



HEXAGON TRANSPORTATION CONSULTANTS, INC.

700 Saratoga Avenue Mixed-Use Residential Development

Draft Transportation Impact Analysis

Prepared for:

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Executive Summary

This report presents the results of the transportation impact analysis (TIA) prepared for a proposed mixed-use residential development at 700 Saratoga Avenue in San Jose, California. The development is located on the east side of Saratoga Avenue between Blackford Avenue and Manzanita Drive. The project proposes to add 300 apartment units and 17,800 square feet (s.f.) of retail space to a property that already has 873 apartment units (Eaves Community). The proposed development would occur in two areas within the property. At the northwest corner of the property (the Avalon site), the project would demolish the existing leasing/amenity building and the parking structure and build a mixed-use building (Avalon building) with 245 apartment units and 17,800 square feet (s.f.) of ground level retail space. Along the south edge of the property (the Manzanita site), the project would demolish the existing parking garage, and build a 55-unit apartment building (Manzanita building) and a new parking garage with more parking spaces than the existing parking garage it would replace. Leasing and amenity space would be provided within both proposed apartment buildings. All parking for the Avalon apartment building would be provided on the Avalon site, and parking for the Manzanita apartment building would be provided within the new Manzanita garage. Residents that currently park on the Avalon site would either park in the existing parking areas along Blackford Avenue to the east or in the new Manzanita garage. Residents that currently park on the Manzanita site would park in the new Manzanita garage.

Access to the mixed-use Avalon development would be provided by an existing full access driveway on Blackford Avenue and one existing right-turn only driveway on Saratoga Avenue, and proposed access to the Manzanita development and the new parking garage would be provided via one existing full access driveway on Manzanita Drive.

The project is located within the Saratoga Avenue Commercial Corridor and Center Urban Village per the Envision San Jose 2040 General Plan. Urban villages are walkable, bicycle-friendly, transit-oriented, mixed-use settings that provide both housing and jobs, thus supporting the General Plan's environmental goals.

Scope of Study

This transportation study was conducted for the purpose of identifying potential impacts related to the proposed development. The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the Cities of San Jose and Santa Clara and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). Although the proposed project is located in the City of San Jose, streets within the City of Santa Clara also would be affected by the proposed project. Thus, the impacts of the project were evaluated following the standards and methodologies set forth by the City of Santa Clara for facilities located within its jurisdiction. The study analyzed AM and PM peak-hour traffic conditions for eight

intersections (seven signalized and one unsignalized). Five of the signalized intersections are CMP intersections and one signalized intersection (also a CMP intersection) is in Santa Clara.

The study also includes a freeway segment capacity analysis, freeway ramp operations analysis, vehicle queuing analysis, peak-hour signal warrant analysis, an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Project Trip Generation

Vehicle trips that would be generated by the proposed residential and retail uses were estimated using the trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition (2017), for “Multifamily Housing Mid-Rise” (Land Use 221) and “Shopping Center” (Land Use 820). The trip estimates also account for an internal trip reduction between residential and retail uses (15%) as recommended by the VTA’s *Transportation Impact Analysis (TIA) Guidelines*, October 2014. A typical pass-by trip reduction of 25 percent for retail development within Santa Clara County was applied to the retail component of the project. Additionally, some existing residents of the Eaves Community development within the project site boundaries would patronize the new retail space. It is estimated that approximately 15 percent of the retail-generated trips would originate from within the Eaves Community. Since these trips would likely be walking trips internal to the site, the 15 percent trip reduction was applied to the project trip generation estimates.

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip reductions, the project would generate 1,858 new daily vehicle trips, with 113 new trips occurring during the AM peak hour and 155 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 32 new inbound and 81 new outbound trips during the AM peak hour, and 92 new inbound and 63 new outbound trips during the PM peak hour.

Intersection Level of Service Analysis

The results of the intersection level of service analysis (see Table ES-1) under background plus project conditions show that none of the study intersections would be significantly impacted by the project.

Under cumulative conditions, the estimated cumulative project trips collectively would create a significant adverse traffic impact at the Lawrence Expressway/Mitty Way intersection. However, the project’s contribution to growth in total volume from background traffic conditions to cumulative traffic conditions (14 percent) would be less than the 25 percent threshold. Therefore, the project would not make a considerable contribution toward the cumulative traffic impact at this intersection.

The San Tomas Expressway/Saratoga Avenue intersection in Santa Clara would operate at an unacceptable LOS F during the AM and PM peak hours under both cumulative no project and cumulative with project conditions, but the project would not cause the intersection’s critical-movement delay to increase by four or more seconds and the V/C to increase by 0.01 or more compared to cumulative no project conditions. Therefore, the intersection impact is considered less than significant.

Freeway Segment Capacity Analysis

Based on CMP freeway impact criteria, none of the study freeway segments would be significantly impacted by the project.

Freeway Ramp Operations Analysis

An analysis of freeway ramps providing access to I-280 from the project site was performed to identify the effects of project traffic on the vehicle queues and wait times at the metered ramps. The project is not expected to noticeably worsen vehicle queuing or delay at the metered on-ramps that were evaluated.

Vehicle Queuing Analysis

The queuing analysis indicates that the 95th percentile southbound left-turn vehicle queue at the Saratoga Avenue/Blackford Avenue intersection currently exceeds the existing vehicle storage capacity during the AM and PM peak hours, and the project would increase the vehicle queue by one vehicle length during both peak hours. The southbound left-turn pocket could be extended approximately 100 feet by shortening the back-to-back northbound left-turn pocket at Moorpark Avenue. Field observations show that the northbound left-turn vehicle queue at Moorpark Avenue is shorter than the storage capacity during the AM and PM peak hours. Field observations also show that except during the AM peak hour, the southbound left-turn pocket on Saratoga Avenue at Blackford Avenue only occasionally fills to capacity and the queue clears within one signal cycle. During the AM peak hour of traffic, however, the southbound left-turn queue would still exceed the pocket length even with lengthening the left-turn pocket.

Other Transportation Issues

The site plan shows adequate site access and on-site circulation, and no significant traffic operational issues are expected to occur as a result of the project. The project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area, nor would it conflict with any adopted plans or policies for new transit, pedestrian or bicycle facilities.

Hexagon has the following recommendations resulting from the site access and circulation evaluation.

Recommendations

- The curb segments adjacent to the project driveways on Saratoga Avenue, Blackford Avenue, and Manzanita Drive should be painted red to prohibit parking and provide the 32-foot width necessary to comply with the City's fire code. With the 26-foot wide driveway, a total of 6 feet of red curb should be added to the project driveways.
- The project applicant should coordinate with City staff to determine the best location for a freight loading zone or short-term timed parking near the Manzanita building for use by moving vans and delivery vehicles.
- The project should provide bicycle parking for the Avalon and Manzanita developments that meets the City requirements to encourage the use of non-auto modes of travel and allow the reduced vehicular parking requirement (20 percent Urban Village reduction).

Planned Roadway Improvements

To improve traffic flow along Saratoga Avenue, the City of San Jose has developed an improvement plan for the Saratoga Avenue corridor. Additionally, the City is planning to improve the I-280/Winchester Boulevard interchange by adding a new westbound off-ramp, which would relieve some traffic congestion at the Saratoga Avenue/I-280 interchange. The City has completed the I-280/Winchester Boulevard Interchange Area Transportation Development Policy (TDP) to provide partial funding via a traffic fee imposed on proposed developments. The proposed improvements are outlined below.

Proposed Improvements for Saratoga Avenue

To improve traffic flow along Saratoga Avenue, San Jose has developed an improvement plan for Saratoga Avenue between Stevens Creek Boulevard and Blackford Avenue. The planned improvements at each intersection and along Saratoga Avenue are described below. It would be appropriate for the project to make a fair share contribution toward these planned improvements.

- **Saratoga Avenue/Stevens Creek Boulevard (Full Signal Modification)**
 - Lane Configuration: Provide a 2nd northbound left-turn lane on Saratoga Avenue to improve intersection operations.
 - Southeast and Northwest Corners: Remove pork chop islands and provide ADA standard curb ramps to improve the multi-modal environment.
 - Signal Modification: Modify the signal to accommodate pork chop island removals.
- **Saratoga Avenue/Kiely Boulevard**
 - Southeast Corner: Remove pork chop islands and provide ADA standard curb ramp to improve the multi-modal environment.
 - Northwest Corner: Tighten the corner radius and provide ADA standard curb ramps to improve the multi-modal environment.
 - Signal Modification: Modify the signal to accommodate treatments on the southeast and northwest corners.
- **Saratoga Avenue/Harker Driveway/I-280 Northbound On-Ramp**
 - Signal Modification: Modify the signal to install CCTV surveillance camera.
- **Saratoga Avenue/I-280 Northbound Loop Off-Ramp**
 - Install traffic control devices (Rectangular Rapid Flashing Beacons-RRFBs) at the existing pedestrian crosswalk, which would enhance the bike/pedestrian crossing across the off-ramp.
- **Saratoga Avenue/Moorpark Avenue (Full Signal Modification)**
 - Lane Configuration: Provide dual eastbound left-turn lanes on Moorpark Avenue and a southbound right-turn pocket on Saratoga Avenue.
 - Signal Modification: Modify the signal phasing to enable the eastbound and westbound left-turn movements to run concurrently.
 - Southeast Corner: Remove the pork chop island to improve the multi-modal environment.
 - Northwest and Northeast Corners: Remove the east-west crosswalk in the north leg of the intersection to improve the operations of the intersection.
- **Saratoga Avenue/Blackford Avenue**
 - Provide a new southbound right-turn lane on Saratoga Avenue.
- **Saratoga Avenue/Manzanita Drive intersection (New Signal)**

In addition to the planned improvements described above as part of the improvement plan for Saratoga Avenue, the City of San Jose recommends installing a new traffic signal at the Saratoga Avenue/Manzanita Drive intersection for the following reasons:

- To provide a mid-block signalized pedestrian crossing, which would help support pedestrian accessibility to the proposed retail space and existing schools in the project vicinity;
- To improve the Saratoga Avenue southbound left-turn traffic operations at the intersection; and
- To incorporate the existing far-side bus stops at the intersection, which would support pedestrian connectivity to the bus stops.

Interstate 280/Winchester Boulevard Transportation Development Policy

The Interstate 280/Winchester Boulevard TDP provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP was completed for the purpose of managing existing traffic congestion in the I-880/Stevens Creek and I-280/Winchester interchange areas as well as provide additional traffic capacity to accommodate future developments in the area. The I-880/Stevens Creek and I-280/Winchester interchanges serve as the primary access points to regional freeway facilities in the area. As such, the Stevens Creek Boulevard and Winchester Boulevard corridors that serve the I-880/Stevens Creek and I-280/Winchester interchanges currently experience traffic congestion during the peak commute hours. The corridors include two protected intersections that currently operate well below the City's standard Level of Service Policy at which there are no further vehicular capacity improvements available.

The TDP will provide partial funding, via a traffic fee imposed on proposed developments, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. A schedule for completion of the new westbound off-ramp from I-280 to Winchester Boulevard has yet to be determined. The traffic fee will be based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development.

**Table ES-1
Intersection Level of Service Summary**

ID	Intersection	LOS Standard	Peak Hour	Existing		Existing+Project		Background		Background+Project				No project		Cumulative			
				Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Incr. In Crit. Del.	Incr. In Crit. V/C	Avg. Delay	LOS	Avg. Delay	LOS	Incr. In Crit. Del.	Incr. In Crit. V/C
1	Lawrence Expwy and Mitty Wy	D	AM	79.4	E-	81.2	F	104.4	F	106.3	F	2.2	0.005	-- ¹	111.1	F	8.0	0.019	14%
			PM	12.8	B	12.9	B	12.9	B	13.0	B	0.0	0.000	-- ¹					
2	Saratoga Ave and Blackford Ave	D	AM	33.7	C-	35.3	D+	33.4	C-	35.1	D+	2.2	0.030	-- ¹	34.8	C-	2.0	0.046	
			PM	33.0	C-	35.0	C-	32.4	C-	34.7	C-	16.2	0.010	-- ¹					
3	Saratoga Ave and Moorpark Avenue*	D	AM	40.0	D	39.9	D	41.1	D	41.0	D	-0.1	0.010	-- ¹	41.6	D	0.7	0.035	
			PM	41.7	D	42.0	D	42.6	D	42.9	D	0.6	0.016	-- ¹					
4	Saratoga Ave and I-280 SB Ramp*	D	AM	44.1	D	45.0	D	46.3	D	47.3	D	2.8	0.010	-- ¹	53.3	D-	16.7	0.052	
			PM	35.3	D+	35.9	D+	35.5	D+	36.1	D+	0.5	0.012	-- ¹					
5	Saratoga Ave and I-280 NB Ramp*	D	AM	28.9	C	29.1	C	28.5	C	28.7	C	0.0	0.009	-- ¹	27.9	C	0.3	0.025	
			PM	22.9	C+	23.1	C	22.5	C+	22.7	C+	0.4	0.008	-- ¹					
6	Saratoga Ave and Stevens Creek Blvd*	D	AM	34.9	C-	34.9	C-	36.5	D+	36.5	D+	0.0	0.001	-- ¹	38.1	D+	2.0	0.061	
			PM	39.2	D	39.3	D	41.5	D	41.5	D	0.1	0.003	-- ¹					
7	San Tomas Expwy and Saratoga Ave*	E	AM	55.7	E+	55.8	E+	67.7	E	67.9	E	0.2	0.001	84.9	F	85.3	F	0.6	0.001
			PM	62.2	E	62.3	E	79.1	E-	79.3	E-	0.2	0.001	82.7					

Notes:

* Denotes VTA CMP intersection.

Average delay is in seconds per vehicle.

1. For San Jose intersections, a significant cumulative traffic impact is identified by comparing cumulative plus project traffic conditions against background traffic conditions

Bold indicates a substandard level of service.

**Table ES-2
Freeway Segments Level of Service Summary**

Freeway	Segment	Dir	Peak Hour	Existing Plus Project Conditions				Project Trips				
				Mixed-Flow		HOV Lane		Net Project Trips	Mixed-Flow		HOV Lane	
				Capacity	LOS	Capacity	LOS		Project Trips	% of Capacity	Project Trips	% of Capacity
I-280	De Anza Blvd to Wolfe Rd	EB	AM	6,900	C	1,800	C	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	F	27	19	0.3%	8	0.4%
I-280	Wolfe Rd to Lawrence Expwy	EB	AM	6,900	C	1,800	B	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	D	27	19	0.3%	8	0.4%
I-280	Lawrence Expwy to Saratoga Ave	EB	AM	6,900	D	1,800	B	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	E	27	19	0.3%	8	0.4%
I-280	Saratoga Ave to Winchester Blvd	EB	AM	6,900	D	1,800	B	12	10	0.1%	2	0.1%
			PM	6,900	F	1,800	F	7	5	0.1%	2	0.1%
I-280	Winchester Blvd to I-880	EB	AM	6,900	C	1,800	B	5	4	0.1%	1	0.1%
			PM	6,900	F	1,800	F	3	2	0.0%	1	0.1%
I-280	I-880 to Meridian Ave	EB	AM	6,900	C	1,800	B	5	4	0.1%	1	0.1%
			PM	6,900	F	1,800	F	3	2	0.0%	1	0.1%
I-280	Meridian Ave to I-880	WB	AM	6,900	F	1,800	F	2	1	0.0%	1	0.1%
			PM	6,900	C	1,800	A	5	4	0.1%	1	0.1%
I-280	I-880 to Winchester Blvd	WB	AM	6,900	F	1,800	F	2	1	0.0%	1	0.1%
			PM	6,900	D	1,800	C	5	4	0.1%	1	0.1%
I-280	Winchester Blvd to Saratoga Ave	WB	AM	6,900	F	1,800	F	4	3	0.0%	1	0.1%
			PM	6,900	D	1,800	B	11	9	0.1%	2	0.1%
I-280	Saratoga Ave to Lawrence Expwy	WB	AM	6,900	F	1,800	F	27	20	0.3%	7	0.4%
			PM	6,900	D	1,800	B	16	14	0.2%	2	0.1%
I-280	Lawrence Expwy to Wolfe Rd	WB	AM	6,900	F	1,800	F	27	20	0.3%	7	0.4%
			PM	6,900	C	1,800	B	16	14	0.2%	2	0.1%
I-280	Wolfe Rd to De Anza Blvd	WB	AM	6,900	F	1,800	E	27	20	0.3%	7	0.4%
			PM	6,900	D	1,800	B	16	14	0.2%	2	0.1%
I-880	I-280 to Stevens Cr	NB	AM	6,900	F	--	--	5	5	0.1%	--	--
			PM	6,900	B	--	--	3	3	0.0%	--	--
I-880	Stevens Cr to N. Bascom Ave	NB	AM	6,900	F	--	--	5	5	0.1%	--	--
			PM	6,900	F	--	--	3	3	0.0%	--	--
I-880	N. Bascom Ave to Stevens Creek	SB	AM	6,900	F	--	--	2	2	0.0%	--	--
			PM	6,900	D	--	--	5	5	0.1%	--	--
I-880	Stevens Creek Blvd to I-280	SB	AM	6,900	C	--	--	2	2	0.0%	--	--
			PM	6,900	C	--	--	2	2	0.0%	--	--
SR 17	Hamilton Ave to I-280	NB	AM	6,900	F	--	--	1	1	0.0%	--	--
			PM	6,900	C	--	--	2	2	0.0%	--	--
SR 17	I-280 to Hamilton Ave	SB	AM	6,900	D	--	--	2	2	0.0%	--	--
			PM	6,900	E	--	--	1	1	0.0%	--	--

Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.

Bold indicates a substandard level of service.

