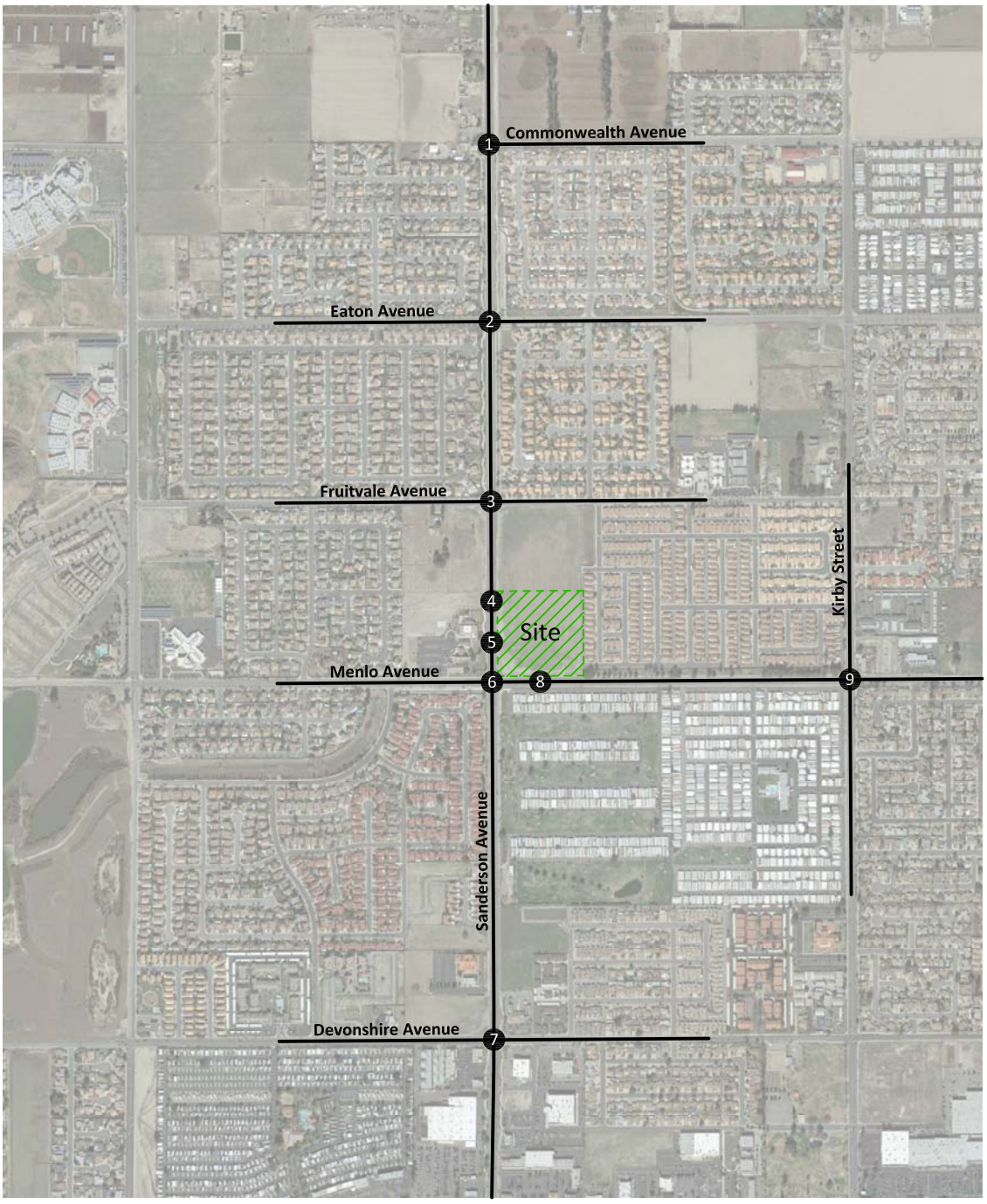
1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

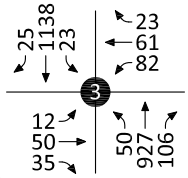
OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

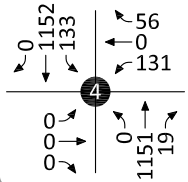
Figure 39
Opening Year Phase II (2020) With Project
Evening Peak Hour Intersection Turning Movement Volumes



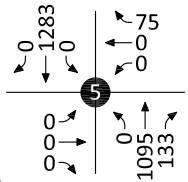
Sanderson Avenue (NS)/ Fruitvale Avenue (EW)



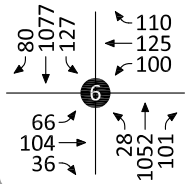
Sanderson Avenue (NS)/ Project North Driveway (EW)



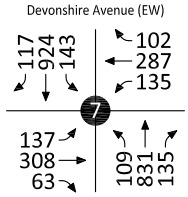
Sanderson Avenue (NS)/ Project South Driveway (EW)



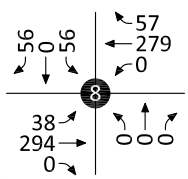
Sanderson Avenue (NS)/ Menlo Avenue (EW)



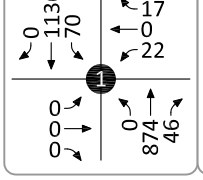
Sanderson Avenue (NS)/ Devonshire Avenue (EW)



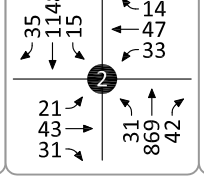
Project East Driveway (NS)/ Menlo Avenue (EW)



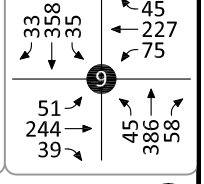
Sanderson Avenue (NS)/ Commonwealth Avenue (EW)



Sanderson Avenue (NS)/ Eaton Avenue (EW)



Kirby Street (NS)/ Menlo Avenue (EW)



Legend

1 = Intersection Reference Number

KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650b

VI. PROJECT MITIGATION

A. Required Improvements

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Opening Year Phase II (2020) traffic conditions. The improvements were determined through the operations analysis of Section IV.

The needed intersection improvements are summarized in Table 9 for the study area intersections. The project fair share contributions have also been calculated for intersection improvement locations. The project fair share has been based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour traffic volume. Fair share calculations were completed using Opening Year Phase II (2020) traffic volumes for Intersections #1 and #9. At the direction of City of Hemet staff, the future traffic volume at Intersection #4 was projected by estimating the trip generation of each remaining parcel surrounding the intersection. The existing traffic volumes at this intersection were also increased by 10% to account for background traffic growth.

Table 10 presents a summary of improvement fair shares at the intersection improvement locations. The intersection fair share calculations are typically based on the higher of the morning and evening peak hour traffic volumes.

As mitigation for the potential traffic impacts to intersections, the proposed project shall contribute through an adopted traffic impact fee program in addition to any fair share contributions shown within the traffic study which is not covered within this fee program.

Table 10

Summary of Intersection Improvements

Intersection	Jurisdiction	Improvement
Sanderson Avenue (NS) at:		
Commonwealth Avenue (EW) - #1	Hemet	Install Traffic Signal
Project North Driveway (EW) - #4	Hemet	Install Traffic Signal
Kirby Street (NS) at:		
Menlo Avenue (EW) - #9	Hemet	Restripe to provide additional WB lane, creating one shared through/left turn lane and one through/right turn lane
Total		

Table 11

Fair Share Traffic Calculations[1]

Intersection	Existing Traffic Volumes		Future Traffic Volumes		Project		Total New Traffic		Project % of New Traffic		Fair Share
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
Sanderson Avenue (NS) at:											
Commonwealth Avenue (EW) - #1											
- Phase I	1,708	1,945	2,054	2,426	36	30	346	481	10.4%	6.2%	8.3%
- Phase II	1,708	1,945	2,054	2,426	21	30	346	481	6.1%	6.2%	6.2%
Project North Driveway (EW) - #4											
- Phase I	1,894	1,989	2,790	3,655	336	274	896	1,666	37.5%	16.5%	27.0%
- Phase II	1,894	1,989	2,790	3,655	138	215	896	1,666	15.4%	12.9%	14.2%
Kirby Street (NS) at:											
Menlo Avenue (EW) - #9											
- Phase I	1,359	1,401	1,619	1,687	48	40	260	286	18.5%	14.0%	16.3%
- Phase II	1,359	1,401	1,619	1,687	28	40	260	286	10.8%	14.0%	12.4%

[1] Fair share calculations were completed using Opening Year Phase II (2020) traffic volumes for Intersection #1 and #9. At the direction of City of Hemet staff, the future traffic volume at Intersection #4 was projected by estimating the trip generation of each remaining parcel surrounding the intersection. The existing traffic volumes at Intersection #4 were also increased by 2% per year to account for background traffic growth.

VII. RECOMMENDATIONS

A. Site Access

Access is proposed to be provided to Sanderson Avenue and Menlo Avenue.

B. Roadway Improvements

1. On- Site

Site-specific circulation and access recommendations are depicted on Figure 40.

Install a raised median on Sanderson Avenue along the project boundary as negotiated with the City.

The project site should provide sufficient parking spaces to meet City of Hemet parking code requirements in order to service on-site parking demand.

Sight distance at the project accesses shall comply with standard California Department of Transportation and City of Hemet sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

2. Off-Site

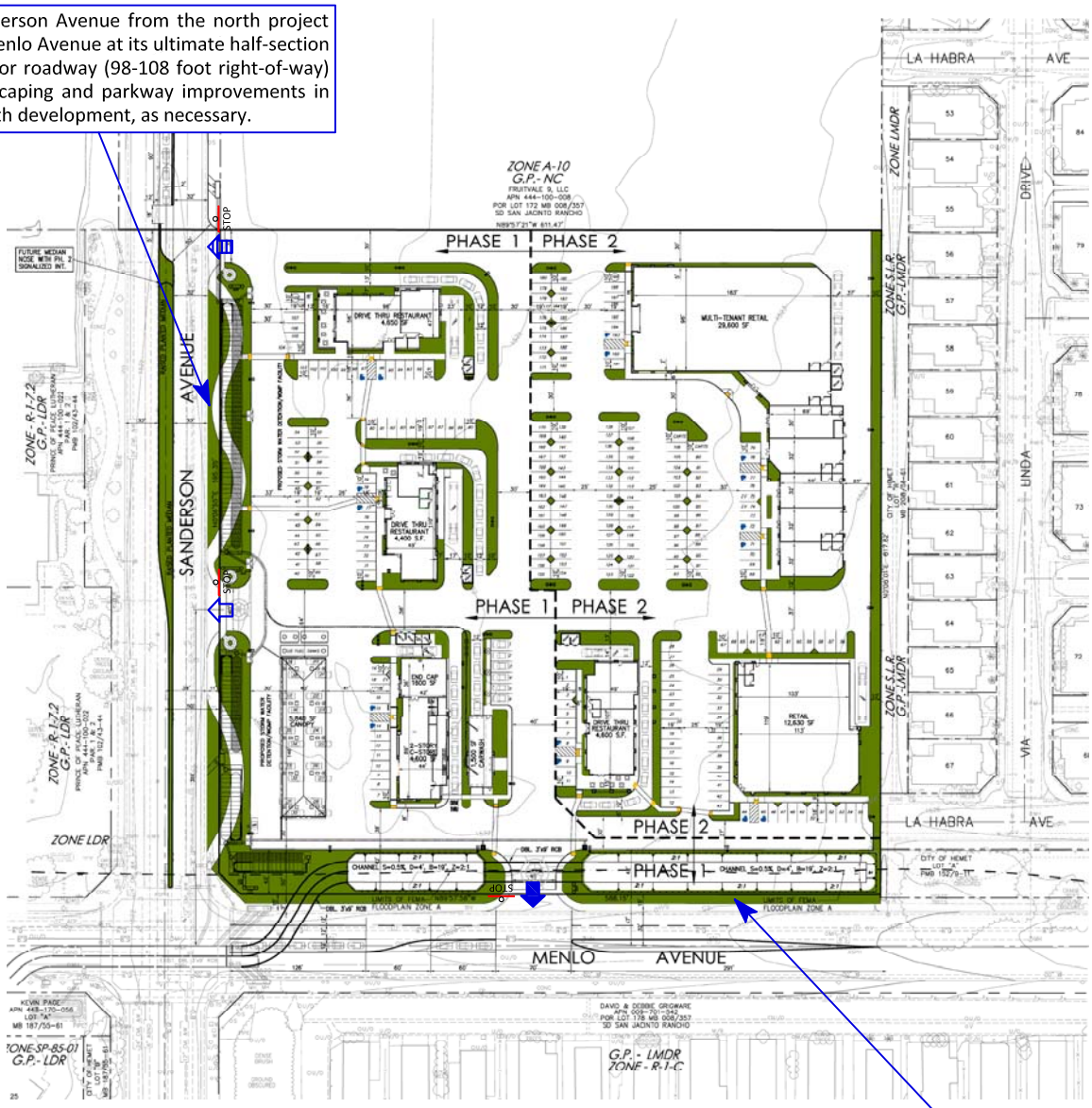
As is the case for any roadway design, the City of Hemet should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Contribute to the City of Hemet Development Impact Fee (DIF) that includes traffic signal mitigation and to Western Riverside Council of Governments (WRCOG), which administers the Transportation Uniform Mitigation Fee (TUMF) for regional transportation improvements (see Appendix F) that include capacity enhancement projects (i.e., roadway widening).

To facilitate Opening Year Phase I (2017) project trips wishing to travel southbound from the site, the applicant has agreed to install signage allowing U-turns at the northbound approach of the Sanderson Avenue/Fruitvale Avenue intersection with the City's approval before the project is built. The available turning radius is shown on Figure 41.

Figure 40
Circulation Recommendations

Construct Sanderson Avenue from the north project boundary to Menlo Avenue at its ultimate half-section width as a Major roadway (98-108 foot right-of-way) including landscaping and parkway improvements in conjunction with development, as necessary.



The project site should provide sufficient parking spaces to meet City of Hemet parking code requirements in order to service on-site parking demand.

Sight distance at the project accesses shall comply with standard California Department of Transportation and City of Hemet sight distance standards. The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

As is the case for any roadway design, the City of Hemet should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

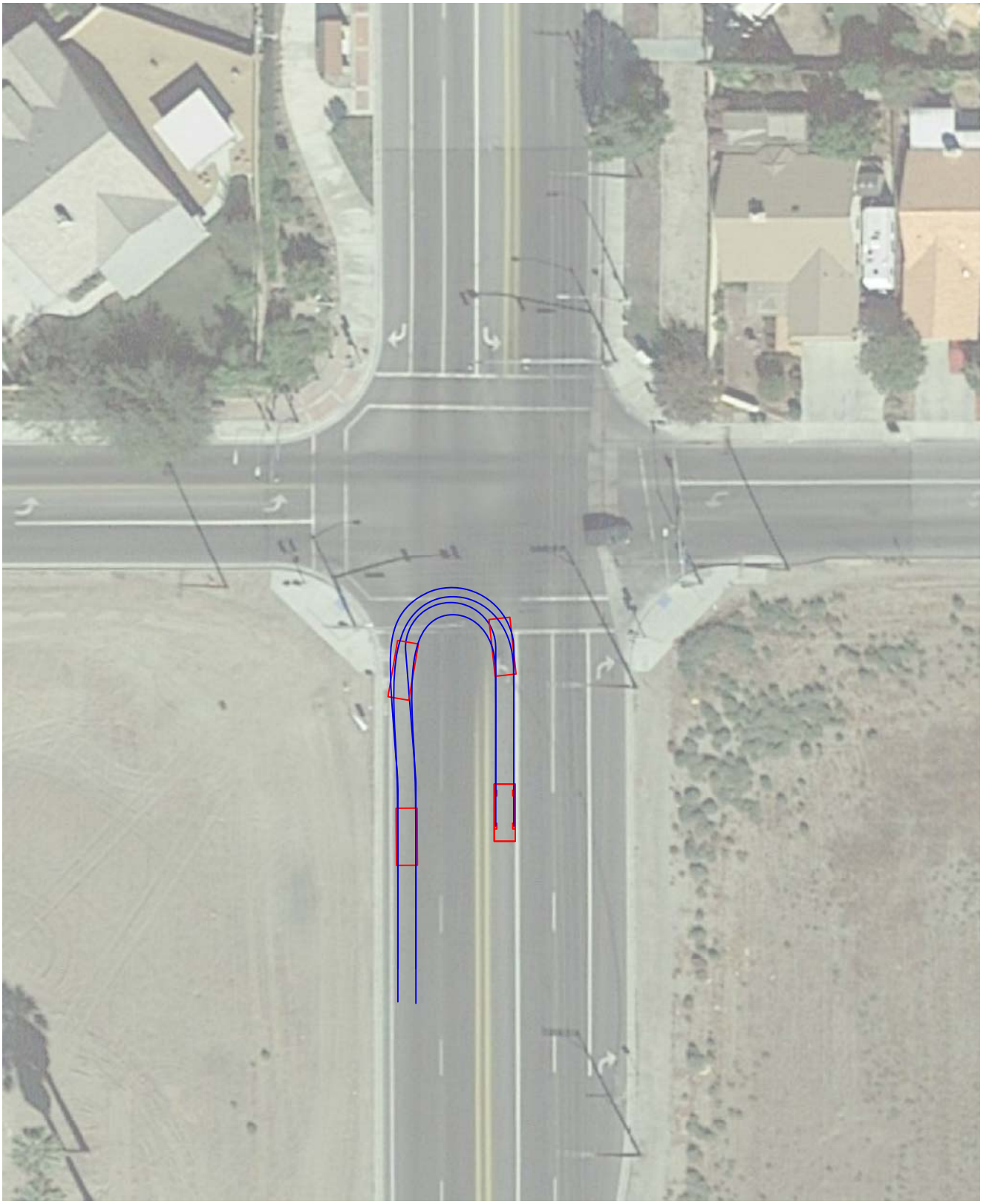
Contribute to the City of Hemet Development Impact Fee that includes traffic signal mitigation and to WRCOG, which administers the TUMF for regional transportation improvements that include capacity enhancement projects (i.e., roadway widening).

Construct Menlo Avenue from Sanderson Avenue to the east project boundary at its ultimate half-section width as a Secondary roadway (94 foot right-of-way) including landscaping and parkway improvements in conjunction with development, as necessary.

Legend

- STOP = Stop Sign
- = Full Access Driveway
- = Right Turns In/Out Only Access Driveway
- = Left Turns In and Right Turns In/Out Only Access Driveway

Figure 41
Available Turning Radius - Northbound U-Turns at
Sanderson Avenue/Fruitvale Avenue



APPENDICES

Appendix A – Glossary of Transportation Terms

Appendix B – Scoping Agreement

Appendix C – Traffic Count Worksheets

Appendix D – Explanation and Calculation of Intersection Delay

Appendix E – Traffic Signal Warrant Worksheets

Appendix F – Transportation Uniform Mitigation Fee (TUMF) Improvement Network

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

Scoping Agreement

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. The analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated April 2008.

Case No. PR16-010
Related Cases -
SP No.
EIR No.
GPA No.
CZ No.
Project Name: Zanderson Plaza
Project Address: Northeast Corner of Sanderson Avenue & Menlo Avenue
Project Description: Mixed-Used Development Including Shopping Center, Fast-Food Restaurant, and Service Station

	Consultant	Developer
Name:	Kunzman Associates, Inc.	LAND ENGINEERING CONSULTANTS, INC.
Address:	1111 Town and County Road, Suite 34	650 Avenue K
	Orange, CA 92868	Calimesa, CA 92320
Telephone:	714-973-8383 ext 216	909-795-8882
Fax:	chris@traffic-engineer.com	dan@lecincorporated.com

A. Trip Generation Source: ITE 9th Edition

Current GP Land Use	Vacant	Proposed Land Use	Commercial
Current Zoning	A-10	Proposed Zoning	C-1

Current Trip Generation	In	Out	Total	Proposed Trip Generation	In	Out	Total
AM Trips	-	-	-		206	189	395
PM Trips	-	-	-		213	208	421

Internal Trip Allowance [X] Yes [ ] No
Pass-By Trip Allowance [X] Yes [ ] No

B. Trip Geographic Distribution: N 15 % S 15 % E 45 % W 25 %
(attach exhibit for detailed assignment)

C. Background Traffic

Project Build-out Year: 2020 Annual Ambient Growth Rate: 2.0 %

Phase Year(s) 2017
Other area projects to be analyzed: Please, provide cumulative data.

Model/Forecast methodology

D. Study intersections: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)*

1. Sanderson Ave (NS) at Commonwealth Ave (EW)
2. Sanderson Ave (NS) at Eaton Ave (EW)
3. Sanderson Ave (NS) at Fruitvale Ave (EW)
4. Sanderson Ave (NS) at Project North Access (EW)
5. Sanderson Ave (NS) at Project South Access (EW)
6. Sanderson Ave (NS) at Menlo Ave (EW)
7. Sanderson Ave (NS) at Devonshire Ave (EW)
8. Project West Access (NS) at Menlo Ave (EW)
9. Project East Access (NS) at Menlo Ave (EW)
10. Kirby Street (NS) at Menlo Ave (EW)

E. Study Roadway Segments: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies.)*

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

E. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ☒ Yes ☐ No

If so, name of City Jurisdiction: City of San Jacinto

F. Site Plan (please attach reduced copy)

G. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Transportation Department)
(NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted," or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

_____

H. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.
Date of counts 1/16, 6/16, and New

***NOTE* Traffic Study Submittal Form and appropriate fee must be submitted with, or prior to submittal of this form. Transportation Department staff will not process the Scoping Agreement prior to receipt of the fee.**

Recommended by:

Chris Ryland _____ 08/18/2016
Consultant's Representative Date

Approved Scoping Agreement:

_____ _____
Riverside County Transportation Department Date

Scoping Agreement Submitted on _____

Revised on _____

Table 1

Project Trip Generation[1]

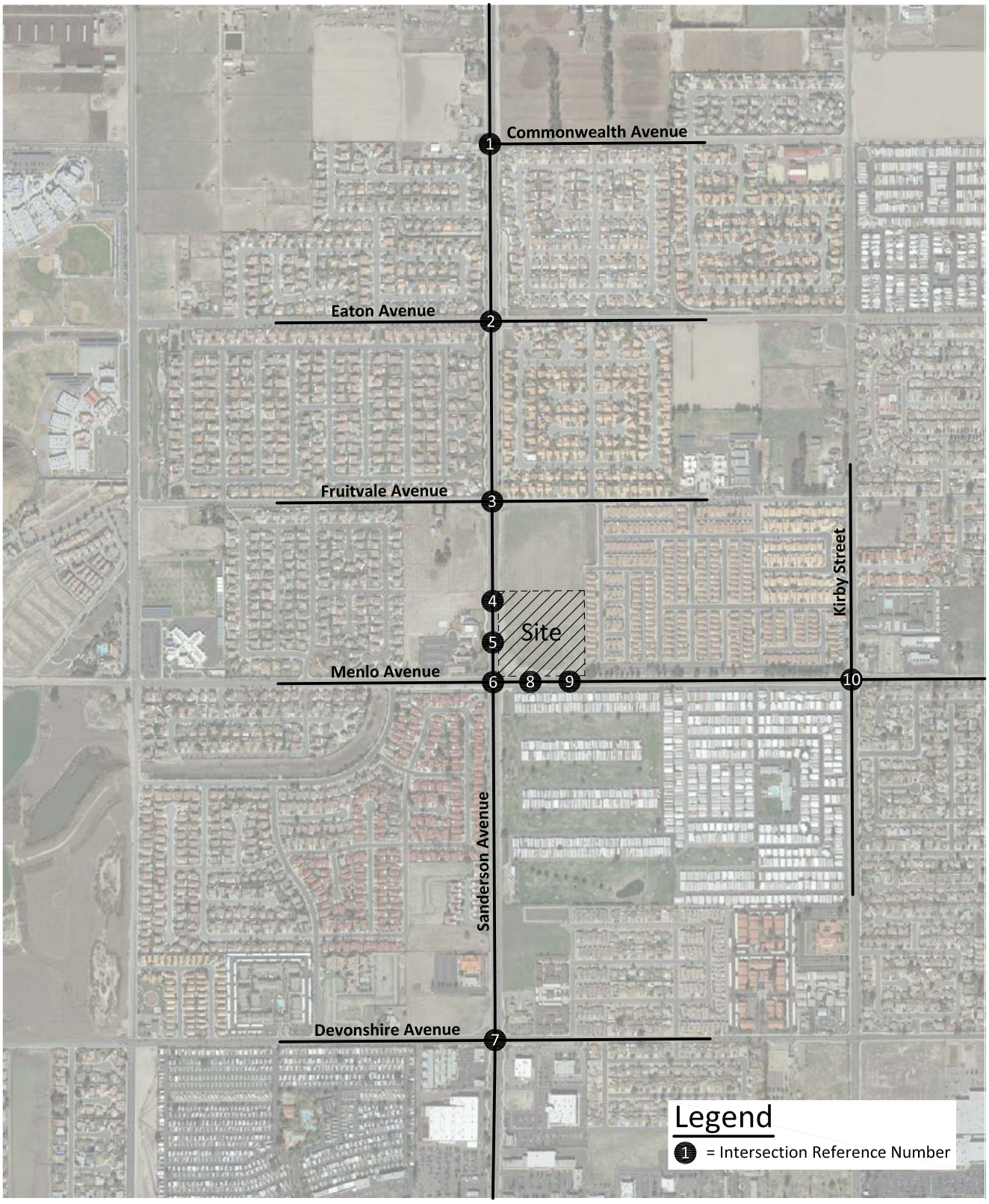
Land Use	Quantity	Units[2]	Trips Per Unit & Trips Generated						
			Morning Peak Hour			Evening Peak Hour			
			In	Out	Total	In	Out	Total	Daily
Trip Generation Rates									
Gasoline/Service Station with Convenience Market and Car Wash		FP	6.04	5.80	11.84	7.07	6.79	13.86	152.84
Fast-Food Restaurant With Drive-Through Window		TSF	23.16	22.26	45.42	16.98	15.67	32.65	496.12
Shopping Center		TSF	1.35	0.83	2.18	3.82	4.13	7.95	91.92
Trips Generated									
Gasoline/Service Station with Convenience Market and Car Wash	20	FP	121	116	237	141	136	277	3,057
Fast-Food Restaurant With Drive-Through Window	16.600	TSF	384	370	754	282	260	542	8,236
Shopping Center	41.600	TSF	56	35	91	159	172	331	3,824
Subtotal			561	521	1,082	582	568	1,150	15,117
Internal Capture									
Gasoline/Service Station with Convenience Market and Car Wash			-31	-31	-62	-44	-42	-86	-795
Fast-Food Restaurant With Drive-Through Window			-100	-96	-196	-87	-81	-168	-2,141
Shopping Center			-15	-9	-24	-49	-54	-103	-994
Subtotal			-146	-136	-282	-180	-177	-357	-3,930
External Trips									
Gasoline/Service Station with Convenience Market and Car Wash			90	85	175	97	94	191	2,262
Fast-Food Restaurant With Drive-Through Window			284	274	558	195	179	374	6,095
Shopping Center			41	26	67	110	118	228	2,830
Subtotal			415	385	800	402	391	793	11,187
Pass-By Trip Reductions[3]									
Gasoline/Service Station with Convenience Market and Car Wash			-56	-53	-109	-54	-53	-107	-216
Fast-Food Restaurant With Drive-Through Window			-139	-134	-273	-98	-89	-187	-460
Shopping Center			-14	-9	-23	-37	-41	-78	-101
Pass-By Subtotal			-209	-196	-405	-189	-183	-372	-777
Total Trips Generated			206	189	395	213	208	421	10,410

[1] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, Land Use Codes 820, 934, 946.

[2] TSF = Thousand Square Feet, FP = Vehicle Fueling Positions

[3] Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition, 2012, average pass-by trip percentages for Land Use Codes 820, 934 and 945.

Figure 1
Project Location Map



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JN 6650

Figure 2
Site Plan

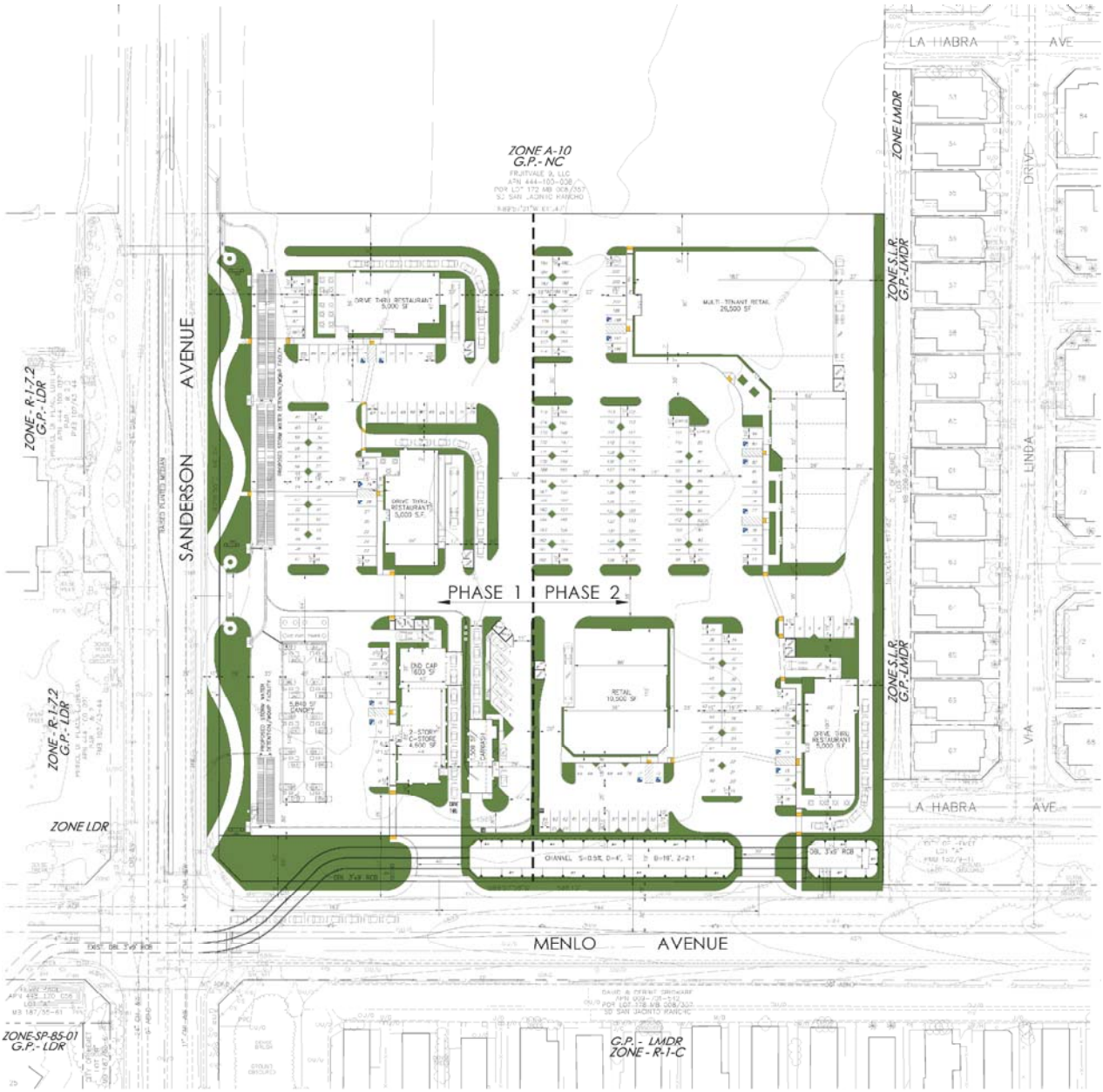
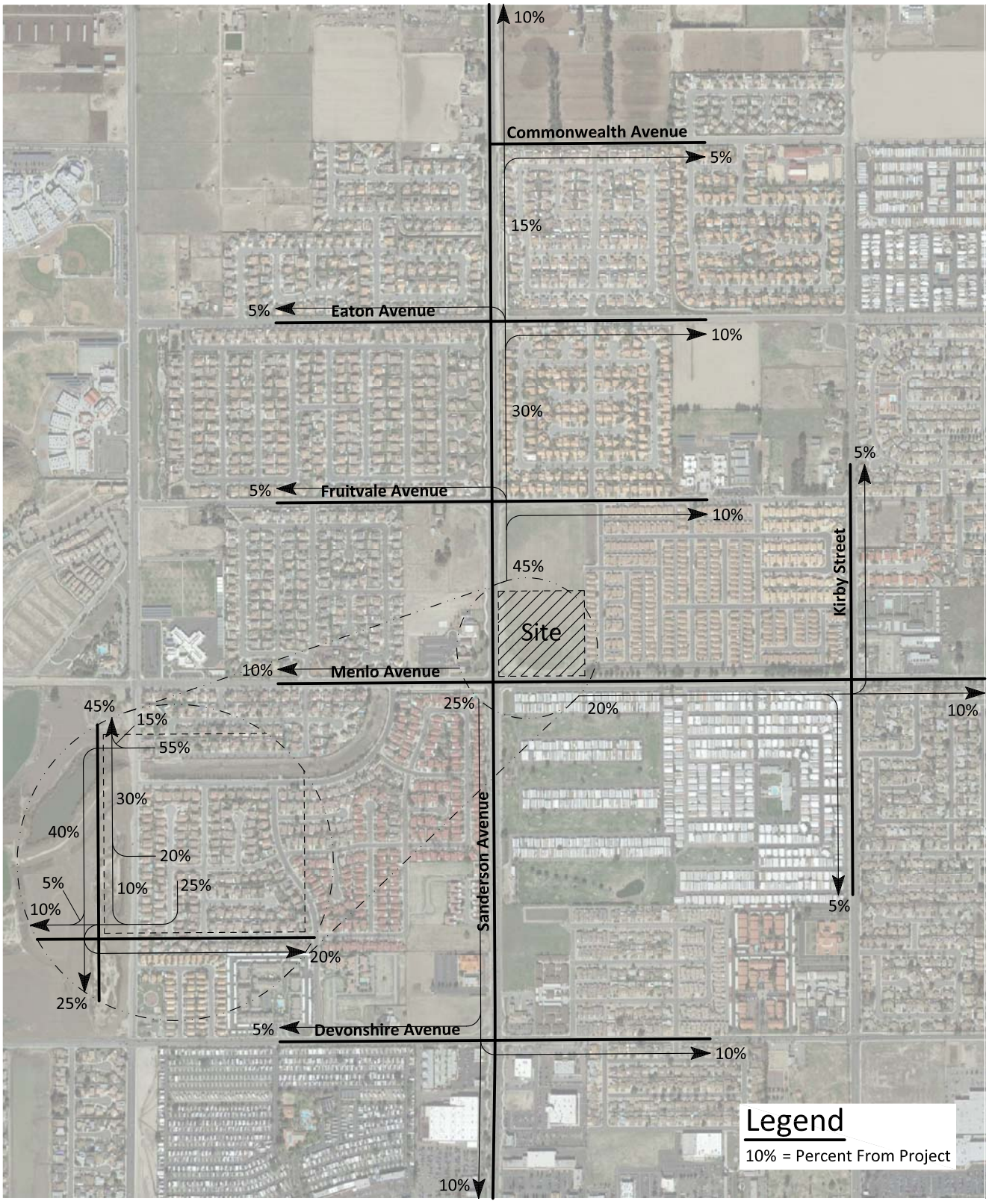


Figure 3
Project Trip Distribution - Phase I Outbound

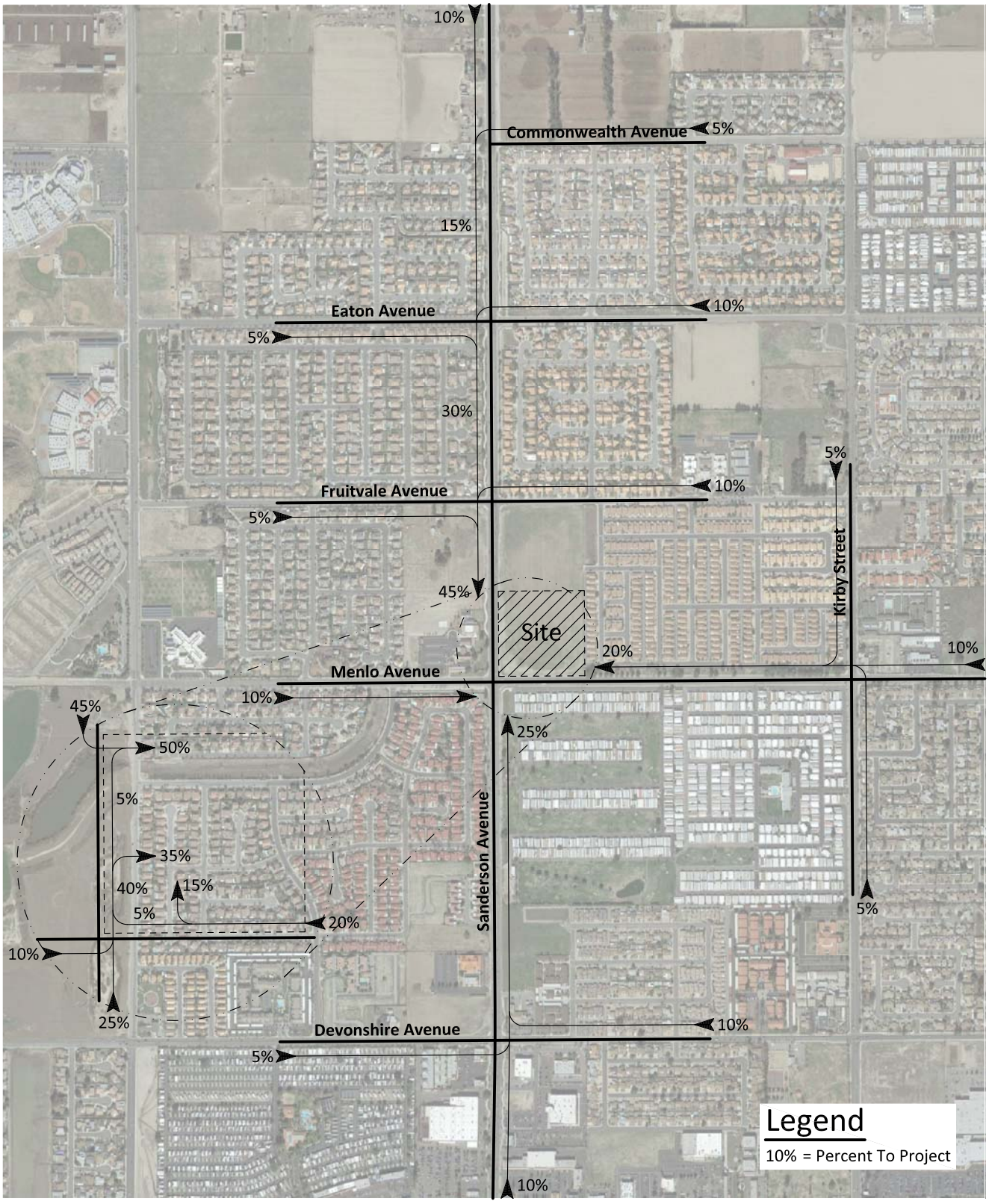


KUNZMAN ASSOCIATES, INC.

OVER 40 YEARS OF EXCELLENT SERVICE

JN 6650

Figure 4
Project Trip Distribution - Phase I Inbound



KUNZMAN ASSOCIATES, INC.

JN 6650

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Figure 5
Project Trip Distribution - Phase II Outbound

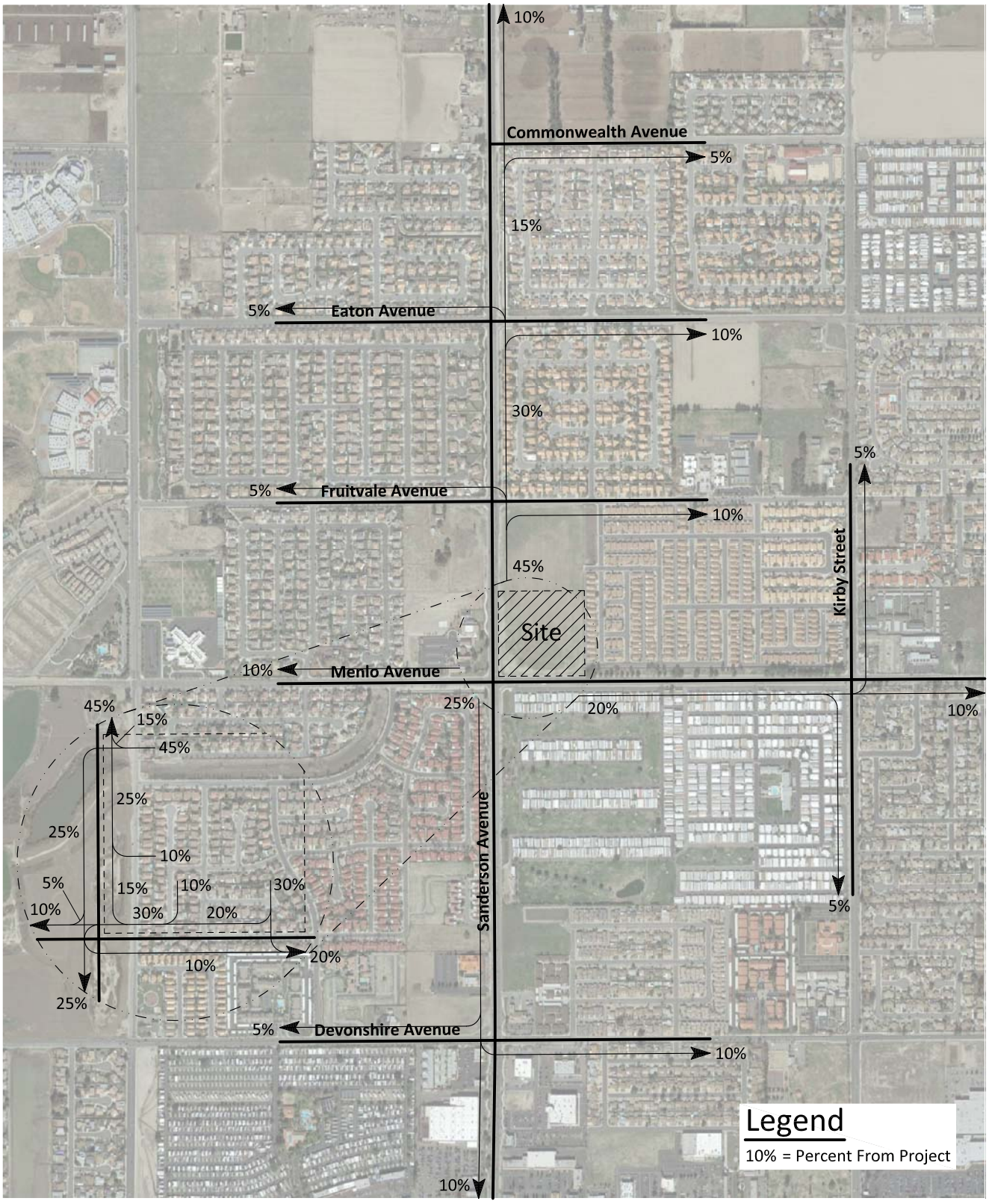

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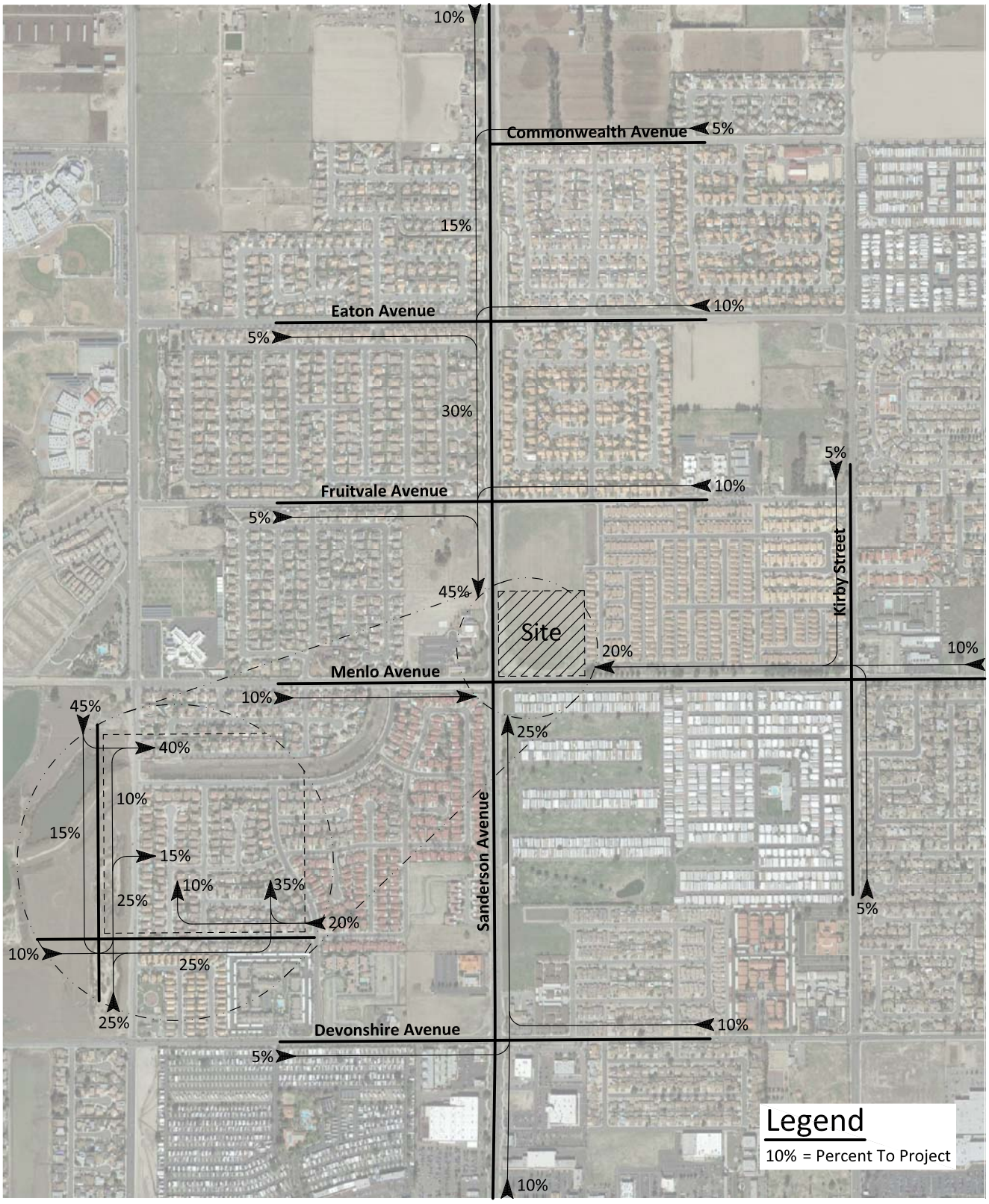
Figure 6
Project Trip Distribution - Phase II Inbound



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JN 6650

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Chris Pylant

From: Steve Latino <SLatino@cityofhemet.org>
Sent: Monday, September 19, 2016 10:38 AM
To: Chris Pylant
Subject: RE: Zanderson Plaza - Traffic Study Scoping Agreement

Chris,

Yes I did, and I agree with your analysis. Been a little bit hectic so I apologize for not responding sooner.

Steven Latino
Engineering Director/City Engineer
City of Hemet
slatino@cityofhemet.org
P: 951-765-2362
C: 951-634-1554
F: 951-765-3878

From: Chris Pylant [mailto:chris@traffic-engineer.com]
Sent: Monday, September 19, 2016 10:35 AM
To: Steve Latino <SLatino@cityofhemet.org>
Subject: RE: Zanderson Plaza - Traffic Study Scoping Agreement

Steve,

Have you had a chance to read my response below?

Chris

From: Chris Pylant [mailto:chris@traffic-engineer.com]
Sent: Thursday, August 25, 2016 2:29 PM
To: 'slatino@cityofhemet.org' <slatino@cityofhemet.org>
Subject: RE: Zanderson Plaza - Traffic Study Scoping Agreement

Steve,

The ITE Code 820 - Shopping Center land use is defined as an integrated group of commercial establishments. It also says many of the sites surveyed had outparcels which held restaurants, drive-in banks, etc. Therefore, including outparcels as separate land uses when calculating the trip generation of a shopping center is a conservative approach. As shown in the attached tables, when the trip generation of the site is calculated all as shopping center it is much much lower than if it is calculated by separating the land uses. This suggests that internal interaction is not completely accounted for in pass-by rates. Therefore, we believe some reduction is appropriate to represent people who use more than one of the uses with only one inbound and outbound trip. The internal capture rates we used were calculated using the process described in Chapter 7 of the ITE Trip Generation Manual. The worksheets have also been attached. Please let us know how you would like us to proceed.

Regards,

Chris Pylant
Associate

KUNZMAN ASSOCIATES, INC.
OVER 40 YEARS OF EXCELLENT SERVICE

KUNZMAN ASSOCIATES, INC.
1111 Town & Country Road, Suite 34
Orange, CA 92868
p. 714-973-8383 x 216
e. chris@traffic-engineer.com

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

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From: Steve Latino [mailto:SLatino@cityofhemet.org]
Sent: Tuesday, August 23, 2016 2:22 PM
To: Chris Pylant <chris@traffic-engineer.com>
Cc: Nino Abad <NAbad@cityofhemet.org>
Subject: RE: Zanderson Plaza - Traffic Study Scoping Agreement

Chris,

The trip distribution shown on page 1 under section B does not match the figures; however, I am generally ok with the figures if you are projecting to use those. Also, I am not familiar with the "internal capture" rates you are proposing, can you please send me additional information on those? If not, I would propose we remove those, because that should be accounted for in the ITE pass by reductions allowed.

Once I have that information, and the scoping agreement is revised, I think we can proceed forward. Thanks in advance.

Steven Latino
Engineering Director/City Engineer
City of Hemet
slatino@cityofhemet.org
P: 951-765-2362
C: 951-634-1554
F: 951-765-3878

From: Chris Pylant [mailto:chris@traffic-engineer.com]
Sent: Thursday, August 18, 2016 2:23 PM
To: Steve Latino <SLatino@cityofhemet.org>
Subject: Zanderson Plaza - Traffic Study Scoping Agreement

Steven,

I have attached the scoping agreement for the Zanderson Plaza project traffic study. Feel free to contact me with any questions or concerns. Thanks for your time.

Regards,

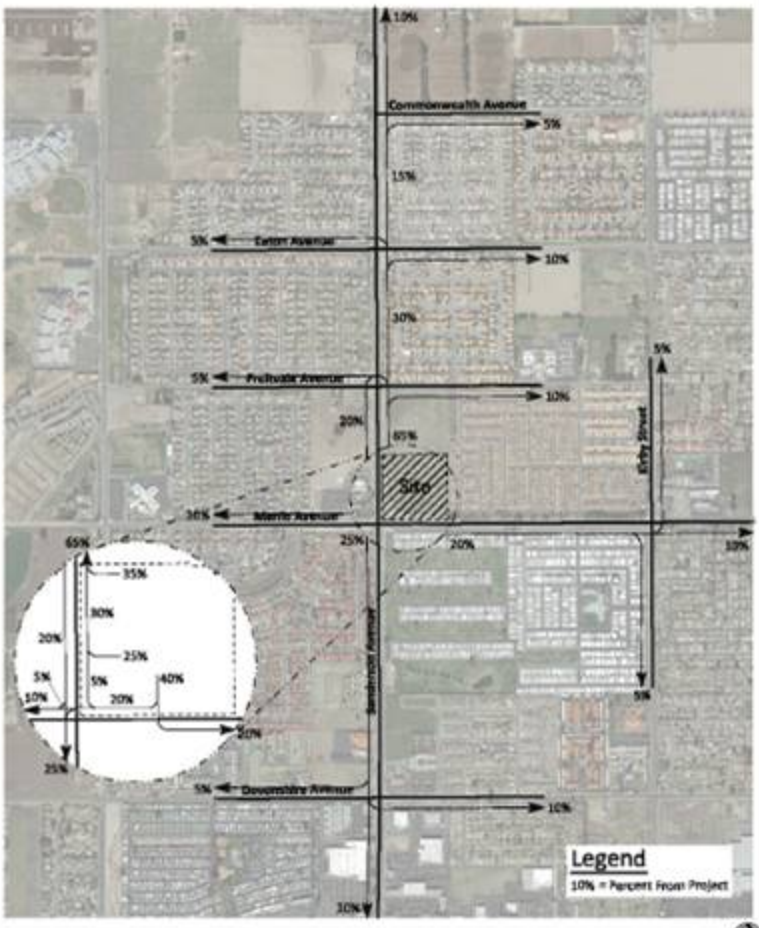
Chris Pylant

From: Steve Latino <slatino@erscinc.com>
Sent: Monday, June 19, 2017 3:57 PM
To: chris@traffic-engineer.com
Cc: Nino Abad; Deanna Elliano; Marwan Alabbasi; Ryan@birdseyeplanninggroup.com; Carole Kendrick; Carl Ballard
Subject: Zanderson Avenue - Analysis of Intersection of Project Driveway

Chris,

Pursuant to our meeting with the City regarding this project, the analysis of the project northern driveway on Sanderson Avenue as a right-in/right-out and left-in only for Phase I of the project is an acceptable method for the City. This will be in accordance with Figures 12 and 13.

Figure 12
Opening Year Phase I (2017) Project Outbound Trip Distribution



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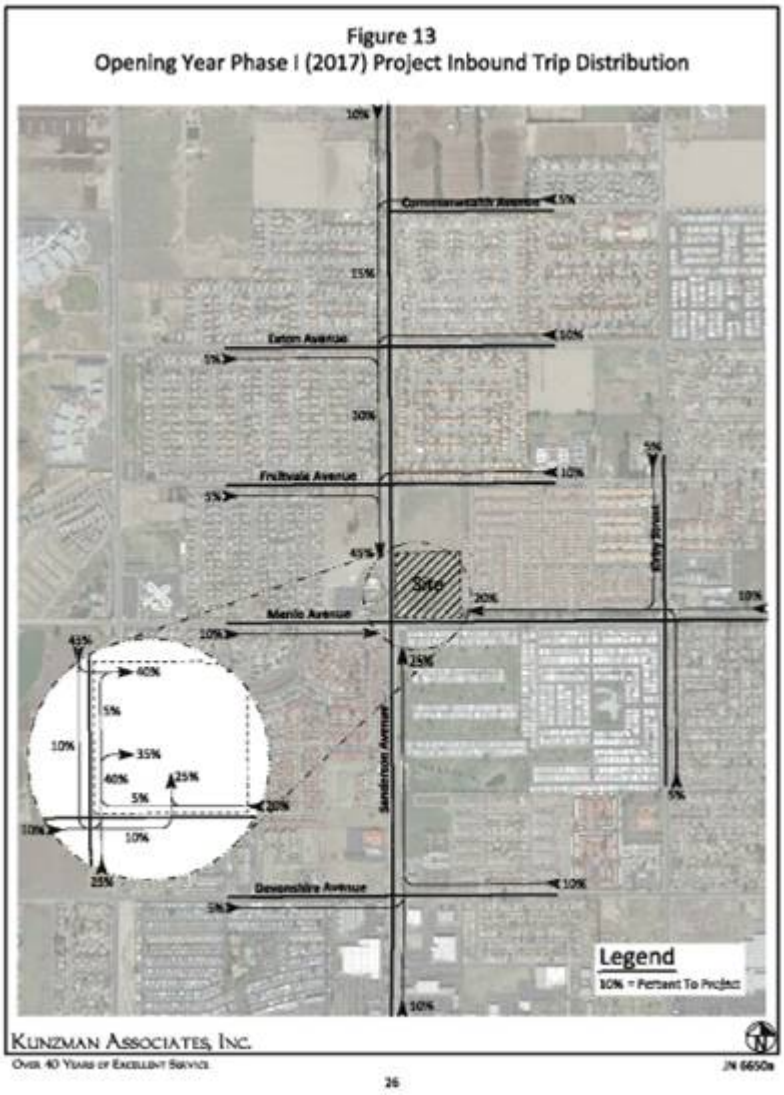


You still need to update the study accordingly and complete a fair share analysis for Phase I and Phase II (assume full movements for the purpose of the fair share analysis and GP trip assignments for the adjacent lots); however, we are ok with the proposed analysis.

Steven Latino, P.E.
Principal Engineer
slatino@erscinc.com

ERSC San Bernardino Location
1820 S. Commercenter Circle
Office: (909) 890-1255
Fax: (909)890-0995
erscinc.com

APPENDIX C

Traffic Count Worksheets

INTERSECTION TURNING MOVEMENT COUNTS

T816

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

DATE: Wed, Sep 21, 16

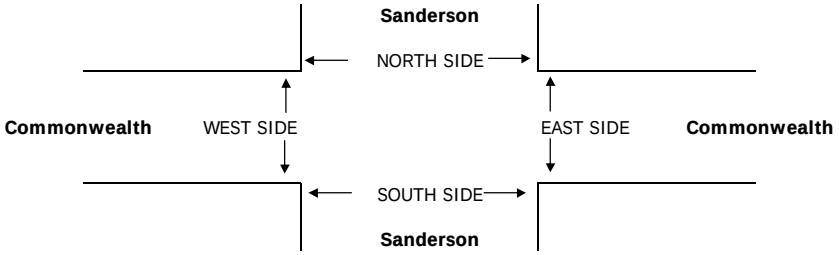
LOCATION: Hemet
NORTH & SOUTH: Sanderson
EAST & WEST: Commonwealth
PROJECT #: SC1609
LOCATION #: 2
CONTROL: STOP W

NOTES:

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

☑ Add U-Turns to Left Turns

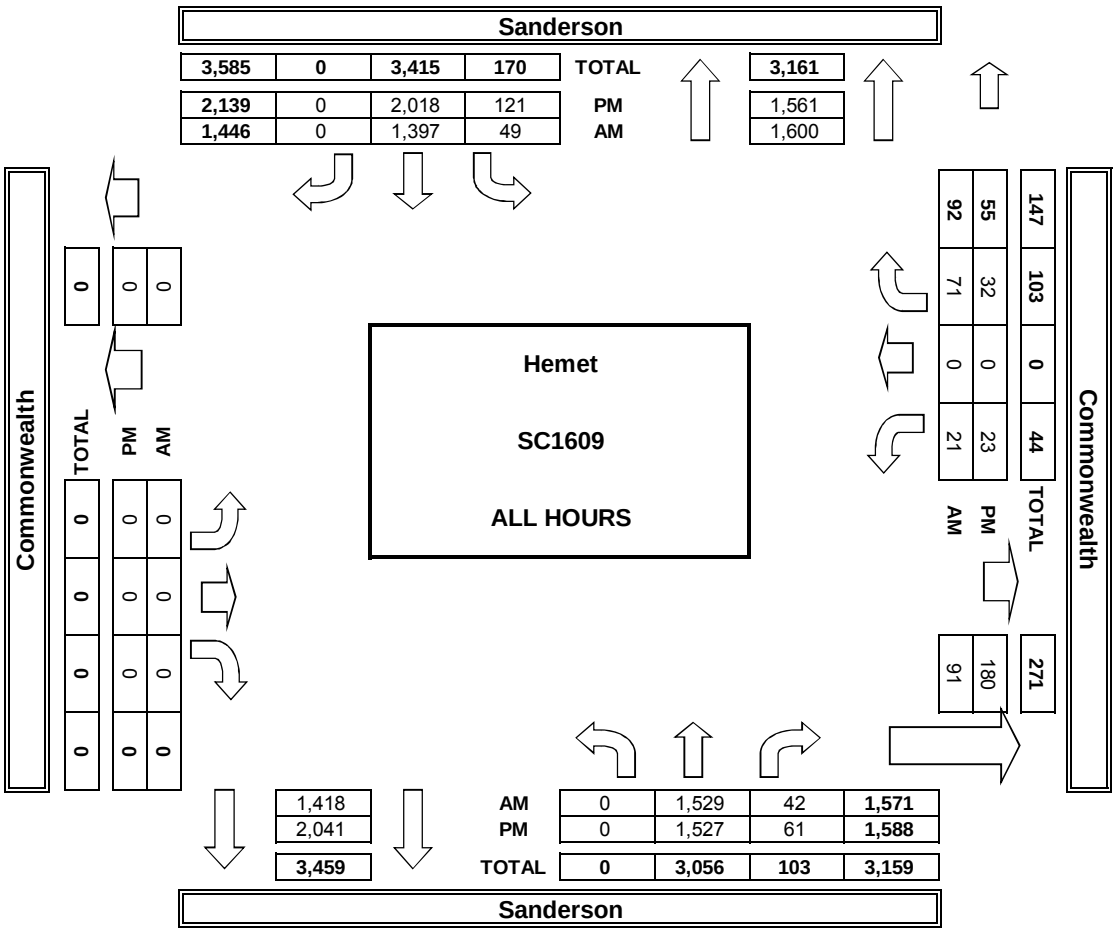
		NORTHBOUND Sanderson			SOUTHBOUND Sanderson			EASTBOUND Commonwealth			WESTBOUND Commonwealth				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	214	5	8	167	0	0	0	0	3	0	7	404	0	0	0	0	0
	7:15 AM	0	195	3	3	207	0	0	0	0	7	0	15	430	0	0	0	0	0
	7:30 AM	0	220	13	6	192	0	0	0	0	2	0	10	443	0	0	0	0	0
	7:45 AM	0	230	4	5	174	0	0	0	0	4	0	14	431	0	0	0	0	0
	8:00 AM	0	167	4	11	185	0	0	0	0	0	0	9	376	0	0	0	0	0
	8:15 AM	0	183	5	3	156	0	0	0	0	3	0	6	356	0	0	0	0	0
	8:30 AM	0	161	2	11	160	0	0	0	0	1	0	7	342	0	0	0	0	0
	8:45 AM	0	159	6	2	156	0	0	0	0	1	0	3	327	0	0	0	0	0
	VOLUMES	0	1,529	42	49	1,397	0	0	0	0	21	0	71	3,109	0	0	0	0	0
	APPROACH %	0%	97%	3%	3%	97%	0%	0%	0%	0%	23%	0%	77%						
	APP/DEPART	1,571	/	1,600	1,446	/	1,418	0	/	91	92	/	0	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	859	25	22	740	0	0	0	0	16	0	46	1,708					
	APPROACH %	0%	97%	3%	3%	97%	0%	0%	0%	0%	26%	0%	74%						
	PEAK HR FACTOR		0.944			0.907			0.000			0.705		0.964					
	APP/DEPART	884	/	905	762	/	756	0	/	47	62	/	0	0					
PM	4:00 PM	0	197	7	11	223	0	0	0	0	3	0	4	445	0	1	0	0	1
	4:15 PM	0	181	5	14	261	0	0	0	0	2	0	3	466	0	0	0	0	0
	4:30 PM	0	193	10	15	250	0	0	0	0	3	0	4	475	0	0	0	0	0
	4:45 PM	0	192	13	19	247	0	0	0	0	4	0	2	477	0	0	0	0	0
	5:00 PM	0	223	5	17	273	0	0	0	0	2	0	7	527	0	0	0	0	0
	5:15 PM	0	188	7	10	247	0	0	0	0	3	0	3	458	0	0	0	0	0
	5:30 PM	0	175	6	19	260	0	0	0	0	3	0	2	465	0	0	0	0	0
	5:45 PM	0	178	8	16	257	0	0	0	0	3	0	7	469	0	1	0	0	1
	VOLUMES	0	1,527	61	121	2,018	0	0	0	0	23	0	32	3,782	0	2	0	0	2
	APPROACH %	0%	96%	4%	6%	94%	0%	0%	0%	0%	42%	0%	58%						
	APP/DEPART	1,588	/	1,561	2,139	/	2,041	0	/	180	55	/	0	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	789	33	65	1,031	0	0	0	0	11	0	16	1,945					
	APPROACH %	0%	96%	4%	6%	94%	0%	0%	0%	0%	41%	0%	59%						
	PEAK HR FACTOR		0.901			0.945			0.000			0.750		0.923					
	APP/DEPART	822	/	805	1,096	/	1,042	0	/	98	27	/	0	0					

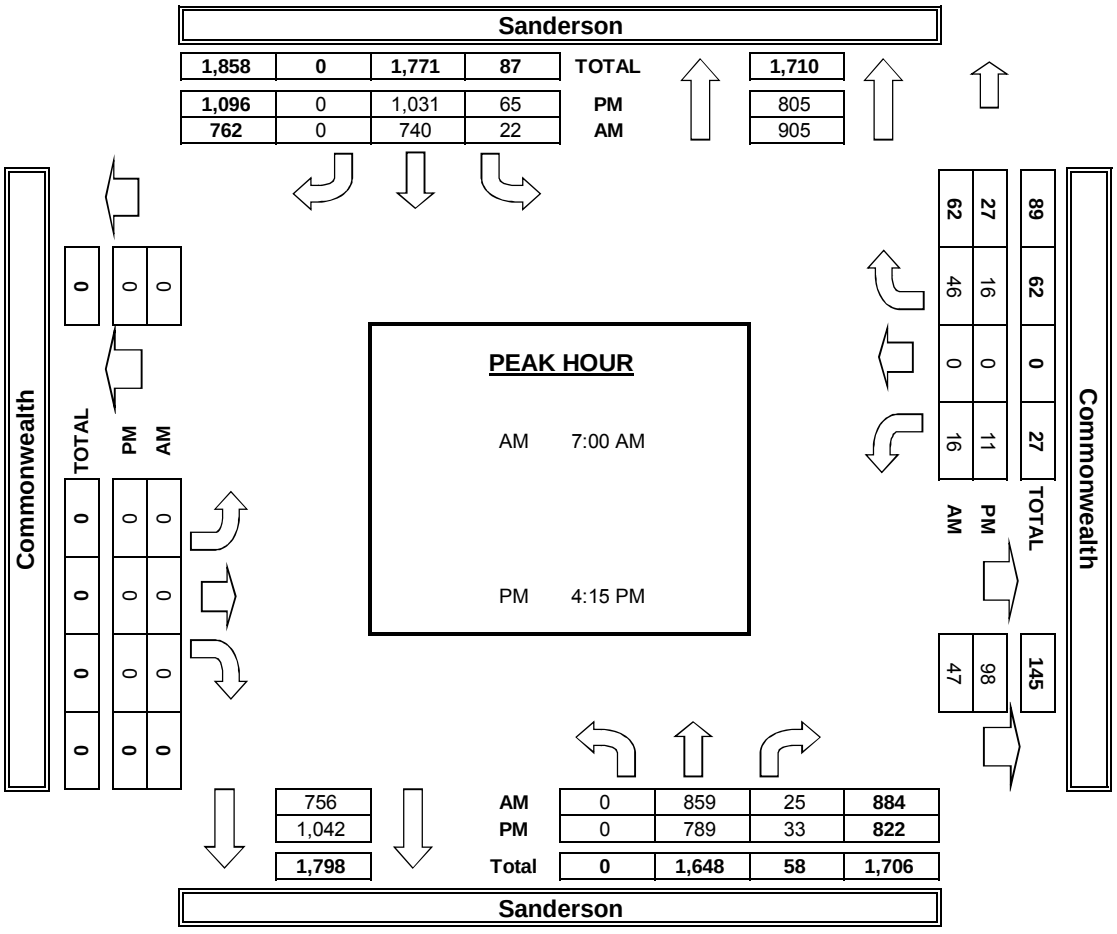


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	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, Sep 21, 16

LOCATION: Hemet
NORTH & SOUTH: Sanderson
EAST & WEST: Eaton

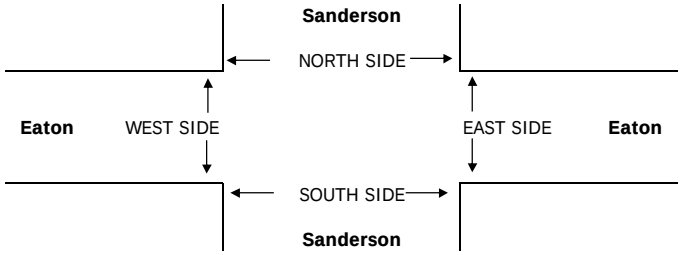
PROJECT #: SC1609
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

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

☑ Add U-Turns to Left Turns

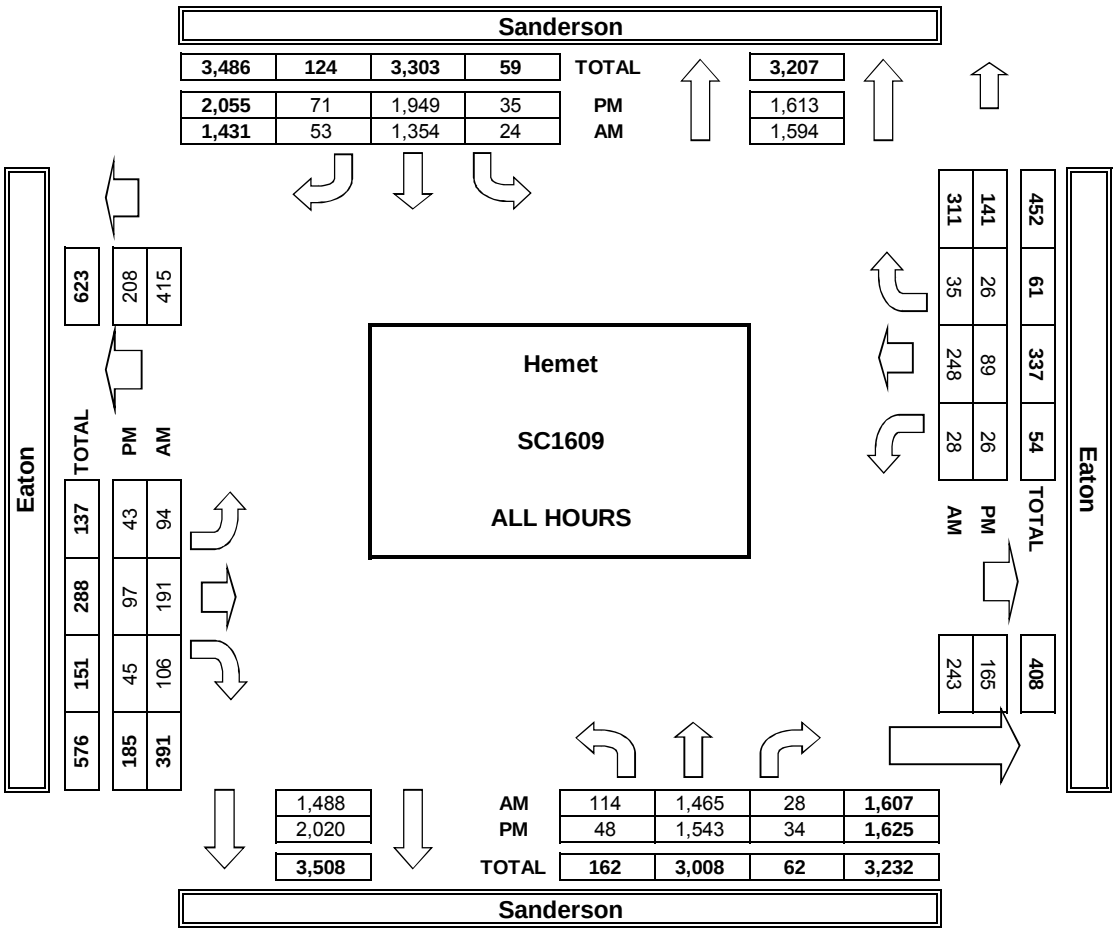
		NORTHBOUND Sanderson			SOUTHBOUND Sanderson			EASTBOUND Eaton			WESTBOUND Eaton				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	7	184	2	2	139	2	6	21	7	5	14	4	393	0	0	0	0	0
	7:15 AM	23	180	4	5	225	7	9	13	16	6	23	7	518	0	0	0	0	0
	7:30 AM	35	203	5	2	165	10	22	42	25	3	57	3	572	0	0	0	0	0
	7:45 AM	18	233	2	4	209	11	22	48	23	4	74	7	655	0	0	0	0	0
	8:00 AM	7	165	1	5	159	5	12	37	10	4	10	3	418	0	0	0	0	0
	8:15 AM	12	178	2	2	149	7	9	9	8	4	16	5	401	0	0	0	0	0
	8:30 AM	9	137	8	3	139	6	8	7	8	1	26	2	354	0	0	0	0	0
	8:45 AM	3	185	4	1	169	5	6	14	9	1	28	4	429	0	0	0	0	0
	VOLUMES	114	1,465	28	24	1,354	53	94	191	106	28	248	35	3,740	0	0	0	0	0
	APPROACH %	7%	91%	2%	2%	95%	4%	24%	49%	27%	9%	80%	11%						
	APP/DEPART	1,607	/	1,594	1,431	/	1,488	391	/	243	311	/	415	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	83	781	12	16	758	33	65	140	74	17	164	20	2,163					
	APPROACH %	9%	89%	1%	2%	94%	4%	23%	50%	27%	8%	82%	10%						
	PEAK HR FACTOR		0.866			0.851			0.750			0.591		0.826					
	APP/DEPART	876	/	866	807	/	849	279	/	168	201	/	280	0					
PM	4:00 PM	8	195	1	4	202	6	7	20	5	3	16	3	470	0	0	0	0	0
	4:15 PM	6	201	5	11	257	16	9	13	9	7	9	5	548	0	0	0	0	0
	4:30 PM	3	185	2	5	240	8	5	10	8	1	9	4	480	0	1	0	0	1
	4:45 PM	12	187	6	1	217	9	3	14	4	3	12	1	469	0	0	0	0	0
	5:00 PM	2	234	8	1	257	5	1	7	5	4	10	4	538	0	0	0	0	0
	5:15 PM	6	181	4	2	259	9	7	14	6	5	13	2	508	0	0	0	0	0
	5:30 PM	3	173	5	8	243	7	4	7	3	1	7	2	463	0	0	0	0	0
	5:45 PM	8	187	3	3	274	11	7	12	5	2	13	5	530	0	0	0	0	0
	VOLUMES	48	1,543	34	35	1,949	71	43	97	45	26	89	26	4,006	0	1	0	0	1
	APPROACH %	3%	95%	2%	2%	95%	3%	23%	52%	24%	18%	63%	18%						
	APP/DEPART	1,625	/	1,613	2,055	/	2,020	185	/	165	141	/	208	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	19	775	20	14	1,033	32	19	40	19	12	43	13	2,039					
	APPROACH %	2%	95%	2%	1%	96%	3%	24%	51%	24%	18%	63%	19%						
	PEAK HR FACTOR		0.834			0.937			0.722			0.850		0.947					
	APP/DEPART	814	/	807	1,079	/	1,064	78	/	74	68	/	94	0					

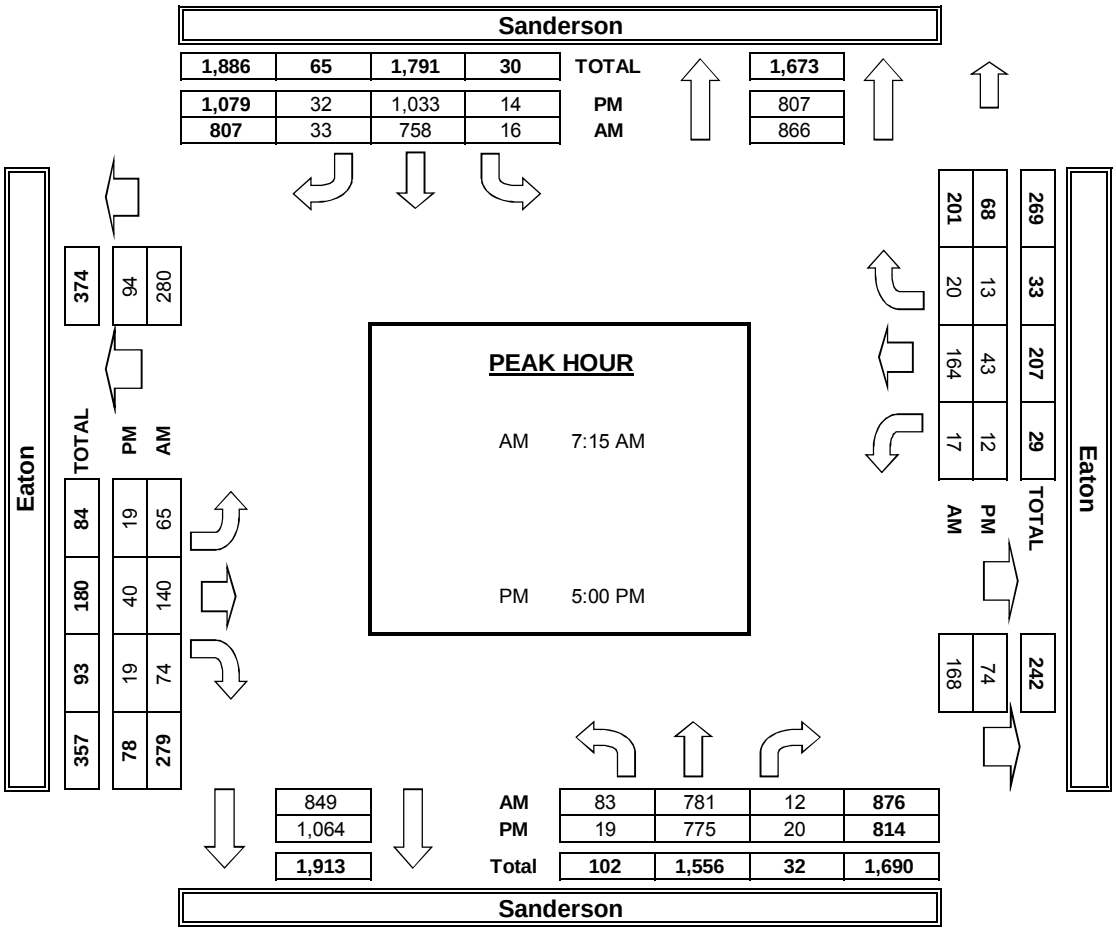


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	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, Sep 21, 16

LOCATION: Hemet
NORTH & SOUTH: Sanderson
EAST & WEST: Fruitvale

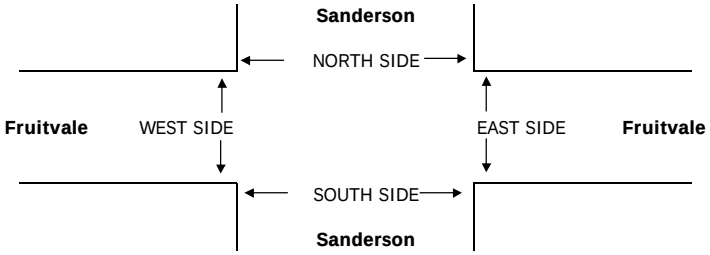
PROJECT #: SC1609
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