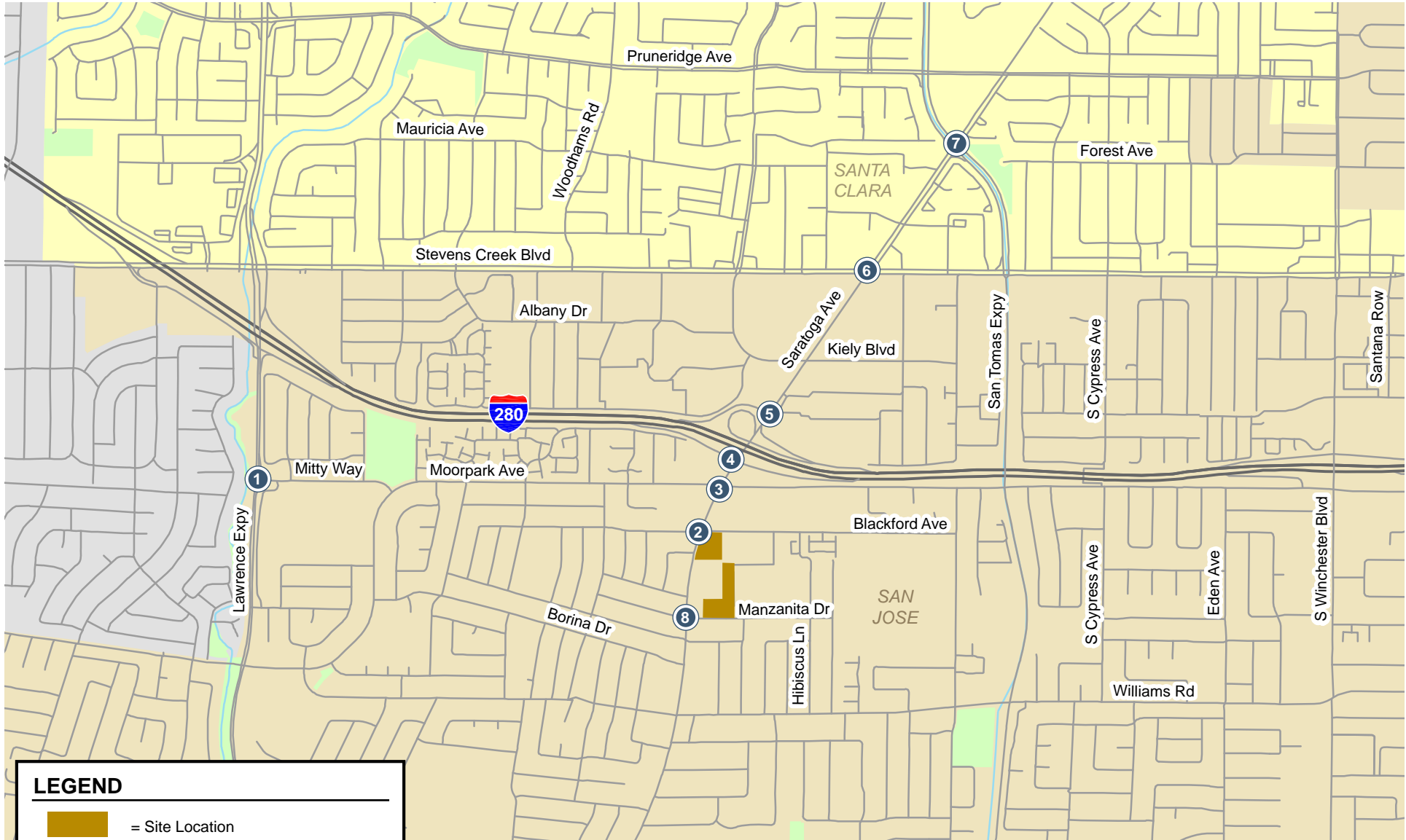
1. Introduction

This report presents the results of the transportation impact analysis (TIA) prepared for a proposed mixed-use residential development at 700 Saratoga Avenue in San Jose, California. The development is located on the east side of Saratoga Avenue between Blackford Avenue and Manzanita Drive (see Figure 1). The project proposes to add 300 apartment units and 17,800 square feet (s.f.) of retail space to a property that already has 873 apartment units (Eaves Community). The proposed development would occur in two areas within the property. At the northwest corner of the property (the Avalon site), the project would demolish the existing leasing/amenity building and the parking structure and build a mixed-use building (Avalon building) with 245 apartment units and 17,800 square feet (s.f.) of ground level retail space. Along the south edge of the property (the Manzanita site), the project would demolish the existing parking garage, and build a 55-unit apartment building (Manzanita building) and a new parking garage with more parking spaces than the existing parking garage it would replace. Leasing and amenity space would be provided within both proposed apartment buildings. All parking for the Avalon apartment building would be provided on the Avalon site, and parking for the Manzanita apartment building would be provided within the new Manzanita garage. Residents that currently park on the Avalon site would either park in the existing parking areas along Blackford Avenue to the east or in the new Manzanita garage. Residents that currently park on the Manzanita site would park in the new Manzanita garage.

Access to the mixed-use Avalon development would be provided by one existing full access driveway on Blackford Avenue and one existing right-turn only driveway on Saratoga Avenue, and proposed access to the Manzanita development and the new parking garage would be provided via one existing full access driveway on Manzanita Drive (see Figure 2).

The project is located within the Saratoga Avenue Commercial Corridor and Center Urban Village per the Envision San Jose 2040 General Plan. Urban villages are walkable, bicycle-friendly, transit-oriented, mixed-use settings that provide both housing and jobs, thus supporting the General Plan's environmental goals. The urban village strategy fosters:

- Mixed residential and employment activities that are attractive to an innovative workforce,
- Revitalization of underutilized properties that have access to existing infrastructure,
- Densities that support transit use, bicycling, and walking, and
- High-quality urban design.



LEGEND



-  = Site Location
-  = Study Intersection

Figure 1
Site Location and Study Intersections

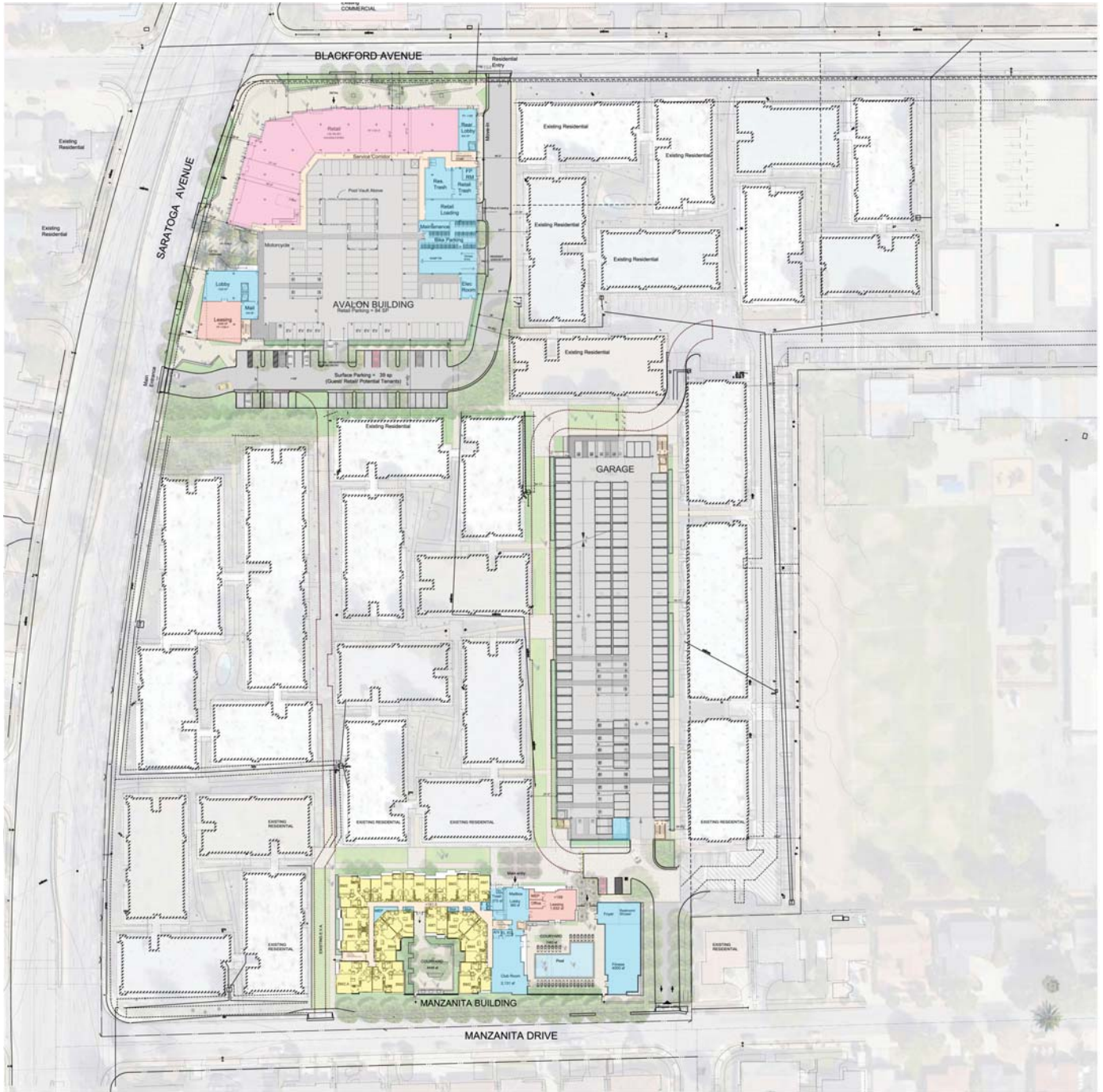


Figure 2
Proposed Site Plan

Scope of Study

This transportation study was conducted for the purpose of identifying potential impacts related to the proposed development. The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the Cities of San Jose and Santa Clara and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). Although the proposed project is located in the City of San Jose, streets within the City of Santa Clara also would be affected by the proposed project. Thus, the impacts of the project were evaluated following the standards and methodologies set forth by the City of Santa Clara for facilities located within its jurisdiction.

The study analyzed AM and PM peak-hour traffic conditions for eight intersections (seven signalized and one unsignalized), nine directional freeway segments, and four freeway ramps in the vicinity of the project site. The study area was identified in accordance with VTA's CMP TIA Guidelines (October 2014) and in consultation with San Jose staff. The study includes those intersections that provide primary access to the project site and intersections that would experience a traffic increase of at least 10 trips per hour per lane. The study intersections are listed below and shown on Figure 1. Five of the study intersections are part of the CMP roadway network.

City of San Jose Signalized Study Intersections

1. Lawrence Expressway and Mitty Way
2. Saratoga Avenue and Blackford Avenue
3. Saratoga Avenue and Moorpark Avenue (CMP)
4. Saratoga Avenue and I-280 Southbound Ramps (CMP)
5. Saratoga Avenue and I-280 Northbound Ramps (CMP)
6. Saratoga Avenue and Stevens Creek Boulevard (CMP)

City of Santa Clara Signalized Study Intersections

7. San Tomas Expressway and Saratoga Avenue (CMP)

City of San Jose Unsignalized Study Intersections

8. Saratoga Avenue and Manzanita Drive

Study Freeway Segments

- I-280, between De Anza Boulevard and Wolfe Road
- I-280, between Wolfe Road and Lawrence Expressway
- I-280, between Lawrence Expressway and Saratoga Avenue
- I-280, between Saratoga Avenue and Winchester Boulevard
- I-280, between Winchester Boulevard and I-880
- I-280, between I-880 and Meridian Avenue
- I-880, between I-280 and Stevens Creek Boulevard
- I-880, between Stevens Creek Boulevard and Bascom Avenue
- SR 17, between Hamilton Avenue and I-280

Study Freeway Ramps

- I-280 Northbound On-Ramp from Saratoga Avenue
- I-280 Southbound On-Ramp from Saratoga Avenue
- I-280 Northbound Off-Ramp to Southbound Saratoga Avenue
- I-280 Southbound Off-Ramp to Saratoga Avenue

Traffic conditions at all the study intersections, freeway segments, and freeway ramps were analyzed for the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic typically occurs between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average weekday.

The study also includes a vehicle queuing analysis at selected intersections, a peak-hour signal warrant analysis for the unsignalized study intersections, an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Traffic conditions were evaluated for the following scenarios:

- **Existing Conditions.** Existing traffic volumes were obtained from new traffic counts conducted in March of 2018, from the City of San Jose, and from the 2016 CMP Annual Monitoring Report. The study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the *2000 Highway Capacity Manual* methodology. The new intersection count data are included in Appendix A.
- **Existing plus Project Conditions.** Existing traffic volumes with the project were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.
- **Background Conditions.** Background traffic volumes reflect traffic added by nearby approved projects that are not yet completed or occupied. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trip Inventory (ATI), which is included in Appendix B. The City of Santa Clara provided a list of approved developments (see Appendix B). Developments in the study area were included under background conditions.
- **Background plus Project Conditions.** Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts based on the Cities of San Jose and Santa Clara Level of Service Policies.
- **Cumulative Conditions.** The cumulative no project traffic volumes account for traffic growth projected to occur due to the approved development projects and other proposed but not yet approved (pending) development projects in the study area. Cumulative plus project traffic volumes were estimated by adding to cumulative no project traffic volumes the new traffic generated by the proposed projects. Cumulative plus project conditions were evaluated relative to either background or cumulative no project conditions, based on the jurisdiction of the study intersections, in order to determine potential cumulative impacts.

Methodology

This section describes the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the Cities of San Jose and Santa Clara, the 2016 CMP Annual Monitoring Report, and field observations. The following data were collected from these sources:

- existing intersection and freeway volumes,
- existing intersection lane configurations,
- intersection signal timing and phasing,
- approved project trips, and
- approved and pending developments.

Intersection Level of Service Methodology and Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis method is described below.

Signalized Intersections

The Cities of San Jose and Santa Clara evaluate level of service at signalized intersections based on the *2000 Highway Capacity Manual* (HCM) level of service methodology using TRAFFIX software. Since TRAFFIX is the level of service methodology for the CMP-designated intersections, the Cities of San Jose and Santa Clara employ the CMP defaults values for the analysis parameters. This HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The correlation between average delay and level of service is shown in Table 1.

Signalized study intersections are subject to the local municipalities' level of service standards. The City of San Jose level of service standard is LOS D or better at all signalized intersections within San Jose, including City, expressway, and CMP intersections. The City of Santa Clara level of service standard for signalized intersections is LOS D or better at City-controlled intersections and LOS E or better at expressways and CMP intersections. The CMP level of service standard for signalized intersections is LOS E or better. However, CMP intersections within San Jose are evaluated according to the San Jose local level of service standard.

Unsignalized Intersections

The study evaluated the Saratoga Avenue/Manzanita Drive unsignalized intersection in the City of San Jose. San Jose has not established a level of service standard for unsignalized intersections. The unsignalized study intersection was evaluated for operational issues. Traffic conditions at the unsignalized study intersection was assessed to determine whether a traffic signal would be warranted based on the peak-hour volume signal warrant (Warrant #3) described in the *2014 California Manual on Uniform Traffic Control Devices* (CA MUTCD). This method provides an indication of whether traffic conditions and peak-hour traffic levels are, or would be, sufficient to justify installation of a traffic signal. Note that this is just one tool used to evaluate whether installation of a traffic signal would be justified. Intersections that meet the peak-hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis is recommended and may include additional signal warrants, unsignalized level of service analysis, and/or operational analysis such as evaluating vehicle queuing and delay. Other types of traffic control devices, signage, or geometric changes may be preferable at unsignalized locations based on existing field conditions.

Table 1
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B+	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 23.0
C		23.1 to 32.0
C-		32.1 to 35.0
D+	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0
E		60.1 to 75.0
E-		75.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16. VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 2.

Intersection Vehicle Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were calculated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

P (x = n) = probability of “n” vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr. per lane/signal cycles per hr.)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future vehicle storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections is evaluated based on the delay experienced at the specific study turn movement.

Freeway Segment Level of Service Methodology and Standard

As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N * S)$$

where:

D= density, in vehicles per mile per lane (vpmpl)

V= peak hour volume, in vehicles per hour (vph)

N= number of travel lanes

S= average travel speed, in miles per hour (mph)

The vehicle density on a freeway segment is correlated to level of service as shown in Table 2. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for mixed-flow lane segments that are three lanes or wider in one direction, and a capacity of 2,200 vphpl for mixed-flow lane segments that are two lanes wide in one direction. A capacity of 1,800 vphpl was used for high occupancy vehicle (HOV) lanes. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

General Plan Transportation Policies

The Circulation Element of the Envision San Jose 2040 General Plan includes a set of balanced, long-range, multi-modal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). These transportation goals and policies are intended to improve multi-modal accessibility to all land uses and create a city where people are less reliant on driving to meet their daily needs. San Jose's Transportation Goals, Policies, and Actions aim to:

- Establish circulation policies that increase bicycle, pedestrian, and transit travel while reducing motor vehicle trips to increase the City's share of travel by alternative transportation modes.
- Promote San Jose as a walking and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Table 2
Freeway Segment Level of Service Definitions Based on Density

Level of Service	Description	Density (vehicles/mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	11.0 or less
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	11.1 to 18.0
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	18.1 to 26.0
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	26.1 to 46.0
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	46.1 to 58.0
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	greater than 58.0

Source: VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 1.
 Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000)

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. Impacts on signalized intersections are based on the significance criteria and thresholds of the jurisdiction in which the intersection is located. Project impacts also were analyzed according to the VTA's TIA Guidelines for the study freeway segments.

City of San Jose Definition of Significant Project Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of San Jose if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under background plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to rule #2 above applies when the addition of project trips reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by City of San Jose standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

CMP Definition of Significant Project Intersection Impacts

The definition of a significant impact at a CMP intersection is the same as for the City of San Jose, except that the CMP standard for acceptable level of service is LOS E or better. A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to background conditions or better.

City of San Jose Definition of Significant Cumulative Intersection Impacts

A significant cumulative traffic impact at a signalized intersection in the City of San Jose is identified by comparing cumulative traffic conditions against background traffic conditions. The cumulative projects collectively would create a significant adverse impact on traffic conditions at a signalized intersection in the City of San Jose if during either the AM or PM peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under cumulative plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of cumulative project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to rule #2 applies when the addition of cumulative project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

Project's Contribution to Cumulative Impacts

A single project's contribution to a cumulative intersection impact is deemed considerable in the City of San Jose if the proportion of project traffic represents 25 percent or more of the increase in total volume from background traffic conditions to cumulative plus project traffic conditions.

A significant impact by City of San Jose standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

City of Santa Clara Definition of Significant Project Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of Santa Clara if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better at city-controlled intersections and LOS E or better at expressway and CMP intersections) under background conditions to an unacceptable level (LOS E or F at city-controlled intersections and LOS F at expressway and CMP intersections) under background plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F at city-controlled intersections and LOS F at expressway and CMP intersections) under background conditions

and the addition of project trips causes the average critical delay to increase by four (4) or more seconds and the V/C to increase by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by City of Santa Clara standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection levels of operation to background conditions or better.

City of Santa Clara Definition of Significant Cumulative Intersection Impacts

The project is said to create a significant adverse cumulative impact on traffic conditions at a signalized intersection in the City of Santa Clara if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or better at city-controlled intersections and LOS E or better at expressway and CMP intersections) under cumulative no project conditions to an unacceptable level (LOS E or F at city-controlled intersections and LOS F at expressway intersections) under cumulative plus project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F at city-controlled intersections and LOS F at expressway and CMP intersections) under cumulative no project conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds and the V/C to increase by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant cumulative impact by City of Santa Clara standards is said to be satisfactory mitigated when measures are implemented that would restore intersection levels of operation to cumulative no-project conditions or better.