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

☑ Add U-Turns to Left Turns

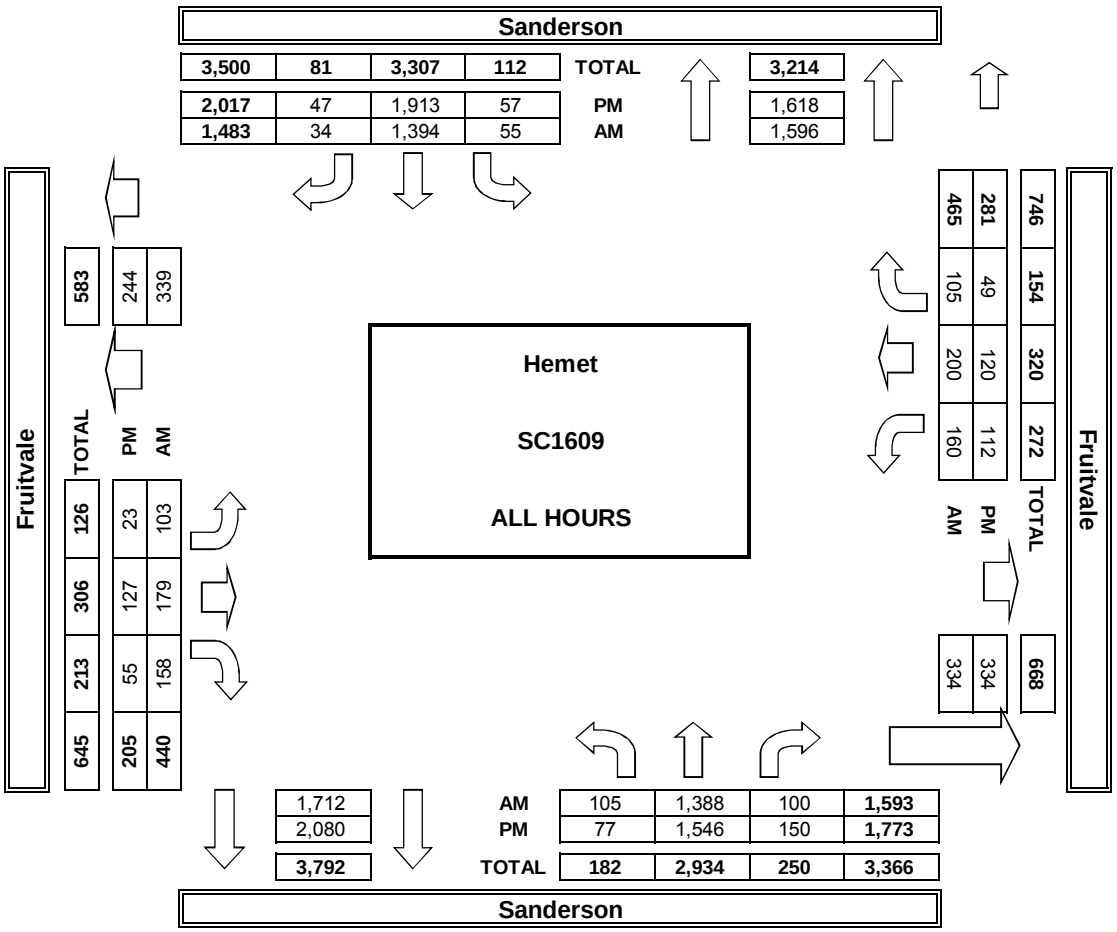
		NORTHBOUND Sanderson			SOUTHBOUND Sanderson			EASTBOUND Fruitvale			WESTBOUND Fruitvale				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	159	15	4	121	3	9	8	3	19	10	12	367	0	0	0	0	0
	7:15 AM	8	178	22	25	199	7	8	13	21	34	30	24	569	0	0	0	0	0
	7:30 AM	21	195	17	13	191	6	14	15	48	45	39	39	643	0	0	0	0	0
	7:45 AM	19	204	11	6	206	1	18	40	21	14	18	12	570	0	0	0	0	0
	8:00 AM	15	176	11	2	179	3	6	27	18	9	24	5	475	0	0	0	0	0
	8:15 AM	9	162	8	3	171	6	6	24	18	7	19	8	441	0	0	0	0	0
	8:30 AM	19	148	6	0	146	6	13	24	10	16	35	3	426	0	0	0	0	0
	8:45 AM	10	166	10	2	181	2	29	28	19	16	25	2	490	0	0	0	0	0
	VOLUMES	105	1,388	100	55	1,394	34	103	179	158	160	200	105	3,981	0	0	0	0	0
	APPROACH %	7%	87%	6%	4%	94%	2%	23%	41%	36%	34%	43%	23%						
	APP/DEPART	1,593	/	1,596	1,483	/	1,712	440	/	334	465	/	339	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	63	753	61	46	775	17	46	95	108	102	111	80	2,257					
	APPROACH %	7%	86%	7%	5%	92%	2%	18%	38%	43%	35%	38%	27%						
	PEAK HR FACTOR		0.937			0.907			0.788			0.596		0.878					
	APP/DEPART	877	/	879	838	/	985	249	/	202	293	/	191	0					
PM	4:00 PM	13	184	18	14	234	7	3	24	7	16	17	7	544	0	0	0	0	0
	4:15 PM	8	194	17	4	231	3	3	14	11	10	12	6	513	0	0	0	0	0
	4:30 PM	10	190	15	5	244	7	3	17	7	12	10	3	523	0	0	0	0	0
	4:45 PM	13	212	13	6	241	5	2	8	5	14	15	5	539	0	0	0	0	0
	5:00 PM	8	211	19	4	244	6	3	13	5	16	18	7	554	0	0	0	0	0
	5:15 PM	6	188	32	6	266	5	3	8	6	15	13	6	554	0	0	0	0	0
	5:30 PM	9	161	21	9	234	9	3	22	5	16	14	9	512	0	0	0	0	0
	5:45 PM	10	206	15	9	219	5	3	21	9	13	21	6	537	0	0	0	0	0
	VOLUMES	77	1,546	150	57	1,913	47	23	127	55	112	120	49	4,276	0	0	0	0	0
	APPROACH %	4%	87%	8%	3%	95%	2%	11%	62%	27%	40%	43%	17%						
	APP/DEPART	1,773	/	1,618	2,017	/	2,080	205	/	334	281	/	244	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	37	801	79	21	995	23	11	46	23	57	56	21	2,170					
	APPROACH %	4%	87%	9%	2%	96%	2%	14%	58%	29%	43%	42%	16%						
	PEAK HR FACTOR		0.963			0.938			0.741			0.817		0.979					
	APP/DEPART	917	/	833	1,039	/	1,075	80	/	146	134	/	116	0					

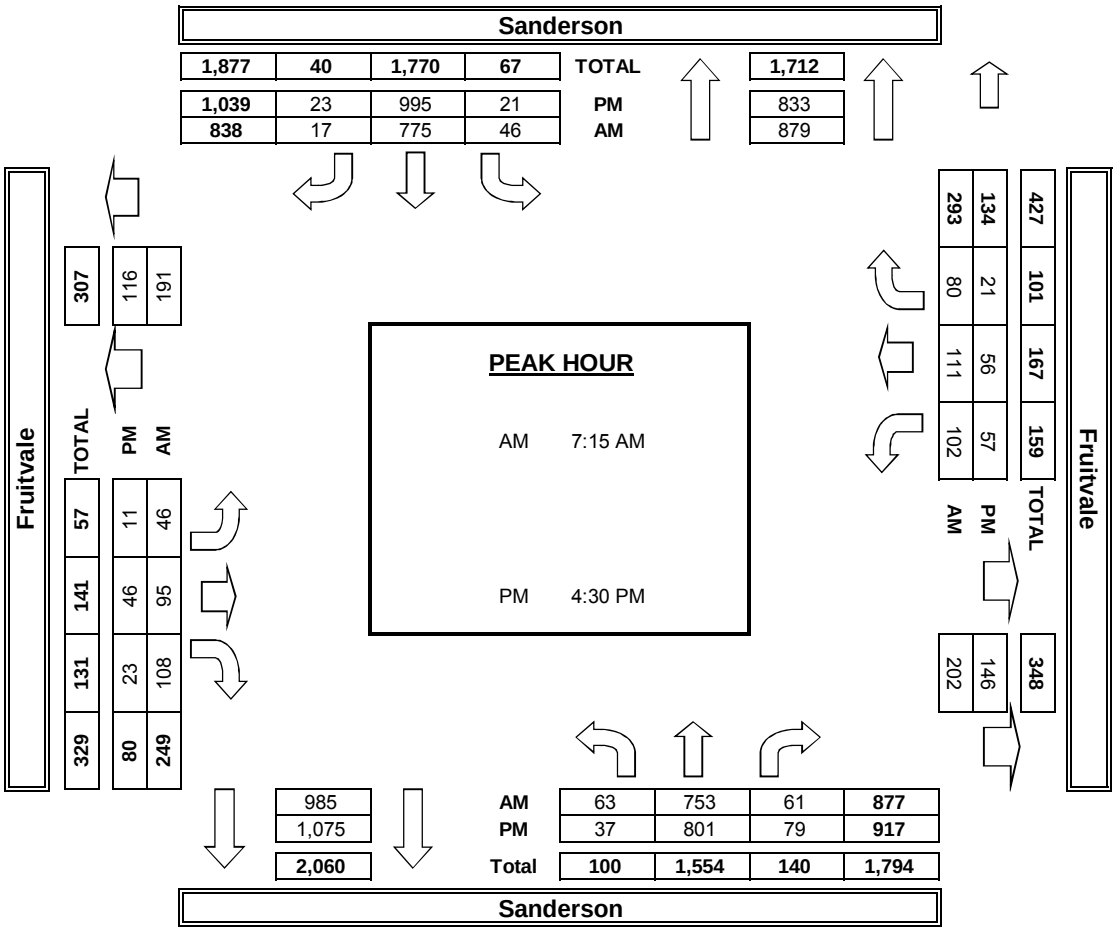


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0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





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

City of Hemet
N/S: Sanderson Avenue
E/W: Menlo Avenue
Weather: Clear

File Name : HEMSAMEAM
Site Code : 07516043
Start Date : 1/21/2016
Page No : 1

Groups Printed- Total Volume

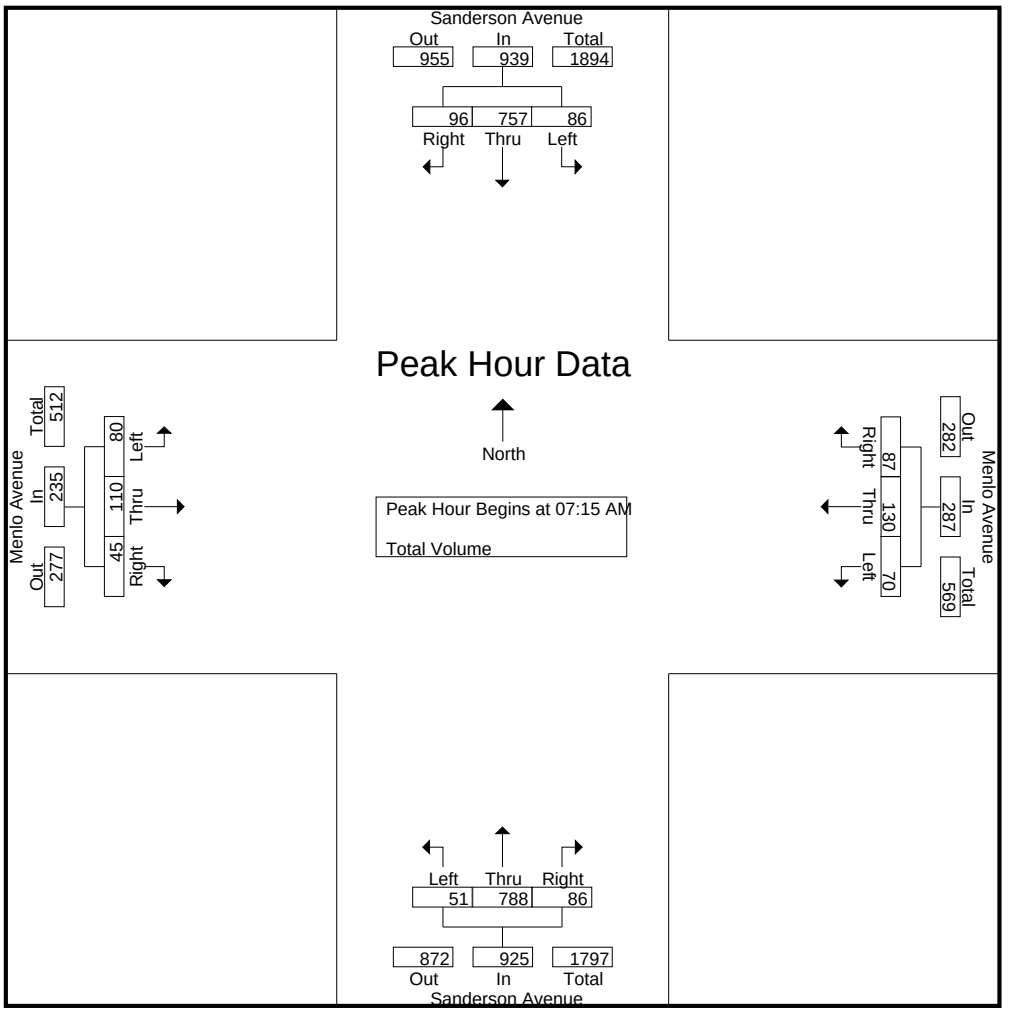
	Sanderson Avenue Southbound				Menlo Avenue Westbound				Sanderson Avenue Northbound				Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	130	11	147	11	28	17	56	15	181	11	207	11	14	8	33	443
07:15 AM	12	172	31	215	16	53	17	86	27	188	19	234	22	30	12	64	599
07:30 AM	35	206	29	270	18	31	20	69	11	212	18	241	23	27	16	66	646
07:45 AM	22	196	18	236	23	22	36	81	8	200	23	231	24	30	10	64	612
Total	75	704	89	868	68	134	90	292	61	781	71	913	80	101	46	227	2300
08:00 AM	17	183	18	218	13	24	14	51	5	188	26	219	11	23	7	41	529
08:15 AM	8	163	6	177	30	14	22	66	11	131	15	157	10	26	8	44	444
08:30 AM	16	177	5	198	13	17	15	45	7	159	17	183	6	26	10	42	468
08:45 AM	10	161	2	173	24	26	24	74	2	150	14	166	6	23	7	36	449
Total	51	684	31	766	80	81	75	236	25	628	72	725	33	98	32	163	1890
Grand Total	126	1388	120	1634	148	215	165	528	86	1409	143	1638	113	199	78	390	4190
Apprch %	7.7	84.9	7.3		28	40.7	31.2		5.3	86	8.7		29	51	20		
Total %	3	33.1	2.9	39	3.5	5.1	3.9	12.6	2.1	33.6	3.4	39.1	2.7	4.7	1.9	9.3	

	Sanderson Avenue Southbound				Menlo Avenue Westbound				Sanderson Avenue Northbound				Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	12	172	**31**	215	16	**53**	17	**86**	**27**	188	19	234	22	**30**	12	64	599
07:30 AM	**35**	**206**	29	**270**	18	31	20	69	11	**212**	18	**241**	23	27	**16**	**66**	**646**
07:45 AM	22	196	18	236	**23**	22	**36**	81	8	200	23	231	**24**	30	10	64	612
08:00 AM	17	183	18	218	13	24	14	51	5	188	**26**	219	11	23	7	41	529
Total Volume	86	757	96	939	70	130	87	287	51	788	86	925	80	110	45	235	2386
% App. Total	9.2	80.6	10.2		24.4	45.3	30.3		5.5	85.2	9.3		34	46.8	19.1		
PHF	.614	.919	.774	.869	.761	.613	.604	.834	.472	.929	.827	.960	.833	.917	.703	.890	.923

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

City of Hemet
N/S: Sanderson Avenue
E/W: Menlo Avenue
Weather: Clear

File Name : HEMSAMEAM
Site Code : 07516043
Start Date : 1/21/2016
Page No : 2



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

	07:15 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	12	172	**31**	215	11	28	17	56	**27**	188	19	234	22	**30**	12	64
+15 mins.	**35**	**206**	29	**270**	16	**53**	17	**86**	11	**212**	18	**241**	23	27	**16**	**66**
+30 mins.	22	196	18	236	18	31	20	69	8	200	23	231	**24**	30	10	64
+45 mins.	17	183	18	218	**23**	22	**36**	81	5	188	**26**	219	11	23	7	41
Total Volume	86	757	96	939	68	134	90	292	51	788	86	925	80	110	45	235
% App. Total	9.2	80.6	10.2		23.3	45.9	30.8		5.5	85.2	9.3		34	46.8	19.1	
PHF	.614	.919	.774	.869	.739	.632	.625	.849	.472	.929	.827	.960	.833	.917	.703	.890

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

City of Hemet
N/S: Sanderson Avenue
E/W: Menlo Avenue
Weather: Clear

File Name : HEMSAMEPM
Site Code : 07516043
Start Date : 1/21/2016
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound				Menlo Avenue Westbound				Sanderson Avenue Northbound				Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	20	279	17	316	19	17	13	49	9	183	27	219	8	21	9	38	622
04:15 PM	19	215	12	246	15	21	6	42	8	197	25	230	2	14	7	23	541
04:30 PM	13	220	8	241	15	22	10	47	12	196	21	229	9	30	11	50	567
04:45 PM	13	215	12	240	24	25	16	65	3	235	19	257	4	23	8	35	597
Total	65	929	49	1043	73	85	45	203	32	811	92	935	23	88	35	146	2327
05:00 PM	17	228	15	260	29	25	11	65	3	231	16	250	8	22	7	37	612
05:15 PM	17	244	18	279	17	20	12	49	5	203	29	237	5	33	7	45	610
05:30 PM	18	221	11	250	22	28	11	61	15	215	29	259	9	18	11	38	608
05:45 PM	17	249	15	281	21	21	11	53	9	176	23	208	5	16	9	30	572
Total	69	942	59	1070	89	94	45	228	32	825	97	954	27	89	34	150	2402
Grand Total	134	1871	108	2113	162	179	90	431	64	1636	189	1889	50	177	69	296	4729
Apprch %	6.3	88.5	5.1		37.6	41.5	20.9		3.4	86.6	10		16.9	59.8	23.3		
Total %	2.8	39.6	2.3	44.7	3.4	3.8	1.9	9.1	1.4	34.6	4	39.9	1.1	3.7	1.5	6.3	

	Sanderson Avenue Southbound				Menlo Avenue Westbound				Sanderson Avenue Northbound				Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	13	215	12	240	24	25	**16**	**65**	3	**235**	19	257	4	23	8	35	597
05:00 PM	17	228	15	260	**29**	25	11	65	3	231	16	250	8	22	7	37	**612**
05:15 PM	17	**244**	**18**	**279**	17	20	12	49	5	203	**29**	237	5	**33**	7	**45**	610
05:30 PM	**18**	221	11	250	22	**28**	11	61	**15**	215	29	**259**	**9**	18	**11**	38	608
Total Volume	65	908	56	1029	92	98	50	240	26	884	93	1003	26	96	33	155	2427
% App. Total	6.3	88.2	5.4		38.3	40.8	20.8		2.6	88.1	9.3		16.8	61.9	21.3		
PHF	.903	.930	.778	.922	.793	.875	.781	.923	.433	.940	.802	.968	.722	.727	.750	.861	.991

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City of Hemet
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E/W: Menlo Avenue
Weather: Clear

File Name : HEMSAMEPM
Site Code : 07516043
Start Date : 1/21/2016
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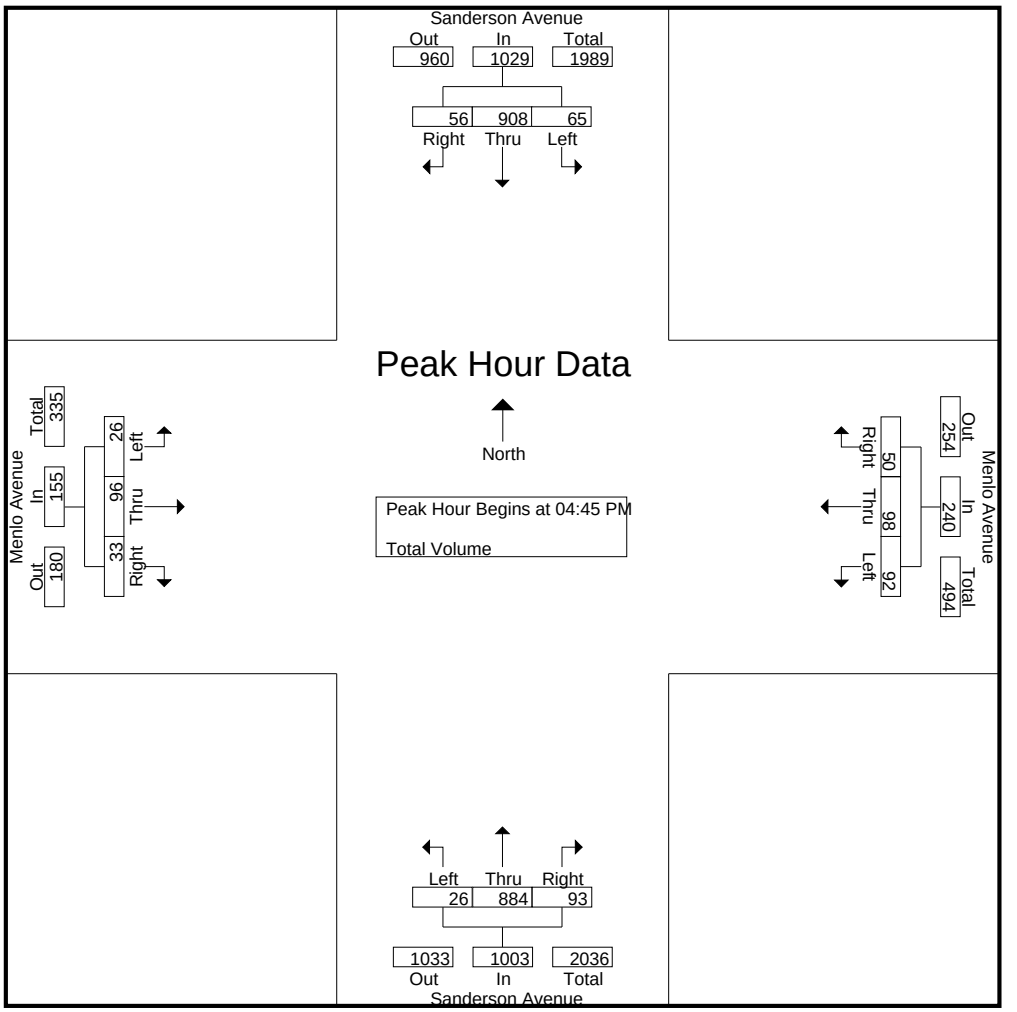

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:45 PM				04:45 PM				04:30 PM			
+0 mins.	17	228	15	260	24	25	**16**	**65**	3	**235**	19	257	**9**	30	**11**	**50**
+15 mins.	17	244	**18**	279	**29**	25	11	65	3	231	16	250	4	23	8	35
+30 mins.	**18**	221	11	250	17	20	12	49	5	203	**29**	237	8	22	7	37
+45 mins.	17	**249**	15	**281**	22	**28**	11	61	**15**	215	29	**259**	5	**33**	7	45
Total Volume	69	942	59	1070	92	98	50	240	26	884	93	1003	26	108	33	167
% App. Total	6.4	88	5.5		38.3	40.8	20.8		2.6	88.1	9.3		15.6	64.7	19.8	
PHF	.958	.946	.819	.952	.793	.875	.781	.923	.433	.940	.802	.968	.722	.818	.750	.835

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City of Hemet
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Weather: Clear

File Name : HEMSADEAM
Site Code : 07516043
Start Date : 1/21/2016
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound				Devonshire Avenue Westbound				Sanderson Avenue Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	127	12	148	14	30	19	63	9	185	10	204	16	23	16	55	470
07:15 AM	17	166	18	201	17	37	26	80	5	192	16	213	12	26	12	50	544
07:30 AM	36	184	23	243	9	37	35	81	8	189	13	210	25	41	18	84	618
07:45 AM	34	157	30	221	21	48	18	87	18	177	11	206	19	62	17	98	612
Total	96	634	83	813	61	152	98	311	40	743	50	833	72	152	63	287	2244
08:00 AM	20	162	20	202	15	38	13	66	7	182	26	215	21	61	12	94	577
08:15 AM	22	152	18	192	23	48	13	84	11	147	18	176	15	36	7	58	510
08:30 AM	19	172	16	207	28	43	21	92	6	142	25	173	17	51	13	81	553
08:45 AM	28	144	18	190	14	35	11	60	14	147	29	190	12	56	14	82	522
Total	89	630	72	791	80	164	58	302	38	618	98	754	65	204	46	315	2162
Grand Total	185	1264	155	1604	141	316	156	613	78	1361	148	1587	137	356	109	602	4406
Apprch %	11.5	78.8	9.7		23	51.5	25.4		4.9	85.8	9.3		22.8	59.1	18.1		
Total %	4.2	28.7	3.5	36.4	3.2	7.2	3.5	13.9	1.8	30.9	3.4	36	3.1	8.1	2.5	13.7	

	Sanderson Avenue Southbound				Devonshire Avenue Westbound				Sanderson Avenue Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	17	166	18	201	17	37	26	80	5	**192**	16	213	12	26	12	50	544
07:30 AM	**36**	**184**	23	**243**	9	37	**35**	81	8	189	13	210	**25**	41	**18**	84	**618**
07:45 AM	34	157	**30**	221	**21**	**48**	18	**87**	**18**	177	11	206	19	**62**	17	**98**	612
08:00 AM	20	162	20	202	15	38	13	66	7	182	**26**	**215**	21	61	12	94	577
Total Volume	107	669	91	867	62	160	92	314	38	740	66	844	77	190	59	326	2351
% App. Total	12.3	77.2	10.5		19.7	51	29.3		4.5	87.7	7.8		23.6	58.3	18.1		
PHF	.743	.909	.758	.892	.738	.833	.657	.902	.528	.964	.635	.981	.770	.766	.819	.832	.951

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Site Code : 07516043
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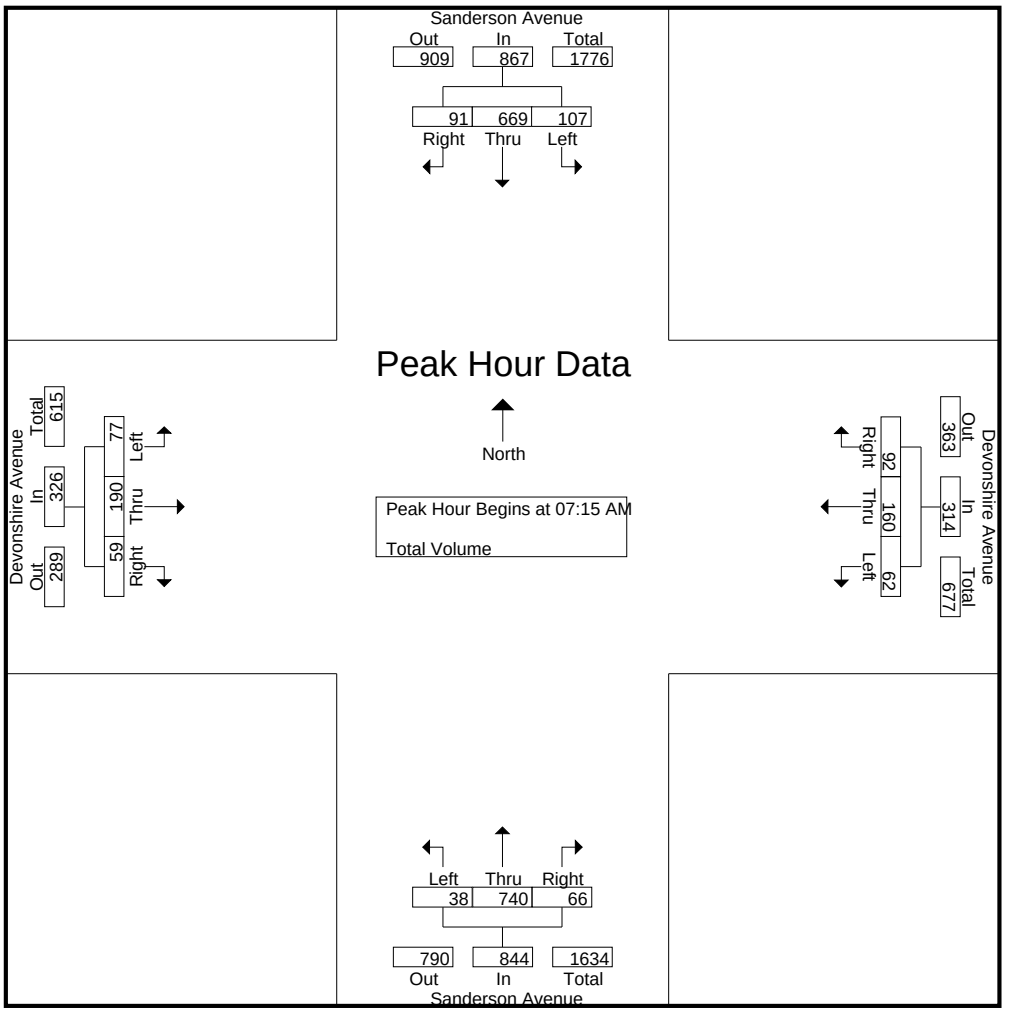

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:15 AM				07:30 AM			
+0 mins.	17	166	18	201	21	**48**	18	87	5	**192**	16	213	**25**	41	**18**	84
+15 mins.	**36**	**184**	23	**243**	15	38	13	66	8	189	13	210	19	**62**	17	**98**
+30 mins.	34	157	**30**	221	23	48	13	84	**18**	177	11	206	21	61	12	94
+45 mins.	20	162	20	202	**28**	43	**21**	**92**	7	182	**26**	**215**	15	36	7	58
Total Volume	107	669	91	867	87	177	65	329	38	740	66	844	80	200	54	334
% App. Total	12.3	77.2	10.5		26.4	53.8	19.8		4.5	87.7	7.8		24	59.9	16.2	
PHF	.743	.909	.758	.892	.777	.922	.774	.894	.528	.964	.635	.981	.800	.806	.750	.852

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File Name : HEMSADEPM
Site Code : 07516043
Start Date : 1/21/2016
Page No : 1

Groups Printed- Total Volume

	Sanderson Avenue Southbound				Devonshire Avenue Westbound				Sanderson Avenue Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	26	248	32	306	24	80	17	121	24	180	31	235	29	64	16	109	771
04:15 PM	35	197	24	256	37	62	15	114	25	189	35	249	29	79	11	119	738
04:30 PM	27	201	24	252	33	54	16	103	25	185	19	229	32	62	16	110	694
04:45 PM	26	189	19	234	31	69	28	128	27	195	40	262	27	80	15	122	746
Total	114	835	99	1048	125	265	76	466	101	749	125	975	117	285	58	460	2949
05:00 PM	16	214	28	258	32	77	22	131	20	198	33	251	34	61	27	122	762
05:15 PM	33	213	23	269	16	62	10	88	34	190	31	255	31	47	19	97	709
05:30 PM	37	191	25	253	29	44	19	92	32	204	38	274	33	55	17	105	724
05:45 PM	32	210	29	271	29	51	21	101	24	157	28	209	32	59	21	112	693
Total	118	828	105	1051	106	234	72	412	110	749	130	989	130	222	84	436	2888
Grand Total	232	1663	204	2099	231	499	148	878	211	1498	255	1964	247	507	142	896	5837
Apprch %	11.1	79.2	9.7		26.3	56.8	16.9		10.7	76.3	13		27.6	56.6	15.8		
Total %	4	28.5	3.5	36	4	8.5	2.5	15	3.6	25.7	4.4	33.6	4.2	8.7	2.4	15.4	

	Sanderson Avenue Southbound				Devonshire Avenue Westbound				Sanderson Avenue Northbound				Devonshire Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	26	**248**	**32**	**306**	24	**80**	17	121	24	180	31	235	29	64	**16**	109	**771**
04:15 PM	**35**	197	24	256	**37**	62	15	114	25	189	35	249	29	79	11	119	738
04:30 PM	27	201	24	252	33	54	16	103	25	185	19	229	**32**	62	16	110	694
04:45 PM	26	189	19	234	31	69	**28**	**128**	**27**	**195**	**40**	**262**	27	**80**	15	**122**	746
Total Volume	114	835	99	1048	125	265	76	466	101	749	125	975	117	285	58	460	2949
% App. Total	10.9	79.7	9.4		26.8	56.9	16.3		10.4	76.8	12.8		25.4	62	12.6		
PHF	.814	.842	.773	.856	.845	.828	.679	.910	.935	.960	.781	.930	.914	.891	.906	.943	.956

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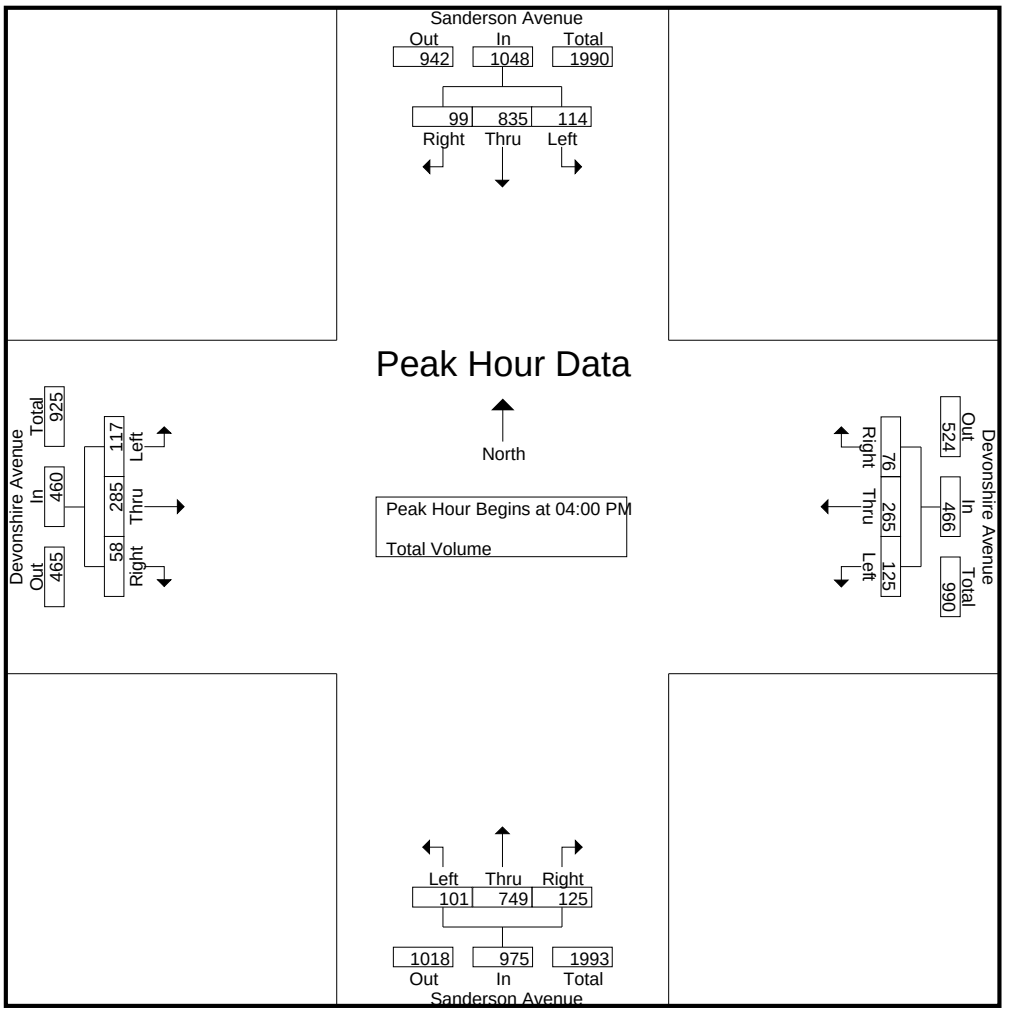
Site Code : 07516043
Start Date : 1/21/2016
Page No : 2



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

	05:00 PM				04:15 PM				04:45 PM				04:15 PM			
+0 mins.	16	**214**	28	258	**37**	62	15	114	27	195	**40**	262	29	79	11	119
+15 mins.	33	213	23	269	33	54	16	103	20	198	33	251	32	62	16	110
+30 mins.	**37**	191	25	253	31	69	**28**	128	**34**	190	31	255	27	**80**	15	**122**
+45 mins.	32	210	**29**	**271**	32	**77**	22	**131**	32	**204**	38	**274**	**34**	61	**27**	122
Total Volume	118	828	105	1051	133	262	81	476	113	787	142	1042	122	282	69	473
% App. Total	11.2	78.8	10		27.9	55	17		10.8	75.5	13.6		25.8	59.6	14.6	
PHF	.797	.967	.905	.970	.899	.851	.723	.908	.831	.964	.888	.951	.897	.881	.639	.969

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Wed, Sep 21, 16

LOCATION: Hemet
NORTH & SOUTH: Kirby
EAST & WEST: Menlo

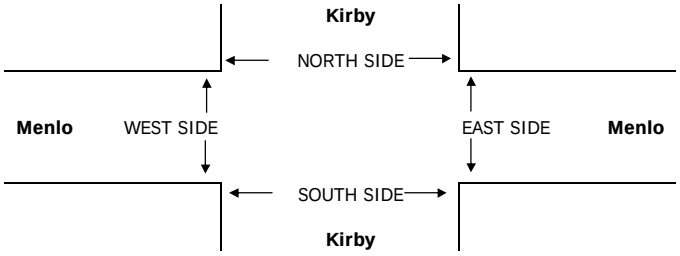
PROJECT #: SC1609
LOCATION #: 6
CONTROL: STOP ALL

NOTES:

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

☑ Add U-Turns to Left Turns

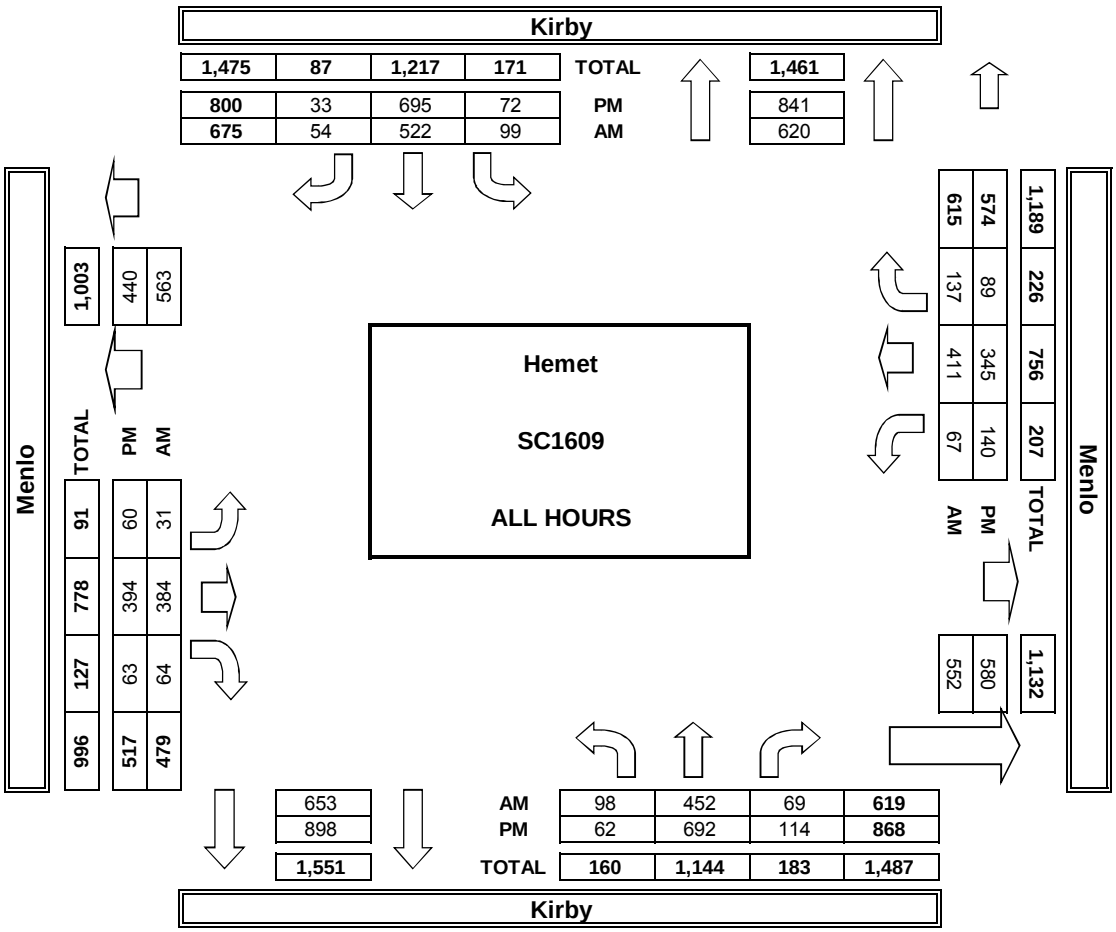
		NORTHBOUND Kirby			SOUTHBOUND Kirby			EASTBOUND Menlo			WESTBOUND Menlo				U-TURNS				
	LANES:	NL 0	NT 2	NR 0	SL 0	ST 2	SR 0	EL 0	ET 2	ER 0	WL 0	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	10	56	9	12	49	7	2	30	1	9	36	19	240	0	0	0	0	0
	7:15 AM	17	76	14	20	81	9	1	41	8	5	67	43	382	0	0	0	0	0
	7:30 AM	18	77	8	17	87	6	8	64	16	7	70	21	399	0	0	0	0	0
	7:45 AM	18	41	11	15	80	6	3	55	13	6	52	15	315	0	0	0	0	0
	8:00 AM	10	45	7	10	60	7	5	48	5	9	49	8	263	0	0	0	0	0
	8:15 AM	11	48	6	4	49	3	7	46	6	8	36	10	234	0	0	0	0	0
	8:30 AM	6	68	7	11	50	5	2	38	8	9	51	15	270	0	0	0	0	0
	8:45 AM	8	41	7	10	66	11	3	62	7	14	50	6	285	0	0	0	0	0
	VOLUMES	98	452	69	99	522	54	31	384	64	67	411	137	2,388	0	0	0	0	0
	APPROACH %	16%	73%	11%	15%	77%	8%	6%	80%	13%	11%	67%	22%						
	APP/DEPART	619	/	620	675	/	653	479	/	552	615	/	563	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	63	239	40	62	308	28	17	208	42	27	238	87	1,359					
	APPROACH %	18%	70%	12%	16%	77%	7%	6%	78%	16%	8%	68%	25%						
	PEAK HR FACTOR		0.799			0.905			0.759			0.765		0.852					
	APP/DEPART	342	/	343	398	/	377	267	/	310	352	/	329	0					
PM	4:00 PM	11	80	17	13	86	4	5	56	6	20	45	17	360	0	0	0	0	0
	4:15 PM	6	87	16	11	89	2	8	44	13	19	31	9	335	0	0	0	0	0
	4:30 PM	6	95	16	9	85	1	9	62	9	19	46	9	366	0	0	0	0	0
	4:45 PM	6	85	14	6	77	9	11	46	7	17	39	11	328	0	0	0	0	0
	5:00 PM	13	88	16	12	79	3	10	48	6	17	55	15	362	0	0	0	0	0
	5:15 PM	7	89	8	5	90	8	8	51	5	16	51	7	345	0	0	0	0	0
	5:30 PM	3	83	11	9	94	4	6	45	11	19	37	11	333	0	0	0	0	0
	5:45 PM	10	85	16	7	95	2	3	42	6	13	41	10	330	0	0	0	0	0
	VOLUMES	62	692	114	72	695	33	60	394	63	140	345	89	2,759	0	0	0	0	0
	APPROACH %	7%	80%	13%	9%	87%	4%	12%	76%	12%	24%	60%	16%						
	APP/DEPART	868	/	841	800	/	898	517	/	580	574	/	440	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	32	357	54	32	331	21	38	207	27	69	191	42	1,401					
	APPROACH %	7%	81%	12%	8%	86%	5%	14%	76%	10%	23%	63%	14%						
	PEAK HR FACTOR		0.947			0.932			0.850			0.868		0.957					
	APP/DEPART	443	/	437	384	/	427	272	/	293	302	/	244	0					

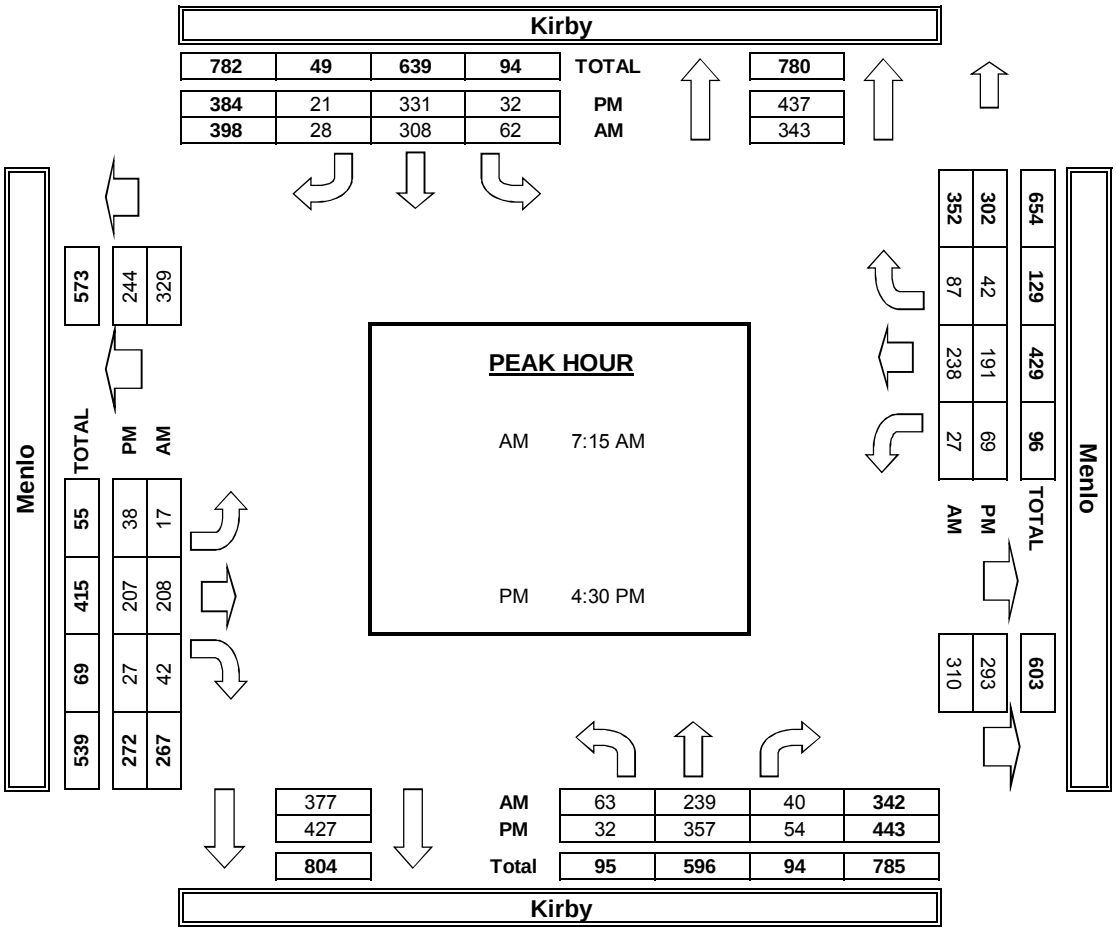


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0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

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

HCS 2010 Two-Way Stop Control Summary Report

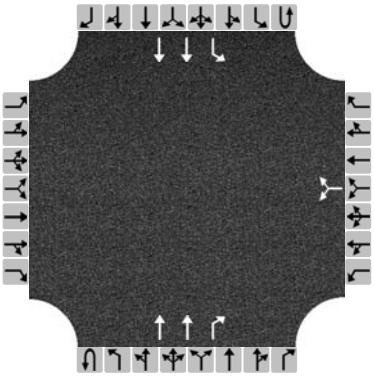
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2016
Time Analyzed	Existing - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						16		46			859	25		22	740	
Percent Heavy Vehicles						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)							65							23		
Capacity							314							731		
v/c Ratio							0.21							0.03		
95% Queue Length							0.8							0.1		
Control Delay (s/veh)							19.4							10.1		
Level of Service (LOS)							C							B		
Approach Delay (s/veh)					19.4								0.3			
Approach LOS					C											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (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):	0.636

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	83	781	12	16	758	33	65	140	74	17	164	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
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	781	12	16	758	33	65	140	74	17	164	20
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	236	4	5	229	10	20	42	22	5	50	6
Total Analysis Volume [veh/h]	100	946	15	19	918	40	79	169	90	21	199	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 Coordinated
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	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]	6	29	29	2	25	25	5	11	11	2	8	8
g / C, Green / Cycle	0.10	0.47	0.47	0.03	0.41	0.41	0.09	0.19	0.19	0.04	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.27	0.01	0.01	0.26	0.03	0.04	0.09	0.06	0.01	0.11	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	172	1675	748	61	1453	649	156	356	302	66	261	222
d1, Uniform Delay [s]	26.06	11.45	8.47	28.42	14.17	10.78	26.25	21.70	20.92	28.29	24.95	22.63
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.10	1.38	0.05	2.89	2.10	0.18	2.53	0.98	0.54	2.75	4.57	0.21
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	0.56	0.02	0.31	0.63	0.06	0.51	0.47	0.30	0.32	0.76	0.11
d, Delay for Lane Group [s/veh]	29.16	12.83	8.52	31.31	16.27	10.96	28.79	22.68	21.46	31.04	29.52	22.84
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.44	4.12	0.10	0.30	4.72	0.32	1.13	2.08	1.06	0.33	2.89	0.29
50th-Percentile Queue Length [ft]	36.08	103.02	2.49	7.59	118.01	7.94	28.32	51.90	26.54	8.28	72.32	7.33
95th-Percentile Queue Length [veh]	2.60	7.42	0.18	0.55	8.28	0.57	2.04	3.74	1.91	0.60	5.21	0.53
95th-Percentile Queue Length [ft]	64.95	185.43	4.47	13.66	207.09	14.29	50.98	93.42	47.77	14.91	130.18	13.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.16	12.83	8.52	31.31	16.27	10.96	28.79	22.68	21.46	31.04	29.52	22.84
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.31			16.35			23.79			29.00		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.66											
Intersection LOS	B											
Intersection V/C	0.636											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	15.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.531

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	63	753	61	46	775	17	46	95	108	102	111	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	63	753	61	46	775	17	46	95	108	102	111	80
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	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	214	17	13	221	5	13	27	31	29	32	23
Total Analysis Volume [veh/h]	72	858	69	52	883	19	52	108	123	116	126	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 Coordinated
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]	11	30	0	11	30	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	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	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]	5	29	29	4	28	28	15	15	15	15
g / C, Green / Cycle	0.08	0.48	0.48	0.07	0.47	0.47	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.24	0.04	0.03	0.25	0.01	0.04	0.14	0.10	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1160	1703	1145	1734
c, Capacity [veh/h]	148	1704	761	124	1655	739	249	426	235	434
d1, Uniform Delay [s]	26.33	10.71	8.49	26.81	11.40	8.66	24.88	19.56	27.08	19.33
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]	2.44	1.07	0.24	2.25	1.24	0.06	0.41	1.07	1.60	0.89
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

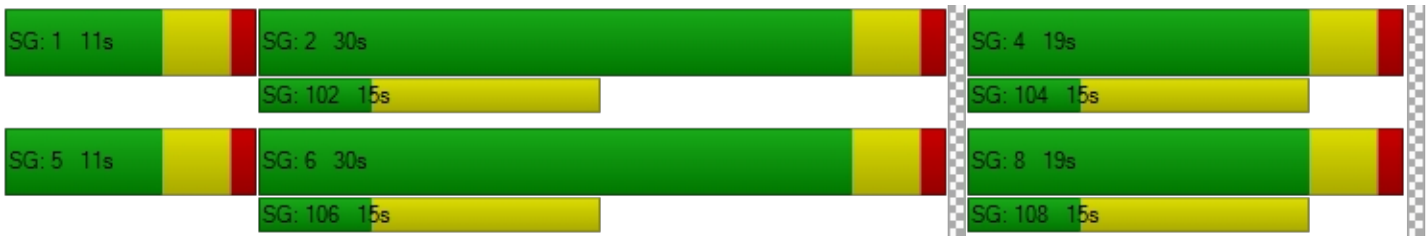
X, volume / capacity	0.48	0.50	0.09	0.42	0.53	0.03	0.21	0.54	0.49	0.50
d, Delay for Lane Group [s/veh]	28.77	11.78	8.73	29.05	12.63	8.73	25.29	20.64	28.68	20.22
Lane Group LOS	C	B	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.03	3.52	0.47	0.76	3.81	0.13	0.68	2.70	1.67	2.50
50th-Percentile Queue Length [ft]	25.83	87.98	11.66	18.88	95.34	3.22	16.98	67.53	41.76	62.41
95th-Percentile Queue Length [veh]	1.86	6.33	0.84	1.36	6.86	0.23	1.22	4.86	3.01	4.49
95th-Percentile Queue Length [ft]	46.49	158.36	20.98	33.99	171.61	5.79	30.57	121.55	75.18	112.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.77	11.78	8.73	29.05	12.63	8.73	25.29	20.64	20.64	28.68	20.22	20.22
Movement LOS	C	B	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	12.79			13.45			21.49			23.17		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.34											
Intersection LOS	B											
Intersection V/C	0.531											

Sequence

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



Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.570

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	51	788	86	86	757	96	80	110	45	70	130	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	51	788	86	86	757	96	80	110	45	70	130	87
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	213	23	23	205	26	22	30	12	19	35	24
Total Analysis Volume [veh/h]	55	854	93	93	820	104	87	119	49	76	141	94
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 Coordinated
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	24	0	11	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	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	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	31	31	6	32	32	6	7	7	5	7	7
g / C, Green / Cycle	0.07	0.47	0.47	0.09	0.49	0.49	0.09	0.11	0.11	0.08	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.05	0.25	0.25	0.05	0.05	0.05	0.04	0.07	0.07
s, saturation flow rate [veh/h]	1774	1863	1799	1774	1863	1790	1774	1863	1685	1774	1863	1624
c, Capacity [veh/h]	124	878	848	159	914	878	155	208	188	146	199	173
d1, Uniform Delay [s]	29.12	12.31	12.31	28.55	11.33	11.33	28.59	27.01	27.08	28.70	27.87	27.99
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.45	2.46	2.55	3.39	2.08	2.16	3.16	1.32	1.59	2.83	3.05	4.10
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	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	0.44	0.55	0.55	0.59	0.52	0.52	0.56	0.41	0.44	0.52	0.61	0.65
d, Delay for Lane Group [s/veh]	31.58	14.77	14.86	31.94	13.41	13.49	31.75	28.33	28.68	31.53	30.92	32.09
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.88	4.92	4.78	1.49	4.50	4.35	1.38	1.27	1.22	1.21	1.90	1.81
50th-Percentile Queue Length [ft]	21.93	123.10	119.41	37.13	112.49	108.63	34.61	31.63	30.53	30.14	47.55	45.29
95th-Percentile Queue Length [veh]	1.58	8.56	8.36	2.67	7.98	7.76	2.49	2.28	2.20	2.17	3.42	3.26
95th-Percentile Queue Length [ft]	39.47	214.07	209.02	66.83	199.46	194.09	62.31	56.94	54.95	54.25	85.59	81.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.58	14.81	14.86	31.94	13.44	13.49	31.75	28.42	28.68	31.53	31.08	32.09
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.73			15.14			29.61			31.50		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.76											
Intersection LOS	B											
Intersection V/C	0.570											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (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):	0.597

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	38	740	66	107	669	91	77	190	59	62	160	92
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	38	740	66	107	669	91	77	190	59	62	160	92
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]	10	195	17	28	176	24	20	50	16	16	42	24
Total Analysis Volume [veh/h]	40	778	69	113	703	96	81	200	62	65	168	97
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	25	25	6	27	27	5	9	9	5	8	8
g / C, Green / Cycle	0.06	0.41	0.41	0.10	0.45	0.45	0.09	0.14	0.14	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.23	0.06	0.22	0.22	0.05	0.11	0.04	0.04	0.07	0.08
s, saturation flow rate [veh/h]	1774	1863	1810	1774	1863	1785	1774	1863	1583	1774	1863	1643
c, Capacity [veh/h]	106	764	743	179	842	807	158	267	227	142	250	221
d1, Uniform Delay [s]	27.28	13.62	13.62	26.02	11.60	11.60	26.23	24.78	23.02	26.50	24.39	24.50
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.23	2.98	3.06	3.62	1.99	2.08	2.58	4.18	0.64	2.31	1.87	2.39
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	0.38	0.56	0.56	0.63	0.48	0.48	0.51	0.75	0.27	0.46	0.55	0.58
d, Delay for Lane Group [s/veh]	29.51	16.60	16.69	29.64	13.59	13.68	28.80	28.96	23.66	28.81	26.26	26.88
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.59	4.50	4.39	1.65	3.72	3.59	1.16	2.87	0.78	0.93	1.85	1.75
50th-Percentile Queue Length [ft]	14.78	112.48	109.77	41.17	92.99	89.63	29.04	71.84	19.47	23.37	46.22	43.79
95th-Percentile Queue Length [veh]	1.06	7.98	7.83	2.96	6.70	6.45	2.09	5.17	1.40	1.68	3.33	3.15
95th-Percentile Queue Length [ft]	26.61	199.45	195.68	74.11	167.38	161.33	52.28	129.31	35.04	42.07	83.20	78.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.51	16.64	16.69	29.64	13.63	13.68	28.80	28.96	23.66	28.81	26.37	26.88
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.22			15.62			27.97			27.00		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.43											
Intersection LOS	B											
Intersection V/C	0.597											

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	63	239	40	62	308	28	17	208	42	27	238	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	63	239	40	62	308	28	17	208	42	27	238	87
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]	18	70	12	18	90	8	5	61	12	8	70	26
Total Analysis Volume [veh/h]	74	281	47	73	362	33	20	244	49	32	279	102
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.29	2.14	2.89	2.73	3.71	0.33	5.00	0.75
95th-Percentile Queue Length [ft]	57.21	53.38	72.15	68.26	92.64	8.22	125.11	18.67
Approach Delay [s/veh]	16.68		18.26		19.92		22.22	
Approach LOS	C		C		C		C	
Intersection Delay [s/veh]	19.21							
Intersection LOS	C							

HCS 2010 Two-Way Stop Control Summary Report

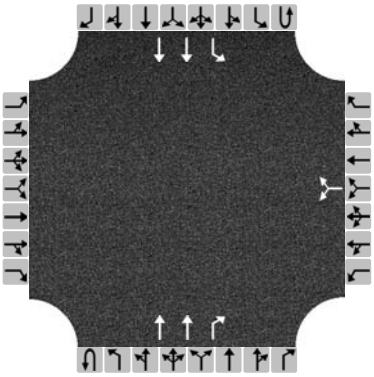
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2016
Time Analyzed	Existing - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						11		16			789	33		65	1031	
Percent Heavy Vehicles						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)							28							68		
Capacity							206							774		
v/c Ratio							0.14							0.09		
95% Queue Length							0.5							0.3		
Control Delay (s/veh)							25.2							10.1		
Level of Service (LOS)							D							B		
Approach Delay (s/veh)					25.2								0.6			
Approach LOS					D											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	9.3
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	19	775	20	14	1033	32	19	40	19	12	43	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	19	775	20	14	1033	32	19	40	19	12	43	13
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]	5	205	5	4	273	8	5	11	5	3	11	3
Total Analysis Volume [veh/h]	20	818	21	15	1091	34	20	42	20	13	45	14
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 Coordinated
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	31	0	19	39	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	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]	3	54	54	2	54	54	3	6	6	2	5	5
g / C, Green / Cycle	0.03	0.68	0.68	0.03	0.67	0.67	0.03	0.07	0.07	0.02	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.01	0.23	0.01	0.01	0.31	0.02	0.01	0.02	0.01	0.01	0.02	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	59	2396	1070	47	2373	1059	59	139	118	42	122	103
d1, Uniform Delay [s]	37.92	5.48	4.28	38.34	6.34	4.49	37.92	35.13	34.78	38.52	35.91	35.36
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.38	0.39	0.03	3.83	0.64	0.06	3.38	1.20	0.67	4.12	1.87	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

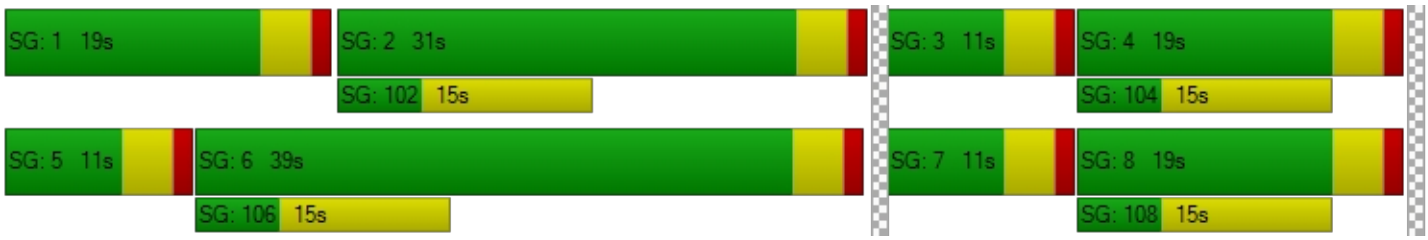
X, volume / capacity	0.34	0.34	0.02	0.32	0.46	0.03	0.34	0.30	0.17	0.31	0.37	0.14
d, Delay for Lane Group [s/veh]	41.30	5.87	4.31	42.17	6.99	4.55	41.30	36.33	35.44	42.64	37.78	35.95
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.43	2.41	0.10	0.33	3.71	0.17	0.43	0.81	0.38	0.29	0.89	0.27
50th-Percentile Queue Length [ft]	10.81	60.23	2.53	8.36	92.67	4.27	10.81	20.20	9.52	7.37	22.25	6.75
95th-Percentile Queue Length [veh]	0.78	4.34	0.18	0.60	6.67	0.31	0.78	1.45	0.69	0.53	1.60	0.49
95th-Percentile Queue Length [ft]	19.46	108.41	4.56	15.05	166.80	7.68	19.46	36.35	17.14	13.27	40.05	12.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.30	5.87	4.31	42.17	6.99	4.55	41.30	36.33	35.44	42.64	37.78	35.95
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	6.66			7.38			37.33			38.30		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	9.27											
Intersection LOS	A											
Intersection V/C	0.443											

Sequence

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



Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (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):	0.440

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	37	801	79	21	995	23	11	46	23	57	56	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]	37	801	79	21	995	23	11	46	23	57	56	21
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]	9	205	20	5	254	6	3	12	6	15	14	5
Total Analysis Volume [veh/h]	38	818	81	21	1016	23	11	47	23	58	57	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 Coordinated
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]	11	30	0	11	30	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	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	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	40	40	2	39	39	6	6	6	6
g / C, Green / Cycle	0.06	0.67	0.67	0.04	0.65	0.65	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.05	0.01	0.29	0.01	0.01	0.04	0.04	0.04
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1316	1761	1325	1778
c, Capacity [veh/h]	101	2365	1056	65	2293	1024	155	171	160	172
d1, Uniform Delay [s]	27.33	4.34	3.52	28.25	5.27	3.81	28.74	25.55	29.43	25.66
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]	2.29	0.40	0.14	2.82	0.62	0.04	0.19	1.57	1.37	1.85
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

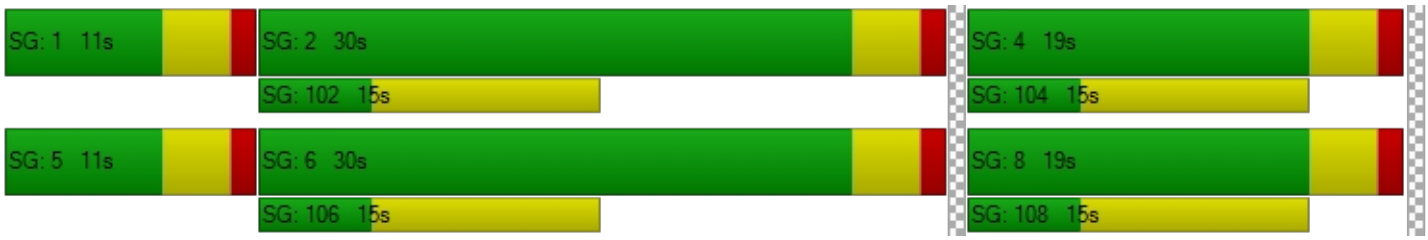
X, volume / capacity	0.38	0.35	0.08	0.32	0.44	0.02	0.07	0.41	0.36	0.45
d, Delay for Lane Group [s/veh]	29.62	4.74	3.66	31.06	5.89	3.85	28.93	27.12	30.80	27.51
Lane Group LOS	C	A	A	C	A	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.56	1.55	0.27	0.33	2.33	0.08	0.16	0.96	0.87	1.08
50th-Percentile Queue Length [ft]	14.11	38.67	6.72	8.29	58.36	2.04	3.91	24.08	21.68	27.07
95th-Percentile Queue Length [veh]	1.02	2.78	0.48	0.60	4.20	0.15	0.28	1.73	1.56	1.95
95th-Percentile Queue Length [ft]	25.39	69.60	12.09	14.93	105.06	3.67	7.04	43.34	39.03	48.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.62	4.74	3.66	31.06	5.89	3.85	28.93	27.12	27.12	30.80	27.51	27.51
Movement LOS	C	A	A	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	5.66			6.34			27.37			28.91		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	8.21											
Intersection LOS	A											
Intersection V/C	0.440											

Sequence

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



Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.504

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	26	884	93	65	908	56	26	96	33	92	98	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	26	884	93	65	908	56	26	96	33	92	98	50
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	223	23	16	229	14	7	24	8	23	25	13
Total Analysis Volume [veh/h]	26	892	94	66	916	57	26	97	33	93	99	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]	75
Coordination Type	Time of Day Pattern Coordinated
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	34	0	11	34	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	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	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	41	41	5	43	43	3	7	7	6	10	10
g / C, Green / Cycle	0.04	0.55	0.55	0.07	0.58	0.58	0.04	0.09	0.09	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.01	0.27	0.27	0.04	0.26	0.26	0.01	0.04	0.04	0.05	0.04	0.04
s, saturation flow rate [veh/h]	1774	1863	1801	1774	1863	1825	1774	1863	1708	1774	1863	1661
c, Capacity [veh/h]	73	1018	985	127	1075	1053	73	163	150	144	239	213
d1, Uniform Delay [s]	35.12	10.58	10.58	33.69	9.13	9.13	35.12	32.45	32.53	33.50	29.81	29.90
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.95	1.70	1.76	3.28	1.40	1.43	2.95	1.60	1.93	4.73	0.76	0.94
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

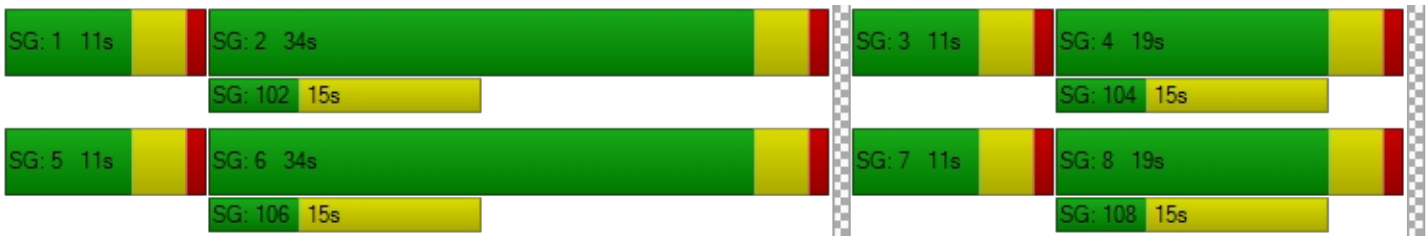
X, volume / capacity	0.36	0.49	0.49	0.52	0.46	0.46	0.36	0.40	0.43	0.64	0.32	0.34
d, Delay for Lane Group [s/veh]	38.07	12.28	12.33	36.97	10.53	10.56	38.07	34.05	34.46	38.23	30.58	30.84
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.51	4.97	4.82	1.25	4.36	4.28	0.51	1.18	1.16	1.79	1.27	1.22
50th-Percentile Queue Length [ft]	12.80	124.22	120.51	31.18	109.02	107.02	12.80	29.39	28.93	44.74	31.77	30.44
95th-Percentile Queue Length [veh]	0.92	8.62	8.42	2.24	7.79	7.67	0.92	2.12	2.08	3.22	2.29	2.19
95th-Percentile Queue Length [ft]	23.04	215.61	210.53	56.12	194.64	191.84	23.04	52.90	52.07	80.52	57.18	54.79

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.07	12.30	12.33	36.97	10.55	10.56	38.07	34.18	34.46	38.23	30.64	30.84
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	12.97			12.23			34.89			33.60		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.09											
Intersection LOS	B											
Intersection V/C	0.504											

Sequence

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



Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (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):	0.743

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	101	749	125	114	835	99	117	285	58	125	265	76
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	101	749	125	114	835	99	117	285	58	125	265	76
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	196	33	30	218	26	31	75	15	33	69	20
Total Analysis Volume [veh/h]	106	783	131	119	873	104	122	298	61	131	277	79
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 Coordinated
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	12	24	0	11	23	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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
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]	6	24	24	6	24	24	6	13	13	6	13	13
g / C, Green / Cycle	0.09	0.37	0.37	0.10	0.37	0.37	0.10	0.19	0.19	0.10	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.06	0.25	0.25	0.07	0.27	0.27	0.07	0.16	0.04	0.07	0.10	0.10
s, saturation flow rate [veh/h]	1774	1863	1771	1774	1863	1794	1774	1863	1583	1774	1863	1724
c, Capacity [veh/h]	166	678	644	172	684	658	173	363	309	176	366	339
d1, Uniform Delay [s]	28.51	17.65	17.65	28.53	17.85	17.85	28.54	25.19	22.00	28.59	23.37	23.41
k, delay calibration	0.11	0.50	0.50	0.11	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]	4.02	5.72	6.00	4.92	6.68	6.93	5.15	4.64	0.31	6.07	1.06	1.19
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	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

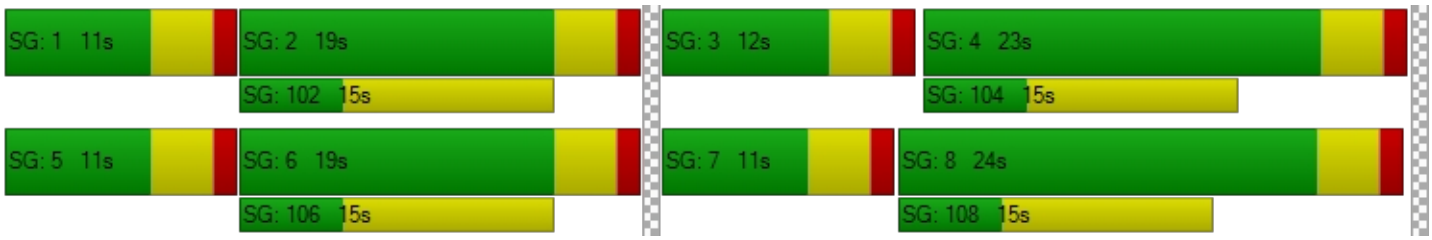
X, volume / capacity	0.64	0.69	0.69	0.69	0.73	0.73	0.70	0.82	0.20	0.74	0.50	0.51
d, Delay for Lane Group [s/veh]	32.54	23.37	23.66	33.45	24.52	24.78	33.69	29.83	22.31	34.66	24.42	24.60
Lane Group LOS	C	C	C	C	C	C	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.71	6.46	6.19	1.95	7.06	6.85	2.01	4.62	0.77	2.20	2.48	2.35
50th-Percentile Queue Length [ft]	42.78	161.39	154.73	48.83	176.54	171.32	50.27	115.44	19.22	54.91	61.96	58.80
95th-Percentile Queue Length [veh]	3.08	10.62	10.27	3.52	11.42	11.15	3.62	8.14	1.38	3.95	4.46	4.23
95th-Percentile Queue Length [ft]	77.00	265.56	256.73	87.89	285.49	278.65	90.49	203.54	34.59	98.84	111.53	105.83

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.54	23.49	23.66	33.45	24.64	24.78	33.69	29.83	22.31	34.66	24.48	24.60
Movement LOS	C	C	C	C	C	C	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	24.45			25.61			29.85			27.24		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	26.14											
Intersection LOS	C											
Intersection V/C	0.743											

Sequence

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



Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	32	357	54	32	331	21	38	207	27	69	191	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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	357	54	32	331	21	38	207	27	69	191	42
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]	8	93	14	8	86	5	10	54	7	18	50	11
Total Analysis Volume [veh/h]	33	373	56	33	346	22	40	216	28	72	200	44
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.59	2.46	2.10	2.03	3.30	0.17	3.70	0.28
95th-Percentile Queue Length [ft]	64.80	61.40	52.40	50.71	82.41	4.31	92.44	6.92
Approach Delay [s/veh]	16.67		15.67		18.76		19.46	
Approach LOS	C		C		C		C	
Intersection Delay [s/veh]	17.40							
Intersection LOS	C							

Existing Plus Project

HCS 2010 Two-Way Stop Control Summary Report

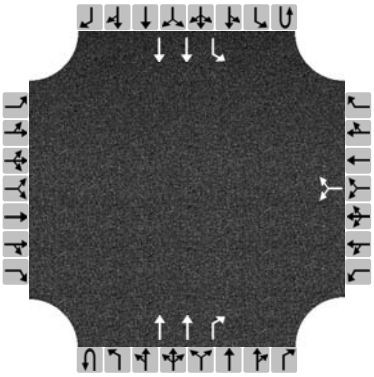
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2016
Time Analyzed	Existing + Project - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						26		46			877	34		22	760	
Percent Heavy Vehicles						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)							75							23		
Capacity							260							713		
v/c Ratio							0.29							0.03		
95% Queue Length							1.2							0.1		
Control Delay (s/veh)							24.3							10.2		
Level of Service (LOS)							C							B		
Approach Delay (s/veh)					24.3								0.3			
Approach LOS					C											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (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):	0.658

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	92	808	30	16	789	33	65	140	84	37	164	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
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	808	30	16	789	33	65	140	84	37	164	20
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	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	245	9	5	239	10	20	42	25	11	50	6
Total Analysis Volume [veh/h]	111	978	36	19	955	40	79	169	102	45	199	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 Coordinated
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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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]	6	29	29	2	25	25	5	10	10	4	8	8
g / C, Green / Cycle	0.10	0.47	0.47	0.03	0.41	0.41	0.09	0.16	0.16	0.06	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.28	0.02	0.01	0.27	0.03	0.04	0.09	0.06	0.03	0.11	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	178	1675	748	61	1440	643	156	305	259	114	261	222
d1, Uniform Delay [s]	26.02	11.59	8.59	28.42	14.55	10.91	26.25	23.19	22.53	27.08	24.95	22.63
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.53	1.50	0.12	2.89	2.42	0.19	2.53	1.57	0.97	2.20	4.57	0.21
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	0.62	0.58	0.05	0.31	0.66	0.06	0.51	0.55	0.39	0.39	0.76	0.11
d, Delay for Lane Group [s/veh]	29.55	13.09	8.71	31.31	16.97	11.09	28.79	24.76	23.50	29.29	29.52	22.84
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.61	4.32	0.24	0.30	5.06	0.32	1.13	2.20	1.28	0.66	2.89	0.29
50th-Percentile Queue Length [ft]	40.37	108.10	6.06	7.59	126.44	8.01	28.32	54.91	32.00	16.49	72.32	7.33
95th-Percentile Queue Length [veh]	2.91	7.73	0.44	0.55	8.75	0.58	2.04	3.95	2.30	1.19	5.21	0.53
95th-Percentile Queue Length [ft]	72.67	193.35	10.90	13.66	218.65	14.42	50.98	98.83	57.60	29.68	130.18	13.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.55	13.09	8.71	31.31	16.97	11.09	28.79	24.76	23.50	29.29	29.52	22.84
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.57			17.01			25.30			28.89		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.22											
Intersection LOS	B											
Intersection V/C	0.658											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.4
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	72	807	79	46	836	17	46	95	118	122	111	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	72	807	79	46	836	17	46	95	118	122	111	80
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	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	230	22	13	238	5	13	27	34	35	32	23
Total Analysis Volume [veh/h]	82	919	90	52	952	19	52	108	134	139	126	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]	70
Coordination Type	Time of Day Pattern Coordinated
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]	11	35	0	12	36	0	0	23	0	0	23	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70
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]	6	35	35	5	33	33	19	19	19	19
g / C, Green / Cycle	0.08	0.49	0.49	0.06	0.48	0.48	0.27	0.27	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.05	0.26	0.06	0.03	0.27	0.01	0.04	0.14	0.12	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1160	1697	1133	1734
c, Capacity [veh/h]	144	1745	779	116	1688	754	265	461	242	471
d1, Uniform Delay [s]	31.03	12.21	9.59	31.55	13.16	9.74	27.17	21.70	30.77	21.27
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]	3.49	1.14	0.30	2.70	1.37	0.06	0.36	0.93	2.16	0.70
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	0.57	0.53	0.12	0.45	0.56	0.03	0.20	0.53	0.58	0.46
d, Delay for Lane Group [s/veh]	34.52	13.36	9.90	34.25	14.53	9.80	27.53	22.63	32.93	21.97
Lane Group LOS	C	B	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.43	4.61	0.73	0.91	5.07	0.15	0.78	3.31	2.39	2.89
50th-Percentile Queue Length [ft]	35.76	115.27	18.30	22.69	126.76	3.83	19.53	82.67	59.85	72.33
95th-Percentile Queue Length [veh]	2.57	8.13	1.32	1.63	8.76	0.28	1.41	5.95	4.31	5.21
95th-Percentile Queue Length [ft]	64.37	203.32	32.95	40.84	219.09	6.90	35.15	148.81	107.73	130.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.52	13.36	9.90	34.25	14.53	9.80	27.53	22.63	22.63	32.93	21.97	21.97
Movement LOS	C	B	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.66			15.44			23.50			26.25		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.38											
Intersection LOS	B											
Intersection V/C	0.552											