CMP Definition of Significant Freeway Segment Impacts

The CMP defines an acceptable level of service for freeway segments as LOS E or better. A development is said to create a significant adverse impact on traffic conditions on a CMP freeway segment if for either peak hour:

1. The level of service on the freeway segment degrades from an acceptable LOS E or better under existing conditions to an unacceptable LOS F with the addition of project trips, or
2. The level of service on the freeway segment is already operating at an unacceptable LOS F and the number of project trips added to the segment constitutes at least one percent (0.01) of capacity of the segment.

A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore freeway conditions to existing conditions or better.

Report Organization

The remainder of this report is divided into seven chapters. Chapter 2 describes the existing roadway network, transit services, and pedestrian and bicycle facilities. Chapter 3 presents the intersection operations under existing plus project conditions and describes the method used to estimate project traffic. Chapter 4 presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions and describes the project's impact on the near-term transportation system. Chapter 6 presents the analysis of other transportation-related issues, including site access, on-site circulation, vehicle queuing, and parking, as well as potential project impacts on bicycle, pedestrian, and transit facilities. Cumulative conditions with and without the project are presented in Chapter 7. Chapter 8 presents the conclusions of the traffic study.

2. Existing Conditions

This chapter describes the existing conditions for transportation facilities in the vicinity of the site, including the roadway network, transit service, pedestrian and bicycle facilities, and the existing levels of service of the key intersections in the study area.

Existing Roadway Network

Regional access to the study area is provided by I-280. Local access to the project site is provided via Saratoga Avenue, Blackford Avenue, and Manzanita Drive. These facilities are described below.

I-280 extends from US 101 in San Jose to I-80 in San Francisco. It is generally an east-west oriented eight-lane freeway in the vicinity of the project with six mixed-flow lanes and two high-occupancy vehicle (HOV) lanes. Site access to and from I-280 is provided via freeway ramps at Saratoga Avenue.

Saratoga Avenue is a north-south designated Main Street, extending from Scott Boulevard in San Jose to Saratoga Sunnyvale Road in Los Gatos, where it becomes Big Basin Way. Main Streets are roadways located within areas of increased density of commercial and residential development, which serve as a primary small-scale commercial center for the surrounding neighborhood. Main Streets support many transportation modes, with significant emphasis given to pedestrian activity. Land uses located along Saratoga Avenue are a mix of commercial and residential uses. In the project vicinity, Saratoga Avenue has six lanes with a raised median and left-turn pockets at intersections. In the project vicinity, street parking is permitted on both sides of Saratoga Avenue in most areas south of Blackford Avenue. Saratoga Avenue has a posted speed limit of 40 mph within the study area with sidewalks provided on both sides of the street. Access to the project site from Saratoga Avenue is via Blackford Avenue and Manzanita Drive and the existing project driveway on Saratoga Avenue.

Moorpark Avenue is an east-west designated City Connector Street that runs south of I-280 and extends eastward from Lawrence Expressway, crossing SR 17, to Kingman Avenue. Automobiles, bicycles, pedestrians and trucks are prioritized equally on City Connector Streets. Land uses located along Moorpark Avenue in the project vicinity are primary residential use with commercial uses near Saratoga Avenue. West of Saratoga Avenue, Moorpark Avenue has two travel lanes and one center turn lane with a posted speed limit of 35 mph. East of Saratoga Avenue, Moorpark Avenue has four travel lanes with a posted speed limit of 40 mph. Bike lanes and sidewalks are located on both sides of the street. Access to the project site is provided by Saratoga Avenue and local north-south streets that run between Moorpark Avenue and Blackford Avenue.

Blackford Avenue is an east-west two-lane residential street extending eastward from Live Oak Way to Boynton Avenue. It serves as the northern boundary of the project site. Land uses located along

Blackford Avenue in the project vicinity are primarily residential and school uses, with commercial uses near Saratoga Avenue. Blackford Avenue has a posted speed limit of 30 mph within the study area with street parking and sidewalks provided on both sides of the street. Access to the project site is provided by an existing project driveway on Blackford Avenue.

Manzanita Drive is an east-west two-lane residential street extending eastward from Pinewood Drive to Daffodil Way. It serves as the southern boundary of the project site. Manzanita Drive serves residential use on the street. Manzanita Drive has a posted speed limit of 25 mph within the study area with street parking and sidewalks provided on both sides of the street. Access to the project site is provided by an existing project driveway on Manzanita Drive.

Existing Pedestrian, Bicycle and Transit Facilities

San Jose desires to provide a safe, efficient, fiscally, economically, and environmentally-sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of automobiles and trucks. The existing bicycle, pedestrian, and transit facilities in the study area are described below.

Existing Pedestrian Facilities

Pedestrian facilities consist of sidewalks and crosswalks along the streets in the study area. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections near the project site. Although, the intersection of Saratoga Avenue and Blackford Avenue lacks crosswalks on the north side of the intersection. Overall, the existing network of sidewalks and crosswalks in the immediate vicinity of the project site has good connectivity and provides pedestrians with safe routes to transit services and other points of interest in the study area.

The signalized intersection of Saratoga Avenue and Blackford Avenue does not meet the current ADA design standards, which include wheel chair ramps with truncated domes at all corners/curb cuts. Truncated domes are the current standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street. While the intersection does not meet the current ADA design standards, the existing ramps complied with ADA standards at the time they were constructed.

Existing Bicycle Facilities

The following roadway segments near the project site include Class II striped bike lanes (see Figure 3). Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage.

- Moorpark Avenue between Lawrence Expressway and Thornton Way.
- Williams Road between Moorpark Avenue and Winchester Boulevard.

Wide shoulders are provided on San Tomas Expressway and Lawrence Expressway and may be used by bicyclists. Although there are no designated striped bike lanes or shared bike routes on streets in the immediate vicinity of the project site, Blackford Avenue, Manzanita Drive, and surrounding residential streets carry relatively low traffic volumes and are conducive to bicycle travel. Saratoga Avenue is a Main Street with relatively high traffic volumes and no bicycle facilities. Thus, bicyclists should ride with caution on Saratoga Avenue.

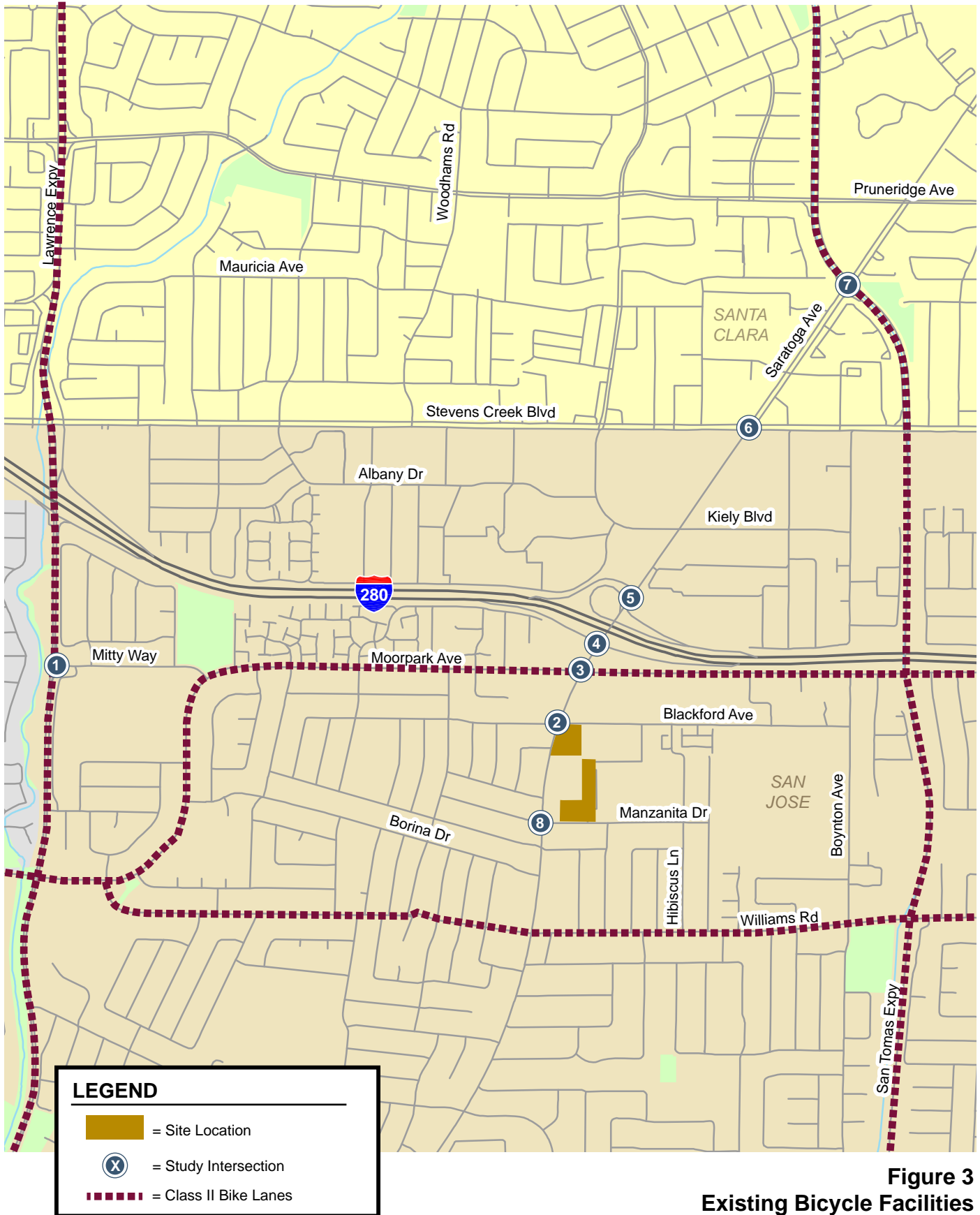


Figure 3
Existing Bicycle Facilities

The San Jose Bike Plan 2020 indicates that bike lanes and bike routes are planned for the roadway segments in the study area listed below. Bike routes are existing streets that accommodate bicycles but are not separate from the existing travel lanes. Bike routes are typically designated only with signage or with painted shared lane markings (Sharrows) on a road that indicate to motorists that bicyclists may use the full travel lane.

- Boynton Avenue between Moorpark Avenue and Payne Avenue (Class II bike lanes).
- Mitty Way between Lawrence Expressway and Moorpark Avenue (Class III bike routes).

Existing Transit Services

Existing transit service to the study area is provided by the VTA. Two local bus routes (Routes 57 and 58) serve the vicinity of the project area, as described below. The bus stops closest to the project site are located Saratoga Avenue at Blackford Avenue and at Manzanita Drive.

Local Route 57 operates between West Valley College in Saratoga to Great America in Santa Clara via Saratoga Avenue in the project vicinity. Route 57 runs between 5:40 AM and 10:30 PM with 30-minute headways during the AM and PM peak hours.

Local Route 58 operates between West Valley College in Saratoga to Alviso via Saratoga Avenue in the project vicinity. Route 58 only runs during AM and PM commute hours on weekdays with 30-minute headways.

Because there are only two bus routes serving the study area with infrequent buses, the project site is not well served by transit.

Existing Intersection Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 4.

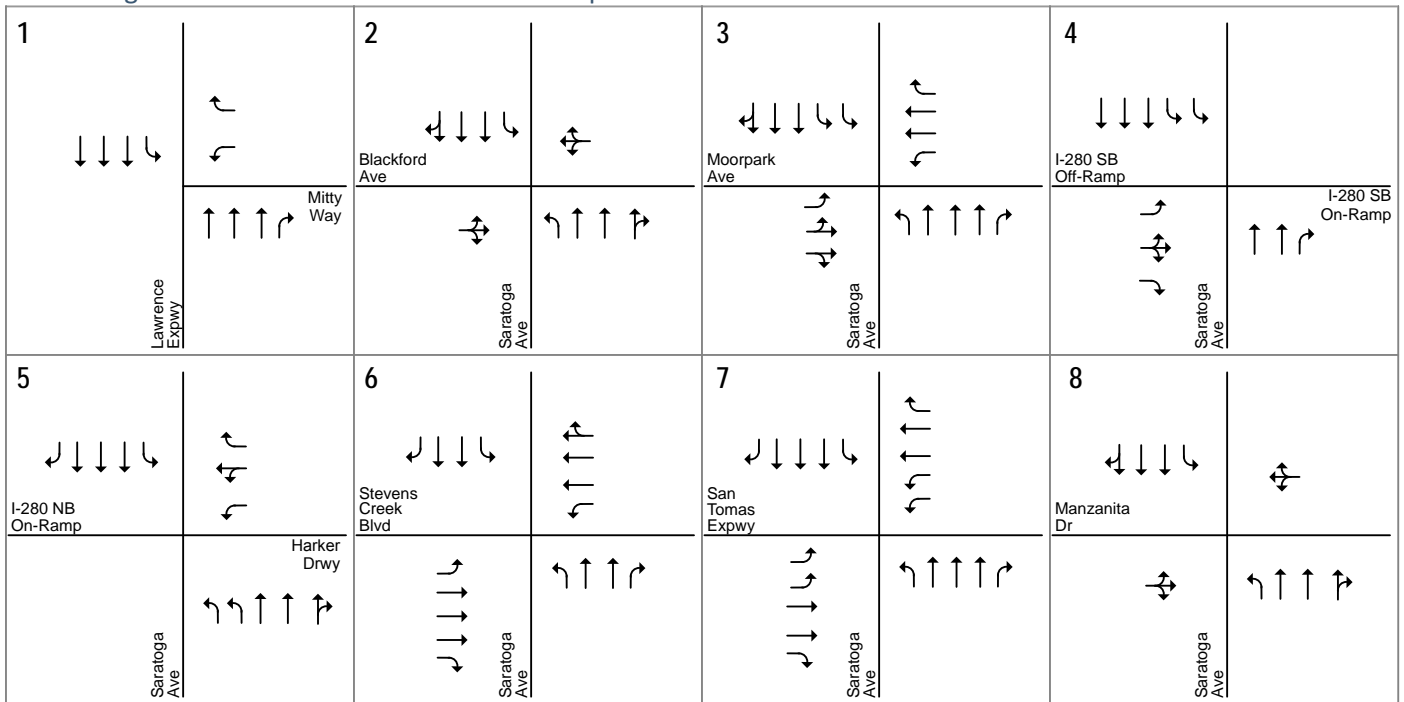
Existing traffic volumes were obtained from new traffic counts conducted in March of 2018, from the City of San Jose, and from the 2016 CMP Annual Monitoring Report (which is the most recent available report). The existing peak-hour intersection volumes are shown on Figure 5. New intersection turning-movement counts conducted for this analysis are included in Appendix A.

Existing Intersection Levels of Service

Intersection levels of service were evaluated against the Cities of San Jose and Santa Clara and CMP standards. The results of the intersection level of service analysis (see Table 3) show that the Lawrence Expressway/Mitty Way intersection currently operates at LOS E during the AM peak hour, which is considered unacceptable when measured against the City of San Jose standard (LOS D). All other signalized study intersections currently operate at acceptable levels of service during both the AM and PM peak hours of traffic according to their respective level of service standards. Note that while the intersections at the I-280/Saratoga Avenue interchange currently operate at acceptable levels (LOS D or better), this interchange does experience operational problems, as described below under Existing Freeway Ramp Traffic Conditions.

The intersection level of service calculation sheets are included in Appendix D.