Sequence

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

HCS 2010 Two-Way Stop Control Summary Report

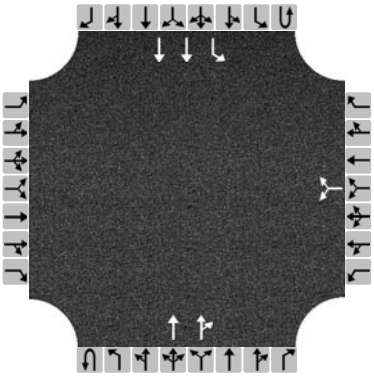
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	0	0	0	2	0	0	1	2	0
Configuration							LR				T	TR		L	T	
Volume (veh/h)						124		53			1061	19		134	977	
Percent Heavy Vehicles						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)							187							141		
Capacity							61							605		
v/c Ratio							3.06							0.23		
95% Queue Length							19.4							0.9		
Control Delay (s/veh)							1071.9							12.8		
Level of Service (LOS)							F							B		
Approach Delay (s/veh)					1071.9								1.5			
Approach LOS					F											

HCS 2010 Two-Way Stop Control Summary Report

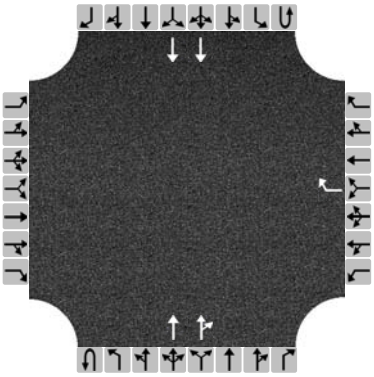
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/South Driveway
Jurisdiction	City of Hemet
East/West Street	Project South Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								71			1009	134			1101	
Percent Heavy Vehicles								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)								75								
Capacity								440								
v/c Ratio								0.17								
95% Queue Length								0.6								
Control Delay (s/veh)								14.8								
Level of Service (LOS)								B								
Approach Delay (s/veh)					14.8											
Approach LOS					B											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	51	884	86	142	846	114	118	110	45	70	148	141
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	51	884	86	142	846	114	118	110	45	70	148	141
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	239	23	38	229	31	32	30	12	19	40	38
Total Analysis Volume [veh/h]	55	958	93	154	917	124	128	119	49	76	160	153
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
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	27	27	7	30	30	6	10	10	5	9	9
g / C, Green / Cycle	0.07	0.41	0.41	0.11	0.46	0.46	0.10	0.15	0.15	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.03	0.29	0.29	0.09	0.28	0.29	0.07	0.05	0.05	0.04	0.09	0.10
s, saturation flow rate [veh/h]	1774	1863	1805	1774	1863	1786	1774	1863	1685	1774	1863	1583
c, Capacity [veh/h]	124	767	743	200	846	811	175	276	249	146	246	209
d1, Uniform Delay [s]	29.12	15.83	15.84	28.14	13.60	13.61	28.57	24.84	24.90	28.70	26.91	27.23
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.45	5.18	5.34	6.17	3.51	3.68	5.75	0.64	0.76	2.83	2.90	4.91
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	0.44	0.70	0.70	0.77	0.63	0.63	0.73	0.31	0.33	0.52	0.65	0.73
d, Delay for Lane Group [s/veh]	31.58	21.01	21.18	34.32	17.12	17.29	34.32	25.48	25.65	31.53	29.81	32.14
Lane Group LOS	C	C	C	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.88	6.88	6.71	2.57	5.99	5.80	2.13	1.18	1.13	1.21	2.44	2.46
50th-Percentile Queue Length [ft]	21.93	171.96	167.65	64.19	149.80	144.96	53.34	29.56	28.25	30.14	61.11	61.45
95th-Percentile Queue Length [veh]	1.58	11.18	10.95	4.62	10.01	9.75	3.84	2.13	2.03	2.17	4.40	4.42
95th-Percentile Queue Length [ft]	39.47	279.49	273.83	115.55	250.16	243.69	96.00	53.21	50.85	54.25	110.00	110.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.58	21.09	21.18	34.32	17.19	17.29	34.32	25.53	25.65	31.53	29.81	32.14
Movement LOS	C	C	C	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	21.62			19.41			29.35			31.06		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	22.73											
Intersection LOS	C											
Intersection V/C	0.719											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	38	760	66	125	687	100	87	190	59	62	160	112
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	38	760	66	125	687	100	87	190	59	62	160	112
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]	10	200	17	33	181	26	23	50	16	16	42	29
Total Analysis Volume [veh/h]	40	799	69	131	722	105	91	200	62	65	168	118
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	25	25	6	27	27	6	9	9	5	8	8
g / C, Green / Cycle	0.06	0.41	0.41	0.10	0.45	0.45	0.09	0.14	0.14	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.24	0.07	0.23	0.23	0.05	0.11	0.04	0.04	0.08	0.08
s, saturation flow rate [veh/h]	1774	1863	1811	1774	1863	1781	1774	1863	1583	1774	1863	1617
c, Capacity [veh/h]	106	756	735	187	842	805	166	267	227	142	242	210
d1, Uniform Delay [s]	27.28	13.93	13.93	26.05	11.72	11.72	26.12	24.78	23.02	26.50	24.81	24.94
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.23	3.26	3.35	4.69	2.14	2.23	2.82	4.18	0.64	2.31	2.55	3.40
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	0.38	0.58	0.58	0.70	0.50	0.50	0.55	0.75	0.27	0.46	0.62	0.65
d, Delay for Lane Group [s/veh]	29.51	17.19	17.28	30.73	13.85	13.95	28.94	28.96	23.66	28.81	27.36	28.33
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.59	4.72	4.61	1.95	3.91	3.76	1.31	2.87	0.78	0.93	2.06	1.94
50th-Percentile Queue Length [ft]	14.78	117.99	115.21	48.79	97.66	93.92	32.70	71.84	19.47	23.37	51.59	48.57
95th-Percentile Queue Length [veh]	1.06	8.28	8.13	3.51	7.03	6.76	2.35	5.17	1.40	1.68	3.71	3.50
95th-Percentile Queue Length [ft]	26.61	207.06	203.22	87.83	175.78	169.06	58.85	129.31	35.04	42.07	92.86	87.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.51	17.23	17.28	30.73	13.89	13.95	28.94	28.96	23.66	28.81	27.47	28.33
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.78			16.20			28.02			28.01		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.99											
Intersection LOS	B											
Intersection V/C	0.619											

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

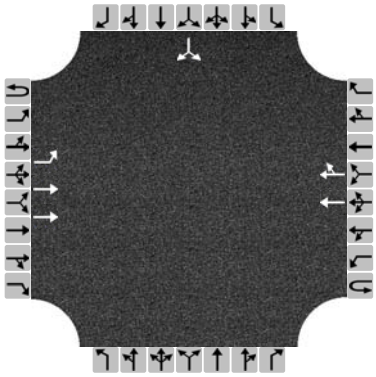
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - AM
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)		38	300				306	57						53		53
Percent Heavy Vehicles		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)		40													112	
Capacity		1166													556	
v/c Ratio		0.03													0.20	
95% Queue Length		0.1													0.7	
Control Delay (s/veh)		8.2													13.1	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.9												13.1			
Approach LOS													B			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	73	239	40	62	308	38	26	226	51	27	258	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	73	239	40	62	308	38	26	226	51	27	258	87
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]	21	70	12	18	90	11	8	66	15	8	76	26
Total Analysis Volume [veh/h]	86	281	47	73	362	45	31	265	60	32	303	102
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	427	446	435	451	436	479	443	488
Degree of Utilization, x	0.48	0.46	0.55	0.53	0.68	0.13	0.76	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.58	2.40	3.25	3.05	4.96	0.43	6.33	0.78
95th-Percentile Queue Length [ft]	64.55	60.04	81.19	76.37	124.01	10.66	158.18	19.50
Approach Delay [s/veh]	18.18		20.01		24.18		27.27	
Approach LOS	C		C		C		D	
Intersection Delay [s/veh]	22.32							
Intersection LOS	C							

HCS 2010 Two-Way Stop Control Summary Report

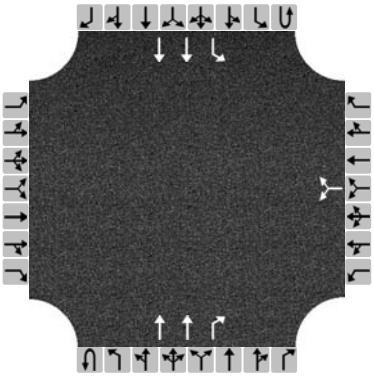
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						21		16			809	43		65	1051	
Percent Heavy Vehicles						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)							39							68		
Capacity							153							752		
v/c Ratio							0.25							0.09		
95% Queue Length							1.0							0.3		
Control Delay (s/veh)							36.4							10.3		
Level of Service (LOS)							E							B		
Approach Delay (s/veh)					36.4								0.6			
Approach LOS					E											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	29	805	40	14	1063	32	19	40	29	32	43	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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	805	40	14	1063	32	19	40	29	32	43	13
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]	8	213	11	4	281	8	5	11	8	8	11	3
Total Analysis Volume [veh/h]	31	850	42	15	1122	34	20	42	31	34	45	14
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]	105
Coordination Type	Time of Day Pattern Coordinated
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	50	0	25	64	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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105	105
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	76	76	3	74	74	3	6	6	4	8	8
g / C, Green / Cycle	0.04	0.72	0.72	0.02	0.71	0.71	0.03	0.06	0.06	0.04	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.24	0.03	0.01	0.32	0.02	0.01	0.02	0.02	0.02	0.02	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	72	2556	1141	44	2499	1116	54	111	94	76	134	114
d1, Uniform Delay [s]	49.22	5.39	4.21	50.42	6.71	4.69	49.96	47.58	47.44	49.07	46.41	45.69
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.97	0.35	0.06	4.52	0.59	0.05	4.12	2.14	2.02	4.03	1.47	0.48
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	0.33	0.04	0.34	0.45	0.03	0.37	0.38	0.33	0.45	0.34	0.12
d, Delay for Lane Group [s/veh]	53.19	5.74	4.27	54.93	7.29	4.74	54.07	49.72	49.46	53.10	47.88	46.17
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.87	3.05	0.24	0.44	4.88	0.21	0.58	1.12	0.83	0.95	1.17	0.36
50th-Percentile Queue Length [ft]	21.81	76.20	6.12	11.06	121.98	5.34	14.41	28.04	20.75	23.85	29.28	8.93
95th-Percentile Queue Length [veh]	1.57	5.49	0.44	0.80	8.50	0.38	1.04	2.02	1.49	1.72	2.11	0.64
95th-Percentile Queue Length [ft]	39.26	137.16	11.01	19.90	212.54	9.62	25.94	50.48	37.35	42.93	52.70	16.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.19	5.74	4.27	54.93	7.29	4.74	54.07	49.72	49.46	53.10	47.88	46.17
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	7.27			7.83			50.57			49.53		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	11.05											
Intersection LOS	B											
Intersection V/C	0.443											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	47	861	99	21	1056	23	11	46	33	77	56	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]	47	861	99	21	1056	23	11	46	33	77	56	21
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]	12	220	25	5	270	6	3	12	8	20	14	5
Total Analysis Volume [veh/h]	48	879	101	21	1079	23	11	47	34	79	57	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]	80
Coordination Type	Time of Day Pattern Coordinated
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]	11	50	0	11	50	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
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]	5	53	53	3	51	51	12	12	12	12
g / C, Green / Cycle	0.06	0.67	0.67	0.03	0.64	0.64	0.15	0.15	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.06	0.01	0.30	0.01	0.01	0.05	0.06	0.04
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1316	1734	1312	1778
c, Capacity [veh/h]	102	2372	1059	58	2284	1020	198	257	194	264
d1, Uniform Delay [s]	36.52	5.83	4.69	37.87	7.28	5.14	34.00	30.44	36.08	30.35
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]	3.33	0.45	0.18	3.72	0.70	0.04	0.12	0.69	1.37	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	0.47	0.37	0.10	0.36	0.47	0.02	0.06	0.31	0.41	0.30
d, Delay for Lane Group [s/veh]	39.85	6.28	4.87	41.59	7.99	5.18	34.11	31.13	37.45	30.97
Lane Group LOS	D	A	A	D	A	A	C	C	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.99	2.77	0.54	0.46	4.13	0.13	0.20	1.41	1.55	1.35
50th-Percentile Queue Length [ft]	24.64	69.18	13.41	11.39	103.17	3.23	5.01	35.29	38.76	33.83
95th-Percentile Queue Length [veh]	1.77	4.98	0.97	0.82	7.43	0.23	0.36	2.54	2.79	2.44
95th-Percentile Queue Length [ft]	44.35	124.53	24.14	20.51	185.71	5.81	9.02	63.53	69.76	60.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.85	6.28	4.87	41.59	7.99	5.18	34.11	31.13	31.13	37.45	30.97	30.97
Movement LOS	D	A	A	D	A	A	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	7.71			8.56			31.49			34.23		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	10.75											
Intersection LOS	B											
Intersection V/C	0.461											

Sequence

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

HCS 2010 Two-Way Stop Control Summary Report

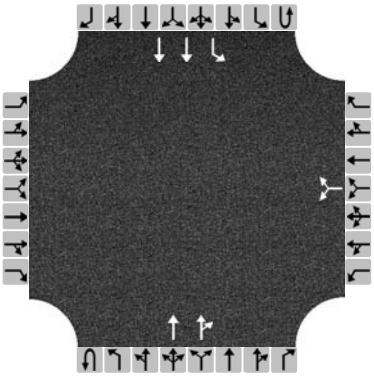
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	0	0	0	2	0	0	1	2	0
Configuration							LR				T	TR		L	T	
Volume (veh/h)						131		56			1072	19		133	1067	
Percent Heavy Vehicles						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)							197							140		
Capacity							56							599		
v/c Ratio							3.52							0.23		
95% Queue Length							21.1							0.9		
Control Delay (s/veh)							1285.6							12.8		
Level of Service (LOS)							F							B		
Approach Delay (s/veh)					1285.6								1.4			
Approach LOS					F											

HCS 2010 Two-Way Stop Control Summary Report

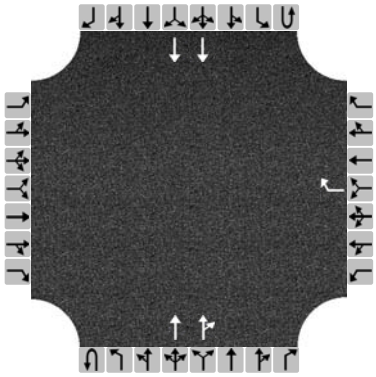
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/South Driveway
Jurisdiction	City of Hemet
East/West Street	Project South Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								75			1016	133			1198	
Percent Heavy Vehicles								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)								79								
Capacity								439								
v/c Ratio								0.18								
95% Queue Length								0.6								
Control Delay (s/veh)								15.0								
Level of Service (LOS)								B								
Approach Delay (s/veh)					15.0											
Approach LOS					B											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	26	979	93	122	1002	75	64	96	33	92	117	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	26	979	93	122	1002	75	64	96	33	92	117	106
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	247	23	31	253	19	16	24	8	23	30	27
Total Analysis Volume [veh/h]	26	988	94	123	1011	76	65	97	33	93	118	107
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	26	26	6	30	30	5	6	6	6	7	7
g / C, Green / Cycle	0.04	0.43	0.43	0.10	0.49	0.49	0.08	0.10	0.10	0.09	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.01	0.29	0.29	0.07	0.30	0.30	0.04	0.04	0.04	0.05	0.06	0.07
s, saturation flow rate [veh/h]	1774	1863	1807	1774	1863	1817	1774	1863	1707	1774	1863	1584
c, Capacity [veh/h]	78	805	781	184	917	895	142	195	178	167	221	188
d1, Uniform Delay [s]	27.98	13.78	13.78	26.03	11.03	11.03	26.50	25.07	25.12	26.10	24.99	25.11
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.51	4.64	4.79	4.16	2.89	2.97	2.31	1.02	1.21	2.88	1.97	2.70
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	0.34	0.68	0.68	0.67	0.60	0.60	0.46	0.34	0.36	0.56	0.53	0.57
d, Delay for Lane Group [s/veh]	30.49	18.42	18.57	30.19	13.92	14.01	28.81	26.09	26.33	28.98	26.96	27.81
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.40	6.15	6.00	1.81	5.08	4.98	0.93	0.88	0.86	1.34	1.61	1.50
50th-Percentile Queue Length [ft]	10.00	153.84	150.11	45.31	126.90	124.53	23.37	22.08	21.58	33.44	40.22	37.62
95th-Percentile Queue Length [veh]	0.72	10.22	10.02	3.26	8.77	8.64	1.68	1.59	1.55	2.41	2.90	2.71
95th-Percentile Queue Length [ft]	18.01	255.55	250.57	81.57	219.27	216.04	42.07	39.74	38.84	60.19	72.40	67.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.49	18.48	18.57	30.19	13.96	14.01	28.81	26.17	26.33	28.98	26.96	27.81
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	18.77			15.61			27.08			27.84		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.01											
Intersection LOS	B											
Intersection V/C	0.639											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	27.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	101	769	125	134	855	109	127	285	58	125	265	96
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	101	769	125	134	855	109	127	285	58	125	265	96
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	201	33	35	224	29	33	75	15	33	69	25
Total Analysis Volume [veh/h]	106	804	131	140	894	114	133	298	61	131	277	100
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 Coordinated
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	12	24	0	11	23	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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
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]	6	24	24	7	24	24	6	13	13	6	13	13
g / C, Green / Cycle	0.09	0.36	0.36	0.10	0.37	0.37	0.10	0.19	0.19	0.10	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.06	0.26	0.26	0.08	0.28	0.28	0.07	0.16	0.04	0.07	0.10	0.11
s, saturation flow rate [veh/h]	1774	1863	1773	1774	1863	1790	1774	1863	1583	1774	1863	1698
c, Capacity [veh/h]	166	669	636	181	684	657	177	363	309	176	362	330
d1, Uniform Delay [s]	28.51	18.06	18.06	28.59	18.06	18.07	28.59	25.18	22.00	28.59	23.67	23.72
k, delay calibration	0.11	0.50	0.50	0.11	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]	4.02	6.48	6.79	6.97	7.47	7.79	6.25	4.64	0.31	6.07	1.25	1.43
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

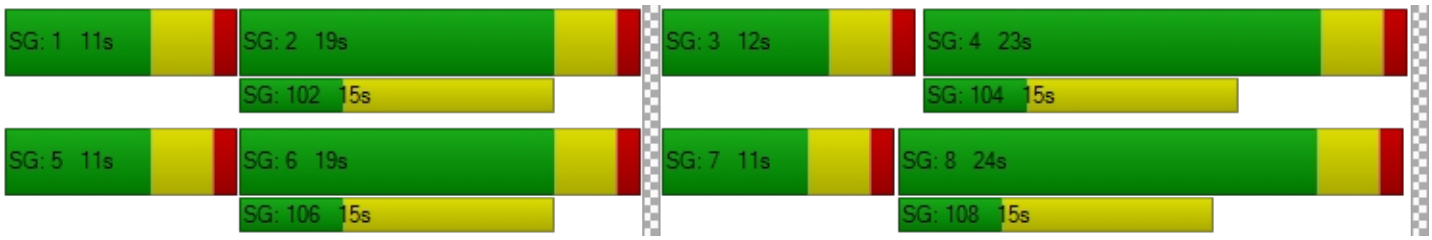
X, volume / capacity	0.64	0.72	0.72	0.78	0.75	0.75	0.75	0.82	0.20	0.74	0.54	0.55
d, Delay for Lane Group [s/veh]	32.54	24.54	24.85	35.56	25.53	25.86	34.84	29.82	22.31	34.66	24.92	25.16
Lane Group LOS	C	C	C	D	C	C	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.71	6.80	6.53	2.38	7.47	7.25	2.24	4.62	0.77	2.20	2.68	2.51
50th-Percentile Queue Length [ft]	42.78	169.93	163.18	59.61	186.80	181.22	55.93	115.44	19.22	54.91	66.99	62.83
95th-Percentile Queue Length [veh]	3.08	11.07	10.72	4.29	11.96	11.66	4.03	8.14	1.38	3.95	4.82	4.52
95th-Percentile Queue Length [ft]	77.00	276.83	267.93	107.29	298.88	291.60	100.67	203.54	34.59	98.84	120.59	113.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.54	24.66	24.85	35.56	25.67	25.86	34.84	29.82	22.31	34.66	24.99	25.16
Movement LOS	C	C	C	D	C	C	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	25.49			26.89			30.25			27.52		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.05											
Intersection LOS	C											
Intersection V/C	0.756											

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

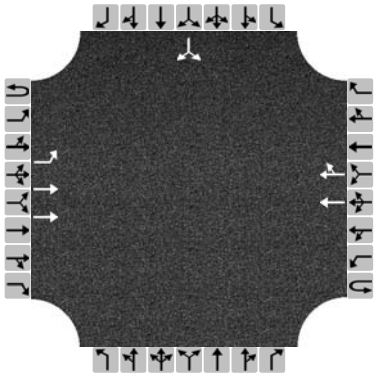
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2016
Time Analyzed	Existing + Project - PM
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)		38	273				259	57						56		56
Percent Heavy Vehicles		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)		40													118	
Capacity		1216													599	
v/c Ratio		0.03													0.20	
95% Queue Length		0.1													0.7	
Control Delay (s/veh)		8.1													12.5	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	1.0												12.5			
Approach LOS													B			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.649

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	42	357	54	32	331	31	48	227	37	69	211	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	42	357	54	32	331	31	48	227	37	69	211	42
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]	11	93	14	8	86	8	13	59	10	18	55	11
Total Analysis Volume [veh/h]	44	373	56	33	346	32	50	237	39	72	220	44
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	458	473	452	463	451	501	450	501
Degree of Utilization, x	0.52	0.50	0.45	0.44	0.64	0.08	0.65	0.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.91	2.74	2.33	2.24	4.34	0.25	4.51	0.29
95th-Percentile Queue Length [ft]	72.64	68.58	58.14	55.94	108.45	6.32	112.85	7.18
Approach Delay [s/veh]	18.18		16.83		22.08		22.52	
Approach LOS	C		C		C		C	
Intersection Delay [s/veh]	19.59							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 1: Sanderson Ave (NS) at Commonwealth Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	4.9
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	0	0
Pocket Length [ft]	100.00	100.00	160.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	877	34	22	760	26	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	877	34	22	760	26	46
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	227	9	6	197	7	12
Total Analysis Volume [veh/h]	910	35	23	788	27	48
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	38	0	11	49	11	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	41	41	2	47	5
g / C, Green / Cycle	0.68	0.68	0.04	0.78	0.08
(v / s)_i Volume / Saturation Flow Rate	0.26	0.02	0.01	0.22	0.05
s, saturation flow rate [veh/h]	3547	1583	1774	3547	1647
c, Capacity [veh/h]	2397	1070	70	2772	141
d1, Uniform Delay [s]	4.25	3.23	28.12	1.84	26.36
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.46	0.06	2.70	0.26	3.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.03	0.33	0.28	0.53
d, Delay for Lane Group [s/veh]	4.71	3.29	30.82	2.10	29.48
Lane Group LOS	A	A	C	A	C
Critical Lane Group	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	1.68	0.11	0.36	0.48	1.10
50th-Percentile Queue Length [ft]	42.03	2.66	8.98	11.93	27.39
95th-Percentile Queue Length [veh]	3.03	0.19	0.65	0.86	1.97
95th-Percentile Queue Length [ft]	75.65	4.78	16.17	21.47	49.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.71	3.29	30.82	2.10	29.48	29.48
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.66		2.92		29.48	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.90					
Intersection LOS	A					
Intersection V/C	0.394					

Sequence

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

Intersection Level Of Service Report
Intersection 4: Sanderson Ave (NS) at North Project Driveway (EW)

Control Type:	Signalized	Delay (sec / veh):	10.5
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.620

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1061	19	134	977	124	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1061	19	134	977	124	53
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	279	5	35	257	33	14
Total Analysis Volume [veh/h]	1117	20	141	1028	131	56
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	30	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	6	44	8
g / C, Green / Cycle	0.55	0.55	0.11	0.73	0.14
(v / s)_i Volume / Saturation Flow Rate	0.31	0.31	0.08	0.29	0.11
s, saturation flow rate [veh/h]	1863	1851	1774	3547	1712
c, Capacity [veh/h]	1029	1023	190	2576	241
d1, Uniform Delay [s]	8.67	8.70	26.04	3.18	24.93
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.14	2.18	5.58	0.46	5.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.56	0.74	0.40	0.78
d, Delay for Lane Group [s/veh]	10.81	10.88	31.62	3.64	30.22
Lane Group LOS	B	B	C	A	C
Critical Lane Group	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh]	4.34	4.36	2.14	1.38	2.76
50th-Percentile Queue Length [ft]	108.55	109.02	53.43	34.41	69.06
95th-Percentile Queue Length [veh]	7.76	7.79	3.85	2.48	4.97
95th-Percentile Queue Length [ft]	193.99	194.63	96.18	61.94	124.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	10.84	10.88	31.62	3.64	30.22	30.22
Movement LOS	B	B	C	A	C	C
d_A, Approach Delay [s/veh]	10.84		7.01		30.22	
Approach LOS	B		A		C	
d_I, Intersection Delay [s/veh]	10.50					
Intersection LOS	B					
Intersection V/C	0.620					

Sequence

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

Intersection Level Of Service Report
Intersection 1: Sanderson Ave (NS) at Commonwealth Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	4.7
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.431

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	0	0
Pocket Length [ft]	100.00	100.00	160.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	809	43	65	1051	21	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	809	43	65	1051	21	16
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	219	12	18	285	6	4
Total Analysis Volume [veh/h]	876	47	70	1139	23	17
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	38	0	11	49	11	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	40	40	5	49	3
g / C, Green / Cycle	0.66	0.66	0.08	0.81	0.06
(v / s)_i Volume / Saturation Flow Rate	0.25	0.03	0.04	0.32	0.02
s, saturation flow rate [veh/h]	3547	1583	1774	3547	1688
c, Capacity [veh/h]	2337	1043	146	2866	100
d1, Uniform Delay [s]	4.65	3.61	26.36	1.63	27.28
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.46	0.08	2.41	0.41	2.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	0.05	0.48	0.40	0.40
d, Delay for Lane Group [s/veh]	5.11	3.69	28.77	2.05	29.87
Lane Group LOS	A	A	C	A	C
Critical Lane Group	No	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.76	0.16	1.00	0.42	0.60
50th-Percentile Queue Length [ft]	44.12	3.95	25.12	10.53	14.94
95th-Percentile Queue Length [veh]	3.18	0.28	1.81	0.76	1.08
95th-Percentile Queue Length [ft]	79.42	7.11	45.22	18.95	26.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.11	3.69	28.77	2.05	29.87	29.87
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	5.04		3.60		29.87	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.69					
Intersection LOS	A					
Intersection V/C	0.431					

Sequence

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

Intersection Level Of Service Report
Intersection 4: Sanderson Ave (NS) at North Project Driveway (EW)

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1072	19	133	1067	131	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1072	19	133	1067	131	56
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	282	5	35	281	34	15
Total Analysis Volume [veh/h]	1128	20	140	1123	138	59
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	11	30	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	33	33	6	43	9
g / C, Green / Cycle	0.55	0.55	0.11	0.72	0.15
(v / s)_i Volume / Saturation Flow Rate	0.31	0.31	0.08	0.32	0.12
s, saturation flow rate [veh/h]	1863	1851	1774	3547	1712
c, Capacity [veh/h]	1017	1011	190	2552	253
d1, Uniform Delay [s]	8.96	8.99	26.04	3.46	24.71
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.27	2.31	5.48	0.55	5.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.57	0.74	0.44	0.78
d, Delay for Lane Group [s/veh]	11.23	11.30	31.52	4.02	29.90
Lane Group LOS	B	B	C	A	C
Critical Lane Group	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh]	4.51	4.53	2.12	1.66	2.89
50th-Percentile Queue Length [ft]	112.84	113.33	52.95	41.54	72.32
95th-Percentile Queue Length [veh]	8.00	8.02	3.81	2.99	5.21
95th-Percentile Queue Length [ft]	199.94	200.62	95.31	74.77	130.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.26	11.30	31.52	4.02	29.90	29.90
Movement LOS	B	B	C	A	C	C
d_A, Approach Delay [s/veh]	11.27		7.06		29.90	
Approach LOS	B		A		C	
d_I, Intersection Delay [s/veh]	10.64					
Intersection LOS	B					
Intersection V/C	0.630					

Sequence

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

Opening Year Phase I (2017) Without Project

HCS 2010 Two-Way Stop Control Summary Report

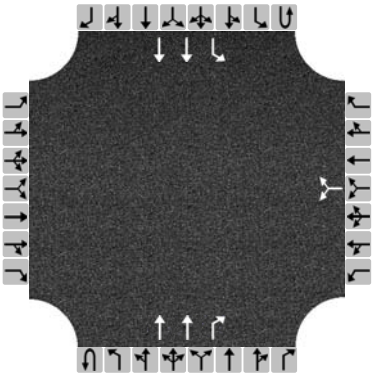
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2020
Time Analyzed	Phase I - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						16		47			903	26		22	802	
Percent Heavy Vehicles						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)							66							23		
Capacity							291							701		
v/c Ratio							0.23							0.03		
95% Queue Length							0.9							0.1		
Control Delay (s/veh)							21.0							10.3		
Level of Service (LOS)							C							B		
Approach Delay (s/veh)					21.0								0.3			
Approach LOS					C											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (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):	0.671

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	85	797	12	16	773	34	66	143	75	17	167	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]	2	27	2	0	47	0	0	0	3	3	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]	87	824	14	16	820	34	66	143	78	20	167	20
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	249	4	5	248	10	20	43	24	6	51	6
Total Analysis Volume [veh/h]	105	998	17	19	993	41	80	173	94	24	202	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 Coordinated
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	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]	6	28	28	2	25	25	5	11	11	2	8	8
g / C, Green / Cycle	0.10	0.47	0.47	0.03	0.41	0.41	0.09	0.19	0.19	0.04	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.28	0.01	0.01	0.28	0.03	0.05	0.09	0.06	0.01	0.11	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	175	1667	744	61	1439	643	157	352	299	73	264	225
d1, Uniform Delay [s]	26.04	11.78	8.56	28.42	14.78	10.93	26.24	21.85	21.07	28.10	24.90	22.54
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.28	1.60	0.06	2.89	2.73	0.19	2.56	1.06	0.59	2.59	4.57	0.21
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	0.60	0.60	0.02	0.31	0.69	0.06	0.51	0.49	0.31	0.33	0.76	0.11
d, Delay for Lane Group [s/veh]	29.32	13.37	8.61	31.31	17.51	11.12	28.79	22.91	21.67	30.69	29.47	22.75
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.52	4.48	0.11	0.30	5.38	0.33	1.15	2.14	1.12	0.37	2.93	0.29
50th-Percentile Queue Length [ft]	38.01	112.11	2.84	7.59	134.39	8.22	28.68	53.49	27.91	9.32	73.35	7.31
95th-Percentile Queue Length [veh]	2.74	7.96	0.20	0.55	9.18	0.59	2.07	3.85	2.01	0.67	5.28	0.53
95th-Percentile Queue Length [ft]	68.42	198.93	5.11	13.66	229.44	14.80	51.63	96.29	50.23	16.77	132.03	13.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.32	13.37	8.61	31.31	17.51	11.12	28.79	22.91	21.67	30.69	29.47	22.75
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.80			17.51			23.93			28.94		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.25											
Intersection LOS	B											
Intersection V/C	0.671											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (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):	0.570

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	64	768	62	47	791	17	47	97	110	104	113	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	4	31	4	0	52	0	0	0	5	5	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]	68	799	66	47	843	17	47	97	115	109	113	82
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	228	19	13	240	5	13	28	33	31	32	23
Total Analysis Volume [veh/h]	77	910	75	54	960	19	54	110	131	124	129	93
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 Coordinated
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]	11	30	0	11	30	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	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	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]	5	29	29	4	28	28	15	15	15	15
g / C, Green / Cycle	0.09	0.48	0.48	0.07	0.46	0.46	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.04	0.26	0.05	0.03	0.27	0.01	0.05	0.14	0.11	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1154	1700	1134	1735
c, Capacity [veh/h]	153	1698	758	127	1645	734	245	425	227	434
d1, Uniform Delay [s]	26.24	10.99	8.58	26.75	11.86	8.75	25.08	19.70	27.62	19.39
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]	2.53	1.22	0.26	2.25	1.52	0.07	0.45	1.20	2.05	0.93
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

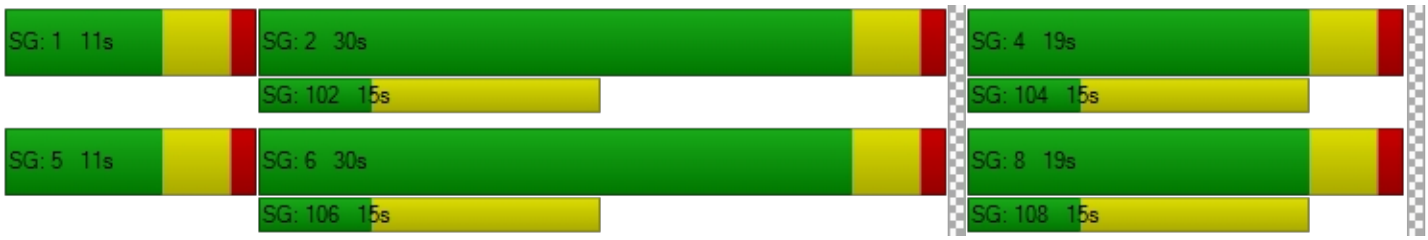
X, volume / capacity	0.50	0.54	0.10	0.43	0.58	0.03	0.22	0.57	0.55	0.51
d, Delay for Lane Group [s/veh]	28.77	12.21	8.84	29.00	13.38	8.82	25.53	20.90	29.67	20.32
Lane Group LOS	C	B	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.10	3.84	0.51	0.78	4.33	0.13	0.71	2.85	1.83	2.56
50th-Percentile Queue Length [ft]	27.60	95.91	12.79	19.57	108.24	3.24	17.76	71.16	45.80	64.11
95th-Percentile Queue Length [veh]	1.99	6.91	0.92	1.41	7.74	0.23	1.28	5.12	3.30	4.62
95th-Percentile Queue Length [ft]	49.68	172.64	23.02	35.23	193.55	5.83	31.97	128.09	82.45	115.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.77	12.21	8.84	29.00	13.38	8.82	25.53	20.90	20.90	29.67	20.32	20.32
Movement LOS	C	B	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	13.17			14.11			21.75			23.67		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.78											
Intersection LOS	B											
Intersection V/C	0.570											

Sequence

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



Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (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):	0.612

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	52	804	88	88	772	98	82	112	46	71	133	89
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	1	29	3	2	49	12	13	10	2	5	11	1
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]	53	833	91	90	821	110	95	122	48	76	144	90
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	226	25	24	222	30	26	33	13	21	39	24
Total Analysis Volume [veh/h]	57	902	99	98	889	119	103	132	52	82	156	98
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 Coordinated
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	24	0	11	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	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	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]	5	30	30	6	31	31	6	8	8	5	7	7
g / C, Green / Cycle	0.07	0.46	0.46	0.09	0.48	0.48	0.09	0.12	0.12	0.08	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.27	0.27	0.06	0.28	0.28	0.06	0.05	0.05	0.05	0.07	0.07
s, saturation flow rate [veh/h]	1774	1863	1799	1774	1863	1787	1774	1863	1690	1774	1863	1632
c, Capacity [veh/h]	127	860	830	162	896	860	165	218	198	151	204	178
d1, Uniform Delay [s]	29.07	13.03	13.03	28.53	12.14	12.14	28.52	26.81	26.88	28.63	27.86	27.98
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.47	2.99	3.10	3.61	2.67	2.78	3.86	1.36	1.63	3.00	3.43	4.57
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	0.45	0.59	0.59	0.61	0.57	0.57	0.63	0.43	0.45	0.54	0.65	0.68
d, Delay for Lane Group [s/veh]	31.54	16.02	16.13	32.14	14.80	14.92	32.38	28.17	28.51	31.63	31.30	32.55
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.91	5.50	5.34	1.57	5.26	5.08	1.66	1.38	1.33	1.30	2.07	1.97
50th-Percentile Queue Length [ft]	22.70	137.46	133.40	39.26	131.46	126.91	41.44	34.60	33.26	32.56	51.87	49.34
95th-Percentile Queue Length [veh]	1.63	9.34	9.12	2.83	9.02	8.77	2.98	2.49	2.39	2.34	3.73	3.55
95th-Percentile Queue Length [ft]	40.85	233.60	228.11	70.67	225.47	219.28	74.60	62.27	59.87	58.61	93.36	88.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.54	16.07	16.13	32.14	14.85	14.92	32.38	28.26	28.51	31.63	31.49	32.55
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.91			16.39			29.78			31.83		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.83											
Intersection LOS	B											
Intersection V/C	0.612											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (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):	0.627

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	39	755	67	109	682	93	79	194	60	63	163	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]	6	19	0	0	43	13	13	14	16	0	16	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]	45	774	67	109	725	106	92	208	76	63	179	94
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]	12	203	18	29	191	28	24	55	20	17	47	25
Total Analysis Volume [veh/h]	47	814	70	115	762	111	97	219	80	66	188	99
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	24	24	6	26	26	6	9	9	5	8	8
g / C, Green / Cycle	0.06	0.40	0.40	0.10	0.44	0.44	0.09	0.15	0.15	0.08	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.03	0.24	0.24	0.06	0.24	0.24	0.05	0.12	0.05	0.04	0.08	0.08
s, saturation flow rate [veh/h]	1774	1863	1811	1774	1863	1781	1774	1863	1583	1774	1863	1654
c, Capacity [veh/h]	117	741	721	180	807	772	170	288	245	143	259	230
d1, Uniform Delay [s]	27.01	14.39	14.39	26.02	12.72	12.72	26.08	24.42	22.69	26.48	24.27	24.37
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.20	3.64	3.74	3.72	2.72	2.84	3.00	4.13	0.77	2.32	1.99	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	0.40	0.60	0.60	0.64	0.55	0.55	0.57	0.76	0.33	0.46	0.57	0.60
d, Delay for Lane Group [s/veh]	29.21	18.03	18.13	29.74	15.44	15.57	29.08	28.54	23.46	28.80	26.26	26.87
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.69	4.96	4.84	1.68	4.45	4.28	1.40	3.12	1.00	0.95	2.00	1.90
50th-Percentile Queue Length [ft]	17.17	124.02	121.11	41.98	111.18	106.96	34.94	78.07	25.01	23.72	50.09	47.44
95th-Percentile Queue Length [veh]	1.24	8.61	8.45	3.02	7.91	7.67	2.52	5.62	1.80	1.71	3.61	3.42
95th-Percentile Queue Length [ft]	30.90	215.33	211.35	75.57	197.64	191.76	62.89	140.52	45.02	42.70	90.16	85.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.21	18.07	18.13	29.74	15.49	15.57	29.08	28.54	23.46	28.80	26.39	26.87
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	18.64			17.16			27.65			26.98		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.53											
Intersection LOS	C											
Intersection V/C	0.627											

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	22.1
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	64	244	41	63	314	29	17	212	43	28	243	89
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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	21	0	0	16	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]	64	244	41	63	314	29	17	233	43	28	259	89
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]	19	72	12	18	92	9	5	68	13	8	76	26
Total Analysis Volume [veh/h]	75	286	48	74	369	34	20	273	50	33	304	104
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.50	2.34	3.19	3.02	4.80	0.35	6.33	0.79
95th-Percentile Queue Length [ft]	62.61	58.46	79.73	75.46	120.10	8.66	158.30	19.80
Approach Delay [s/veh]	17.89		19.82		23.88		27.07	
Approach LOS	C		C		C		D	
Intersection Delay [s/veh]	22.09							
Intersection LOS	C							

HCS 2010 Two-Way Stop Control Summary Report

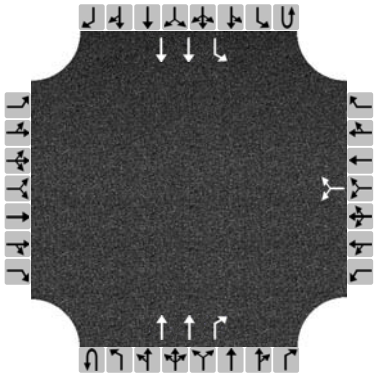
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2020
Time Analyzed	Phase I - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.92
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						11		16			841	34		66	1082	
Percent Heavy Vehicles						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)							29							72		
Capacity							161							712		
v/c Ratio							0.18							0.10		
95% Queue Length							0.6							0.3		
Control Delay (s/veh)							32.3							10.6		
Level of Service (LOS)							D							B		
Approach Delay (s/veh)					32.3								0.6			
Approach LOS					D											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	9.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.469

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	19	791	20	14	1054	33	19	41	19	12	44	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	3	71	3	0	60	0	0	0	3	3	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]	22	862	23	14	1114	33	19	41	22	15	44	13
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]	6	228	6	4	294	9	5	11	6	4	12	3
Total Analysis Volume [veh/h]	23	910	24	15	1176	35	20	43	23	16	46	14
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 Coordinated
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	35	0	20	44	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	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]	3	59	59	2	58	58	3	6	6	2	5	5
g / C, Green / Cycle	0.04	0.69	0.69	0.03	0.68	0.68	0.03	0.07	0.07	0.03	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.01	0.26	0.02	0.01	0.33	0.02	0.01	0.02	0.01	0.01	0.02	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	64	2447	1092	46	2412	1077	58	128	109	49	118	101
d1, Uniform Delay [s]	40.10	5.51	4.16	40.75	6.53	4.46	40.32	37.83	37.50	40.66	38.30	37.69
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.37	0.43	0.04	3.97	0.71	0.06	3.52	1.53	0.96	3.85	2.07	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	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	0.36	0.37	0.02	0.32	0.49	0.03	0.35	0.34	0.21	0.33	0.39	0.14
d, Delay for Lane Group [s/veh]	43.47	5.94	4.19	44.72	7.23	4.52	43.85	39.36	38.45	44.51	40.38	38.31
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.52	2.84	0.12	0.36	4.32	0.18	0.46	0.90	0.48	0.38	0.98	0.29
50th-Percentile Queue Length [ft]	13.10	71.03	2.96	8.90	107.90	4.57	11.53	22.43	11.89	9.43	24.42	7.24
95th-Percentile Queue Length [veh]	0.94	5.11	0.21	0.64	7.72	0.33	0.83	1.61	0.86	0.68	1.76	0.52
95th-Percentile Queue Length [ft]	23.58	127.86	5.33	16.02	193.07	8.22	20.75	40.37	21.41	16.97	43.96	13.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.47	5.94	4.19	44.72	7.23	4.52	43.85	39.36	38.45	44.51	40.38	38.31
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	6.80			7.61			40.16			40.87		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	9.55											
Intersection LOS	A											
Intersection V/C	0.469											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.482

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	38	817	81	21	1015	23	11	47	23	58	57	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]	5	76	5	0	66	0	0	0	6	6	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]	43	893	86	21	1081	23	11	47	29	64	57	21
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	228	22	5	276	6	3	12	7	16	15	5
Total Analysis Volume [veh/h]	44	912	88	21	1104	23	11	48	30	65	58	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 Coordinated
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]	11	22	0	11	22	0	0	27	0	0	27	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	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]	4	40	40	2	38	38	6	6	6	6
g / C, Green / Cycle	0.06	0.66	0.66	0.04	0.64	0.64	0.10	0.10	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.06	0.01	0.31	0.01	0.01	0.04	0.05	0.04
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1314	1744	1316	1779
c, Capacity [veh/h]	112	2349	1049	65	2256	1007	159	177	159	181
d1, Uniform Delay [s]	27.09	4.62	3.63	28.25	5.79	4.04	28.55	25.42	29.55	25.41
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]	2.25	0.49	0.16	2.82	0.76	0.04	0.18	1.71	1.69	1.66
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

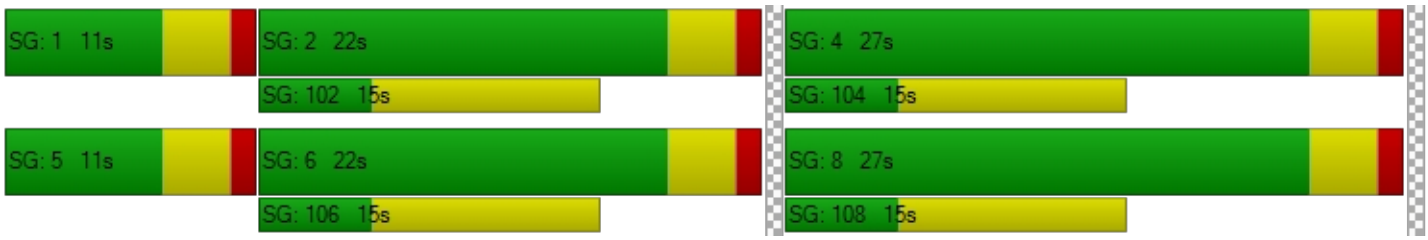
X, volume / capacity	0.39	0.39	0.08	0.32	0.49	0.02	0.07	0.44	0.41	0.44
d, Delay for Lane Group [s/veh]	29.33	5.11	3.79	31.06	6.55	4.09	28.73	27.13	31.25	27.07
Lane Group LOS	C	A	A	C	A	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.65	1.84	0.30	0.33	2.79	0.09	0.16	1.07	0.98	1.08
50th-Percentile Queue Length [ft]	16.15	46.07	7.54	8.29	69.72	2.15	3.89	26.82	24.62	27.10
95th-Percentile Queue Length [veh]	1.16	3.32	0.54	0.60	5.02	0.15	0.28	1.93	1.77	1.95
95th-Percentile Queue Length [ft]	29.07	82.92	13.57	14.93	125.49	3.87	7.00	48.27	44.31	48.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.33	5.11	3.79	31.06	6.55	4.09	28.73	27.13	27.13	31.25	27.07	27.07
Movement LOS	C	A	A	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	6.02			6.95			27.33			28.95		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	8.60											
Intersection LOS	A											
Intersection V/C	0.482											

Sequence

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



Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	17.2
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	27	902	95	66	926	57	27	98	34	94	100	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	2	71	10	2	59	16	13	11	2	8	13	3
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	973	105	68	985	73	40	109	36	102	113	54
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	245	26	17	248	18	10	27	9	26	29	14
Total Analysis Volume [veh/h]	29	982	106	69	994	74	40	110	36	103	114	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]	75
Coordination Type	Time of Day Pattern Coordinated
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	34	0	11	34	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	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	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	41	41	5	43	43	4	7	7	6	9	9
g / C, Green / Cycle	0.04	0.54	0.54	0.07	0.57	0.57	0.05	0.09	0.09	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.30	0.04	0.29	0.29	0.02	0.04	0.04	0.06	0.05	0.05
s, saturation flow rate [veh/h]	1774	1863	1800	1774	1863	1818	1774	1863	1712	1774	1863	1668
c, Capacity [veh/h]	78	1008	974	129	1061	1036	97	167	153	149	221	198
d1, Uniform Delay [s]	34.94	11.27	11.27	33.64	9.81	9.81	34.39	32.49	32.56	33.52	30.64	30.73
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.87	2.15	2.23	3.39	1.74	1.79	2.79	1.86	2.23	5.64	1.12	1.38
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

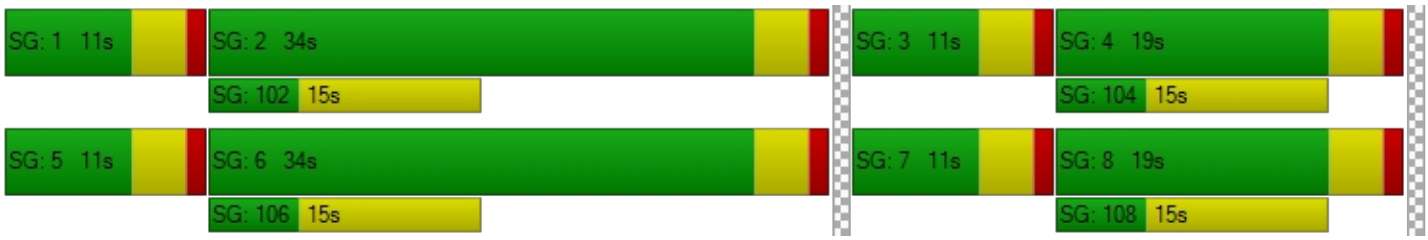
X, volume / capacity	0.37	0.55	0.55	0.53	0.51	0.51	0.41	0.44	0.47	0.69	0.39	0.41
d, Delay for Lane Group [s/veh]	37.81	13.41	13.50	37.03	11.55	11.60	37.18	34.34	34.79	39.16	31.77	32.10
Lane Group LOS	D	B	B	D	B	B	D	C	C	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.57	5.84	5.67	1.30	5.13	5.02	0.76	1.33	1.30	2.01	1.47	1.41
50th-Percentile Queue Length [ft]	14.15	146.05	141.78	32.62	128.19	125.53	19.12	33.25	32.62	50.25	36.80	35.20
95th-Percentile Queue Length [veh]	1.02	9.81	9.58	2.35	8.84	8.70	1.38	2.39	2.35	3.62	2.65	2.53
95th-Percentile Queue Length [ft]	25.48	245.15	239.41	58.71	221.03	217.40	34.42	59.85	58.72	90.44	66.24	63.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.81	13.45	13.50	37.03	11.57	11.60	37.18	34.49	34.79	39.16	31.85	32.10
Movement LOS	D	B	B	D	B	B	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	14.09			13.12			35.13			34.68		
Approach LOS	B			B			D			C		
d_I, Intersection Delay [s/veh]	17.18											
Intersection LOS	B											
Intersection V/C	0.554											

Sequence

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



Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.792

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	103	764	128	116	852	101	119	291	59	128	270	78
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	13	69	0	0	52	22	19	16	11	0	13	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]	116	833	128	116	904	123	138	307	70	128	283	78
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	218	33	30	236	32	36	80	18	33	74	20
Total Analysis Volume [veh/h]	121	871	134	121	946	129	144	321	73	134	296	82
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 Coordinated
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]	12	20	0	15	23	0	16	22	0	13	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	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	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]	6	27	27	6	27	27	7	14	14	7	14	14
g / C, Green / Cycle	0.09	0.38	0.38	0.09	0.38	0.38	0.10	0.20	0.20	0.10	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.07	0.25	0.08	0.07	0.29	0.29	0.08	0.17	0.05	0.08	0.10	0.11
s, saturation flow rate [veh/h]	1774	3547	1583	1774	1863	1786	1774	1863	1583	1774	1863	1727
c, Capacity [veh/h]	164	1343	600	164	705	676	186	379	322	173	366	339
d1, Uniform Delay [s]	31.07	17.98	14.82	31.07	19.22	19.23	30.62	26.92	23.36	30.93	25.34	25.39
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.15	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]	6.41	2.44	0.86	6.40	8.23	8.63	6.67	7.04	0.35	7.11	1.20	1.34
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	0.74	0.65	0.22	0.74	0.78	0.78	0.77	0.85	0.23	0.77	0.53	0.54
d, Delay for Lane Group [s/veh]	37.48	20.41	15.68	37.46	27.44	27.86	37.29	33.96	23.71	38.04	26.54	26.73
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.22	5.76	1.49	2.21	8.75	8.48	2.63	5.64	1.00	2.48	2.90	2.75
50th-Percentile Queue Length [ft]	55.38	143.90	37.20	55.37	218.69	212.05	65.72	141.07	24.97	61.88	72.48	68.71
95th-Percentile Queue Length [veh]	3.99	9.69	2.68	3.99	13.60	13.26	4.73	9.54	1.80	4.46	5.22	4.95
95th-Percentile Queue Length [ft]	99.68	242.26	66.96	99.66	339.95	331.46	118.29	238.46	44.94	111.39	130.46	123.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.48	20.41	15.68	37.46	27.62	27.86	37.29	33.96	23.71	38.04	26.60	26.73
Movement LOS	D	C	B	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	21.68			28.64			33.46			29.62		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	27.24											
Intersection LOS	C											
Intersection V/C	0.792											

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	19.9
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	33	364	55	33	338	21	39	211	28	70	195	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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	23	0	0	23	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]	33	364	55	33	338	21	39	234	28	70	218	43
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	95	14	9	88	5	10	61	7	18	57	11
Total Analysis Volume [veh/h]	34	380	57	34	353	22	41	245	29	73	228	45
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.89	2.74	2.32	2.25	4.31	0.18	4.80	0.29
95th-Percentile Queue Length [ft]	72.21	68.45	58.01	56.18	107.81	4.62	119.96	7.34
Approach Delay [s/veh]	18.18		16.92		22.36		23.39	
Approach LOS	C		C		C		C	
Intersection Delay [s/veh]	19.87							
Intersection LOS	C							

Opening Year Phase I (2017) With Project

HCS 2010 Two-Way Stop Control Summary Report

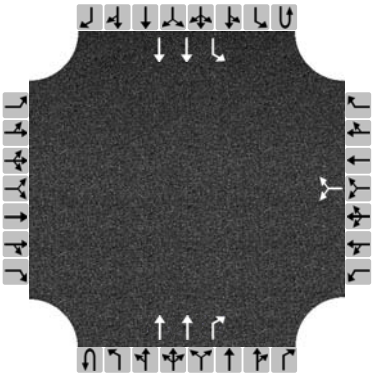
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase I - AM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						22		47			915	32		22	814	
Percent Heavy Vehicles						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)							72							23		
Capacity							256							690		
v/c Ratio							0.28							0.03		
95% Queue Length							1.1							0.1		
Control Delay (s/veh)							24.5							10.4		
Level of Service (LOS)							C							B		
Approach Delay (s/veh)					24.5								0.3			
Approach LOS					C											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.7
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.686

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	91	815	24	16	792	34	66	143	81	29	167	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]	2	27	2	0	47	0	0	0	3	3	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]	93	842	26	16	839	34	66	143	84	32	167	20
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	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	255	8	5	254	10	20	43	25	10	51	6
Total Analysis Volume [veh/h]	113	1019	31	19	1016	41	80	173	102	39	202	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 Coordinated
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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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]	6	28	28	2	24	24	5	10	10	3	8	8
g / C, Green / Cycle	0.10	0.47	0.47	0.03	0.41	0.41	0.09	0.17	0.17	0.06	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.29	0.02	0.01	0.29	0.03	0.05	0.09	0.06	0.02	0.11	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	179	1667	744	61	1431	639	157	320	272	104	264	225
d1, Uniform Delay [s]	26.02	11.88	8.63	28.42	15.04	11.02	26.24	22.80	22.11	27.32	24.90	22.54
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.62	1.68	0.11	2.89	3.01	0.19	2.56	1.42	0.86	2.24	4.57	0.21
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	0.63	0.61	0.04	0.31	0.71	0.06	0.51	0.54	0.38	0.38	0.76	0.11
d, Delay for Lane Group [s/veh]	29.64	13.56	8.74	31.31	18.06	11.21	28.79	24.22	22.96	29.56	29.47	22.75
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.65	4.63	0.21	0.30	5.62	0.33	1.15	2.22	1.26	0.58	2.93	0.29
50th-Percentile Queue Length [ft]	41.17	115.64	5.23	7.59	140.38	8.27	28.68	55.44	31.51	14.44	73.35	7.31
95th-Percentile Queue Length [veh]	2.96	8.15	0.38	0.55	9.50	0.60	2.07	3.99	2.27	1.04	5.28	0.53
95th-Percentile Queue Length [ft]	74.11	203.81	9.41	13.66	237.54	14.89	51.63	99.80	56.71	25.99	132.03	13.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.64	13.56	8.74	31.31	18.06	11.21	28.79	24.22	22.96	29.56	29.47	22.75
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.99			18.03			24.89			28.88		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	18.65											
Intersection LOS	B											
Intersection V/C	0.686											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.636

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	121	803	74	47	828	17	47	97	116	116	113	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	4	31	4	0	52	0	0	0	5	5	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]	125	834	78	47	880	17	47	97	121	121	113	82
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	237	22	13	251	5	13	28	34	34	32	23
Total Analysis Volume [veh/h]	142	950	89	54	1002	19	54	110	138	138	129	93
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 Coordinated
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	30	0	11	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	6	29	29	4	27	27	15	15	15	15
g / C, Green / Cycle	0.11	0.48	0.48	0.07	0.44	0.44	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.08	0.27	0.06	0.03	0.28	0.01	0.05	0.15	0.12	0.13
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1154	1696	1127	1735
c, Capacity [veh/h]	191	1698	758	127	1570	701	245	425	221	434
d1, Uniform Delay [s]	26.04	11.16	8.66	26.75	13.02	9.46	25.08	19.80	28.10	19.39
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]	5.65	1.34	0.32	2.25	2.00	0.07	0.45	1.28	2.88	0.93
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

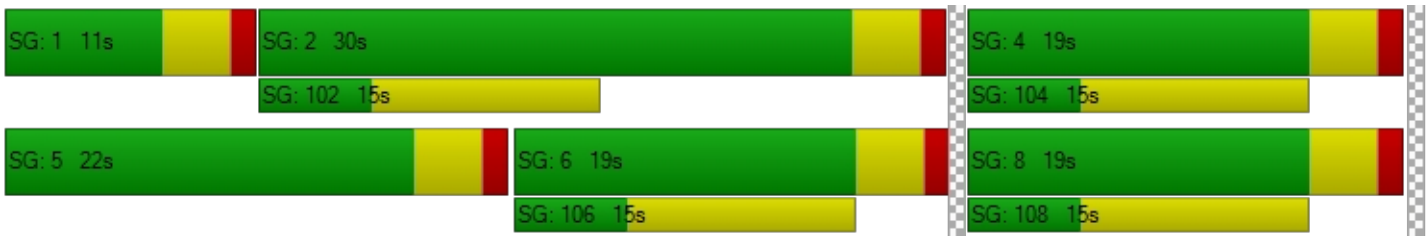
X, volume / capacity	0.74	0.56	0.12	0.43	0.64	0.03	0.22	0.58	0.62	0.51
d, Delay for Lane Group [s/veh]	31.69	12.50	8.98	29.00	15.02	9.53	25.53	21.08	30.97	20.32
Lane Group LOS	C	B	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.16	4.08	0.61	0.78	4.91	0.14	0.71	2.95	2.08	2.56
50th-Percentile Queue Length [ft]	53.89	101.95	15.33	19.57	122.69	3.43	17.76	73.70	52.04	64.11
95th-Percentile Queue Length [veh]	3.88	7.34	1.10	1.41	8.54	0.25	1.28	5.31	3.75	4.62
95th-Percentile Queue Length [ft]	97.00	183.51	27.60	35.23	213.52	6.17	31.97	132.66	93.68	115.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.69	12.50	8.98	29.00	15.02	9.53	25.53	21.08	21.08	30.97	20.32	20.32
Movement LOS	C	B	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	14.54			15.63			21.88			24.40		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.92											
Intersection LOS	B											
Intersection V/C	0.636											

Sequence

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



HCS 2010 Two-Way Stop Control Summary Report

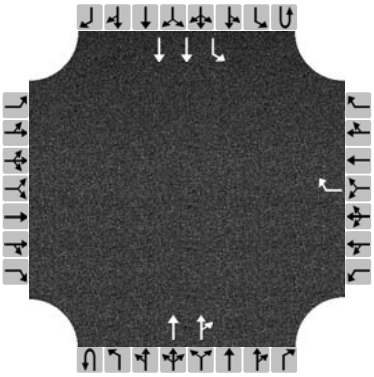
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase 1 - AM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	1	2	0
Configuration								R			T	TR		L	T	
Volume (veh/h)								89			1093	13		93	1097	
Percent Heavy Vehicles								3						3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

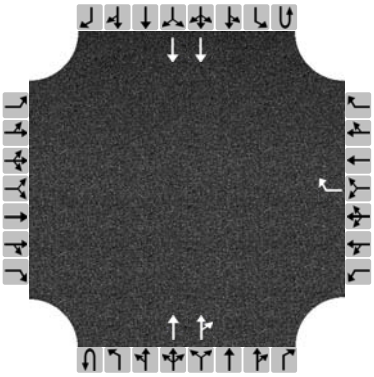
Delay, Queue Length, and Level of Service

Flow Rate (veh/h)								94						98		
Capacity								454						590		
v/c Ratio								0.21						0.17		
95% Queue Length								0.8						0.6		
Control Delay (s/veh)								15.0						12.3		
Level of Service (LOS)								B						B		
Approach Delay (s/veh)					15.0								1.0			
Approach LOS					B											

HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	Chris Pylant	Intersection	Sanderson/South Driveway
Agency/Co.		Jurisdiction	City of Hemet
Date Performed	6/20/2017	East/West Street	Project South Driveway
Analysis Year	2017	North/South Street	Sanderson Avenue
Time Analyzed	Phase I - AM w/ Project	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Zanderson Plaza		

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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								63			1043	93			1097	
Percent Heavy Vehicles								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)								66								
Capacity								443								
v/c Ratio								0.15								
95% Queue Length								0.5								
Control Delay (s/veh)								14.5								
Level of Service (LOS)								B								
Approach Delay (s/veh)					14.5											
Approach LOS					B											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.717

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	52	870	88	115	810	111	109	112	46	96	146	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	1	29	3	2	49	12	13	10	2	5	11	1
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]	53	899	91	117	859	123	122	122	48	101	157	116
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	243	25	32	233	33	33	33	13	27	43	31
Total Analysis Volume [veh/h]	57	974	99	127	931	133	132	132	52	109	170	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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	24	24	6	26	26	6	8	8	6	8	8
g / C, Green / Cycle	0.07	0.40	0.40	0.10	0.43	0.43	0.10	0.13	0.13	0.10	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.03	0.29	0.29	0.07	0.29	0.29	0.07	0.05	0.05	0.06	0.08	0.09
s, saturation flow rate [veh/h]	1774	1863	1803	1774	1863	1782	1774	1863	1690	1774	1863	1608
c, Capacity [veh/h]	132	742	718	186	799	764	188	245	223	177	234	202
d1, Uniform Delay [s]	26.70	15.42	15.43	26.04	13.88	13.90	26.05	23.94	24.00	26.03	25.13	25.24
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.23	6.36	6.58	4.41	4.64	4.87	4.76	0.99	1.17	3.44	3.19	4.24
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	0.73	0.73	0.68	0.68	0.68	0.70	0.39	0.40	0.62	0.66	0.69
d, Delay for Lane Group [s/veh]	28.93	21.78	22.01	30.45	18.52	18.77	30.81	24.93	25.17	29.47	28.32	29.49
Lane Group LOS	C	C	C	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.82	6.81	6.64	1.88	6.11	5.91	1.97	1.23	1.17	1.58	2.20	2.05
50th-Percentile Queue Length [ft]	20.60	170.21	166.01	47.03	152.66	147.69	49.24	30.64	29.30	39.58	54.90	51.18
95th-Percentile Queue Length [veh]	1.48	11.09	10.87	3.39	10.16	9.89	3.55	2.21	2.11	2.85	3.95	3.68
95th-Percentile Queue Length [ft]	37.08	277.19	271.66	84.66	253.97	247.34	88.63	55.15	52.73	71.24	98.81	92.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.93	21.88	22.01	30.45	18.62	18.77	30.81	25.00	25.17	29.47	28.42	29.49
Movement LOS	C	C	C	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	22.25			19.90			27.45			29.04		
Approach LOS	C			B			C			C		
d_I, Intersection Delay [s/veh]	22.77											
Intersection LOS	C											
Intersection V/C	0.717											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (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):	0.641

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	39	767	67	121	694	99	85	194	60	63	163	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	6	19	0	0	43	18	18	14	16	0	16	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]	45	786	67	121	737	117	103	208	76	63	179	106
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]	12	207	18	32	194	31	27	55	20	17	47	28
Total Analysis Volume [veh/h]	47	826	70	127	775	123	108	219	80	66	188	111
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	24	24	6	26	26	6	9	9	5	8	8
g / C, Green / Cycle	0.06	0.40	0.40	0.10	0.44	0.44	0.10	0.15	0.15	0.08	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.03	0.24	0.24	0.07	0.25	0.25	0.06	0.12	0.05	0.04	0.08	0.09
s, saturation flow rate [veh/h]	1774	1863	1812	1774	1863	1775	1774	1863	1583	1774	1863	1639
c, Capacity [veh/h]	117	736	716	186	807	769	177	288	245	143	253	222
d1, Uniform Delay [s]	27.01	14.59	14.59	26.04	12.85	12.85	26.03	24.41	22.69	26.48	24.58	24.69
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.20	3.86	3.97	4.41	2.91	3.05	3.40	4.12	0.77	2.32	2.43	3.13
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	0.40	0.62	0.62	0.68	0.57	0.57	0.61	0.76	0.33	0.46	0.62	0.65
d, Delay for Lane Group [s/veh]	29.21	18.45	18.56	30.45	15.75	15.90	29.43	28.54	23.46	28.80	27.01	27.82
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.69	5.11	4.99	1.88	4.64	4.46	1.57	3.12	1.00	0.95	2.13	2.01
50th-Percentile Queue Length [ft]	17.17	127.64	124.70	47.03	116.09	111.39	39.18	78.06	25.01	23.72	53.35	50.35
95th-Percentile Queue Length [veh]	1.24	8.81	8.65	3.39	8.18	7.92	2.82	5.62	1.80	1.71	3.84	3.63
95th-Percentile Queue Length [ft]	30.90	220.29	216.27	84.66	204.44	197.94	70.53	140.51	45.02	42.70	96.04	90.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.21	18.50	18.56	30.45	15.81	15.90	29.43	28.54	23.46	28.80	27.15	27.82
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	19.04			17.64			27.78			27.66		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.96											
Intersection LOS	C											
Intersection V/C	0.641											

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

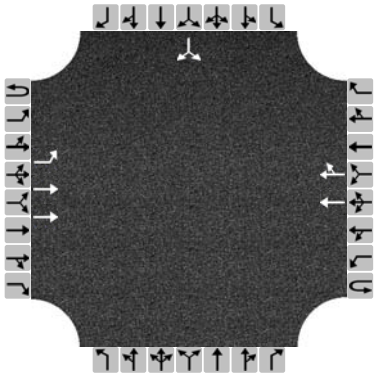
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase 1 - AM w/ Project
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)		27	309				322	40						51		51
Percent Heavy Vehicles		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)		28													108	
Capacity		1167													566	
v/c Ratio		0.02													0.19	
95% Queue Length		0.1													0.7	
Control Delay (s/veh)		8.2													12.8	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.6												12.8			
Approach LOS													B			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	24.7
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.803

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	70	244	41	63	314	35	23	224	49	28	255	89
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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	21	0	0	16	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	244	41	63	314	35	23	245	49	28	271	89
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]	21	72	12	18	92	10	7	72	14	8	80	26
Total Analysis Volume [veh/h]	82	286	48	74	369	41	27	288	58	33	318	104
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	418	436	426	440	430	471	437	481
Degree of Utilization, x	0.50	0.48	0.57	0.55	0.73	0.12	0.80	0.22

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.70	2.52	3.44	3.24	5.85	0.42	7.30	0.81
95th-Percentile Queue Length [ft]	67.52	62.94	85.91	81.05	146.16	10.43	182.39	20.36
Approach Delay [s/veh]	18.93		21.07		27.79		31.30	
Approach LOS	C		C		D		D	
Intersection Delay [s/veh]	24.70							
Intersection LOS	C							

HCS 2010 Two-Way Stop Control Summary Report

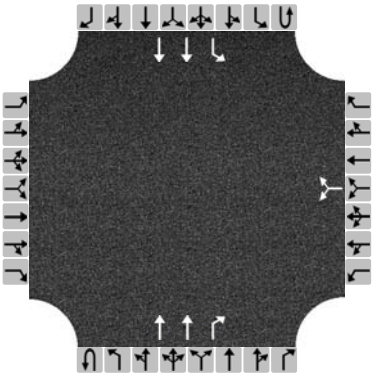
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase I - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.92
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						16		16			886	39		66	1122	
Percent Heavy Vehicles						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)							34							72		
Capacity							126							679		
v/c Ratio							0.27							0.11		
95% Queue Length							1.0							0.4		
Control Delay (s/veh)							43.8							10.9		
Level of Service (LOS)							E							B		
Approach Delay (s/veh)					43.8								0.6			
Approach LOS					E											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.450

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	24	806	30	14	1069	33	19	41	24	22	44	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	3	71	3	0	60	0	0	0	3	3	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	877	33	14	1129	33	19	41	27	25	44	13
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]	7	232	9	4	298	9	5	11	7	7	12	3
Total Analysis Volume [veh/h]	29	926	35	15	1192	35	20	43	29	26	46	14
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]	120
Coordination Type	Time of Day Pattern Coordinated
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	63	0	27	79	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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
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	91	91	3	89	89	3	6	6	4	7	7
g / C, Green / Cycle	0.04	0.76	0.76	0.02	0.74	0.74	0.03	0.05	0.05	0.03	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.02	0.26	0.02	0.01	0.34	0.02	0.01	0.02	0.02	0.01	0.02	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	65	2680	1197	42	2634	1176	51	99	84	61	109	93
d1, Uniform Delay [s]	56.63	4.85	3.66	57.72	5.99	4.07	57.25	55.06	54.79	56.81	54.52	53.65
k, delay calibration	0.11	0.50	0.50	0.11	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]	4.74	0.35	0.05	5.19	0.56	0.05	4.79	2.96	2.39	4.69	2.56	0.74
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	0.45	0.35	0.03	0.36	0.45	0.03	0.39	0.43	0.34	0.43	0.42	0.15
d, Delay for Lane Group [s/veh]	61.37	5.20	3.71	62.92	6.56	4.11	62.04	58.02	57.19	61.50	57.08	54.39
Lane Group LOS	E	A	A	E	A	A	E	E	E	E	E	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.95	3.42	0.20	0.51	5.31	0.22	0.66	1.34	0.90	0.85	1.42	0.42
50th-Percentile Queue Length [ft]	23.69	85.39	5.07	12.72	132.64	5.47	16.62	33.60	22.58	21.32	35.55	10.54
95th-Percentile Queue Length [veh]	1.71	6.15	0.36	0.92	9.08	0.39	1.20	2.42	1.63	1.54	2.56	0.76
95th-Percentile Queue Length [ft]	42.64	153.71	9.12	22.90	227.08	9.84	29.92	60.48	40.65	38.38	63.98	18.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.37	5.20	3.71	62.92	6.56	4.11	62.04	58.02	57.19	61.50	57.08	54.39
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	D
d_A, Approach Delay [s/veh]	6.79			7.17			58.63			57.98		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	10.79											
Intersection LOS	B											
Intersection V/C	0.450											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.537

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	84	846	91	21	1046	23	11	47	28	68	57	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]	5	76	5	0	66	0	0	0	6	6	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	922	96	21	1112	23	11	47	34	74	57	21
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]	23	235	25	5	284	6	3	12	9	19	15	5
Total Analysis Volume [veh/h]	91	942	98	21	1136	23	11	48	35	76	58	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 Coordinated
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]	11	30	0	11	30	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60
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]	5	36	36	2	33	33	9	9	9	9
g / C, Green / Cycle	0.09	0.61	0.61	0.03	0.55	0.55	0.16	0.16	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.05	0.27	0.06	0.01	0.32	0.01	0.01	0.05	0.06	0.04
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1314	1734	1310	1779
c, Capacity [veh/h]	162	2159	964	62	1958	874	227	272	222	279
d1, Uniform Delay [s]	26.12	6.26	4.90	28.29	8.86	6.11	25.55	22.42	27.08	22.34
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]	3.03	0.64	0.21	3.22	1.26	0.06	0.09	0.63	0.91	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
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

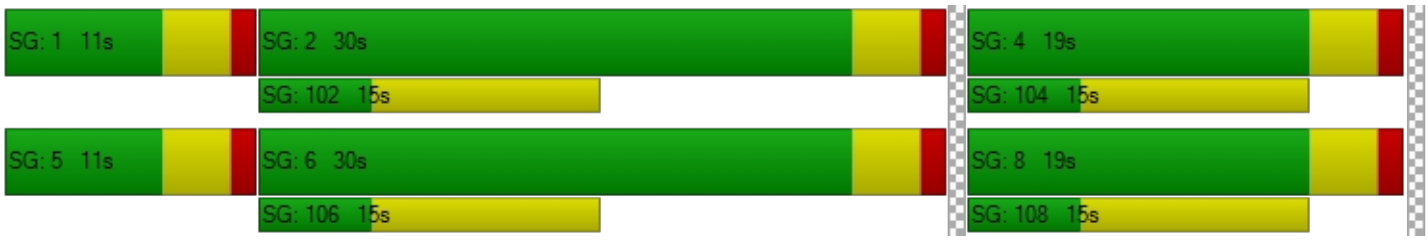
X, volume / capacity	0.56	0.44	0.10	0.34	0.58	0.03	0.05	0.31	0.34	0.28
d, Delay for Lane Group [s/veh]	29.14	6.90	5.11	31.52	10.12	6.16	25.63	23.05	27.99	22.89
Lane Group LOS	C	A	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.31	2.53	0.44	0.34	4.18	0.12	0.14	1.02	1.06	0.97
50th-Percentile Queue Length [ft]	32.82	63.33	10.94	8.40	104.53	3.02	3.58	25.51	26.56	24.14
95th-Percentile Queue Length [veh]	2.36	4.56	0.79	0.60	7.53	0.22	0.26	1.84	1.91	1.74
95th-Percentile Queue Length [ft]	59.07	114.00	19.70	15.11	188.15	5.43	6.45	45.92	47.81	43.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.14	6.90	5.11	31.52	10.12	6.16	25.63	23.05	23.05	27.99	22.89	22.89
Movement LOS	C	A	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	8.54			10.42			23.35			25.39		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	10.97											
Intersection LOS	B											
Intersection V/C	0.537											

Sequence

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



HCS 2010 Two-Way Stop Control Summary Report

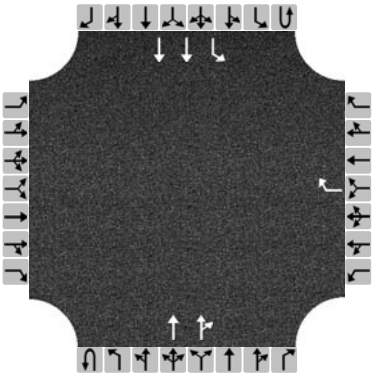
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase I - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	1	2	0
Configuration								R			T	TR		L	T	
Volume (veh/h)								72			1127	11		77	1190	
Percent Heavy Vehicles								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)								76						81		
Capacity								442						573		
v/c Ratio								0.17						0.14		
95% Queue Length								0.6						0.5		
Control Delay (s/veh)								14.8						12.3		
Level of Service (LOS)								B						B		
Approach Delay (s/veh)					14.8								0.7			
Approach LOS					B											

HCS 2010 Two-Way Stop Control Summary Report

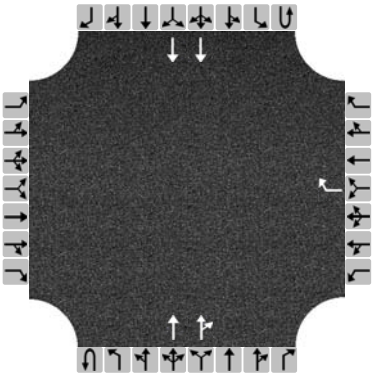
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase I - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/South Driveway
Jurisdiction	City of Hemet
East/West Street	Project South Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								51			1086	77			1190	
Percent Heavy Vehicles								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)								54								
Capacity								434								
v/c Ratio								0.12								
95% Queue Length								0.4								
Control Delay (s/veh)								14.5								
Level of Service (LOS)								B								
Approach Delay (s/veh)					14.5											
Approach LOS					B											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	27	957	95	88	957	67	49	98	34	115	110	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	2	71	10	2	59	16	13	11	2	8	13	3
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	1028	105	90	1016	83	62	109	36	123	123	75
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	259	26	23	256	21	16	27	9	31	31	19
Total Analysis Volume [veh/h]	29	1037	106	91	1025	84	63	110	36	124	124	76
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 Coordinated
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	14	19	0	16	21	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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
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	31	31	6	33	33	5	7	7	6	8	8
g / C, Green / Cycle	0.05	0.47	0.47	0.09	0.51	0.51	0.07	0.10	0.10	0.10	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.02	0.31	0.31	0.05	0.30	0.30	0.04	0.04	0.04	0.07	0.06	0.06
s, saturation flow rate [veh/h]	1774	1863	1803	1774	1863	1814	1774	1863	1711	1774	1863	1635
c, Capacity [veh/h]	82	870	842	158	949	924	134	188	173	174	231	202
d1, Uniform Delay [s]	30.18	13.48	13.49	28.56	11.25	11.25	28.93	27.47	27.53	28.54	26.54	26.63
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.56	4.05	4.19	3.31	2.71	2.79	2.56	1.34	1.59	5.32	1.37	1.73
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	0.35	0.67	0.67	0.58	0.59	0.59	0.47	0.39	0.41	0.71	0.45	0.48
d, Delay for Lane Group [s/veh]	32.74	17.52	17.68	31.87	13.95	14.04	31.48	28.81	29.11	33.86	27.91	28.36
Lane Group LOS	C	B	B	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.48	6.65	6.48	1.45	5.50	5.39	1.00	1.10	1.08	2.05	1.51	1.42
50th-Percentile Queue Length [ft]	12.07	166.31	162.09	36.28	137.55	134.69	25.02	27.62	26.99	51.26	37.83	35.62
95th-Percentile Queue Length [veh]	0.87	10.88	10.66	2.61	9.35	9.19	1.80	1.99	1.94	3.69	2.72	2.56
95th-Percentile Queue Length [ft]	21.73	272.06	266.49	65.31	233.72	229.85	45.03	49.72	48.57	92.27	68.10	64.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.74	17.59	17.68	31.87	13.99	14.04	31.48	28.91	29.11	33.86	27.98	28.36
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.98			15.35			29.72			30.32		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.11											
Intersection LOS	B											
Intersection V/C	0.630											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.786