700 Saratoga Avenue Mixed-Use Residential Development



LEGEND



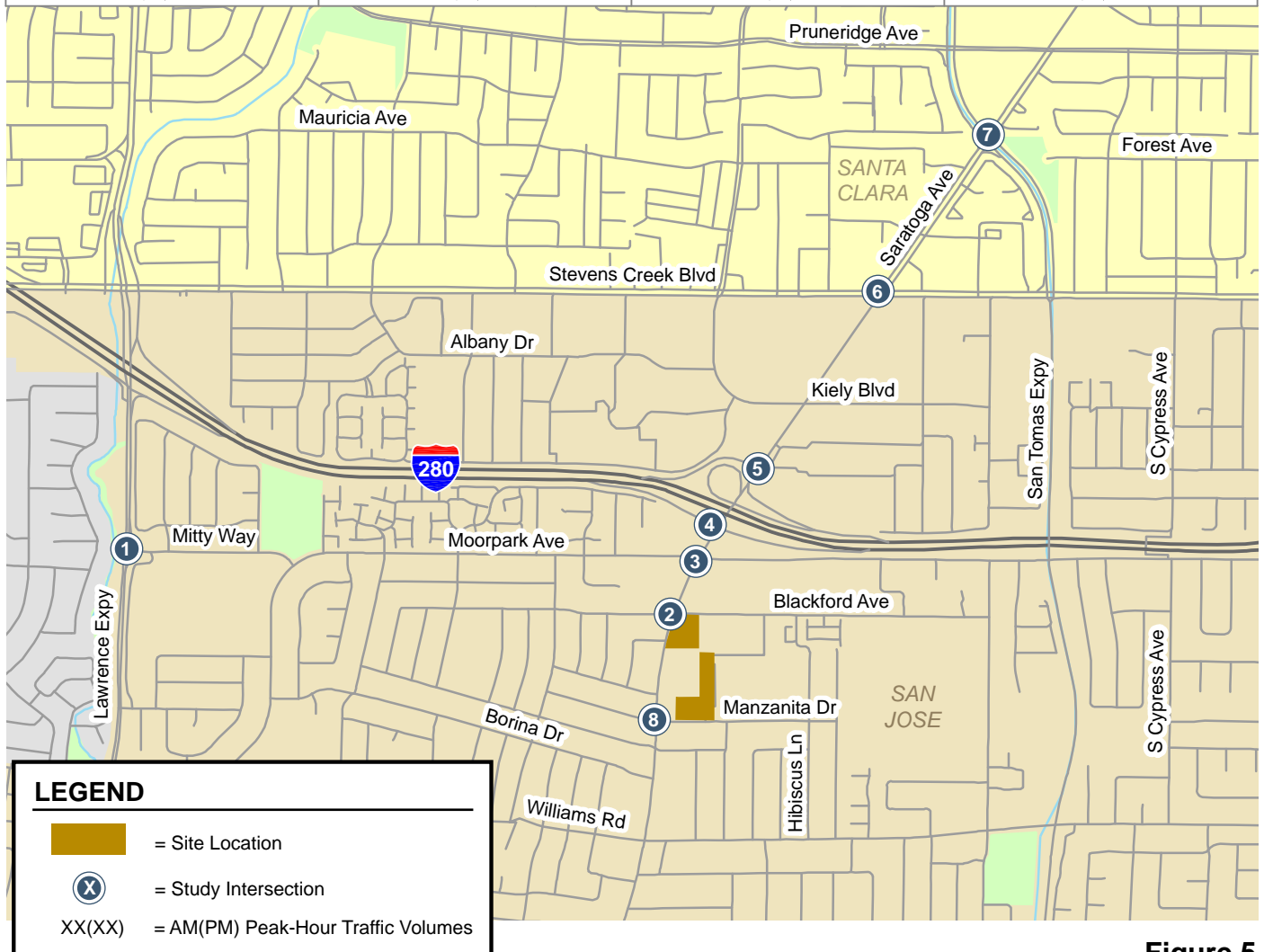
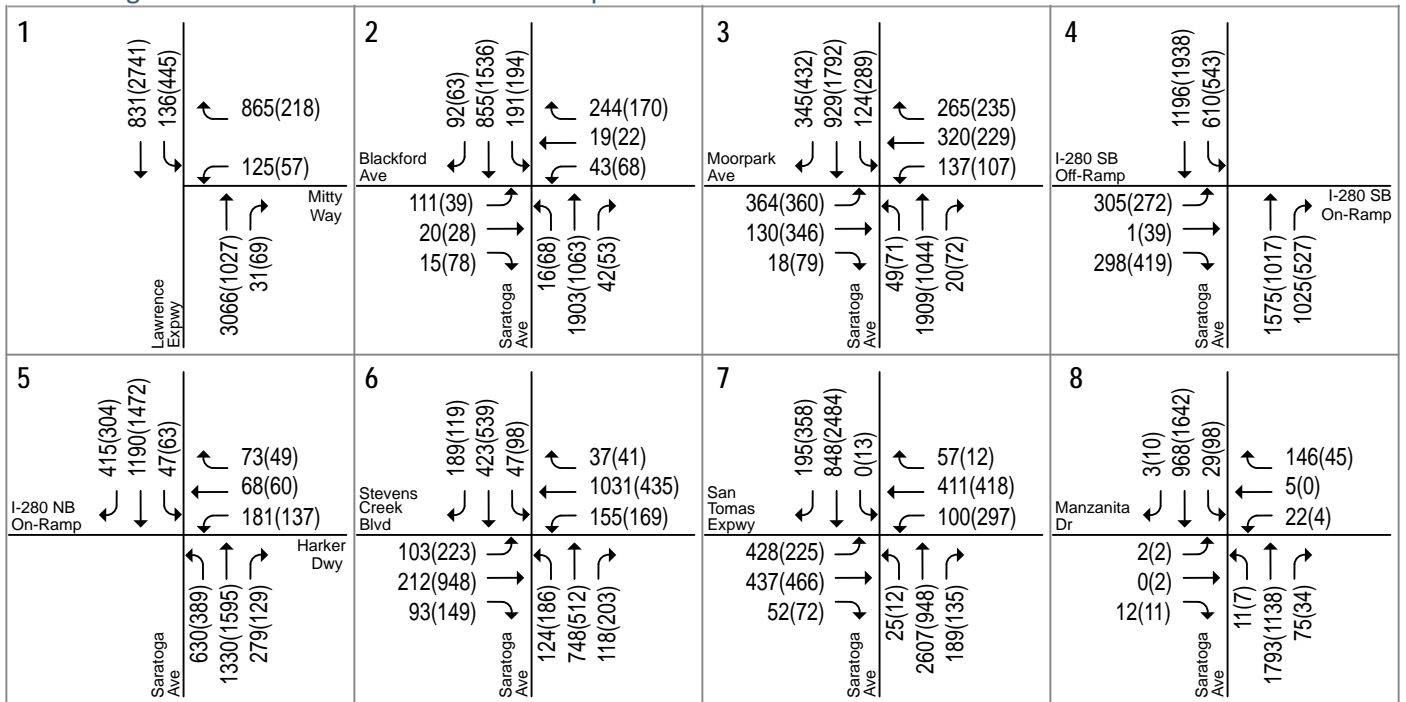
-  = Site Location
-  = Study Intersection

Figure 4
Existing Lane Configurations

700 Saratoga Avenue Mixed-Use Residential Development



LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 5
Existing Traffic Volumes

Table 3
Existing Intersection Levels of Service

ID	Intersection	LOS Standard	Peak Hour	Count Date	Avg. Delay	LOS
1	Lawrence Expwy and Mitty Wy	D	AM PM	03/09/17 03/09/17	79.4 12.8	E- B
2	Saratoga Ave and Blackford Ave	D	AM PM	03/07/18 03/07/18	33.7 33.0	C- C-
3	Saratoga Ave and Moorpark Avenue*	D	AM PM	10/25/16 10/11/16	40.0 41.7	D D
4	Saratoga Ave and I-280 SB Ramp*	D	AM PM	10/11/16 11/30/16	44.1 35.3	D D+
5	Saratoga Ave and I-280 NB Ramp*	D	AM PM	10/11/16 12/13/16	28.9 22.9	C C+
6	Saratoga Ave and Stevens Creek Blvd*	D	AM PM	10/25/16 10/11/16	34.9 39.2	C- D
7	San Tomas Expwy and Saratoga Ave*	E	AM PM	03/07/18 10/06/16	55.5 62.2	E+ E

Notes:
 * Denotes VTA CMP intersection
 Average delay is in seconds per vehicle.
Bold indicates a substandard level of service.

Existing Freeway Segment Levels of Service

Existing traffic volumes and levels of service on the study freeway segments were obtained from the 2016 CMP Annual Monitoring Report, which contains the most recent data collected for freeway segments located in the Santa Clara County. The results of the analysis (see Table 4) show that the following directional freeway segments currently operate at an unacceptable LOS F:

- I-280, eastbound mixed-flow lanes from De Anza Bl to Meridian Av (6 segments) – PM
- I-280, eastbound HOV lane from De Anza Bl to Wolfe Rd (1 segment) – PM
- I-280, eastbound HOV lane from Saratoga Av to Meridian Av (3 segments) – PM
- I-280, westbound mixed-flow lanes from Meridian Av to De Anza Bl (6 segments) – AM
- I-280, westbound HOV lane from Meridian Av to Wolfe Rd (5 segments) – AM
- I-880, northbound mixed-flow lanes from I-280 to Stevens Creek Bl (1 segment) – AM
- I-880, northbound mixed-flow lanes from Stevens Creek to Bascom Av (1 segment) – AM, PM
- I-880, southbound mixed-flow lanes from Bascom Av to Stevens Creek Bl (1 segment) – AM
- SR 17, northbound mixed-flow lanes from Hamilton Avenue to I-280 (1 segment) – AM

Table 4
Existing Freeway Segment Levels of Service

Freeway Segment	Dir	Peak Hour	Mixed-Flow						HOV Lane				
			# of Lanes	Ave. Speed	Volume	Density	LOS	# of Lanes	Ave. Speed	Volume	Density	LOS	
I-280 De Anza Blvd to Wolfe Rd	EB	AM	3	66	4,360	22	C	1	66	1,460	22	C	
		PM	3	24	5,330	74	F	1	40	2,520	63	F	
I-280 Wolfe Rd to Lawrence Expwy	EB	AM	3	66	4,160	21	C	1	67	810	12	B	
		PM	3	32	5,860	61	F	1	60	2,520	42	D	
I-280 Lawrence Expwy to Saratoga Ave	EB	AM	3	59	6,550	37	D	1	67	940	14	B	
		PM	3	23	5,320	77	F	1	40	2,080	52	E	
I-280 Saratoga Ave to Winchester Blvd	EB	AM	3	63	6,430	34	D	1	67	880	13	B	
		PM	3	15	4,320	96	F	1	40	2,520	63	F	
I-280 Winchester Blvd to I-880	EB	AM	3	66	4,360	22	C	1	67	1,080	16	B	
		PM	3	14	4,250	101	F	1	30	2,010	67	F	
I-280 I-880 to Meridian Ave	EB	AM	3	66	4,560	23	C	1	67	810	12	B	
		PM	3	13	3,980	102	F	1	30	2,430	81	F	
I-280 Meridian Ave to I-880	WB	AM	3	10	3,880	114	F	1	13	1,340	103	F	
		PM	3	66	4,720	21	C	1	70	700	10	A	
I-280 I-880 to Winchester Blvd	WB	AM	3	12	3,860	107	F	1	15	1,430	95	F	
		PM	3	51	6,580	43	D	1	70	1,400	20	C	
I-280 Winchester Blvd to Saratoga Ave	WB	AM	3	17	4,590	90	F	1	20	1,640	82	F	
		PM	3	55	6,600	40	D	1	70	1,120	16	B	
I-280 Saratoga Ave to Lawrence Expwy	WB	AM	3	22	5,150	78	F	1	26	1,820	70	F	
		PM	3	66	5,310	27	D	1	70	1,050	15	B	
I-280 Lawrence Expwy to Wolfe Rd	WB	AM	3	25	5,400	72	F	1	26	1,820	70	F	
		PM	3	66	4,950	25	C	1	70	840	12	B	
I-280 Wolfe Rd to De Anza Blvd	WB	AM	3	24	5,400	75	F	1	45	2,160	48	E	
		PM	3	66	5,310	27	D	1	70	980	14	B	
I-880 I-280 to Stevens Cr	NB	AM	3	15	4,410	98	F	--	--	--	--	--	
		PM	3	67	2,220	11	A	--	--	--	--	--	
I-880 Stevens Cr to N. Bascom Ave	NB	AM	3	10	3,480	116	F	--	--	--	--	--	
		PM	3	22	5,150	78	F	--	--	--	--	--	
I-880 N. Bascom Ave to Stevens Creek Blvd	SB	AM	3	28	5,630	67	F	--	--	--	--	--	
		PM	3	48	6,480	45	D	--	--	--	--	--	
I-880 Stevens Creek Blvd to I-280	SB	AM	3	66	4,760	24	C	--	--	--	--	--	
		PM	3	66	5,150	26	C	--	--	--	--	--	
SR 17 Hamilton Ave to I-280	NB	AM	3	34	6,020	59	F	--	--	--	--	--	
		PM	3	66	5,150	26	C	--	--	--	--	--	
SR 17 I-280 to Hamilton Ave	SB	AM	3	64	6,150	32	D	--	--	--	--	--	
		PM	3	35	6,090	58	E	--	--	--	--	--	

Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.

Bold indicates a substandard level of service.

Existing Freeway Ramp Traffic Conditions

Saratoga Avenue provides direct access to I-280 from the project site via a full interchange. The I-280 northbound on-ramp is metered during the AM commute period, and the I-280 southbound on-ramp is metered during the PM commute period. Ramp operations at the interchange were evaluated based on field observations and vehicle queue lengths and metering rates measured in the field during the AM and PM peak hours of traffic.

The southbound I-280 on-ramp and northbound I-280 on-ramp from Saratoga Avenue are not metered during the AM and PM peak commute periods, respectively. Field observations indicate that there is no traffic congestion on the I-280 mainline in the southbound and northbound direction in the AM and PM

commute periods, respectively. Therefore, there are no vehicle queues on these on-ramps during these peak periods. During the AM peak hour, there are vehicle queues on northbound Saratoga Avenue, south of the Saratoga Avenue/I-280 southbound ramps intersection. The vehicle queues are caused by heavy northbound traffic and the closely spaced signalized intersections of Saratoga Avenue/Moorpark Avenue and Saratoga Avenue/I-280 ramps. The congested traffic conditions are described under the Observed Traffic Conditions section below.

I-280 Northbound On-Ramp from Saratoga Avenue – The northbound on-ramp has two lanes and is about 750 feet long between the meters and Saratoga Avenue, which can accommodate about 30 vehicles per lane. The existing vehicle queue length was about 18 vehicles per lane with a metering rate at about 2.8 seconds per vehicle (or 1,286 vehicles per hour) during the AM peak hour. The existing AM peak-hour traffic entering the ramp was 1,113 vehicles, which is less than the ramp capacity. The observed vehicle queues were shorter than the length of the ramp, and the on-ramp vehicle queues were not observed to extend to Saratoga Avenue.

I-280 Southbound On-Ramp from Saratoga Avenue – The southbound on-ramp has two lanes and is about 700 feet long between the meters and Saratoga Avenue, which can accommodate about 28 vehicles per lane. The existing vehicular queues were about 18 vehicles per lane with a metering rate at about 2.7 seconds per vehicle (or 1,333 vehicles per hour) during the PM peak period. The existing PM peak-hour traffic entering the ramp was 1,109 vehicles, which is less than the ramp capacity. The observed vehicle queues were shorter than the length of the ramp, and the on-ramp vehicle queues were not observed to extend to Saratoga Avenue.

I-280 Northbound Loop Off-Ramp to Southbound Saratoga Avenue – The loop off-ramp becomes a southbound lane where it connects to Saratoga Avenue. During the AM peak commute period, the off-ramp traffic can easily merge with southbound traffic on Saratoga Avenue because of the light southbound traffic volume. However, during the PM peak commute period, because the southbound traffic is congested from Moorpark Avenue and the vehicle queues tend to back up past the off-ramp, the off-ramp traffic often needs to wait for a gap to merge with southbound Saratoga traffic, mostly when the southbound Saratoga traffic receives a green light at the Moorpark Avenue intersection and the southbound traffic starts to move. Therefore, during the PM peak commute period the vehicle queue on the loop off-ramp can sometimes extend to the I-280 westbound traffic lane (about a half-mile long).

I-280 Southbound Off-Ramp to Saratoga Avenue – The southbound off-ramp intersects with Saratoga Avenue at a signalized intersection. During the AM commute period, because the northbound vehicle queues typically backup from the downstream intersection (I-280 northbound on-ramp), the left-turn traffic on the off-ramp occasionally needs more than one cycle length to clear the intersection. During the PM commute period, although the southbound vehicle queues typically backup from the downstream intersection (Moorpark Avenue), the right-turn traffic on the off-ramp is usually able to make turns within one signal cycle length. The off-ramp vehicle queues were contained within the off-ramp lanes and were not observed to extend to the eastbound I-280 traffic lane.

Observed Traffic Conditions

Traffic conditions were observed in the field at each study intersection to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect actual existing traffic conditions. Field observations revealed the following operational issues that may not be reflected in the level of service calculations.

Saratoga Avenue between Moorpark and the I-280 Interchange

In general, Saratoga Avenue experiences traffic congestion in the northbound direction during the weekday AM peak hour from Blackford Avenue to the I-280 northbound on-ramp and in the southbound direction during the weekday PM peak hour from Kiely Boulevard to Moorpark Avenue. The congestion along Saratoga Avenue is made worse by the close spacing of the signalized intersections of Moorpark Avenue and the I-280 ramps.

In the AM peak hour, heavy northbound traffic on Saratoga Avenue fills up the through lanes between Blackford Avenue and the I-280 southbound ramps and the left-turn lanes between the I-280 southbound ramps and northbound on-ramp. When the northbound and eastbound signals at the Moorpark Avenue intersection turn green, vehicles cannot move until the northbound signals at the two downstream intersections turn green and the vehicle queues clear. This results in long northbound through and eastbound left-turn vehicle queues at the Saratoga Avenue/Moorpark Avenue intersection. The ramp meter is active on the I-280 northbound on-ramp during the AM commute period.

In the PM peak hour, heavy southbound traffic on Saratoga Avenue fills up the through lanes between the I-280 northbound on-ramp and Moorpark Avenue. When the southbound signal at the I-280 southbound ramp intersection turns green, vehicles cannot move until the southbound signal at the Moorpark Avenue intersection turns green and the vehicle queues clear. This results in long vehicle queues on southbound Saratoga Avenue at the I-280 ramp intersections. The southbound vehicle queues occasionally back up to Kiely Boulevard. The southbound congestion during the PM peak hour also causes a long vehicle queue on the I-280 northbound loop off-ramp.

Saratoga Avenue and Blackford Avenue

The AM peak-hour traffic at the intersection coincides with the peak AM school traffic of Harker Middle School on Blackford Avenue east of the project site. The majority of school traffic that accesses the school site at this intersection does so via the southbound left turn movement (inbound) and westbound right turn movement (outbound). Therefore, during the peak school traffic period (about 15 minutes), the southbound left-turn vehicle queue often exceeds the left-turn storage capacity and extends into the southbound through lane, and the westbound vehicle queues sometimes extends to Hibiscus Lane (about 1,000 feet). The southbound left-turn queue often clears within one signal cycle, but the westbound queue takes more than one cycle to pass through the intersection. Outside of the peak school traffic period, the southbound left-turn queue is shorter than the length of the turn lanes, and the westbound queue does not extend past the Avalon building site. The westbound right-turn vehicles can typically make turns by bypassing the westbound through and left-turn vehicle queues. During the AM peak hour, due the heavy northbound traffic volumes on Saratoga Avenue, the northbound vehicle queues typically extend past the Avalon site and occasionally back up to Manzanita Drive.

In the PM peak hour, the southbound left-turn queue occasionally exceeds the left-turn storage capacity but clears within one signal cycle. The westbound queue does not extend past the Avalon building site. The westbound right-turn vehicles can typically make turns by bypassing the westbound through and left-turn vehicle queues. The northbound vehicle queues occasionally extend past the Avalon site.

Lawrence Expressway and Mitty Way

In the AM peak hour, heavy northbound traffic on Lawrence Expressway extends from the downstream intersections to Moorpark Avenue. The northbound traffic often needs more than one signal cycle to get through the Mitty Way intersection. However, the northbound traffic congestion does not cause a vehicle queue for the westbound right-turn traffic because the right-turn traffic can still make turns through the slip lane. In the PM peak hour, the southbound left-turn vehicle queue often exceeds the length of the left-turn lane and slightly extends to the southbound lane, but the left-turn queue often clears within one signal cycle.

All other study intersections operate without any noteworthy issues.

3.

Existing Plus Project Conditions

This chapter describes the existing plus project traffic conditions, including the method by which project traffic is estimated. Existing plus project traffic conditions could potentially occur if the project were to be occupied prior to the other approved projects in the area. It is unlikely that this traffic condition would occur, since other approved projects expected to add traffic to the study area would likely be built and occupied during the time the project is going through the development review process.

Roadway Network Under Existing Plus Project Conditions

The roadway network under existing plus project conditions would be the same as the existing roadway network because the project would not alter the existing intersection lane configurations.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic traveling to and from the project site was estimated for the AM and PM peak hours. As part of the trip distribution, the directions to and from which the project trips would travel were estimated. In the trip assignment, the project trips were assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by common land uses. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation resulting from new development proposed within the City of San Jose typically is estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017). Trips that would be generated by the proposed apartment units and retail use were estimated using the ITE trip rates for "Multifamily Housing Mid-Rise" (Land Use 221) and "Shopping Center" (Land Use 820).