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	103	774	128	126	862	106	124	291	59	128	270	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	18	69	0	0	52	22	19	16	11	0	18	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]	121	843	128	126	914	128	143	307	70	128	288	88
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	220	33	33	239	33	37	80	18	33	75	23
Total Analysis Volume [veh/h]	127	882	134	132	956	134	150	321	73	134	301	92
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 Coordinated
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	12	34	0	11	33	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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
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]	7	30	30	7	30	30	8	15	15	7	14	14
g / C, Green / Cycle	0.09	0.39	0.39	0.09	0.40	0.40	0.11	0.20	0.20	0.09	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.07	0.28	0.28	0.07	0.30	0.30	0.08	0.17	0.05	0.08	0.11	0.11
s, saturation flow rate [veh/h]	1774	1863	1778	1774	1863	1784	1774	1863	1583	1774	1863	1716
c, Capacity [veh/h]	163	733	700	167	738	707	188	382	325	167	360	332
d1, Uniform Delay [s]	33.43	19.18	19.19	33.34	19.56	19.58	32.83	28.71	24.91	33.39	27.47	27.53
k, delay calibration	0.11	0.50	0.50	0.11	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]	7.87	5.72	6.01	8.05	7.02	7.39	7.46	4.97	0.35	8.57	1.38	1.56
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	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	0.78	0.71	0.71	0.79	0.75	0.76	0.80	0.84	0.22	0.80	0.56	0.57
d, Delay for Lane Group [s/veh]	41.29	24.90	25.20	41.39	26.58	26.97	40.29	33.68	25.25	41.96	28.86	29.09
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	2.56	8.18	7.88	2.66	9.11	8.83	2.98	5.85	1.08	2.72	3.32	3.13
50th-Percentile Queue Length [ft]	63.90	204.52	196.95	66.48	227.80	220.67	74.41	146.20	27.02	68.03	82.93	78.20
95th-Percentile Queue Length [veh]	4.60	12.87	12.48	4.79	14.06	13.70	5.36	9.81	1.95	4.90	5.97	5.63
95th-Percentile Queue Length [ft]	115.02	321.79	312.02	119.66	351.56	342.48	133.94	245.35	48.64	122.45	149.28	140.75

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	41.29	25.03	25.20	41.39	26.74	26.97	40.29	33.68	25.25	41.96	28.93	29.09
Movement LOS	D	C	C	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	26.85			28.35			34.37			32.27		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	29.41											
Intersection LOS	C											
Intersection V/C	0.786											

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

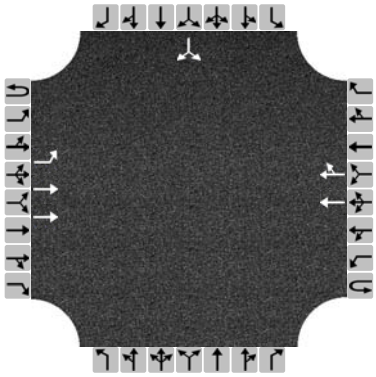
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2017
Time Analyzed	Phase I - PM w/ Project
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)		22	282				279	33						41		41
Percent Heavy Vehicles		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)		23													86	
Capacity		1220													616	
v/c Ratio		0.02													0.14	
95% Queue Length		0.1													0.5	
Control Delay (s/veh)		8.0													11.8	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.6												11.8			
Approach LOS													B			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	21.3
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.700

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	38	364	55	33	338	26	44	221	33	70	205	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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	23	0	0	23	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]	38	364	55	33	338	26	44	244	33	70	228	43
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]	10	95	14	9	88	7	11	64	9	18	60	11
Total Analysis Volume [veh/h]	40	380	57	34	353	27	46	255	34	73	238	45
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	448	462	442	451	445	492	445	494
Degree of Utilization, x	0.53	0.52	0.47	0.46	0.68	0.07	0.70	0.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.06	2.90	2.44	2.36	4.93	0.22	5.31	0.30
95th-Percentile Queue Length [ft]	76.62	72.49	61.12	59.02	123.33	5.55	132.68	7.47
Approach Delay [s/veh]	19.03		17.56		24.57		25.47	
Approach LOS	C		C		C		D	
Intersection Delay [s/veh]	21.27							
Intersection LOS	C							

Intersection Level Of Service Report
Intersection 1: Sanderson Ave (NS) at Commonwealth Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	4.8
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.405

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	0	0
Pocket Length [ft]	100.00	100.00	160.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	888	32	22	767	22	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	27	0	0	47	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	915	32	22	814	22	47
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	237	8	6	211	6	12
Total Analysis Volume [veh/h]	949	33	23	844	23	49
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	38	0	11	49	11	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	41	41	2	47	5
g / C, Green / Cycle	0.68	0.68	0.04	0.78	0.08
(v / s)_i Volume / Saturation Flow Rate	0.27	0.02	0.01	0.24	0.04
s, saturation flow rate [veh/h]	3547	1583	1774	3547	1640
c, Capacity [veh/h]	2403	1073	70	2778	137
d1, Uniform Delay [s]	4.27	3.20	28.12	1.85	26.42
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.49	0.05	2.70	0.28	3.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.03	0.33	0.30	0.52
d, Delay for Lane Group [s/veh]	4.76	3.25	30.82	2.14	29.50
Lane Group LOS	A	A	C	A	C
Critical Lane Group	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	1.76	0.10	0.36	0.51	1.05
50th-Percentile Queue Length [ft]	44.05	2.48	8.98	12.66	26.33
95th-Percentile Queue Length [veh]	3.17	0.18	0.65	0.91	1.90
95th-Percentile Queue Length [ft]	79.30	4.46	16.17	22.79	47.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	4.76	3.25	30.82	2.14	29.50	29.50
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	4.71		2.90		29.50	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.82					
Intersection LOS	A					
Intersection V/C	0.405					

Sequence

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

Intersection Level Of Service Report
Intersection 1: Sanderson Ave (NS) at Commonwealth Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	4.6
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.454

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	0	0
Pocket Length [ft]	100.00	100.00	160.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	815	39	66	1062	16	16
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	71	0	0	60	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	886	39	66	1122	16	16
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	240	11	18	304	4	4
Total Analysis Volume [veh/h]	960	42	72	1216	17	17
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	38	0	11	49	11	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	40	40	5	49	3
g / C, Green / Cycle	0.67	0.67	0.08	0.82	0.05
(v / s)_i Volume / Saturation Flow Rate	0.27	0.03	0.04	0.34	0.02
s, saturation flow rate [veh/h]	3547	1583	1774	3547	1673
c, Capacity [veh/h]	2355	1051	148	2888	88
d1, Uniform Delay [s]	4.65	3.49	26.33	1.58	27.55
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	0.07	2.44	0.45	2.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.04	0.48	0.42	0.38
d, Delay for Lane Group [s/veh]	5.18	3.56	28.77	2.03	30.28
Lane Group LOS	A	A	C	A	C
Critical Lane Group	No	No	No	Yes	Yes
50th-Percentile Queue Length [veh]	1.94	0.14	1.03	0.37	0.52
50th-Percentile Queue Length [ft]	48.57	3.42	25.83	9.18	12.90
95th-Percentile Queue Length [veh]	3.50	0.25	1.86	0.66	0.93
95th-Percentile Queue Length [ft]	87.43	6.16	46.49	16.52	23.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.18	3.56	28.77	2.03	30.28	30.28
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	5.11		3.53		30.28	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.60					
Intersection LOS	A					
Intersection V/C	0.454					

Sequence

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

Opening Year Phase II (2020) Without Project

HCS 2010 Two-Way Stop Control Summary Report

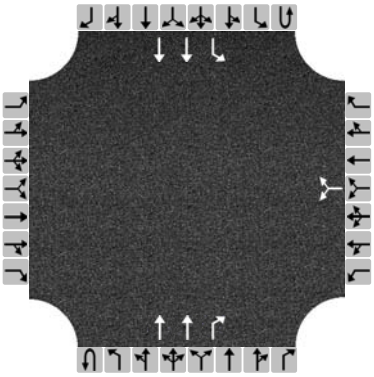
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2020
Time Analyzed	Phase II - AM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						17		50			984	27		24	895	
Percent Heavy Vehicles						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)							70							25		
Capacity							249							651		
v/c Ratio							0.28							0.04		
95% Queue Length							1.1							0.1		
Control Delay (s/veh)							25.0							10.8		
Level of Service (LOS)							D							B		
Approach Delay (s/veh)					25.0								0.3			
Approach LOS					D											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	19.6
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	90	845	13	17	820	36	70	152	80	18	178	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]	4	54	4	0	94	0	0	0	5	5	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]	94	899	17	17	914	36	70	152	85	23	178	22
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	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	272	5	5	277	11	21	46	26	7	54	7
Total Analysis Volume [veh/h]	114	1088	21	21	1107	44	85	184	103	28	215	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]	65
Coordination Type	Time of Day Pattern Coordinated
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	24	0	11	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	R	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]	6	32	32	2	28	28	6	12	12	3	10	10
g / C, Green / Cycle	0.09	0.49	0.49	0.04	0.43	0.43	0.09	0.19	0.19	0.04	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.06	0.31	0.01	0.01	0.31	0.03	0.05	0.10	0.07	0.02	0.12	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	170	1721	769	64	1511	674	154	350	298	80	273	232
d1, Uniform Delay [s]	28.52	12.47	8.76	30.67	15.64	11.06	28.60	23.87	23.01	30.24	26.87	24.18
k, delay calibration	0.11	0.50	0.50	0.11	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]	4.53	1.78	0.07	2.89	3.18	0.19	3.09	1.22	0.69	2.59	5.00	0.22
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	0.67	0.63	0.03	0.33	0.73	0.07	0.55	0.53	0.35	0.35	0.79	0.12
d, Delay for Lane Group [s/veh]	33.06	14.25	8.83	33.57	18.82	11.25	31.70	25.09	23.70	32.83	31.87	24.40
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.86	5.44	0.15	0.36	6.68	0.37	1.35	2.53	1.36	0.47	3.43	0.36
50th-Percentile Queue Length [ft]	46.44	135.96	3.75	9.04	166.95	9.32	33.79	63.27	33.96	11.69	85.84	8.98
95th-Percentile Queue Length [veh]	3.34	9.26	0.27	0.65	10.92	0.67	2.43	4.56	2.45	0.84	6.18	0.65
95th-Percentile Queue Length [ft]	83.60	231.58	6.75	16.27	272.90	16.78	60.82	113.89	61.13	21.04	154.52	16.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	33.06	14.25	8.83	33.57	18.82	11.25	31.70	25.09	23.70	32.83	31.87	24.40
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.91			18.80			26.22			31.22		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.65											
Intersection LOS	B											
Intersection V/C	0.715											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (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):	0.633

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	68	815	66	50	839	18	50	103	117	110	120	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	8	62	8	0	104	0	0	0	10	10	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	877	74	50	943	18	50	103	127	120	120	87
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	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	250	21	14	269	5	14	29	36	34	34	25
Total Analysis Volume [veh/h]	87	999	84	57	1074	21	57	117	145	137	137	99
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 Coordinated
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]	11	29	0	12	30	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	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	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]	5	29	29	4	28	28	15	15	15	15
g / C, Green / Cycle	0.09	0.48	0.48	0.07	0.46	0.46	0.25	0.25	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.05	0.28	0.05	0.03	0.30	0.01	0.05	0.15	0.12	0.14
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1140	1697	1113	1734
c, Capacity [veh/h]	162	1690	754	131	1628	727	234	425	210	434
d1, Uniform Delay [s]	26.12	11.48	8.71	26.66	12.63	8.93	25.63	19.99	28.47	19.57
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.14	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]	2.74	1.53	0.30	2.27	2.12	0.07	0.53	1.95	3.39	1.06
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

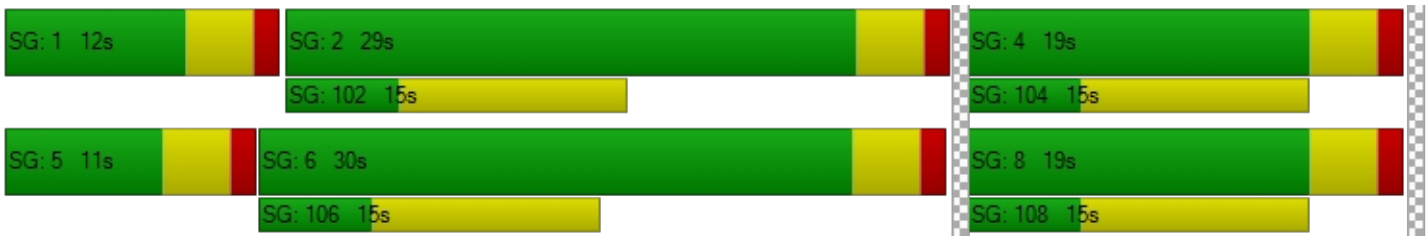
X, volume / capacity	0.54	0.59	0.11	0.44	0.66	0.03	0.24	0.62	0.65	0.54
d, Delay for Lane Group [s/veh]	28.86	13.01	9.01	28.93	14.75	9.00	26.16	21.94	31.86	20.63
Lane Group LOS	C	B	A	C	B	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.25	4.42	0.58	0.82	5.20	0.15	0.76	3.21	2.09	2.76
50th-Percentile Queue Length [ft]	31.21	110.45	14.51	20.60	130.05	3.63	19.07	80.34	52.23	68.97
95th-Percentile Queue Length [veh]	2.25	7.87	1.04	1.48	8.94	0.26	1.37	5.78	3.76	4.97
95th-Percentile Queue Length [ft]	56.18	196.63	26.12	37.08	223.56	6.54	34.33	144.62	94.02	124.15

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.86	13.01	9.01	28.93	14.75	9.00	26.16	21.94	21.94	31.86	20.63	20.63
Movement LOS	C	B	A	C	B	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	13.90			15.35			22.70			24.76		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.73											
Intersection LOS	B											
Intersection V/C	0.633											

Sequence

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



Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (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):	0.657

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	55	853	93	93	819	104	87	119	49	76	141	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]	1	58	5	3	98	23	25	19	3	9	21	2
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]	56	911	98	96	917	127	112	138	52	85	162	96
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	247	27	26	248	34	30	37	14	23	44	26
Total Analysis Volume [veh/h]	61	987	106	104	993	138	121	150	56	92	176	104
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 Coordinated
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]	12	28	0	11	27	0	12	19	0	12	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	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	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]	5	34	34	6	35	35	6	9	9	6	8	8
g / C, Green / Cycle	0.07	0.48	0.48	0.09	0.50	0.50	0.09	0.12	0.12	0.08	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.30	0.30	0.06	0.31	0.31	0.07	0.06	0.06	0.05	0.08	0.08
s, saturation flow rate [veh/h]	1774	1863	1800	1774	1863	1784	1774	1863	1696	1774	1863	1639
c, Capacity [veh/h]	127	888	858	157	920	881	164	227	207	151	214	188
d1, Uniform Delay [s]	31.37	13.70	13.70	31.01	13.04	13.05	31.07	28.71	28.79	31.02	29.86	29.99
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.81	3.32	3.44	4.73	3.23	3.39	6.41	1.48	1.76	3.94	3.79	4.98
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	0.48	0.63	0.63	0.66	0.63	0.63	0.74	0.47	0.48	0.61	0.68	0.71
d, Delay for Lane Group [s/veh]	34.18	17.01	17.15	35.74	16.26	16.45	37.48	30.20	30.54	34.96	33.66	34.96
Lane Group LOS	C	B	B	D	B	B	D	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.06	6.58	6.39	1.85	6.62	6.41	2.22	1.69	1.62	1.62	2.50	2.36
50th-Percentile Queue Length [ft]	26.51	164.41	159.85	46.27	165.58	160.24	55.38	42.23	40.42	40.41	62.40	59.06
95th-Percentile Queue Length [veh]	1.91	10.78	10.54	3.33	10.84	10.56	3.99	3.04	2.91	2.91	4.49	4.25
95th-Percentile Queue Length [ft]	47.73	269.55	263.52	83.29	271.10	264.05	99.68	76.01	72.76	72.74	112.33	106.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.18	17.07	17.15	35.74	16.34	16.45	37.48	30.30	30.54	34.96	33.88	34.96
Movement LOS	C	B	B	D	B	B	D	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.98			17.99			33.00			34.45		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	21.56											
Intersection LOS	C											
Intersection V/C	0.657											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	41	801	71	116	724	98	83	206	64	67	173	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	12	38	0	0	86	35	35	27	31	0	32	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]	53	839	71	116	810	133	118	233	95	67	205	100
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]	14	221	19	30	213	35	31	61	25	18	54	26
Total Analysis Volume [veh/h]	56	882	75	122	852	140	124	245	100	70	216	105
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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	23	23	6	25	25	6	10	10	5	9	9
g / C, Green / Cycle	0.07	0.38	0.38	0.10	0.41	0.41	0.10	0.17	0.17	0.08	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.07	0.27	0.27	0.07	0.13	0.06	0.04	0.09	0.09
s, saturation flow rate [veh/h]	1774	1863	1812	1774	1863	1772	1774	1863	1583	1774	1863	1663
c, Capacity [veh/h]	130	706	687	183	762	725	184	315	268	147	276	246
d1, Uniform Delay [s]	26.72	15.71	15.71	26.03	14.47	14.48	26.03	23.96	22.22	26.40	24.02	24.12
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.23	5.38	5.53	4.10	4.58	4.83	4.22	4.14	0.86	2.38	2.12	2.61
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	0.69	0.69	0.67	0.67	0.67	0.67	0.78	0.37	0.48	0.60	0.63
d, Delay for Lane Group [s/veh]	28.95	21.09	21.24	30.13	19.06	19.30	30.25	28.11	23.08	28.78	26.14	26.73
Lane Group LOS	C	C	C	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	0.81	5.94	5.81	1.80	5.82	5.60	1.83	3.47	1.24	1.01	2.24	2.11
50th-Percentile Queue Length [ft]	20.26	148.62	145.27	44.89	145.62	139.92	45.74	86.71	30.98	25.13	55.98	52.87
95th-Percentile Queue Length [veh]	1.46	9.94	9.76	3.23	9.78	9.48	3.29	6.24	2.23	1.81	4.03	3.81
95th-Percentile Queue Length [ft]	36.46	248.58	244.10	80.80	244.57	236.92	82.33	156.07	55.77	45.23	100.76	95.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.95	21.16	21.24	30.13	19.16	19.30	30.25	28.11	23.08	28.78	26.27	26.73
Movement LOS	C	C	C	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	21.59			20.38			27.60			26.84		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	22.77											
Intersection LOS	C											
Intersection V/C	0.681											

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	30.3
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	68	259	43	67	333	30	18	225	45	29	258	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	42	0	0	32	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]	68	259	43	67	333	30	18	267	45	29	290	94
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]	20	76	13	20	98	9	5	78	13	9	85	28
Total Analysis Volume [veh/h]	80	304	50	79	391	35	21	313	53	34	340	110
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.12	2.92	4.04	3.82	7.25	0.39	9.24	0.92
95th-Percentile Queue Length [ft]	78.09	72.97	100.96	95.60	181.24	9.87	231.10	22.97
Approach Delay [s/veh]	21.09		24.11		35.17		41.25	
Approach LOS	C		C		E		E	
Intersection Delay [s/veh]	30.34							
Intersection LOS	D							

HCS 2010 Two-Way Stop Control Summary Report

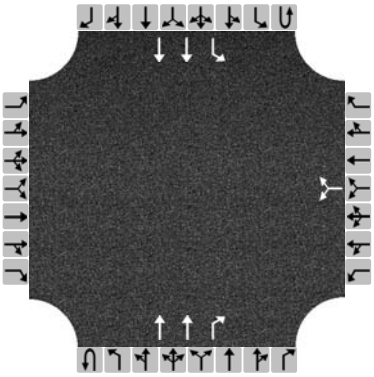
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	10/17/2016
Analysis Year	2020
Time Analyzed	Phase II - PM
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						12		17			996	36		70	1235	
Percent Heavy Vehicles						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)							30							73		
Capacity							127							638		
v/c Ratio							0.24							0.11		
95% Queue Length							0.9							0.4		
Control Delay (s/veh)							42.0							11.4		
Level of Service (LOS)							E							B		
Approach Delay (s/veh)					42.0								0.6			
Approach LOS					E											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	21	839	22	15	1118	35	21	43	21	13	47	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]	5	142	5	0	119	0	0	0	6	6	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]	26	981	27	15	1237	35	21	43	27	19	47	14
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]	7	259	7	4	327	9	6	11	7	5	12	4
Total Analysis Volume [veh/h]	27	1036	29	16	1306	37	22	45	29	20	50	15
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 Coordinated
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	49	0	11	49	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	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	63	63	2	62	62	3	6	6	3	6	6
g / C, Green / Cycle	0.04	0.70	0.70	0.03	0.69	0.69	0.03	0.07	0.07	0.03	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.02	0.29	0.02	0.01	0.37	0.02	0.01	0.02	0.02	0.01	0.03	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	70	2472	1104	48	2428	1084	61	124	105	57	120	102
d1, Uniform Delay [s]	42.23	5.85	4.22	43.07	7.11	4.60	42.57	40.27	40.03	42.73	40.58	39.87
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.41	0.52	0.04	3.99	0.86	0.06	3.56	1.78	1.40	3.67	2.32	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	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	0.38	0.42	0.03	0.33	0.54	0.03	0.36	0.36	0.28	0.35	0.42	0.15
d, Delay for Lane Group [s/veh]	45.64	6.37	4.26	47.06	7.97	4.66	46.14	42.05	41.43	46.39	42.90	40.53
Lane Group LOS	D	A	A	D	A	A	D	D	D	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.65	3.59	0.15	0.40	5.43	0.21	0.53	1.01	0.65	0.49	1.13	0.33
50th-Percentile Queue Length [ft]	16.17	89.70	3.78	10.00	135.70	5.15	13.37	25.15	16.15	12.25	28.32	8.25
95th-Percentile Queue Length [veh]	1.16	6.46	0.27	0.72	9.25	0.37	0.96	1.81	1.16	0.88	2.04	0.59
95th-Percentile Queue Length [ft]	29.11	161.46	6.80	18.00	231.23	9.27	24.06	45.28	29.08	22.05	50.97	14.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.64	6.37	4.26	47.06	7.97	4.66	46.14	42.05	41.43	46.39	42.90	40.53
Movement LOS	D	A	A	D	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	7.29			8.34			42.80			43.30		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	10.29											
Intersection LOS	B											
Intersection V/C	0.514											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	9.5
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.543

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	40	867	86	23	1077	25	12	50	25	62	61	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]	10	152	10	0	131	0	0	0	11	11	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	1019	96	23	1208	25	12	50	36	73	61	23
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]	13	260	25	6	308	6	3	13	9	19	16	6
Total Analysis Volume [veh/h]	51	1041	98	23	1234	26	12	51	37	75	62	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]	60
Coordination Type	Time of Day Pattern Coordinated
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]	11	21	0	11	21	0	0	28	0	0	28	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	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]	4	39	39	2	37	37	7	7	7	7
g / C, Green / Cycle	0.07	0.65	0.65	0.04	0.62	0.62	0.12	0.12	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.03	0.29	0.06	0.01	0.35	0.02	0.01	0.05	0.06	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1307	1734	1304	1778
c, Capacity [veh/h]	123	2293	1024	70	2188	977	171	199	167	204
d1, Uniform Delay [s]	26.84	5.32	4.01	28.12	6.77	4.49	28.04	24.84	29.40	24.76
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]	2.24	0.65	0.19	2.70	1.06	0.05	0.17	1.54	1.89	1.36
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
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	0.42	0.45	0.10	0.33	0.56	0.03	0.07	0.44	0.45	0.42
d, Delay for Lane Group [s/veh]	29.08	5.97	4.19	30.82	7.83	4.54	28.21	26.38	31.29	26.12
Lane Group LOS	C	A	A	C	A	A	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	0.74	2.43	0.37	0.36	3.64	0.11	0.17	1.19	1.14	1.14
50th-Percentile Queue Length [ft]	18.54	60.71	9.20	8.98	91.07	2.66	4.18	29.66	28.44	28.43
95th-Percentile Queue Length [veh]	1.33	4.37	0.66	0.65	6.56	0.19	0.30	2.14	2.05	2.05
95th-Percentile Queue Length [ft]	33.37	109.28	16.55	16.17	163.93	4.79	7.53	53.39	51.18	51.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.08	5.97	4.19	30.82	7.83	4.54	28.21	26.38	26.38	31.29	26.12	26.12
Movement LOS	C	A	A	C	A	A	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	6.82			8.18			26.60			28.54		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	9.45											
Intersection LOS	A											
Intersection V/C	0.543											

Sequence

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

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	28	957	101	70	983	61	28	104	36	100	106	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]	4	142	19	4	118	31	25	22	3	16	25	5
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]	32	1099	120	74	1101	92	53	126	39	116	131	59
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	277	30	19	278	23	13	32	10	29	33	15
Total Analysis Volume [veh/h]	32	1109	121	75	1111	93	53	127	39	117	132	60
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 Coordinated
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	33	0	11	33	0	12	19	0	12	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	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	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	40	40	6	42	42	5	7	7	6	9	9
g / C, Green / Cycle	0.05	0.54	0.54	0.07	0.56	0.56	0.06	0.09	0.09	0.09	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.02	0.34	0.34	0.04	0.33	0.33	0.03	0.05	0.05	0.07	0.05	0.06
s, saturation flow rate [veh/h]	1774	1863	1799	1774	1863	1813	1774	1863	1718	1774	1863	1673
c, Capacity [veh/h]	84	995	961	134	1047	1019	114	169	156	154	211	190
d1, Uniform Delay [s]	34.77	12.28	12.30	33.58	10.71	10.73	33.96	32.56	32.64	33.59	31.22	31.31
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.82	3.00	3.13	3.64	2.36	2.44	2.93	2.26	2.69	7.48	1.60	1.96
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	0.38	0.63	0.63	0.56	0.58	0.58	0.47	0.50	0.52	0.76	0.47	0.49
d, Delay for Lane Group [s/veh]	37.59	15.28	15.43	37.22	13.07	13.17	36.89	34.82	35.33	41.07	32.83	33.27
Lane Group LOS	D	B	B	D	B	B	D	C	D	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	0.62	7.23	7.04	1.42	6.32	6.19	1.00	1.53	1.50	2.35	1.72	1.64
50th-Percentile Queue Length [ft]	15.51	180.63	176.03	35.54	157.92	154.78	25.07	38.20	37.39	58.69	43.10	41.10
95th-Percentile Queue Length [veh]	1.12	11.63	11.39	2.56	10.44	10.27	1.81	2.75	2.69	4.23	3.10	2.96
95th-Percentile Queue Length [ft]	27.91	290.84	284.83	63.97	260.97	256.80	45.13	68.77	67.30	105.64	77.59	73.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.59	15.34	15.43	37.22	13.12	13.17	36.89	34.99	35.33	41.07	32.94	33.27
Movement LOS	D	B	B	D	B	B	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	15.92			14.53			35.51			36.08		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	18.77											
Intersection LOS	B											
Intersection V/C	0.625											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	34.6
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.838

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	109	811	135	123	904	107	127	308	63	135	287	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	35	138	0	0	103	44	37	31	22	0	35	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]	144	949	135	123	1007	151	164	339	85	135	322	82
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	248	35	32	263	39	43	89	22	35	84	21
Total Analysis Volume [veh/h]	151	993	141	129	1053	158	172	355	89	141	337	86
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 Coordinated
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]	13	38	0	12	37	0	15	28	0	12	25	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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
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]	9	39	39	8	38	38	10	19	19	8	17	17
g / C, Green / Cycle	0.10	0.43	0.43	0.09	0.42	0.42	0.12	0.21	0.21	0.09	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.09	0.31	0.31	0.07	0.33	0.33	0.10	0.19	0.06	0.08	0.12	0.12
s, saturation flow rate [veh/h]	1774	1863	1783	1774	1863	1779	1774	1863	1583	1774	1863	1734
c, Capacity [veh/h]	179	799	765	159	779	744	208	399	339	159	348	324
d1, Uniform Delay [s]	39.86	21.31	21.35	40.30	22.84	22.91	38.93	34.41	29.51	40.59	33.77	33.82
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.14	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]	10.35	5.63	5.96	9.44	8.13	8.72	8.19	8.55	0.41	14.80	1.85	2.05
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	0.85	0.72	0.73	0.81	0.79	0.80	0.83	0.89	0.26	0.89	0.63	0.63
d, Delay for Lane Group [s/veh]	50.20	26.94	27.31	49.74	30.97	31.63	47.13	42.96	29.92	55.39	35.62	35.87
Lane Group LOS	D	C	C	D	C	C	D	D	C	E	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	3.75	10.79	10.46	3.19	12.53	12.19	4.13	8.31	1.62	3.70	4.48	4.25
50th-Percentile Queue Length [ft]	93.83	269.87	261.52	79.66	313.27	304.71	103.37	207.72	40.53	92.57	112.12	106.25
95th-Percentile Queue Length [veh]	6.76	16.18	15.77	5.74	18.34	17.91	7.44	13.04	2.92	6.67	7.96	7.63
95th-Percentile Queue Length [ft]	168.89	404.58	394.13	143.39	458.40	447.85	186.06	325.90	72.96	166.63	198.95	190.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.20	27.09	27.31	49.74	31.24	31.63	47.13	42.96	29.92	55.39	35.71	35.87
Movement LOS	D	C	C	D	C	C	D	D	C	E	D	D
d_A, Approach Delay [s/veh]	29.83			33.07			42.24			40.65		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	34.58											
Intersection LOS	C											
Intersection V/C	0.838											

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	26.5
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes		

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	35	386	58	35	358	23	41	224	29	75	207	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	45	0	0	46	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	386	58	35	358	23	41	269	29	75	253	45
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	101	15	9	94	6	11	70	8	20	66	12
Total Analysis Volume [veh/h]	37	403	61	37	374	24	43	281	30	78	264	47
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.70	3.50	2.92	2.82	6.42	0.21	7.29	0.33
95th-Percentile Queue Length [ft]	92.46	87.61	72.92	70.58	160.42	5.14	182.13	8.28
Approach Delay [s/veh]	22.08		19.96		31.89		34.81	
Approach LOS	C		C		D		D	
Intersection Delay [s/veh]	26.55							
Intersection LOS	D							

Opening Year Phase II (2020) With Project

HCS 2010 Two-Way Stop Control Summary Report

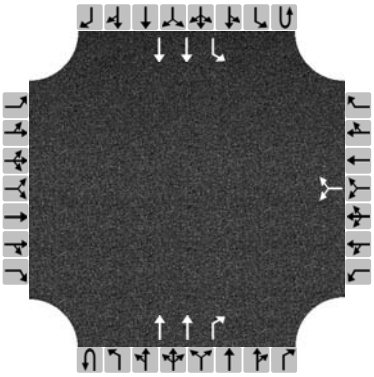
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - AM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						27		50			1002	36		24	915	
Percent Heavy Vehicles						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)							80							25		
Capacity							203							635		
v/c Ratio							0.40							0.04		
95% Queue Length							1.8							0.1		
Control Delay (s/veh)							33.9							10.9		
Level of Service (LOS)							D							B		
Approach Delay (s/veh)					33.9								0.3			
Approach LOS					D											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (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):	0.738

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	99	872	31	17	851	36	70	152	90	38	178	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]	4	54	4	0	94	0	0	0	5	5	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]	103	926	35	17	945	36	70	152	95	43	178	22
Peak Hour Factor	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260	0.8260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	280	11	5	286	11	21	46	29	13	54	7
Total Analysis Volume [veh/h]	125	1121	42	21	1144	44	85	184	115	52	215	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]	65
Coordination Type	Time of Day Pattern Coordinated
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	24	0	11	24	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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65	65	65	65
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]	6	32	32	2	28	28	6	11	11	4	10	10
g / C, Green / Cycle	0.10	0.49	0.49	0.04	0.42	0.42	0.09	0.17	0.17	0.07	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.07	0.32	0.03	0.01	0.32	0.03	0.05	0.10	0.07	0.03	0.12	0.02
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	174	1715	765	64	1495	667	154	312	265	121	277	235
d1, Uniform Delay [s]	28.56	12.74	8.95	30.67	16.12	11.23	28.60	25.12	24.41	29.21	26.74	24.07
k, delay calibration	0.11	0.50	0.50	0.11	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]	5.44	1.96	0.14	2.89	3.79	0.19	3.09	1.78	1.12	2.43	4.67	0.21
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

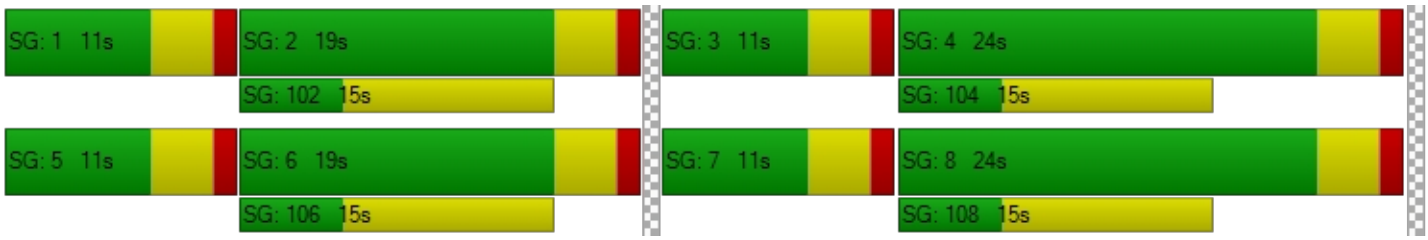
X, volume / capacity	0.72	0.65	0.05	0.33	0.77	0.07	0.55	0.59	0.43	0.43	0.78	0.11
d, Delay for Lane Group [s/veh]	34.00	14.69	9.08	33.57	19.91	11.42	31.70	26.90	25.53	31.64	31.41	24.28
Lane Group LOS	C	B	A	C	B	B	C	C	C	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	2.07	5.73	0.31	0.36	7.16	0.38	1.35	2.64	1.60	0.83	3.41	0.36
50th-Percentile Queue Length [ft]	51.79	143.17	7.65	9.04	178.90	9.42	33.79	66.12	39.88	20.78	85.15	8.96
95th-Percentile Queue Length [veh]	3.73	9.65	0.55	0.65	11.54	0.68	2.43	4.76	2.87	1.50	6.13	0.65
95th-Percentile Queue Length [ft]	93.23	241.29	13.77	16.27	288.57	16.95	60.82	119.01	71.78	37.40	153.27	16.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.00	14.69	9.08	33.57	19.91	11.42	31.70	26.90	25.53	31.64	31.41	24.28
Movement LOS	C	B	A	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	16.38			19.84			27.55			30.80		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.38											
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (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):	0.641

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	77	869	84	50	900	18	50	103	127	130	120	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	8	62	8	0	104	0	0	0	10	10	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]	85	931	92	50	1004	18	50	103	137	140	120	87
Peak Hour Factor	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780	0.8780
Other Adjustment Factor	1.0000	1.0000	1.0000	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	265	26	14	286	5	14	29	39	40	34	25
Total Analysis Volume [veh/h]	97	1060	105	57	1144	21	57	117	156	159	137	99
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 Coordinated
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]	11	36	0	13	38	0	0	26	0	0	26	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75
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]	6	36	36	5	35	35	22	22	22	22
g / C, Green / Cycle	0.08	0.48	0.48	0.07	0.47	0.47	0.29	0.29	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.05	0.30	0.07	0.03	0.32	0.01	0.05	0.16	0.14	0.14
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1140	1692	1102	1734
c, Capacity [veh/h]	146	1704	761	118	1648	736	273	496	240	509
d1, Uniform Delay [s]	33.45	14.46	10.86	33.82	15.89	10.91	28.17	22.36	33.09	21.71
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]	5.09	1.72	0.38	3.05	2.44	0.07	0.37	0.95	3.11	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	0.66	0.62	0.14	0.48	0.69	0.03	0.21	0.55	0.66	0.46
d, Delay for Lane Group [s/veh]	38.55	16.18	11.23	36.87	18.33	10.98	28.54	23.31	36.19	22.37
Lane Group LOS	D	B	B	D	B	B	C	C	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	Yes	No	No
50th-Percentile Queue Length [veh]	1.88	6.40	0.97	1.08	7.54	0.19	0.91	3.99	3.04	3.33
50th-Percentile Queue Length [ft]	46.88	160.11	24.30	26.93	188.46	4.77	22.79	99.71	75.95	83.25
95th-Percentile Queue Length [veh]	3.38	10.55	1.75	1.94	12.04	0.34	1.64	7.18	5.47	5.99
95th-Percentile Queue Length [ft]	84.39	263.87	43.75	48.48	301.03	8.58	41.02	179.47	136.72	149.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.55	16.18	11.23	36.87	18.33	10.98	28.54	23.31	23.31	36.19	22.37	22.37
Movement LOS	D	B	B	D	B	B	C	C	C	D	C	C
d_A, Approach Delay [s/veh]	17.49			19.07			24.22			27.93		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	20.07											
Intersection LOS	C											
Intersection V/C	0.641											

Sequence

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

HCS 2010 Two-Way Stop Control Summary Report

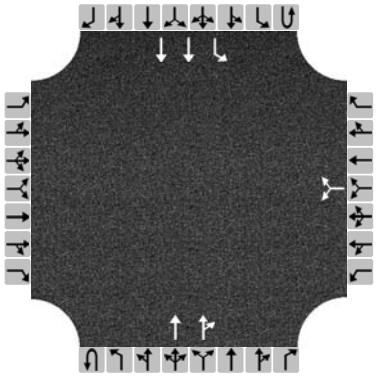
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - AM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	0	0	0	2	0	0	1	2	0
Configuration							LR				T	TR		L	T	
Volume (veh/h)						124		53			1225	19		134	1178	
Percent Heavy Vehicles						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)							187							141		
Capacity							38							519		
v/c Ratio							4.93							0.27		
95% Queue Length							21.8							1.1		
Control Delay (s/veh)							1978.5							14.5		
Level of Service (LOS)							F							B		
Approach Delay (s/veh)					1978.5								1.5			
Approach LOS					F											

HCS 2010 Two-Way Stop Control Summary Report

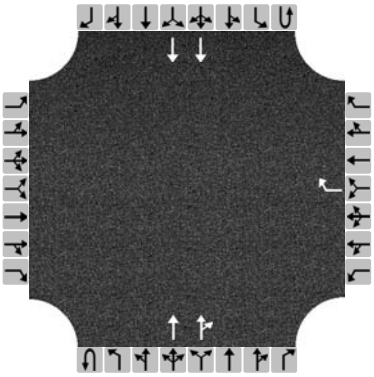
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - AM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/South Driveway
Jurisdiction	City of Hemet
East/West Street	Project South Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								71			1173	134			1302	
Percent Heavy Vehicles								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)								75								
Capacity								387								
v/c Ratio								0.19								
95% Queue Length								0.7								
Control Delay (s/veh)								16.5								
Level of Service (LOS)								C								
Approach Delay (s/veh)					16.5											
Approach LOS					C											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	27.8
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	55	949	93	149	908	122	125	119	49	76	159	148
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	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]	1	58	5	3	98	23	25	19	3	9	21	2
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]	56	1007	98	152	1006	145	150	138	52	85	180	150
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	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	273	27	41	272	39	41	37	14	23	49	41
Total Analysis Volume [veh/h]	61	1091	106	165	1090	157	163	150	56	92	195	163
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 Coordinated
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	16	20	0	15	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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75	75
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]	5	31	31	9	35	35	9	13	13	6	10	10
g / C, Green / Cycle	0.07	0.42	0.42	0.12	0.47	0.47	0.11	0.17	0.17	0.08	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.03	0.33	0.33	0.09	0.34	0.34	0.09	0.06	0.06	0.05	0.10	0.11
s, saturation flow rate [veh/h]	1774	1863	1805	1774	1863	1782	1774	1863	1695	1774	1863	1591
c, Capacity [veh/h]	122	776	752	208	866	828	205	322	293	144	257	220
d1, Uniform Delay [s]	33.77	19.01	19.03	32.32	16.35	16.43	32.39	27.31	27.37	33.50	31.11	31.27
k, delay calibration	0.11	0.50	0.50	0.11	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]	3.12	7.75	8.06	6.70	5.46	5.88	6.80	0.59	0.69	4.65	4.07	5.57
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