Trip Reductions

A mixed-use development with complementary land uses such as residential and retail will generate and attract trips internally between the uses. Thus, the number of vehicle trips generated for each use may be reduced, since a portion of the trips would be walking trips. The VTA's CMP TIA Guidelines

indicate a trip reduction of up to 15 percent is allowed for residential and retail mixed-use developments. The reduction is first applied to the smaller of the two complimentary trip generators (retail use), and the same number of trips is then subtracted from the larger trip generator (residential use) to account for both trip ends.

A retail pass-by trip reduction of 25 percent (typical for Santa Clara County) also can be applied to the net peak hour trip generation estimates for the retail space. Pass-by-trips are trips that would already be on the adjacent roadways (and so are already counted in the background traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail uses but is already part of the ambient traffic levels.

Some existing residents of the Eaves Community development within the project site boundaries would patronize the new retail space. It is estimated that approximately 15 percent of the retail-generated trips would originate from within the Eaves Community. Since these trips would be walking trips internal to the site, the 15% trip reduction was applied to the project trip generation estimates.

Net Project Trips

After applying the ITE trip rates to the proposed residential and retail uses and applying the appropriate trip reductions, the project would generate 1,858 new daily vehicle trips, with 113 new trips occurring during the AM peak hour and 155 new trips occurring during the PM peak hour. Using the inbound/outbound splits contained in the ITE *Trip Generation Manual*, the project would produce 32 new inbound and 81 new outbound trips during the AM peak hour, and 92 new inbound and 63 new outbound trips during the PM peak hour (see Table 5).

**Table 5
Project Trip Generation Estimates**

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Proposed Uses											
Apartments ¹	300 units	5.44	1,632	0.36	28	80	108	0.44	81	51	132
<i>Residential & Retail Internal Capture (15%)³</i>			(101)		(1)	(2)	(3)		(5)	(5)	(10)
Retail ²	17,800 s.f.	37.75	672	0.94	11	6	17	3.81	33	35	68
<i>Residential & Retail Internal Capture (15%)³</i>			(101)		(2)	(1)	(3)		(5)	(5)	(10)
<i>Retail Pass-By Reduction (25%)⁴</i>			(143)		(2)	(1)	(3)		(7)	(8)	(15)
Subtotal:			1,959		34	82	116		97	68	165
<i>Existing Eaves Community Reduction (15%)⁵</i>			(101)		(2)	(1)	(3)		(5)	(5)	(10)
Net New Trips:			1,858		32	81	113		92	63	155

Notes:

¹ Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Multifamily Housing Mid-Rise (Land Use 221) located in a General Urban/Suburban setting. Rates are expressed in trips per unit.

² Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Shopping Center (Land Use 820) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet.

³ A 15% residential/retail mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator (residential).

⁴ A typical 25% pass-by trip reduction was applied to the retail component of the project.

⁵ An additional 15% trip reduction was applied to the retail component of the project, since some existing residents of the adjacent Eaves Community development would utilize the new retail use.

Trip Distribution

The trip distribution patterns for the proposed residential and retail uses were developed based on existing travel patterns on the surrounding roadway system, trip distributions developed for projects with similar uses in the study area, and the locations of complementary land uses. The project trip distribution patterns for the residential and retail uses are shown graphically on Figure 6.

Trip Assignment

The peak-hour vehicle trips associated with the proposed residential and retail uses were added to the roadway network in accordance with the trip distribution patterns, the roadway network connections, freeway access points, and the locations of project driveways (see Figure 7). Note that since there is a raised center median on Saratoga Avenue, left turns to and from the project driveway on Saratoga Avenue are not possible. The trip assignment reflects these turn restrictions.

Because the project would demolish the existing parking garage at the Avalon site, residents who currently park on the site would park in the existing parking area along Blackford Avenue to the east or in the new Manzanita parking garage. Therefore, the existing traffic accessing the Avalon site were re-assigned evenly to the existing parking area to the east and to the new Manzanita garage. Figure 7 shows the re-assignment of the existing traffic at the Saratoga Avenue/Blackford Avenue and Saratoga Avenue/Manzanita Drive study intersections. The re-assignment of the existing traffic is based on peak-hour driveway counts conducted in March 2018.

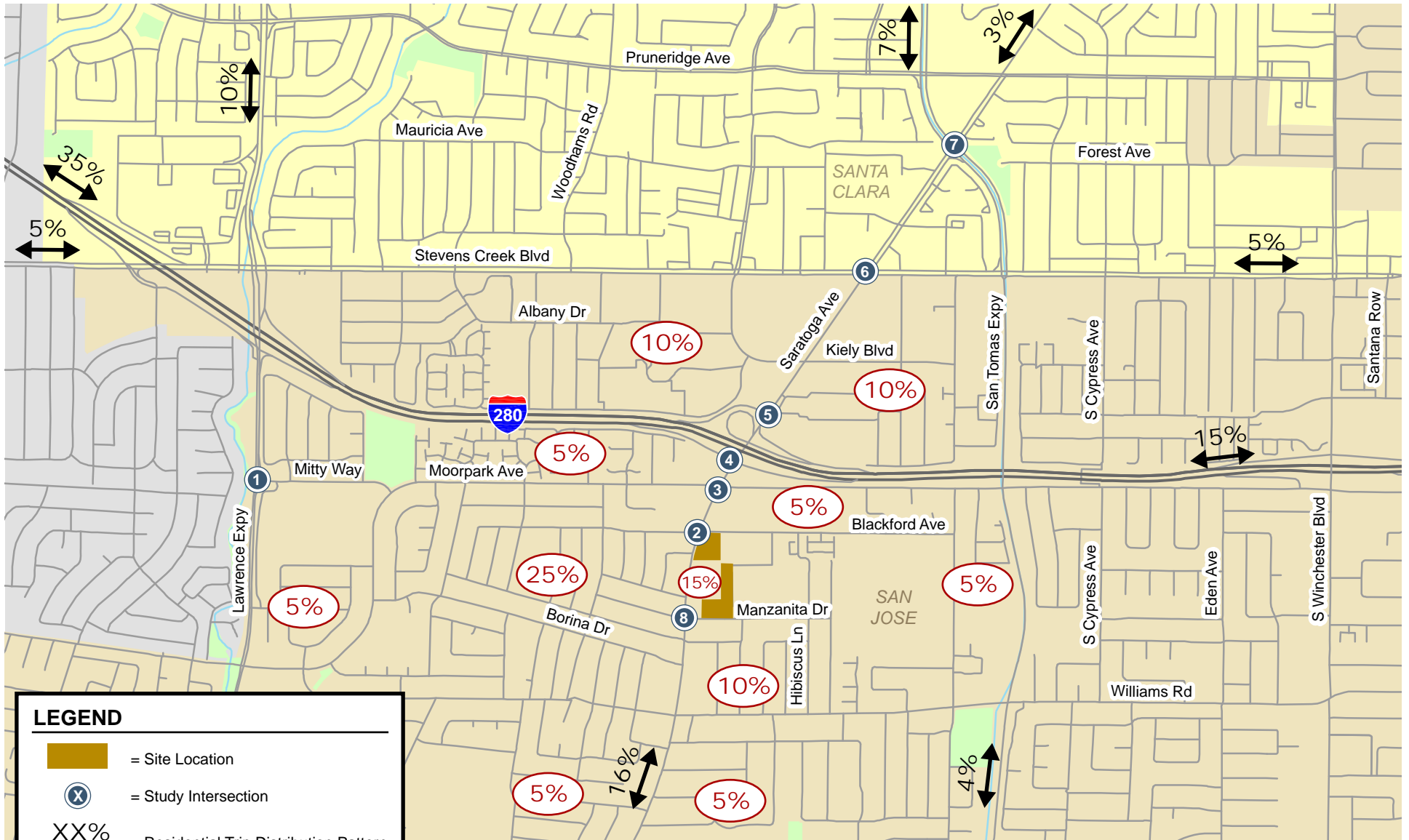
Existing Plus Project Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes (see Figure 8). Traffic volumes for all components of traffic are tabulated in Appendix C.

Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions (see Table 6) show that the Lawrence Expressway/Mitty Way intersection would operate at LOS F during the AM peak hour, which is considered unacceptable according to the City of San Jose level of service standard (LOS D). All other signalized study intersections would operate at acceptable levels of service during both the AM and PM peak hours of traffic according to their respective level of service standards. The intersection level of service calculation sheets are included in Appendix D.

Note that the existing plus project condition intersection analysis is provided for informational purposes only. The City of San Jose's Transportation Level of Service Policy (Council Policy 5-3) does not include impact criteria for the existing plus project traffic scenario. Based on the Policy, traffic related impacts in the City of San Jose are determined based on comparing background plus project traffic conditions to background (baseline) traffic conditions.

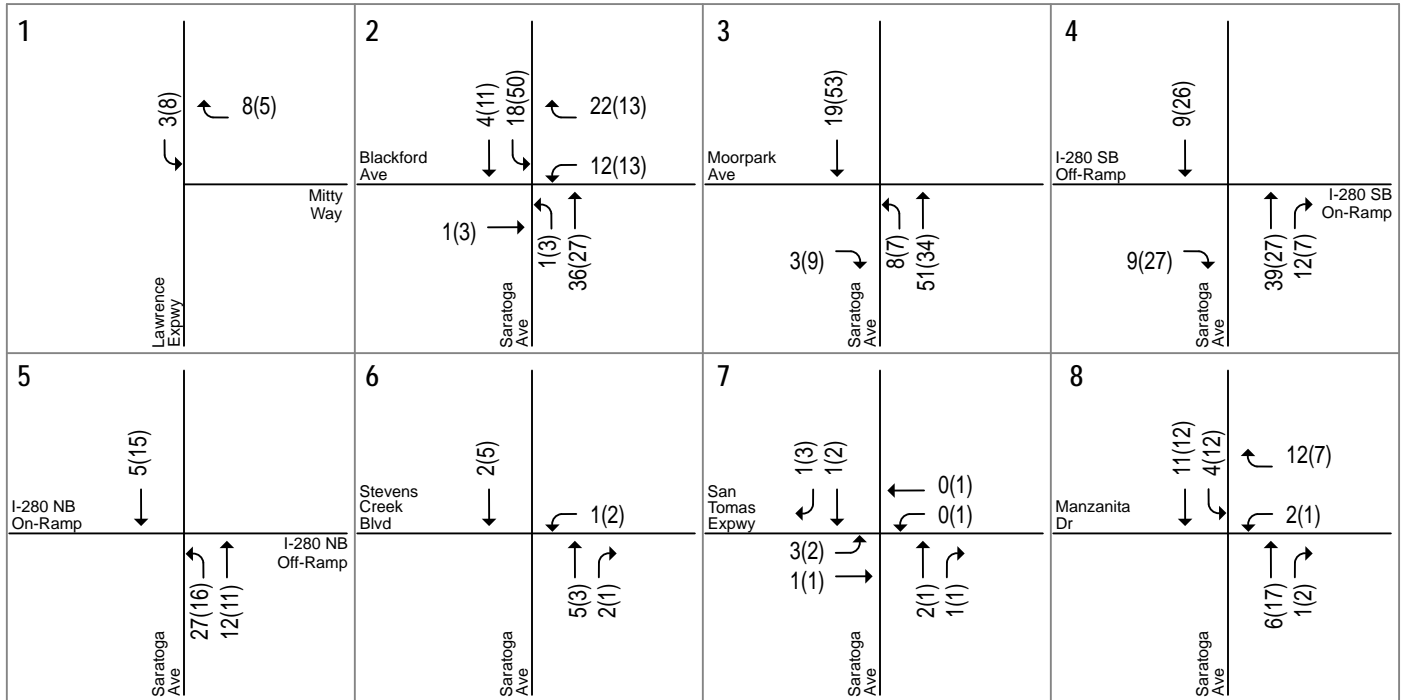


LEGEND

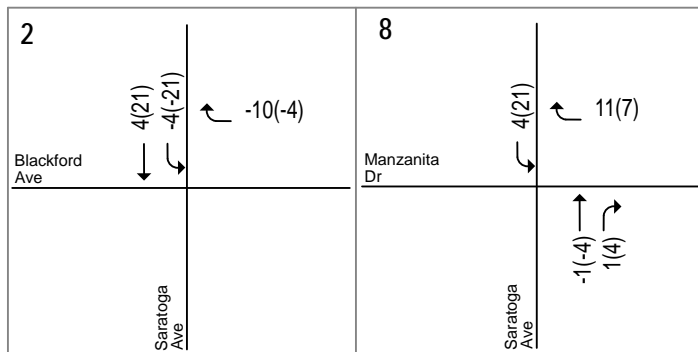
- = Site Location
- X = Study Intersection
- XX% = Residential Trip Distribution Pattern
- XX% = Retail Trip Distribution Pattern

Figure 6
Project Trip Distribution Patterns

Project Trip Assignment

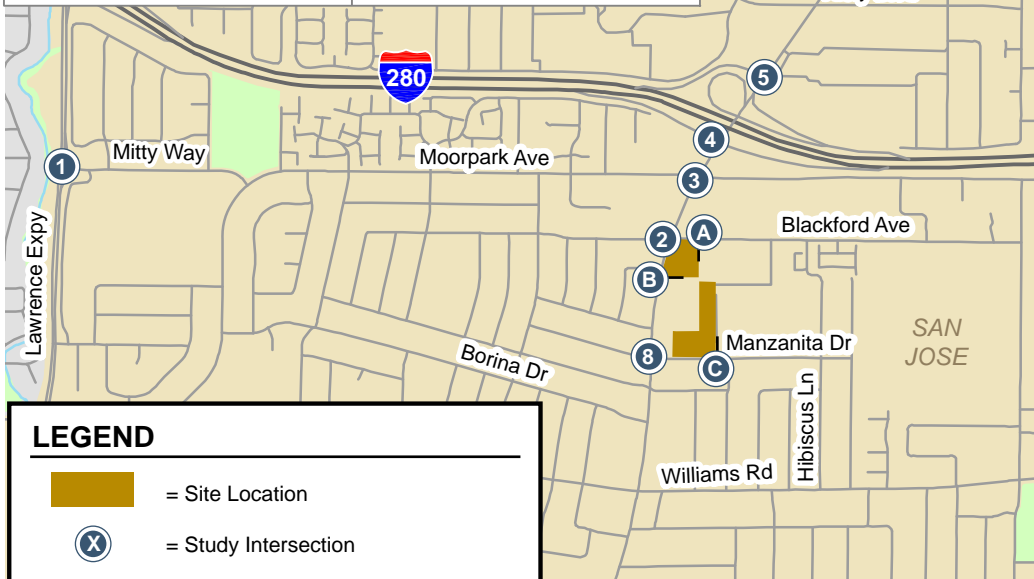
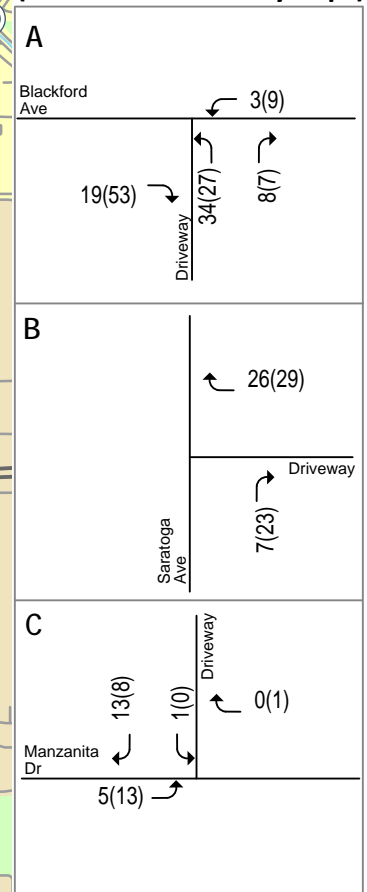


Existing Trip Re-Assignment



Driveway Trips

(Include Retail Pass-By Trips)