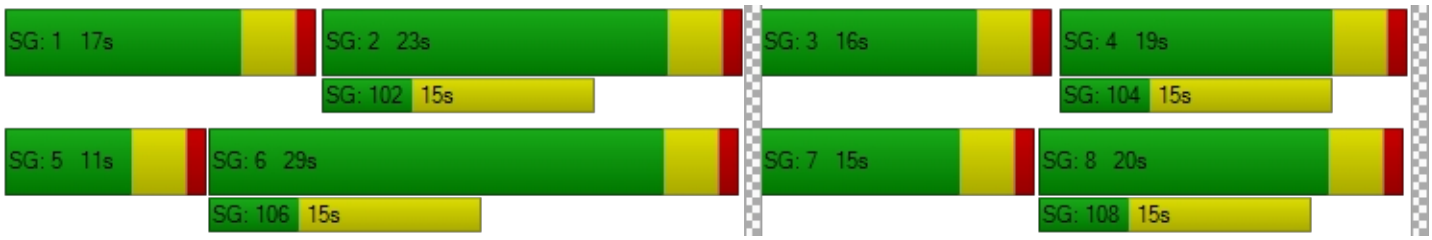
X, volume / capacity	0.50	0.78	0.78	0.79	0.73	0.74	0.79	0.33	0.34	0.64	0.74	0.77
d, Delay for Lane Group [s/veh]	36.90	26.76	27.10	39.02	21.81	22.31	39.19	27.90	28.05	38.15	35.18	36.84
Lane Group LOS	D	C	C	D	C	C	D	C	C	D	D	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	1.15	10.00	9.79	3.22	9.25	9.05	3.19	1.67	1.58	1.77	3.47	3.19
50th-Percentile Queue Length [ft]	28.81	250.06	244.81	80.42	231.27	226.23	79.64	41.78	39.62	44.20	86.84	79.82
95th-Percentile Queue Length [veh]	2.07	15.19	14.92	5.79	14.24	13.98	5.73	3.01	2.85	3.18	6.25	5.75
95th-Percentile Queue Length [ft]	51.85	379.73	373.11	144.75	355.98	349.56	143.35	75.21	71.32	79.57	156.32	143.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.90	26.91	27.10	39.02	22.02	22.31	39.19	27.94	28.05	38.15	35.23	36.84
Movement LOS	D	C	C	D	C	C	D	C	C	D	D	D
d_A, Approach Delay [s/veh]	27.41			24.04			32.93			36.41		
Approach LOS	C			C			C			D		
d_I, Intersection Delay [s/veh]	27.79											
Intersection LOS	C											
Intersection V/C	0.785											

Sequence

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



Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 2010	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.710

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	41	821	71	134	742	107	93	206	64	67	173	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]	12	38	0	0	86	35	35	27	31	0	32	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]	53	859	71	134	828	142	128	233	95	67	205	120
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]	14	226	19	35	218	37	34	61	25	18	54	32
Total Analysis Volume [veh/h]	56	903	75	141	871	149	135	245	100	70	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 Coordinated
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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	60	60	60	60	60	60	60	60	60	60	60	60
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	23	23	6	25	25	6	10	10	5	9	9
g / C, Green / Cycle	0.07	0.38	0.38	0.11	0.41	0.41	0.11	0.17	0.17	0.08	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.03	0.27	0.27	0.08	0.28	0.28	0.08	0.13	0.06	0.04	0.10	0.10
s, saturation flow rate [veh/h]	1774	1863	1813	1774	1863	1769	1774	1863	1583	1774	1863	1640
c, Capacity [veh/h]	130	699	680	191	762	724	189	315	268	147	272	239
d1, Uniform Delay [s]	26.72	16.04	16.04	26.09	14.63	14.65	26.06	23.96	22.21	26.40	24.33	24.44
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.23	6.01	6.17	5.53	4.98	5.27	5.00	4.14	0.86	2.38	2.70	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	0.43	0.71	0.71	0.74	0.69	0.69	0.72	0.78	0.37	0.48	0.66	0.68
d, Delay for Lane Group [s/veh]	28.95	22.06	22.22	31.62	19.62	19.91	31.06	28.09	23.07	28.78	27.02	27.88
Lane Group LOS	C	C	C	C	B	B	C	C	C	C	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.81	6.25	6.11	2.14	6.10	5.87	2.02	3.47	1.24	1.01	2.45	2.30
50th-Percentile Queue Length [ft]	20.26	156.16	152.76	53.44	152.57	146.65	50.61	86.69	30.98	25.13	61.34	57.51
95th-Percentile Queue Length [veh]	1.46	10.35	10.16	3.85	10.15	9.84	3.64	6.24	2.23	1.81	4.42	4.14
95th-Percentile Queue Length [ft]	36.46	258.63	254.11	96.18	253.86	245.96	91.10	156.03	55.76	45.23	110.41	103.53

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.95	22.13	22.22	31.62	19.74	19.91	31.06	28.09	23.07	28.78	27.17	27.88
Movement LOS	C	C	C	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	22.51			21.20			27.88			27.66		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	23.54											
Intersection LOS	C											
Intersection V/C	0.710											

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

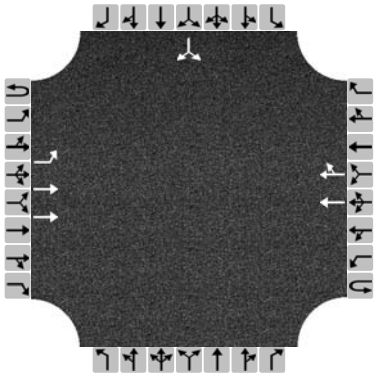
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - AM w/ Project
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	2	0	0	0	2	0		0	0	0		0	0	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)		38	365				362	57						53		53
Percent Heavy Vehicles		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)		40													112	
Capacity		1108													499	
v/c Ratio		0.04													0.22	
95% Queue Length		0.1													0.9	
Control Delay (s/veh)		8.4													14.3	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.8												14.3			
Approach LOS													B			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	42.6
Analysis Method:	HCM 2010	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.998

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	78	259	43	67	333	40	27	243	54	29	278	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	42	0	0	32	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]	78	259	43	67	333	40	27	285	54	29	310	94
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]	23	76	13	20	98	12	8	84	16	9	91	28
Total Analysis Volume [veh/h]	92	304	50	79	391	47	32	335	63	34	364	110
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	373	388	381	392	390	425	399	435
Degree of Utilization, x	0.60	0.57	0.68	0.66	0.94	0.15	1.00	0.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.72	3.47	4.82	4.55	10.37	0.52	12.16	0.99
95th-Percentile Queue Length [ft]	92.99	86.67	120.57	113.63	259.17	12.89	304.02	24.76
Approach Delay [s/veh]	24.73		28.91		55.12		61.64	
Approach LOS	C		D		F		F	
Intersection Delay [s/veh]	42.60							
Intersection LOS	E							

HCS 2010 Two-Way Stop Control Summary Report

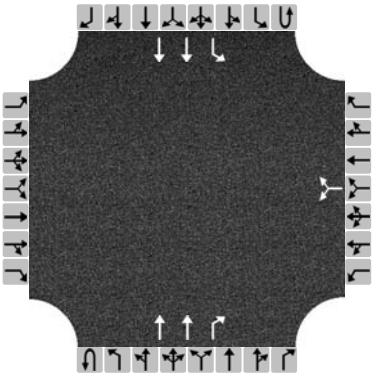
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/Commonwealth
Jurisdiction	City of Hemet
East/West Street	Commonwealth Avenue
North/South Street	Sanderson Avenue
Peak Hour Factor	0.96
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	0		0	0	0	0	0	2	1	0	1	2	0
Configuration							LR				T	R		L	T	
Volume (veh/h)						22		17			1016	46		70	1255	
Percent Heavy Vehicles						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)							41							73		
Capacity							93							621		
v/c Ratio							0.44							0.12		
95% Queue Length							1.8							0.4		
Control Delay (s/veh)							71.5							11.6		
Level of Service (LOS)							F							B		
Approach Delay (s/veh)					71.5								0.6			
Approach LOS					F											

Intersection Level Of Service Report
Intersection 2: Sanderson Ave (NS) at Eaton Ave (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):	0.515

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Pocket Length [ft]	155.00	100.00	100.00	155.00	100.00	100.00	105.00	100.00	105.00	125.00	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												
Base Volume Input [veh/h]	31	869	42	15	1148	35	21	43	31	33	47	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]	5	142	5	0	119	0	0	0	6	6	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	1011	47	15	1267	35	21	43	37	39	47	14
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	267	12	4	334	9	6	11	10	10	12	4
Total Analysis Volume [veh/h]	38	1068	50	16	1338	37	22	45	39	41	50	15
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]	120
Coordination Type	Time of Day Pattern Coordinated
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	79	0	11	79	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
Rest In Walk		No			No			No			No	
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	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
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]	5	89	89	3	87	87	4	7	7	5	8	8
g / C, Green / Cycle	0.04	0.74	0.74	0.02	0.73	0.73	0.03	0.05	0.05	0.04	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.02	0.30	0.03	0.01	0.38	0.02	0.01	0.02	0.02	0.02	0.03	0.01
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1774	1863	1583	1774	1863	1583
c, Capacity [veh/h]	75	2636	1177	44	2573	1149	55	102	87	78	127	108
d1, Uniform Delay [s]	56.25	5.66	4.09	57.62	7.26	4.63	57.09	54.92	54.95	56.16	53.56	52.62
k, delay calibration	0.11	0.50	0.50	0.11	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]	5.18	0.46	0.07	5.08	0.76	0.05	4.72	2.94	3.57	5.42	1.98	0.58
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	0.51	0.41	0.04	0.37	0.52	0.03	0.40	0.44	0.45	0.53	0.39	0.14
d, Delay for Lane Group [s/veh]	61.43	6.13	4.15	62.70	8.02	4.68	61.81	57.86	58.52	61.58	55.54	53.20
Lane Group LOS	E	A	A	E	A	A	E	E	E	E	E	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh]	1.24	4.49	0.31	0.54	6.98	0.25	0.73	1.40	1.23	1.33	1.52	0.44
50th-Percentile Queue Length [ft]	30.90	112.33	7.86	13.50	174.62	6.34	18.18	35.09	30.77	33.35	37.95	11.11
95th-Percentile Queue Length [veh]	2.23	7.97	0.57	0.97	11.32	0.46	1.31	2.53	2.22	2.40	2.73	0.80
95th-Percentile Queue Length [ft]	55.63	199.24	14.14	24.30	282.97	11.40	32.73	63.16	55.39	60.04	68.31	19.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.43	6.13	4.15	62.70	8.02	4.68	61.81	57.86	58.52	61.58	55.54	53.20
Movement LOS	E	A	A	E	A	A	E	E	E	E	E	D
d_A, Approach Delay [s/veh]	7.86			8.56			58.92			57.54		
Approach LOS	A			A			E			E		
d_I, Intersection Delay [s/veh]	12.08											
Intersection LOS	B											
Intersection V/C	0.515											

Sequence

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

Intersection Level Of Service Report
Intersection 3: Sanderson Ave (NS) at Fruitvale Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	12.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.546

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	155.00	215.00	100.00	155.00	105.00	100.00	100.00	110.00	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												
Base Volume Input [veh/h]	50	927	106	23	1138	25	12	50	35	82	61	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]	10	152	10	0	131	0	0	0	11	11	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]	60	1079	116	23	1269	25	12	50	46	93	61	23
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]	15	276	30	6	324	6	3	13	12	24	16	6
Total Analysis Volume [veh/h]	61	1102	118	23	1296	26	12	51	47	95	62	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]	90
Coordination Type	Time of Day Pattern Coordinated
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]	11	60	0	11	60	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
Rest In Walk		No			No			No			No	
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	L	C	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
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]	5	60	60	3	58	58	15	15	15	15
g / C, Green / Cycle	0.06	0.67	0.67	0.03	0.64	0.64	0.17	0.17	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.07	0.01	0.37	0.02	0.01	0.06	0.07	0.05
s, saturation flow rate [veh/h]	1774	3547	1583	1774	3547	1583	1307	1717	1292	1778
c, Capacity [veh/h]	108	2367	1057	61	2272	1014	210	283	197	293
d1, Uniform Delay [s]	41.08	7.23	5.38	42.52	9.16	5.91	36.86	33.28	40.18	32.95
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]	4.51	0.66	0.21	3.82	1.05	0.05	0.11	0.72	1.82	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	0.56	0.47	0.11	0.38	0.57	0.03	0.06	0.35	0.48	0.29
d, Delay for Lane Group [s/veh]	45.59	7.89	5.60	46.34	10.21	5.96	36.97	34.00	42.00	33.49
Lane Group LOS	D	A	A	D	B	A	D	C	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh]	1.44	4.57	0.76	0.56	6.58	0.17	0.24	1.92	2.13	1.65
50th-Percentile Queue Length [ft]	35.91	114.34	18.94	14.00	164.50	4.37	6.10	48.12	53.33	41.21
95th-Percentile Queue Length [veh]	2.59	8.08	1.36	1.01	10.79	0.31	0.44	3.46	3.84	2.97
95th-Percentile Queue Length [ft]	64.65	202.03	34.10	25.21	269.68	7.87	10.99	86.61	96.00	74.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.59	7.89	5.60	46.34	10.21	5.96	36.97	34.00	34.00	42.00	33.49	33.49
Movement LOS	D	A	A	D	B	A	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	9.47			10.75			34.32			37.98		
Approach LOS	A			B			C			D		
d_I, Intersection Delay [s/veh]	12.76											
Intersection LOS	B											
Intersection V/C	0.546											

Sequence

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

HCS 2010 Two-Way Stop Control Summary Report

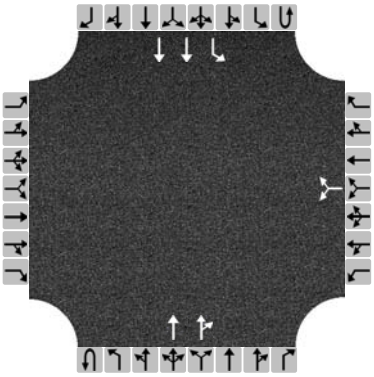
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/North Driveway
Jurisdiction	City of Hemet
East/West Street	Project North Driveway
North/South Street	Sanderson Avenue
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	0		0	0	0	0	0	2	0	0	1	2	0
Configuration							LR				T	TR		L	T	
Volume (veh/h)						131		56			1323	19		133	1305	
Percent Heavy Vehicles						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)							197							140		
Capacity							28							473		
v/c Ratio							6.98							0.30		
95% Queue Length							24.2							1.2		
Control Delay (s/veh)							2963.4							15.8		
Level of Service (LOS)							F							C		
Approach Delay (s/veh)					2963.4								1.5			
Approach LOS					F											

HCS 2010 Two-Way Stop Control Summary Report

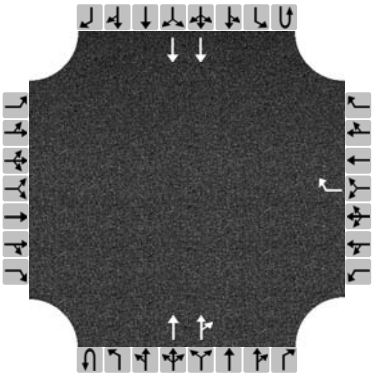
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - PM w/ Project
Intersection Orientation	North-South
Project Description	Zanderson Plaza

Site Information

Intersection	Sanderson/South Driveway
Jurisdiction	City of Hemet
East/West Street	Project South Driveway
North/South Street	Sanderson Avenue
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	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								75			1267	133			1436	
Percent Heavy Vehicles								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)								79								
Capacity								359								
v/c Ratio								0.22								
95% Queue Length								0.8								
Control Delay (s/veh)								17.8								
Level of Service (LOS)								C								
Approach Delay (s/veh)					17.8											
Approach LOS					C											

Intersection Level Of Service Report
Intersection 6: Sanderson Ave (NS) at Menlo Ave (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):	0.736

Intersection Setup

Name											
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	205.00	100.00	100.00	215.00	100.00	100.00	160.00	100.00	100.00	155.00	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												
Base Volume Input [veh/h]	28	1052	101	127	1077	80	66	104	36	100	125	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	4	142	19	4	118	31	25	22	3	16	25	5
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]	32	1194	120	131	1195	111	91	126	39	116	150	115
Peak Hour Factor	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910	0.9910
Other Adjustment Factor	1.0000	1.0000	1.0000	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	301	30	33	301	28	23	32	10	29	38	29
Total Analysis Volume [veh/h]	32	1205	121	132	1206	112	92	127	39	117	151	116
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 Coordinated
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	21	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
Rest In Walk		No			No			No			No	
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	C	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70	70
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	34	34	7	37	37	6	7	7	6	8	8
g / C, Green / Cycle	0.05	0.48	0.48	0.10	0.53	0.53	0.08	0.10	0.10	0.09	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.02	0.36	0.36	0.07	0.36	0.36	0.05	0.05	0.05	0.07	0.08	0.08
s, saturation flow rate [veh/h]	1774	1863	1804	1774	1863	1808	1774	1863	1718	1774	1863	1604
c, Capacity [veh/h]	86	890	862	174	982	953	151	196	181	162	208	179
d1, Uniform Delay [s]	32.39	15.00	15.04	30.87	12.23	12.28	31.02	29.46	29.52	31.05	29.98	30.11
k, delay calibration	0.11	0.50	0.50	0.11	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]	2.66	5.93	6.23	6.63	3.77	3.97	3.94	1.50	1.75	5.96	3.76	5.11
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	0.76	0.76	0.76	0.68	0.68	0.61	0.43	0.45	0.72	0.67	0.71
d, Delay for Lane Group [s/veh]	35.05	20.92	21.26	37.50	16.00	16.24	34.96	30.95	31.27	37.01	33.74	35.22
Lane Group LOS	D	C	C	D	B	B	C	C	C	D	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh]	0.57	9.09	8.93	2.42	7.56	7.46	1.62	1.37	1.33	2.13	2.40	2.24
50th-Percentile Queue Length [ft]	14.35	227.25	223.29	60.44	188.90	186.40	40.41	34.28	33.30	53.15	60.04	56.12
95th-Percentile Queue Length [veh]	1.03	14.03	13.83	4.35	12.06	11.93	2.91	2.47	2.40	3.83	4.32	4.04
95th-Percentile Queue Length [ft]	25.84	350.86	345.83	108.80	301.61	298.35	72.74	61.70	59.94	95.67	108.08	101.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.05	21.07	21.26	37.50	16.11	16.24	34.96	31.06	31.27	37.01	33.85	35.22
Movement LOS	D	C	C	D	B	B	C	C	C	D	C	D
d_A, Approach Delay [s/veh]	21.42			18.07			32.48			35.23		
Approach LOS	C			B			C			D		
d_I, Intersection Delay [s/veh]	22.38											
Intersection LOS	C											
Intersection V/C	0.736											

Sequence

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

Intersection Level Of Service Report
Intersection 7: Sanderson Ave (NS) at Devonshire Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	36.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.839

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	200.00	100.00	100.00	220.00	100.00	100.00	105.00	100.00	100.00	150.00	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												
Base Volume Input [veh/h]	109	831	135	143	924	117	137	308	63	135	287	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth 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]	35	138	0	0	103	44	37	31	22	0	35	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]	144	969	135	143	1027	161	174	339	85	135	322	102
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	253	35	37	269	42	46	89	22	35	84	27
Total Analysis Volume [veh/h]	151	1014	141	150	1074	168	182	355	89	141	337	107
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]	95
Coordination Type	Time of Day Pattern Coordinated
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]	13	39	0	14	40	0	16	29	0	13	26	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
Rest In Walk		No			No			No			No	
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	C
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95	95
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]	9	40	40	10	41	41	12	20	20	9	18	18
g / C, Green / Cycle	0.10	0.42	0.42	0.10	0.43	0.43	0.12	0.21	0.21	0.10	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.09	0.32	0.32	0.08	0.34	0.34	0.10	0.19	0.06	0.08	0.12	0.13
s, saturation flow rate [veh/h]	1774	1863	1784	1774	1863	1776	1774	1863	1583	1774	1863	1712
c, Capacity [veh/h]	169	783	750	183	797	760	216	397	337	169	347	319
d1, Uniform Delay [s]	42.55	23.36	23.42	41.81	23.57	23.68	40.89	36.42	31.23	42.29	35.92	35.99
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.16	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]	14.57	6.56	6.96	8.74	8.00	8.68	8.56	10.22	0.41	10.09	2.16	2.44
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

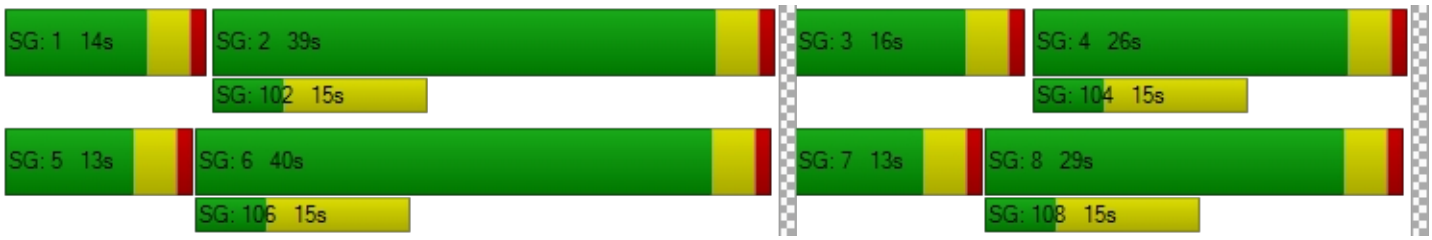
X, volume / capacity	0.89	0.75	0.76	0.82	0.79	0.80	0.84	0.90	0.26	0.83	0.66	0.67
d, Delay for Lane Group [s/veh]	57.13	29.93	30.38	50.55	31.58	32.36	49.45	46.64	31.65	52.38	38.08	38.43
Lane Group LOS	E	C	C	D	C	C	D	D	C	D	D	D
Critical Lane Group	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh]	4.15	12.10	11.74	3.86	13.48	13.14	4.64	8.98	1.73	3.69	5.09	4.77
50th-Percentile Queue Length [ft]	103.85	302.42	293.62	96.38	336.90	328.50	115.89	224.48	43.18	92.34	127.19	119.17
95th-Percentile Queue Length [veh]	7.48	17.80	17.37	6.94	19.50	19.08	8.17	13.89	3.11	6.65	8.79	8.35
95th-Percentile Queue Length [ft]	186.93	445.03	434.14	173.48	487.41	477.12	204.17	347.34	77.73	166.20	219.67	208.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	57.13	30.12	30.38	50.55	31.90	32.36	49.45	46.64	31.65	52.38	38.19	38.43
Movement LOS	E	C	C	D	C	C	D	D	C	D	D	D
d_A, Approach Delay [s/veh]	33.27			33.96			45.32			41.65		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	36.70											
Intersection LOS	D											
Intersection V/C	0.839											

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

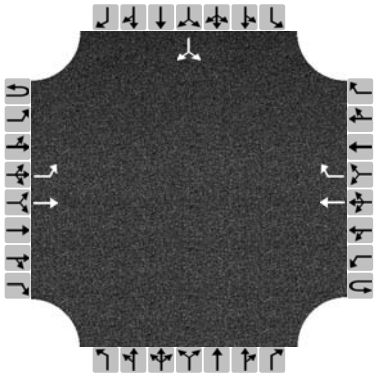
General Information

Analyst	Chris Pylant
Agency/Co.	
Date Performed	6/20/2017
Analysis Year	2020
Time Analyzed	Phase II - PM w/ Project
Intersection Orientation	East-West
Project Description	Zanderson Plaza

Site Information

Intersection	East Driveway/Menlo
Jurisdiction	City of Hemet
East/West Street	Menlo Avenue
North/South Street	Project East Driveway
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	1	1	0	0	0	1	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume (veh/h)		38	339				325	57						56		56
Percent Heavy Vehicles		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)		40													118	
Capacity		1150													466	
v/c Ratio		0.03													0.25	
95% Queue Length		0.1													1.0	
Control Delay (s/veh)		8.2													15.3	
Level of Service (LOS)		A													C	
Approach Delay (s/veh)	0.8												15.3			
Approach LOS													C			

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	33.2
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.886

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	45	386	58	35	358	33	51	244	39	75	227	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	45	0	0	46	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	386	58	35	358	33	51	289	39	75	273	45
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]	12	101	15	9	94	9	13	75	10	20	71	12
Total Analysis Volume [veh/h]	47	403	61	37	374	34	53	302	41	78	285	47
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	406	418	400	409	410	450	410	452
Degree of Utilization, x	0.63	0.61	0.56	0.54	0.87	0.09	0.89	0.10

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.18	3.95	3.27	3.15	8.62	0.30	9.11	0.35
95th-Percentile Queue Length [ft]	104.56	98.83	81.87	78.83	215.59	7.48	227.74	8.65
Approach Delay [s/veh]	24.76		21.96		43.61		45.92	
Approach LOS	C		C		E		E	
Intersection Delay [s/veh]	33.21							
Intersection LOS	D							

Intersection Level Of Service Report

Intersection 1: Sanderson Ave (NS) at Commonwealth Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	5.1
Analysis Method:	HCM 2010	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.445

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	1	1	0	0	0
Pocket Length [ft]	100.00	100.00	160.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	949	36	24	822	27	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	54	0	0	94	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1003	36	24	916	27	50
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	260	9	6	238	7	13
Total Analysis Volume [veh/h]	1040	37	25	950	28	52
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	38	0	11	49	11	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	40	40	2	47	5
g / C, Green / Cycle	0.67	0.67	0.04	0.78	0.09
(v / s)_i Volume / Saturation Flow Rate	0.29	0.02	0.01	0.27	0.05
s, saturation flow rate [veh/h]	3547	1583	1774	3547	1645
c, Capacity [veh/h]	2378	1062	75	2763	145
d1, Uniform Delay [s]	4.62	3.34	28.00	2.01	26.30
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	0.06	2.61	0.34	3.26
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.44	0.03	0.34	0.34	0.55
d, Delay for Lane Group [s/veh]	5.21	3.41	30.61	2.35	29.56
Lane Group LOS	A	A	C	A	C
Critical Lane Group	Yes	No	Yes	No	Yes
50th-Percentile Queue Length [veh]	2.10	0.12	0.39	0.64	1.17
50th-Percentile Queue Length [ft]	52.39	2.90	9.67	16.09	29.25
95th-Percentile Queue Length [veh]	3.77	0.21	0.70	1.16	2.11
95th-Percentile Queue Length [ft]	94.31	5.22	17.40	28.97	52.65

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	5.21	3.41	30.61	2.35	29.56	29.56
Movement LOS	A	A	C	A	C	C
d_A, Approach Delay [s/veh]	5.15		3.07		29.56	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	5.11					
Intersection LOS	A					
Intersection V/C	0.445					

Sequence

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

Intersection Level Of Service Report
Intersection 4: Sanderson Ave (NS) at North Project Driveway (EW)

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 2010	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.683

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1149	21	145	1097	66	97
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	85	0	0	124	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1234	21	145	1221	66	97
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	325	6	38	321	17	26
Total Analysis Volume [veh/h]	1299	22	153	1285	69	102
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

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

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal group	2	0	1	6	7	0
Auxiliary Signal Groups						
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	19	0	13	32	28	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	10	0	0	10	10	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	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
Detector Length [ft]	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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	C	L	C	C
C, Cycle Length [s]	60	60	60	60	60
L, Total Lost Time per Cycle [s]	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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	34	34	7	44	8
g / C, Green / Cycle	0.56	0.56	0.11	0.73	0.13
(v / s)_i Volume / Saturation Flow Rate	0.35	0.36	0.09	0.36	0.10
s, saturation flow rate [veh/h]	1863	1852	1774	3547	1655
c, Capacity [veh/h]	1036	1030	197	2603	220
d1, Uniform Delay [s]	9.18	9.21	26.00	3.34	25.21
k, delay calibration	0.50	0.50	0.11	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.00	3.07	6.39	0.67	5.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.64	0.78	0.49	0.78
d, Delay for Lane Group [s/veh]	12.18	12.28	32.40	4.01	30.98
Lane Group LOS	B	B	C	A	C
Critical Lane Group	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh]	5.46	5.49	2.35	1.80	2.57
50th-Percentile Queue Length [ft]	136.60	137.31	58.85	44.98	64.14
95th-Percentile Queue Length [veh]	9.30	9.34	4.24	3.24	4.62
95th-Percentile Queue Length [ft]	232.44	233.40	105.93	80.96	115.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.23	12.28	32.40	4.01	30.98	30.98
Movement LOS	B	B	C	A	C	C
d_A, Approach Delay [s/veh]	12.23		7.03		30.98	
Approach LOS	B		A		C	
d_I, Intersection Delay [s/veh]	10.78					
Intersection LOS	B					
Intersection V/C	0.683					

Sequence

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

Intersection Level Of Service Report
Intersection 9: Kirby St (NS) at Menlo Ave (EW)

Control Type:	All-way stop	Delay (sec / veh):	28.7
Analysis Method:	HCM 2010	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.893

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	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	1
Pocket Length [ft]	100.00	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												
Base Volume Input [veh/h]	78	259	43	67	333	40	27	244	54	29	279	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	42	0	0	32	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]	78	259	43	67	333	40	27	286	54	29	311	94
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]	23	76	13	20	98	12	8	84	16	9	91	28
Total Analysis Volume [veh/h]	92	304	50	79	391	47	32	336	63	34	365	110
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	397	413	405	419	412	451	409	427
Degree of Utilization, x	0.56	0.54	0.64	0.62	0.89	0.14	0.62	0.60

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	3.34	3.11	4.29	4.04	9.30	0.48	4.09	3.77
95th-Percentile Queue Length [ft]	83.40	77.64	107.21	100.91	232.53	12.07	102.18	94.33
Approach Delay [s/veh]	21.96		25.12		45.49		23.92	
Approach LOS	C		D		E		C	
Intersection Delay [s/veh]	28.67							
Intersection LOS	D							

APPENDIX E

Traffic Signal Warrant Worksheets

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Opening Year Phase II (2020) With Project

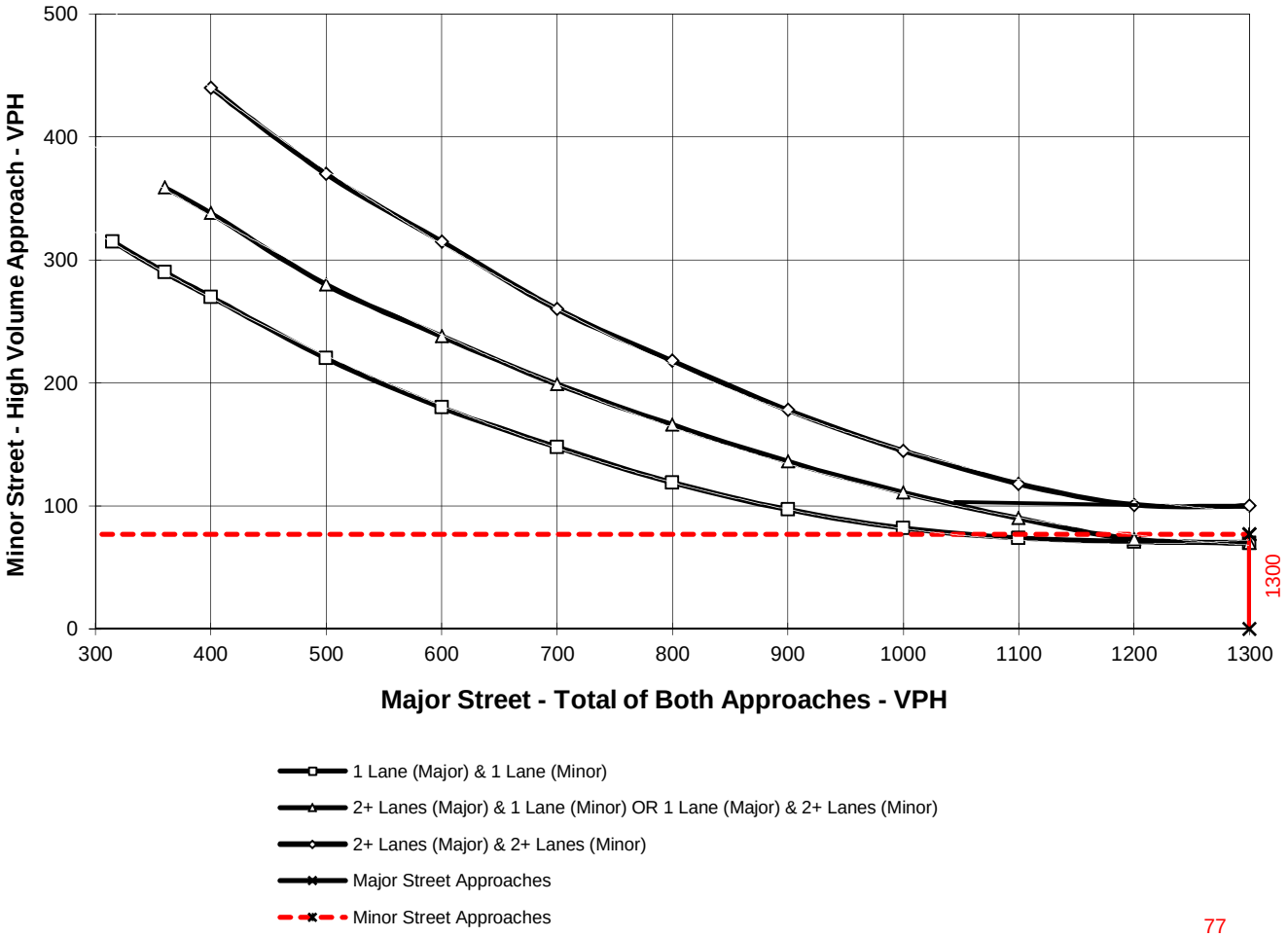
Major Street Name = **Sanderson Avenue** Total of Both Approaches (VPH) = **1977**

Number of Approach Lanes Major Street = **2**

Minor Street Name = **Commonwealth Avenue** High Volume Approach (VPH) = **77**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Existing Plus Project

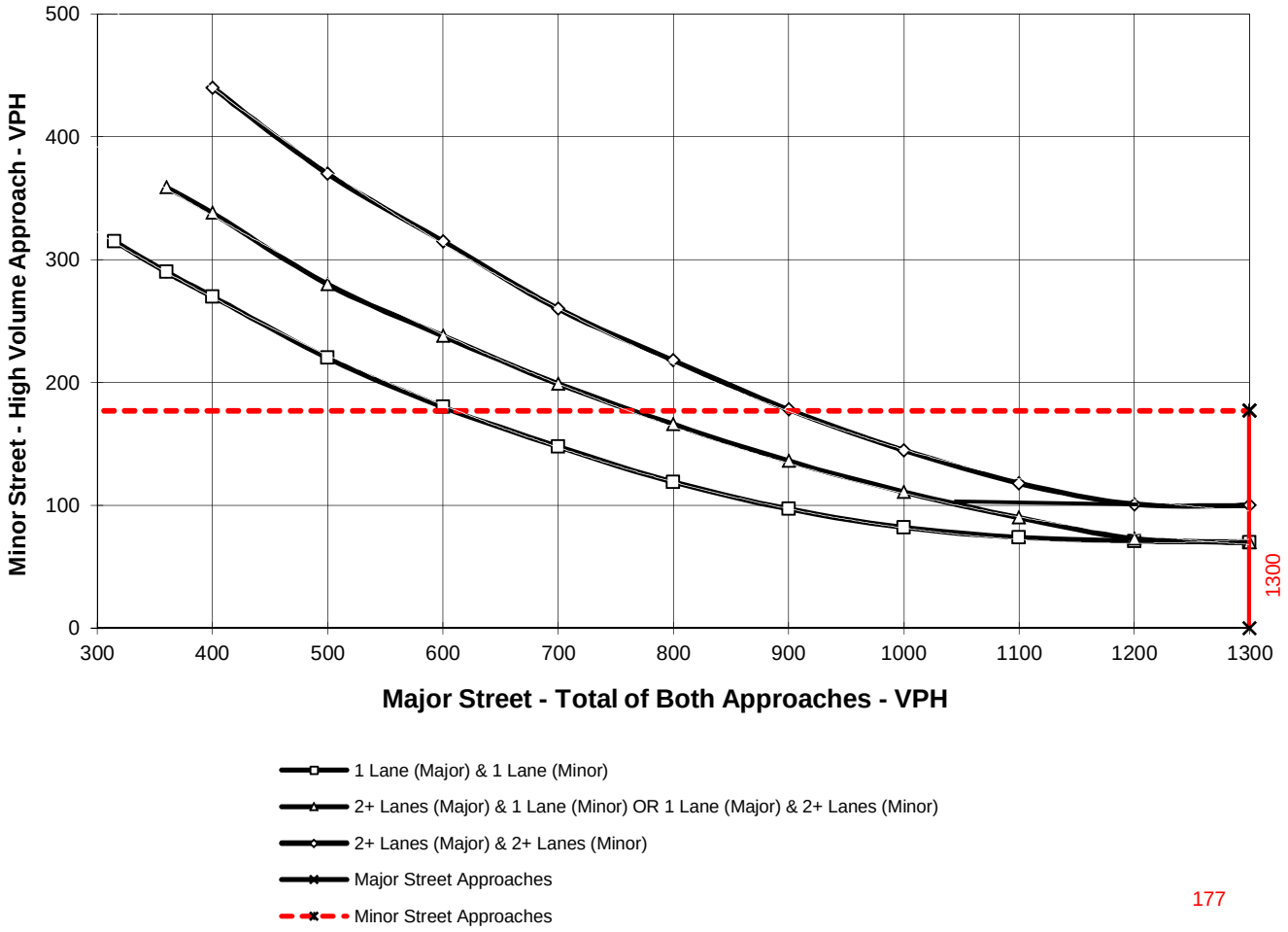
Major Street Name = **Sanderson Avenue** Total of Both Approaches (VPH) = **2191**

Number of Approach Lanes Major Street = **2**

Minor Street Name = **North Project Driveway** High Volume Approach (VPH) = **177**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

APPENDIX F

Transportation Uniform Mitigation Fee (TUMF)
Improvement Network

TUMF Improvements From Hemet Center

Value of Improvements (3 miles)	$72,139,798
Value of Improvements (3+5 miles)	$201,318,363
Value of Improvements (3+5+10 miles)	$445,530,035

TUMF Network
Ultimate number of Lanes
- 2 Lanes
- 4 Lanes
- 6 Lanes
- 8 Lanes
- RivCo_Roads
- Subject City
- Interchanges
- Completed Interchanges
- Bridges
- Completed Bridges
- RR Xing
- Completed RR Xings

RTA Transit Ctr
- Transfer
- Transit

- TUMFZones
- Mid_Co_Pkwy
- Completed or at Ultimate ROW
- Network Link - Not Funded

0 0.5 1 2 3 4 5 Miles

BEAUMONT
SAN JACINTO
HEMET
PERRIS
MURRIETA
MORENO VALLEY

Gilman Springs
Lamb Canyon
Ramona Expwy
Mid County Pkwy
Sanderson
Placentia
Perris
Evans
Nuevo
Menifee
4th
Ellis
Goetz
Matthews
Ethanac
San Jacinto Bypass
Warren
Esplande
North Ramona
Ramona
State
SR-74/79 (Florida)
SR-79 (San Jacinto)
SR-74 (Florida)
Stetson
Domenigoni
Hemet Bypass
McCall
Briggs
Winchester
Murrieta
Newport
Patton
Holland
Scott
Whitewood
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