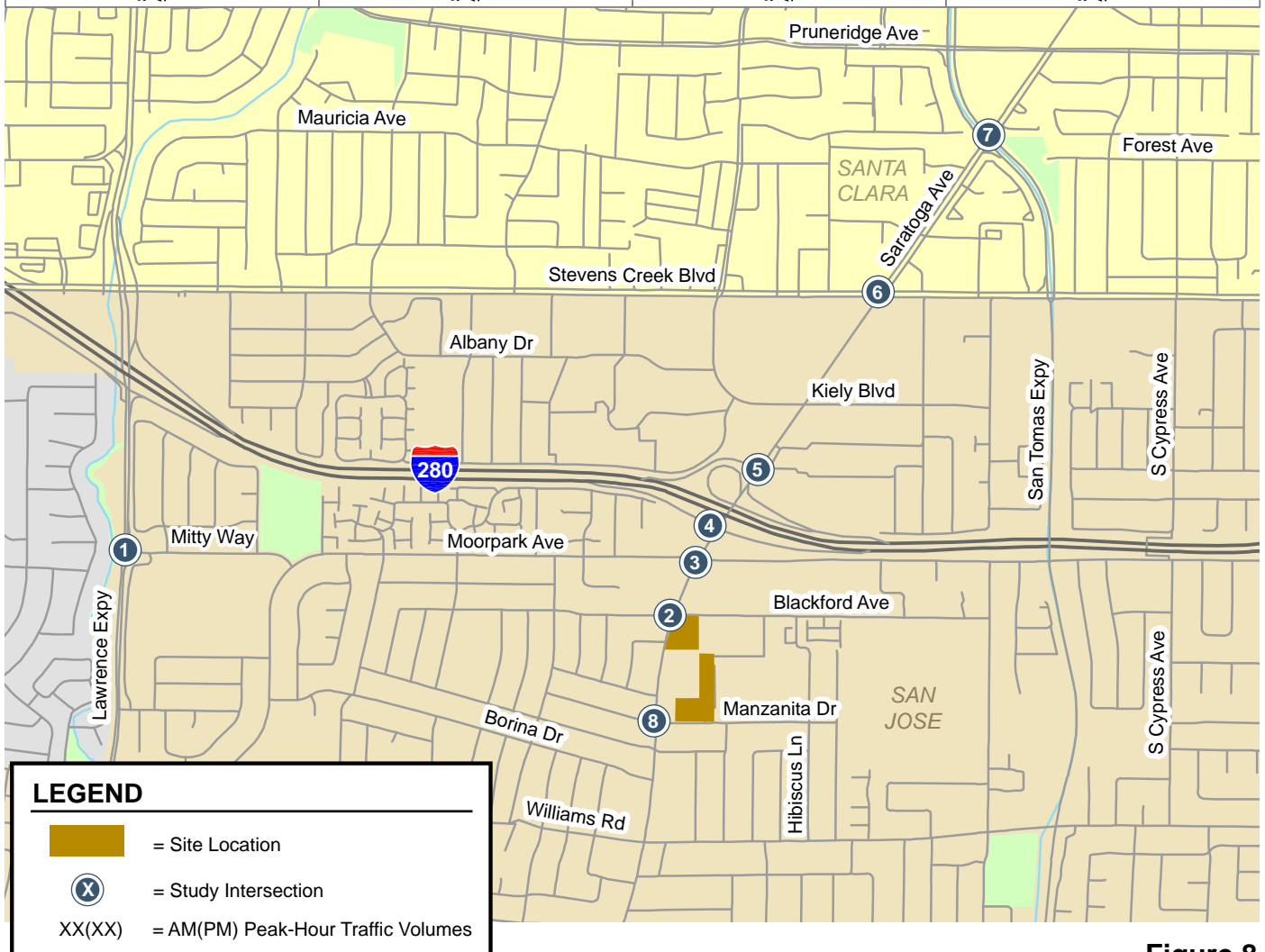
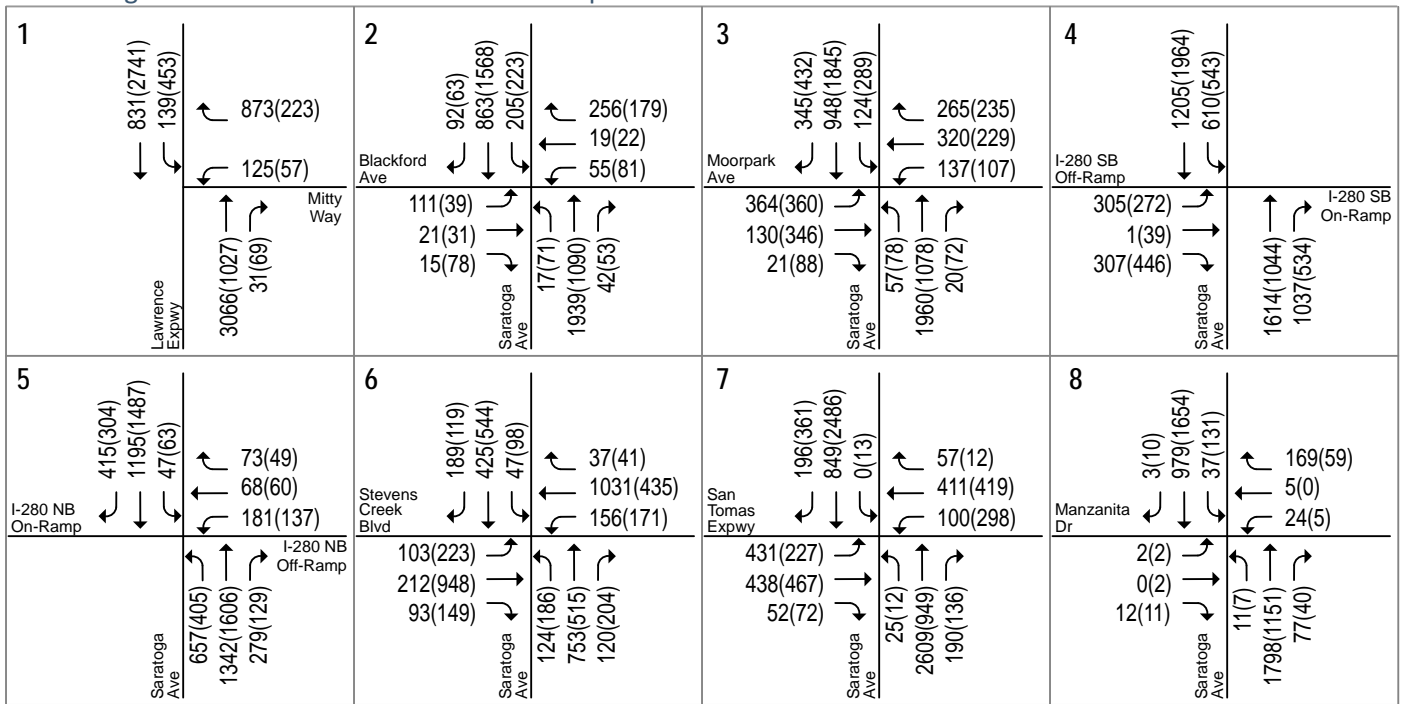


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- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 7
Project Trip Assignment and Existing Trip Re-Assignment

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LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 8
Existing Plus Project Traffic Volumes

Table 6
Existing Plus Project Intersection Levels of Service

ID	Intersection	LOS Standard	Peak Hour	Existing		Existing+Project	
				Avg. Delay	LOS	Avg. Delay	LOS
1	Lawrence Expwy and Mitty Wy	D	AM	79.4	E-	81.2	F
			PM	12.8	B	12.9	B
2	Saratoga Ave and Blackford Ave	D	AM	33.7	C-	35.3	D+
			PM	33.0	C-	35.0	C-
3	Saratoga Ave and Moorpark Avenue*	D	AM	40.0	D	39.9	D
			PM	41.7	D	42.0	D
4	Saratoga Ave and I-280 SB Ramp*	D	AM	44.1	D	45.0	D
			PM	35.3	D+	35.9	D+
5	Saratoga Ave and I-280 NB Ramp*	D	AM	28.9	C	29.1	C
			PM	22.9	C+	23.1	C
6	Saratoga Ave and Stevens Creek Blvd*	D	AM	34.9	C-	34.9	C-
			PM	39.2	D	39.3	D
7	San Tomas Expwy and Saratoga Ave*	E	AM	55.7	E+	55.8	E+
			PM	62.2	E	62.3	E

Notes:
 * Denotes VTA CMP intersection
 Average delay is in seconds per vehicle.
Bold indicates a substandard level of service.

4. Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. Traffic volumes for background conditions comprise volumes from existing traffic volumes plus traffic generated by other approved developments in the vicinity of the site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions. The background scenario predicts a realistic traffic condition that would occur as approved development gets built and occupied.

Roadway Network Under Background Conditions

The roadway network under background conditions would be the same as the existing roadway network because there are no planned and funded transportation improvements at the study intersections that would alter the existing intersection lane configurations.

Background Traffic Volumes

Background peak-hour traffic volumes were estimated by adding to existing peak-hour volumes the estimated traffic from approved but not yet constructed developments. The added traffic from approved but not yet constructed developments in the City of San Jose was obtained from the City's Approved Trip Inventory (ATI). The ATI is contained in Appendix B. The City of Santa Clara provided a list of approved developments (see Appendix B) for which developments in the study area were included under background conditions.

Background traffic volumes are shown graphically on Figure 9. Traffic volumes for all components of traffic are tabulated in Appendix C.

Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions (see Table 7) show that the Lawrence Expressway/Mitty Way intersection would operate at LOS F during the AM peak hour, which is considered unacceptable according to the City of San Jose standard (LOS D). All other signalized study intersections would continue to operate at acceptable levels of service during both the AM and PM peak hours of traffic according to their respective level of service standards.

The intersection level of service calculation sheets are included in Appendix D.

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<p>1</p> <p>874(3073) 137(451)</p> <p>865(218)</p> <p>125(57)</p> <p>3461(1120) 31(69)</p> <p>Lawrence Expwy</p> <p>Mitty Way</p>	<p>2</p> <p>92(63) 868(1611) 191(194)</p> <p>244(170) 19(22) 43(68)</p> <p>111(39) 20(28) 15(78)</p> <p>16(68) 1987(1082) 42(53)</p> <p>Blackford Ave</p> <p>Saratoga Ave</p>	<p>3</p> <p>350(455) 941(1862) 129(306)</p> <p>277(249) 323(255) 137(112)</p> <p>400(370) 159(356) 19(79)</p> <p>49(71) 1993(1062) 20(73)</p> <p>Moorpark Ave</p> <p>Saratoga Ave</p>	<p>4</p> <p>1214(2029)</p> <p>632(554)</p> <p>307(279) 1(39) 298(419)</p> <p>1671(1047) 1047(533)</p> <p>I-280 SB Off-Ramp</p> <p>Saratoga Ave</p> <p>I-280 SB On-Ramp</p>
<p>5</p> <p>425(310) 1223(1553) 47(63)</p> <p>73(49) 68(60) 181(137)</p> <p>634(390) 1418(1643) 282(129)</p> <p>I-280 NB On-Ramp</p> <p>Saratoga Ave</p> <p>Harker Dwy</p>	<p>6</p> <p>221(138) 478(632) 90(117)</p> <p>37(41) 1094(590) 178(238)</p> <p>112(234) 321(1040) 98(153)</p> <p>136(208) 781(541) 182(232)</p> <p>Stevens Creek Blvd</p> <p>Saratoga Ave</p>	<p>7</p> <p>215(439) 971(2818) 7(71)</p> <p>60(20) 438(467) 108(297)</p> <p>448(250) 470(496) 55(72)</p> <p>32(15) 2696(1105) 190(136)</p> <p>San Tomas Expwy</p> <p>Saratoga Ave</p>	<p>8</p> <p>3(10) 981(1717) 29(98)</p> <p>146(45) 5(0) 22(4)</p> <p>2(2) 0(2) 12(11)</p> <p>11(7) 1877(1157) 75(34)</p> <p>Manzanita Dr</p> <p>Saratoga Ave</p>



Figure 9
Background Traffic Volumes

At two study intersections, the average vehicle delay under background conditions is shown to decrease slightly compared to existing conditions. This occurs because the average delay that is calculated is a weighted average of all movements at the intersection. When background trips are added to individual intersection movements with low vehicle delays, the average delay for the entire intersection can decrease.

Table 7
Background Intersection Levels of Service

ID	Intersection	LOS Standard	Peak Hour	Existing		Background	
				Avg. Delay	LOS	Avg. Delay	LOS
1	Lawrence Expwy and Mitty Wy	D	AM	79.4	E-	104.4	F
			PM	12.8	B	12.9	B
2	Saratoga Ave and Blackford Ave	D	AM	33.7	C-	33.4	C-
			PM	33.0	C-	32.4	C-
3	Saratoga Ave and Moorpark Avenue*	D	AM	40.0	D	41.1	D
			PM	41.7	D	42.6	D
4	Saratoga Ave and I-280 SB Ramp*	D	AM	44.1	D	46.3	D
			PM	35.3	D+	35.5	D+
5	Saratoga Ave and I-280 NB Ramp*	D	AM	28.9	C	28.5	C
			PM	22.9	C+	22.5	C+
6	Saratoga Ave and Stevens Creek Blvd*	D	AM	34.9	C-	36.5	D+
			PM	39.2	D	41.5	D
7	San Tomas Expwy and Saratoga Ave*	E	AM	55.7	E+	67.7	E
			PM	62.2	E	79.1	E-

Notes:
 * Denotes VTA CMP intersection
 Average delay is in seconds per vehicle.
Bold indicates a substandard level of service.

5. Background Plus Project Conditions

This chapter describes the near-term traffic conditions that most likely would occur when the project is complete. It includes a description of the City of San Jose significant impact criteria used to establish what constitutes a project impact, the method by which project traffic is estimated, and any traffic impacts caused by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic generated by approved but not yet built projects in the area.

Roadway Network Under Background Plus Project Conditions

The roadway network under background plus project conditions would be the same as the existing roadway network because there are no approved projects in the area that would alter the existing roadway network and the project would not alter the intersection lane configurations.

Project Trip Estimates

The estimated project trip generation, distribution and assignment are the same under background plus project conditions as previously described under existing plus project conditions (see Chapter 3).

Background Plus Project Traffic Volumes

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 10). Traffic volumes for all components of traffic are tabulated in Appendix C.

Background Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under background plus project conditions (see Table 8) show that, although the Lawrence Expressway/Mitty Way intersection would continue to operate at an unacceptable LOS F during the AM peak hour, the project would not cause the intersection's critical-movement delay to increase by four or more seconds and the V/C to increase by 0.01 or more compared to background conditions. Therefore, the intersection impact is considered less than significant. All other signalized study intersections would operate at acceptable levels of service during both the AM and PM peak hours of traffic. The intersection level of service calculation sheets are included in Appendix D.

700 Saratoga Avenue Mixed-Use Residential Development

<p>1</p> <p>Lawrence Expy</p> <p>Mitty Way</p> <p>874(3073) 140(459)</p> <p>873(223)</p> <p>125(57)</p> <p>3461(1120) 31(69)</p>	<p>2</p> <p>Blackford Ave</p> <p>Saratoga Ave</p> <p>92(63) 876(1643) 205(223)</p> <p>256(179) 19(22) 55(81)</p> <p>111(39) 21(31) 15(78)</p> <p>17(71) 2023(1109) 42(53)</p>	<p>3</p> <p>Moorpark Ave</p> <p>Saratoga Ave</p> <p>350(455) 960(1915) 129(306)</p> <p>277(249) 323(255) 137(112)</p> <p>400(370) 159(356) 22(88)</p> <p>57(78) 2044(1096) 20(73)</p>	<p>4</p> <p>I-280 SB Off-Ramp</p> <p>Saratoga Ave</p> <p>1223(2055) 632(554)</p> <p>307(279) 1(39) 307(446)</p> <p>I-280 SB On-Ramp</p> <p>1710(1074) 1059(540)</p>
<p>5</p> <p>I-280 NB On-Ramp</p> <p>Saratoga Ave</p> <p>425(310) 1228(1568) 47(63)</p> <p>73(49) 68(60) 181(137)</p> <p>661(406) 1430(1654) 282(129)</p> <p>I-280 NB Off-Ramp</p>	<p>6</p> <p>Stevens Creek Blvd</p> <p>Saratoga Ave</p> <p>221(138) 480(637) 90(117)</p> <p>37(41) 1094(590) 179(240)</p> <p>112(234) 321(1040) 98(153)</p> <p>136(208) 786(544) 184(233)</p>	<p>7</p> <p>San Tomas Expy</p> <p>Saratoga Ave</p> <p>216(442) 972(2820) 7(71)</p> <p>60(20) 438(468) 108(298)</p> <p>451(252) 471(497) 55(72)</p> <p>32(15) 2698(1106) 191(137)</p>	<p>8</p> <p>Manzanita Dr</p> <p>Saratoga Ave</p> <p>3(10) 992(1729) 37(131)</p> <p>169(59) 5(0) 24(5)</p> <p>2(2) 0(2) 12(11)</p> <p>11(7) 1882(1170) 77(40)</p>

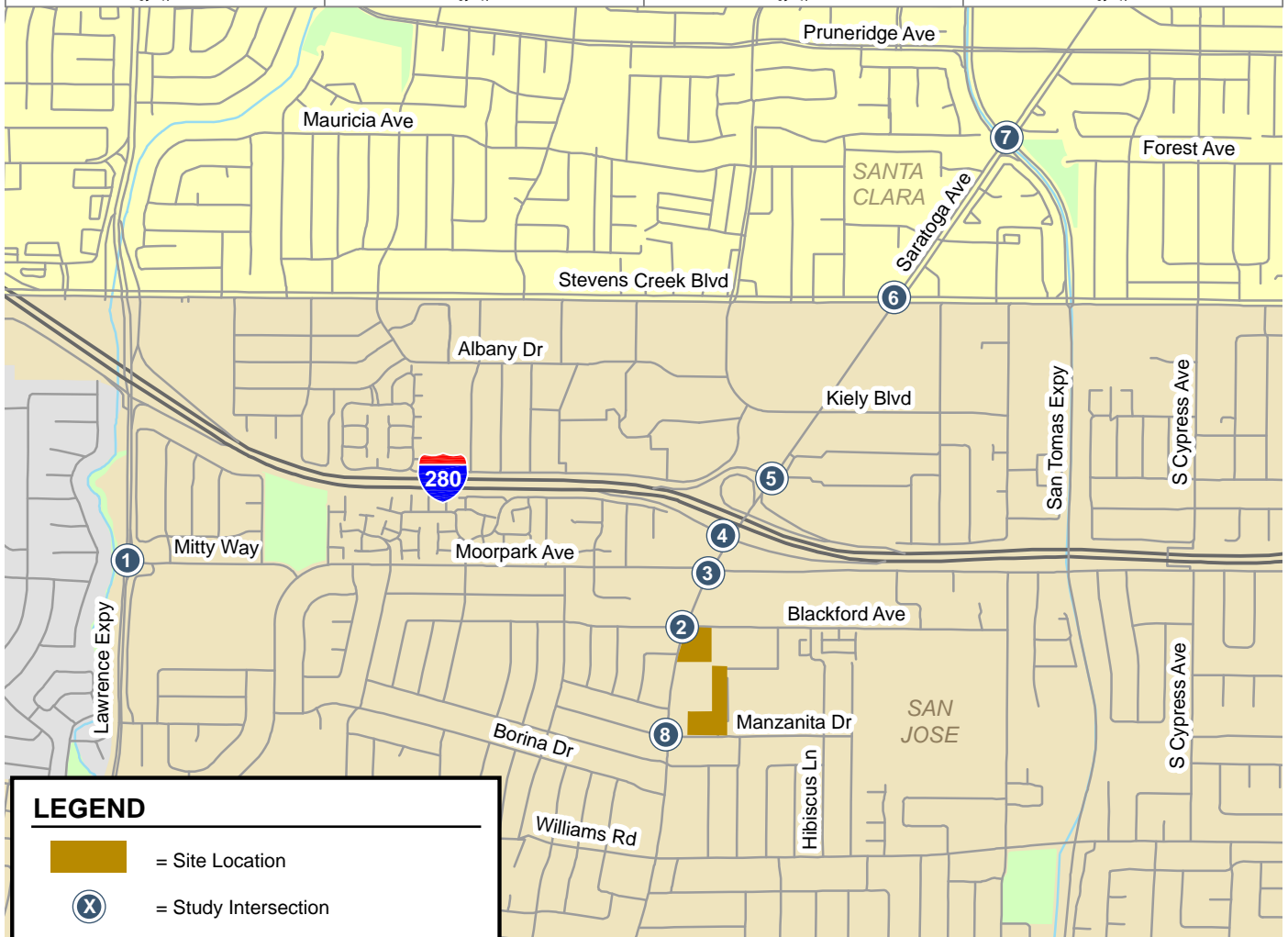


Figure 10
Background Plus Project Traffic Volumes

Table 8
Background Plus Project Intersection Levels of Service

ID	Intersection	LOS Standard	Peak Hour	Background		Background+Project			
				Avg. Delay	LOS	Avg. Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Lawrence Expwy and Mitty Wy	D	AM	104.4	F	106.3	F	2.2	0.005
			PM	12.9	B	13.0	B	0.0	0.000
2	Saratoga Ave and Blackford Ave	D	AM	33.4	C-	35.1	D+	2.2	0.030
			PM	32.4	C-	34.7	C-	16.2	0.010
3	Saratoga Ave and Moorpark Avenue*	D	AM	41.1	D	41.0	D	-0.1	0.010
			PM	42.6	D	42.9	D	0.6	0.016
4	Saratoga Ave and I-280 SB Ramp*	D	AM	46.3	D	47.3	D	2.8	0.010
			PM	35.5	D+	36.1	D+	0.5	0.012
5	Saratoga Ave and I-280 NB Ramp*	D	AM	28.5	C	28.7	C	0.0	0.009
			PM	22.5	C+	22.7	C+	0.4	0.008
6	Saratoga Ave and Stevens Creek Blvd*	D	AM	36.5	D+	36.5	D+	0.0	0.001
			PM	41.5	D	41.5	D	0.1	0.003
7	San Tomas Expwy and Saratoga Ave*	E	AM	67.7	E	67.9	E	0.2	0.001
			PM	79.1	E-	79.3	E-	0.2	0.001

Notes:

* Denotes VTA CMP intersection

Average delay is in seconds per vehicle.

Bold indicates a substandard level of service.

Freeway Segment Capacity Analysis

Traffic volumes on the study freeway segments with the project were estimated by adding project trips to the freeway segment volumes obtained from the 2016 CMP Annual Monitoring Report. The results of the freeway segment analysis show that the project would not cause significant increases in traffic volumes (one percent or more of freeway capacity) on any of the study freeway segments currently operating at LOS F, and none of the study freeway segments currently operating at LOS E or better would worsen to LOS F as a result of the project (see Table 9). Therefore, based on CMP freeway impact criteria, none of the study freeway segments would be significantly impacted by the project.

**Table 9
Freeway Segment Capacity Analysis**

Freeway	Segment	Dir	Peak Hour	Existing Plus Project Conditions				Project Trips				
				Mixed-Flow		HOV Lane		Net Project Trips	Mixed-Flow		HOV Lane	
				Capacity	LOS	Capacity	LOS		Project Trips	% of Capacity	Project Trips	% of Capacity
I-280	De Anza Blvd to Wolfe Rd	EB	AM	6,900	C	1,800	C	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	F	27	19	0.3%	8	0.4%
I-280	Wolfe Rd to Lawrence Expwy	EB	AM	6,900	C	1,800	B	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	D	27	19	0.3%	8	0.4%
I-280	Lawrence Expwy to Saratoga Ave	EB	AM	6,900	D	1,800	B	9	7	0.1%	2	0.1%
			PM	6,900	F	1,800	E	27	19	0.3%	8	0.4%
I-280	Saratoga Ave to Winchester Blvd	EB	AM	6,900	D	1,800	B	12	10	0.1%	2	0.1%
			PM	6,900	F	1,800	F	7	5	0.1%	2	0.1%
I-280	Winchester Blvd to I-880	EB	AM	6,900	C	1,800	B	5	4	0.1%	1	0.1%
			PM	6,900	F	1,800	F	3	2	0.0%	1	0.1%
I-280	I-880 to Meridian Ave	EB	AM	6,900	C	1,800	B	5	4	0.1%	1	0.1%
			PM	6,900	F	1,800	F	3	2	0.0%	1	0.1%
I-280	Meridian Ave to I-880	WB	AM	6,900	F	1,800	F	2	1	0.0%	1	0.1%
			PM	6,900	C	1,800	A	5	4	0.1%	1	0.1%
I-280	I-880 to Winchester Blvd	WB	AM	6,900	F	1,800	F	2	1	0.0%	1	0.1%
			PM	6,900	D	1,800	C	5	4	0.1%	1	0.1%
I-280	Winchester Blvd to Saratoga Ave	WB	AM	6,900	F	1,800	F	4	3	0.0%	1	0.1%
			PM	6,900	D	1,800	B	11	9	0.1%	2	0.1%
I-280	Saratoga Ave to Lawrence Expwy	WB	AM	6,900	F	1,800	F	27	20	0.3%	7	0.4%
			PM	6,900	D	1,800	B	16	14	0.2%	2	0.1%
I-280	Lawrence Expwy to Wolfe Rd	WB	AM	6,900	F	1,800	F	27	20	0.3%	7	0.4%
			PM	6,900	C	1,800	B	16	14	0.2%	2	0.1%
I-280	Wolfe Rd to De Anza Blvd	WB	AM	6,900	F	1,800	E	27	20	0.3%	7	0.4%
			PM	6,900	D	1,800	B	16	14	0.2%	2	0.1%
I-880	I-280 to Stevens Cr	NB	AM	6,900	F	--	--	5	5	0.1%	--	--
			PM	6,900	B	--	--	3	3	0.0%	--	--
I-880	Stevens Cr to N. Bascom Ave	NB	AM	6,900	F	--	--	5	5	0.1%	--	--
			PM	6,900	F	--	--	3	3	0.0%	--	--
I-880	N. Bascom Ave to Stevens Creek	SB	AM	6,900	F	--	--	2	2	0.0%	--	--
			PM	6,900	D	--	--	5	5	0.1%	--	--
I-880	Stevens Creek Blvd to I-280	SB	AM	6,900	C	--	--	2	2	0.0%	--	--
			PM	6,900	C	--	--	2	2	0.0%	--	--
SR 17	Hamilton Ave to I-280	NB	AM	6,900	F	--	--	1	1	0.0%	--	--
			PM	6,900	C	--	--	2	2	0.0%	--	--
SR 17	I-280 to Hamilton Ave	SB	AM	6,900	D	--	--	2	2	0.0%	--	--
			PM	6,900	E	--	--	1	1	0.0%	--	--

Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.
Bold indicates a substandard level of service.

6. Other Transportation Issues

This chapter describes other transportation issues associated with the project, including an analysis of:

- Traffic operations at the Saratoga Avenue/I-280 interchange
- Vehicle queuing analysis
- Traffic operations at the unsignalized intersection
- Freeway ramp traffic operations analysis
- Site access and on-site circulation
- Potential impacts to transit, bicycle, and pedestrian facilities
- Parking

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgement in accordance with the standards and methods employed by the traffic engineering community.

Traffic Operations at the Saratoga Avenue/I-280 Interchange

Traffic conditions at the signalized study intersections were evaluated using TRAFFIX software based on the 2000 HCM level of service methodology. However, the TRAFFIX analysis software program does not accurately capture the operations of the three intersections that make up the Saratoga Avenue/I-280 interchange, since it does not evaluate the interactions of closely spaced and coordinated intersections. During the AM peak hour, northbound traffic on Saratoga Avenue is heavy and typically takes more than one cycle to get through each intersection. During the PM peak hour, southbound traffic is heavy and typically takes more than one cycle to get through each intersection. Therefore, although the TRAFFIX analysis shows acceptable levels of service, the project is expected to negatively affect the traffic operations of the following CMP intersections:

- Saratoga Avenue and Moorpark Avenue
- Saratoga Avenue and I-280 SB Ramps
- Saratoga Avenue and I-280 NB Ramps

Planned Improvements

To improve traffic flow along Saratoga Avenue, the City of San Jose has developed an improvement plan for the Saratoga Avenue corridor. Additionally, the City is planning to improve the I-280/Winchester Boulevard interchange by adding a new westbound off-ramp, which would relieve some traffic congestion at the Saratoga Avenue/I-280 interchange. The City has completed the I-280/Winchester

Boulevard Interchange Area Transportation Development Policy (TDP) to provide partial funding via a traffic fee imposed on proposed developments. The proposed improvements are described in detail below.

Proposed Improvements for Saratoga Avenue

To improve traffic flow along Saratoga Avenue, San Jose has developed an improvement plan for Saratoga Avenue between Stevens Creek Boulevard and Blackford Avenue. The plan line for the proposed improvements are included in Appendix E. The planned improvements at each intersection and along Saratoga Avenue are described below. It would be appropriate for the project to make a fair share contribution toward these planned improvements.

- **Saratoga Avenue/Stevens Creek Boulevard (Full Signal Modification)**

- Lane Configuration: Provide a 2nd northbound left-turn lane on Saratoga Avenue. This would improve intersection operations by accommodating the estimated 95th percentile queue under background plus project conditions. Additionally, a portion of the AM and PM peak-hour traffic making left turns onto Kiely Boulevard from northbound Saratoga Avenue would be drawn to the Saratoga/Stevens Creek intersection and alleviate congestion on Kiely Boulevard.
- Southeast and Northwest Corners: Remove pork chop islands. This would improve the multi-modal environment by eliminating unsignalized pedestrian/vehicle conflict points, increasing the visibility of pedestrians at the intersection corners, decreasing the crossing distance for pedestrians, providing a safer refuge for pedestrians waiting to use the crosswalks, and providing ADA standard curb ramps.
- Signal Modification: Modify the signal to accommodate pork chop removals. The signal modification would encompass standard City of San Jose elements such as Video Detection (VIDS), CCTV surveillance camera, Accessible Pedestrian Signal (APS), Emergency Vehicle Preemption (EVP), and upgrading all 8-inch vehicle heads to 12 inches. VIDS and CCTV are devices that enable the City to remotely monitor and influence traffic operations. APS improves pedestrian access by allowing vision-impaired users to know which crosswalk is safe to use. Vehicle head upgrades from 8 inches to 12 inches improve driver visibility of vehicle heads and reduces potential for red-light running accidents. Also, eliminating the signal poles in the median islands would improve safety because these poles are more likely to get hit by vehicles. Installing new traffic signal poles with longer mast arms so that the vehicle heads are positioned over the lanes makes them more visible to drivers. Installing emergency vehicle preemption enables firetrucks to have improved response times.

- **Saratoga Avenue/Kiely Boulevard**

- Southeast Corner: Remove pork chop islands. This would improve the multi-modal environment by eliminating an unsignalized pedestrian/vehicle conflict point, increasing the visibility of pedestrians at the intersection corner, decreasing the crossing distance for pedestrians, providing a safer refuge for pedestrians waiting to use the crosswalks, and providing an ADA standard curb ramp.
- Northwest Corner: Tighten the corner radius. This would improve the multi-modal environment by increasing the visibility of pedestrians at the intersection corner, decreasing the crossing distance for pedestrians, and providing 2 ADA standard curb ramps.
- Signal Modification: Modify the signal to accommodate treatments on the southeast and northwest corners. The signal modification would encompass standard City of San Jose elements such as VIDS, CCTV surveillance camera, APS, and includes upgrading all 8-inch vehicle heads to 12 inches.

- **Saratoga Avenue/Harker Driveway/I-280 Northbound On-Ramp**
 - Signal Modification: Modify the signal to install CCTV surveillance camera. If not completed by the Harker project, install VIDS, upgrade all 8-inch vehicle heads to 12 inches, and install APS.
- **Saratoga Avenue/I-280 Northbound Loop Off-Ramp**
 - Install traffic control devices (Rectangular Rapid Flashing Beacons-RRFBs) at the existing pedestrian crosswalk, which would enhance the bike/pedestrian crossing across the off-ramp.
- **Saratoga Avenue/Moorpark Avenue (Full Signal Modification)**
 - Lane Configuration: Provide dual eastbound left-turn lanes on Moorpark Avenue and a southbound right-turn pocket on Saratoga Avenue. Only one eastbound shared through/right-turn lane (20 feet wide) would be provided due to installation of a Class II bike lane.
 - Signal Modification: Modify the signal phasing to enable the eastbound and westbound left-turn movements to run concurrently. This would improve operations and reduce delay at this intersection and would entail removing and installing new traffic signal poles on the northwest and southeast corners. The signal modification would encompass standard CSJ elements such as VIDS, APS, and upgrading all 8-inch vehicle heads to 12 inches.
 - Southeast Corner: Remove the pork chop island. This would improve the multi-modal environment by eliminating the unsignalized pedestrian/vehicle conflict points, decreasing the crossing distance for pedestrians, increasing the visibility of pedestrians at the intersection corners, and providing a safer refuge for pedestrians waiting to use the crosswalks.
 - Northwest and Northeast Corners: Remove the east-west crosswalk in the north leg of the intersection. This would improve the operations of the intersection by removing a pedestrian phase that conflicts with left turns from eastbound Moorpark. There is no sidewalk on the east side of Saratoga Avenue on the I-280 overpass or on the north side of Moorpark Avenue approximately 750 feet east of Saratoga Avenue. Therefore, the impact of eliminating this crosswalk would be felt mostly by pedestrians originating from the northwest corner of the intersection trying to access the gas station or the Junipero Serra Medical Center on the northeast corner of the intersection.
- **Saratoga Avenue/Blackford Avenue**
 - Provide a new southbound right-turn lane on Saratoga Avenue. The existing southbound curb lane width at Saratoga Avenue/Blackford Avenue intersection is 16 feet. By reducing the width of the raised median island, a wider southbound curb lane (18-foot width or more) could be provided by shifting the existing lanes. The new southbound right-turn lane on Saratoga Avenue would improve intersection operations and ease congestion by separating the existing southbound through traffic on Saratoga Avenue from those vehicles slowing to make a right turn onto westbound Blackford Avenue.
- **Saratoga Avenue/Manzanita Drive intersection (New Signal)**

In addition to the planned improvements described above as part of the improvement plan for Saratoga Avenue, the City of San Jose recommends installing a new traffic signal at the Saratoga Avenue/Manzanita Drive intersection for the following reasons:

- To provide a mid-block signalized pedestrian crossing, which would help support pedestrian accessibility to the proposed retail space and existing schools in the project vicinity;
- To improve the Saratoga Avenue southbound left-turn traffic operations at the intersection; and

- To incorporate the existing far-side bus stops at the intersection, which would support pedestrian connectivity to the bus stops.

Interstate 280/Winchester Boulevard Transportation Development Policy

The Interstate 280/Winchester Boulevard TDP provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP was completed for the purpose of managing existing traffic congestion in the I-880/Stevens Creek and I-280/Winchester interchange areas as well as provide additional traffic capacity to accommodate future developments in the area. The I-880/Stevens Creek and I-280/Winchester interchanges serve as the primary access points to regional freeway facilities in the area. As such, the Stevens Creek Boulevard and Winchester Boulevard corridors that serve the I-880/Stevens Creek and I-280/Winchester interchanges currently experience traffic congestion during the peak commute hours. The corridors include two protected intersections that currently operate well below the City's standard Level of Service Policy at which there are no further vehicular capacity improvements available.

The TDP will provide partial funding, via a traffic fee imposed on proposed developments, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. A schedule for completion of the new westbound off-ramp from I-280 to Winchester Boulevard has yet to be determined. The traffic fee will be based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development.

Vehicle Queuing Analysis

The analysis of intersection levels of service was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The queuing analysis is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x = n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

P (x = n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr. per lane/signal cycles per hr.)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future left-turn pocket storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement.

The vehicle queuing analysis indicated that the estimated 95th percentile vehicle queues would exceed the vehicle storage capacity at the following intersections and movements (see Table 10):

- Saratoga Avenue and Blackford Avenue – Southbound left turn in the AM and PM peak hours
- Saratoga Avenue and I-280 northbound on-ramp – Northbound left turn in the AM peak hour

Saratoga Avenue and Blackford Avenue

The queuing analysis indicates that the 95th percentile vehicle queue for the southbound left-turn pocket at the intersection exceeds the existing vehicle storage capacity during both AM and PM peak hours under existing, background, and background plus project conditions. The single southbound left-turn lane provides 250 feet of vehicle storage, which can accommodate about 10 vehicles. The estimated 95th percentile vehicle queue for the left-turn movement is approximately 14 and 11 vehicles during the AM and PM peak hours, respectively, under both existing and background conditions. The addition of project traffic would increase the queue by one vehicle length during both AM and PM peak hours, respectively.

The southbound left-turn pocket could be extended approximately 100 feet by shortening the back-to-back northbound left-turn pocket at Moorpark Avenue. Field observations show that the northbound left-turn vehicle queue at Moorpark Avenue is shorter than the storage capacity during the AM and PM peak hours. Field observations also show that except during the AM peak hour, the southbound left-turn pocket on Saratoga Avenue at Blackford Avenue only occasionally fills to capacity and the queue clears within one signal cycle. During the AM peak hour of traffic, the southbound left-turn queue would still exceed the pocket length even with lengthening the left-turn pocket.

Saratoga Avenue and I-280 Northbound On-Ramp

The queuing analysis indicates that the 95th percentile vehicle queue for the dual northbound left-turn pockets at this intersection exceeds the existing vehicle storage capacity during the AM peak hour under existing, background, and background plus project conditions. The northbound left-turn lanes together provide a total of 900 feet of vehicle storage, which can accommodate about 18 vehicles per lane. The estimated 95th percentile vehicle queues for the left-turn movement are approximately 21 and 22 vehicles per lane under existing and background conditions, respectively. The addition of project traffic would not lengthen the northbound left-turn vehicle queue during the AM peak hour.

The left-turn lanes already extend between I-280 northbound on-ramp and the I-280 southbound ramps, and it is not possible to increase the capacity of the northbound left-turn movement without widening the overpass. Field observations show that the traffic signals at the I-280 northbound on-ramp and the I-280 southbound ramps are coordinated, and the northbound left-turn vehicle queues were not observed to block the I-280 southbound ramps intersection.

Table 10
Intersection Queuing Analysis Results

Intersection Movement Peak Hour Period	Saratoga & Blackford				Saratoga and I-280 NB On-Ramp	
	SB LT AM	SB LT PM	WB AM	WB PM	NB LT AM	NB LT PM
Existing						
Cycle/Delay ¹ (sec)	170	170	170	170	170	170
Lanes	1	1	1	1	2	2
Volume (vph)	191	194	306	260	630	389
Volume (vphpl)	191	194	306	260	315	195
Avg. Queue (veh/ln)	9.0	6.0	14.0	4.0	15.0	9.0
Avg. Queue ² (ft/ln)	225	150	350	100	375	225
95th% Queue (veh/ln)	14	11	21	7	21	14
95th% Queue ² (ft/ln)	350	275	525	175	525	350
Storage (ft/ ln)	250	250	1000	1000	450	450
Adequate (Y/N)	N	N	Y	Y	N	Y
Background						
Cycle/Delay ¹ (sec)	170	170	170	170	170	170
Lanes	1	1	1	1	2	2
Volume (vph)	191	194	306	260	634	390
Volume (vphpl)	191	194	306	260	317	195
Avg. Queue (veh/ln)	9.0	6.0	14.0	4.0	15.0	9.0
Avg. Queue ² (ft/ln)	225	150	350	100	375	225
95th% Queue (veh/ln)	14	11	21	7	22	14
95th% Queue ² (ft/ln)	350	275	525	175	550	350
Storage (ft/ ln)	250	250	1000	1000	450	450
Adequate (Y/N)	N	N	Y	Y	N	Y
Background Plus Project						
Cycle/Delay ¹ (sec)	170	170	170	170	170	170
Lanes	1	1	1	1	2	2
Volume (vph)	205	223	330	282	661	406
Volume (vphpl)	205	223	330	282	331	203
Avg. Queue (veh/ln)	10.0	7.0	16.0	4.0	16.0	10.0
Avg. Queue ² (ft/ln)	250	175	400	100	400	250
95th% Queue (veh/ln)	15	12	22	8	22	15
95th% Queue ² (ft/ln)	375	300	550	200	550	375
Storage (ft/ ln)	250	250	1000	1000	450	450
Adequate (Y/N)	N	N	Y	Y	N	Y
Notes:						
NB = northbound; SB = southbound; EB = eastbound; WB = westbound.						
LT = left turn movement; TH = through movement; RT = right turn movement.						
1. Vehicle queue calculations based on cycle length for signalized intersections.						
2. Assumes 25 feet per vehicle queued.						

Traffic Operations at Saratoga Avenue and Manzanita Drive

The Saratoga Avenue/Manzanita Drive intersection is stop-controlled for the eastbound and westbound Manzanita Drive approaches with left-turn lanes provided on Saratoga Avenue.

Vehicle Queuing and Delay

Because the intersection is located between two traffic signals at Blackford Avenue and at William Road on Saratoga Avenue, field observations show that vehicles making left turns from Saratoga Avenue, as well as entering Saratoga Avenue from Manzanita Drive, have no difficulties finding a gap in traffic due to the platooning effect on Saratoga Avenue. The observed vehicle queue for the southbound left-turn movement and westbound through and left-turn movement was no more than one vehicle long during both the AM and PM peak hours. Because of the low traffic volume and short vehicle queue length for the westbound shared through/left-turn movement on Manzanita Drive, the westbound right-turn traffic usually can get by the vehicle queue and make right turns at the intersection without any delay except occasionally during the AM peak hour. In the AM peak hour, the northbound vehicle queues at the Saratoga Avenue/Blackford Avenue intersection occasionally back up to Manzanita Drive and prevent the westbound right-turn traffic from entering Saratoga Avenue. However, when this occurred the observed vehicle queue for the westbound right-turn movement was no more than four vehicles long, and the entire queue along Saratoga Avenue cleared within one signal cycle at the Saratoga Avenue/Blackford Avenue intersection.

As shown on Figure 7, the project would add 8 and 33 southbound left-turn vehicles, 2 and 1 westbound left-turn vehicles, 23 and 14 westbound right-turn vehicles at the intersection in the AM and PM peak hours, respectively. The small traffic increases to these turn movements as a result of the project are not expected to result in noticeable increases in vehicle queuing or delay for these turn movements. Note that the increase in southbound PM left-turn traffic and westbound AM right-turn traffic is equivalent to only about one new vehicle trip per signal cycle (based on the cycle length of 130 seconds at the Williams Road intersection). Based on field observations, the projected increase in vehicles is not expected to create an operational problem at the intersection.

Peak-Hour Signal Warrant Analysis

Unsignalized study intersections are evaluated on the basis of the Peak-Hour Volume Signal Warrant, (Warrant #3 – Part B) described in the *California Manual on Uniform Traffic Control Devices (MUTCD)*, 2014 Edition. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized intersection level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

The results of the signal warrant checks indicate that the AM and PM peak-hour volumes at the intersection would not meet the signal warrant under existing, background, and background plus project conditions. The peak-hour signal warrant sheets are contained in Appendix F. Field observations indicate that there are no difficulties for the left-turn traffic on Saratoga Avenue and the eastbound and westbound left-turn traffic on Manzanita Drive to find gaps in traffic and make turns, and the vehicle queues and delay for the eastbound and westbound traffic on Manzanita Drive are acceptable.

However, as previously described under Proposed Improvements for Saratoga Avenue, the City recommends installing a new traffic signal at the Saratoga Avenue/Manzanita Drive intersection for the following reasons:

- To provide a mid-block signalized pedestrian crossing, which would help support pedestrian accessibility to the proposed retail space and existing schools in the project vicinity;
- To improve the Saratoga Avenue southbound left-turn traffic operations at the intersection; and
- To incorporate the existing far-side bus stops at the intersection, which would support pedestrian connectivity to the bus stops.

Freeway Ramp Operations Analysis

An analysis of freeway ramps providing access to I-280 from the project site was performed to identify the effects of project traffic on the vehicle queues and wait times at the metered ramps. It should be noted that the evaluation of freeway ramps is not required based on the City's TIA guidelines. Nor are there adopted methodologies and impact criteria for the analysis of freeway ramps.

The I-280/Saratoga Avenue interchange provides direct access to I-280 from the project site. The I-280 northbound on-ramp is metered during the AM commute period and the I-280 southbound on-ramp is metered during the PM commute period. Ramp operations at the interchange were evaluated based on field observations and vehicle queue lengths and metering rates measured in the field during the AM and PM peak hours of traffic (see Table 11). Wait times (the time it took a vehicle at the end of the queue to proceed through the meter) at the metered on-ramp were derived from the collected data.

I-280 Northbound On-Ramp from Saratoga Avenue

The northbound on-ramp has two lanes and is about 750 feet long between the meters and Saratoga Avenue, which can accommodate about 30 vehicles per lane. The existing vehicle queue length was about 18 vehicles per lane with the metering rate at about 2.8 seconds per vehicle (or 1,286 vehicles per hour) during the AM peak hour.

The projected AM peak-hour vehicles entering the ramp are 1,127 vehicles and 1,154 vehicles under background and background plus project conditions, respectively, which are both lower than the total metered ramp capacity of 1,286 vehicles per hour. A ratio between the existing on-ramp volumes and the background and background plus project condition volumes was used to estimate the number of vehicles that would be added to the existing queue under background and background plus project conditions. Based on this analysis, it was determined that the addition of project traffic to the on-ramp would equate to a 2% increase in volume during the AM peak hour and would extend the queue length by one vehicle per lane. This would increase the wait times at the ramp by no more than 3 seconds.

The existing vehicle storage on the on-ramp is adequate to serve the existing maximum vehicle queues that develop due to ramp metering and would continue to adequately serve the estimated maximum vehicle queues that would develop with the addition of project-generated traffic. Therefore, the project is not expected to noticeably worsen conditions at the northbound I-280 on-ramp during the AM peak hour.

I-280 Southbound On-Ramp from Saratoga Avenue

The southbound on-ramp has two lanes and is about 700 feet long between the meters and Saratoga Avenue, which can accommodate about 28 vehicles per lane. The existing vehicular queues were about 18 vehicles per lane with the metering rate at about 2.7 seconds per vehicle (or 1,333 vehicles per hour) during the PM peak period.

The projected PM peak-hour vehicles entering the ramp are 1,126 vehicles and 1,133 vehicles under background and background plus project conditions, respectively, which are both lower than the total metered ramp capacity of 1,333 vehicles per hour. A ratio between the existing on-ramp volumes and the background and background plus project condition volumes was used to estimate the number of

vehicles that would be added to the existing queue under background and background plus project conditions. Based on this analysis, it was determined that the addition of project traffic to the on-ramp would equate to an approximately 1% increase in volume during the PM peak hour and would not result in a noticeable increase in vehicle queue length and wait time at the ramp.

The existing vehicle storage on the on-ramp is adequate to serve the existing maximum vehicle queues that develop due to ramp metering and would continue to adequately serve the estimated maximum vehicle queues that would develop with the addition of project-generated traffic. Therefore, the project is not expected to noticeably worsen conditions at the southbound I-280 on-ramp during the PM peak hour.

I-280 Northbound Loop Off-Ramp to Southbound Saratoga Avenue

The loop off-ramp becomes a southbound lane where it connects to Saratoga Avenue. During the PM peak commute period, because the southbound traffic is congested from Moorpark Avenue and the vehicle queues tend to backup past the off-ramp, the off-ramp traffic often needs to wait for a gap to merge with southbound Saratoga traffic, mostly when the southbound Saratoga traffic receives a green light at the Moorpark Avenue intersection and the southbound traffic starts to move. Therefore, during the PM peak commute period the vehicle queue on the loop off-ramp can sometimes extend to the I-280 westbound traffic lane (about a half mile long). The project would add 11 PM peak-hour trips to the ramp, which is a small increase compared to the existing PM peak-hour ramp volume of 719 vehicles. Therefore, the project is not expected to result in a noticeable increase in vehicle queuing or delay at the off-ramp.

I-280 Southbound Off-Ramp to Saratoga Avenue

The southbound off-ramp intersects with Saratoga Avenue at a signalized intersection. During the PM commute period, although the southbound vehicle queues typically backup from the downstream intersection (Moorpark Avenue), the right-turn traffic on the off-ramp is usually able to make turns within one signal cycle length. The project would add 27 PM peak-hour right-turn trips to the ramp, which is a small increase compared to the existing PM peak-hour ramp volume of 757 vehicles. Therefore, the project is not expected to result in a noticeable increase in vehicle queuing or delay at the off-ramp.

**Table 11
Freeway On-Ramp Meter Analysis**

Freeway Ramp	Peak Hour	On-Ramp Storage (veh/ln)	Existing ¹			Background			Background Plus Project				
			Volume	Queue Length (veh/ln)	Wait Time ² (sec)	Volume (veh/ln)	Queue Length ³ (veh/ln)	Wait Time ² (sec)	Project Trips	% Increase ⁴	Queue Length ³ (veh/ln)	Wait Time ² (sec)	
I-280 Northbound On-Ramp from Saratoga Avenue	AM	30	1,113	18	51	1,127	18	51	27	1,154	2%	19	54
I-280 Southbound On-Ramp from Saratoga Avenue	PM	28	1,109	18	49	1,126	18	49	7	1,133	1%	18	49

Notes:

- Existing queue length in vehicle per lane in the queue and existing metering rate in second per vehicle passing the meter were measured during the AM and PM peak hours on April 24, 2018.
- Wait time was estimated based on the queue length and measured metering rate.
- Queue lengths for background and background plus project conditions were estimated based on the ratio of background volume to existing volume and the ratio of background plus project volume to existing volume.
- Percent increase was calculated from background to background plus project conditions.

Vehicular Site Access and Circulation

The evaluation of site access and circulation is based on the December 11, 2017 site plan prepared by Studio T Square (see Figure 2 in Chapter 1). On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards.

Site Access

For the retail and residential uses at the Avalon site, the project would utilize one existing full access driveway on Blackford Avenue (Driveway A on Figure 11) and one existing right-turn only driveway on Saratoga Avenue (Driveway B on Figure 11). Another existing driveway on Saratoga Avenue would be removed. Both driveways would provide access to the ground-level parking spaces and the below-grade parking garage. The new parking garage on Manzanita Drive would be accessed via one existing full access driveway on Manzanita Drive (Driveway C on Figure 11). Note that Driveway C would take the place of four existing driveways on Manzanita Drive. Residents of the new Manzanita building and residents of the existing Eaves buildings would park in the new parking garage. Additionally, some existing Eaves residents would access the property and associated parking spaces via three existing driveways on Blackford Avenue (labeled Driveway D) east of the Avalon site. The total vehicle trips including the existing trips and the estimated project trips, based on the future driveway configuration of the property, are shown on Figure 11.

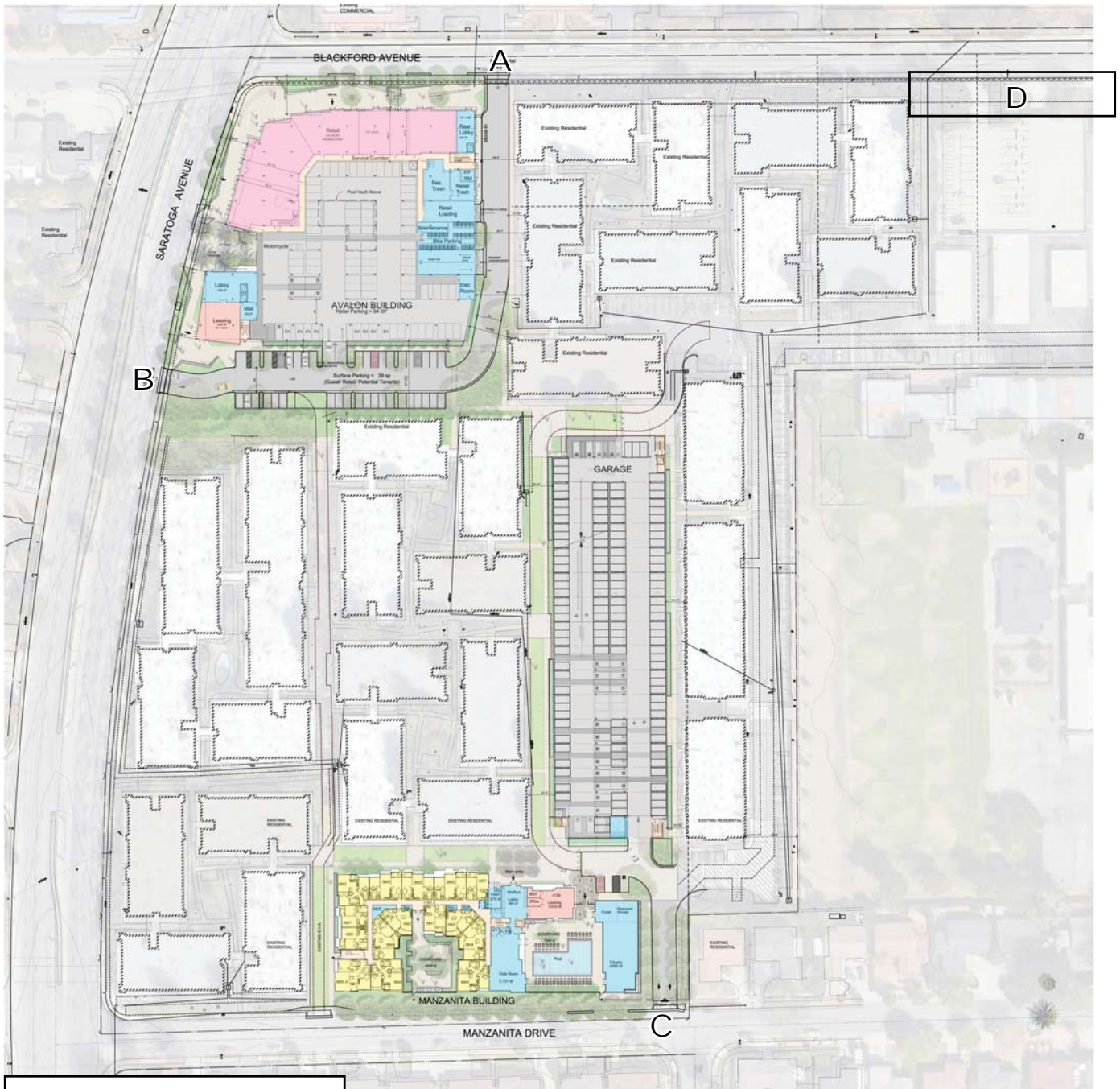
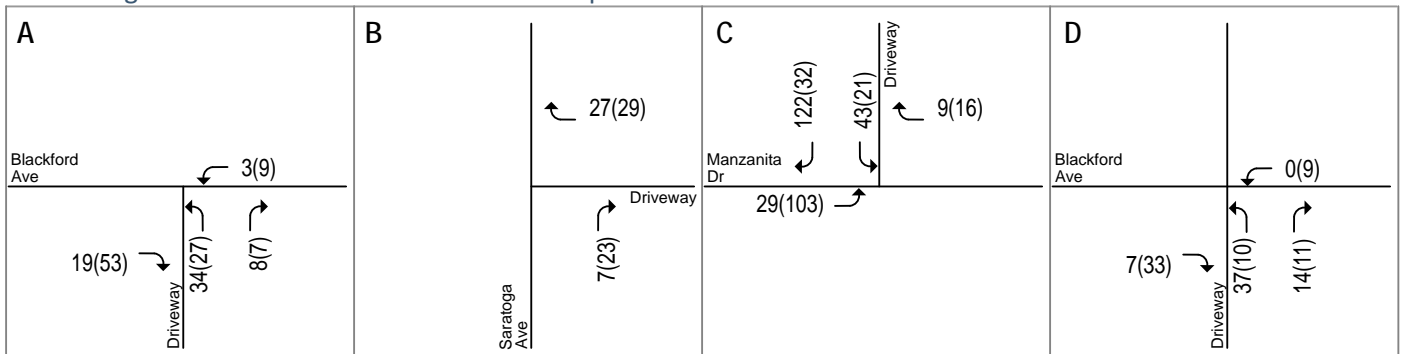
At the Avalon site, because the westbound vehicle queue at the Saratoga Avenue/Blackford Avenue intersection is projected to extend past Driveway A during the AM peak traffic period (based on field observations), and because field observations also show the northbound vehicle queue at the intersection extends past Driveway B during the AM peak hour, the outbound left-turn movement at Driveway A and outbound right-turn movement at Driveway B may experience delay during the AM peak hour. However, because of the relatively low number of trips at the project driveways, the project is not expected to create any significant operational issues related to queueing at the project driveways.

At the new Manzanita parking garage, due to the low traffic volumes and travel speeds on Manzanita Drive, characteristic of a typical residential street, the existing and proposed residential traffic is not expected to create any operational issues related to vehicle queueing at Driveway C.

Traffic volumes at the three existing driveways to remain on Blackford Avenue (Driveway D) would increase slightly due to construction of the Avalon building, since it would result in the relocation of parking for the existing Eaves residents. Most of the traffic increase at the three driveways is expected to be generated by the left-turn inbound and right-turn outbound movements associated with existing Eaves residents traveling to and from the east on Blackford Avenue. While drivers turning left from the site already experience some delay during the AM peak hour, particularly as the result of school-generated traffic along Blackford Avenue, the project would result in a very small increase in the left-turn outbound traffic. Thus, the project is not expected to create any operational issues at Driveway D.

The project driveways (Driveways A, B, and C) are shown to be 26 feet wide, measured at the throat. According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the typical width for a two-way driveway that serves a multi-family residential development is 26 feet wide. This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. The proposed driveways would meet the City's guideline.

700 Saratoga Avenue Mixed-Use Residential Development



LEGEND

XX(XX) = AM(PM) Peak-Hour Trips

Figure 11
Existing Plus Project Trips at the Driveways

Sight Distance

The proposed project driveways should be free and clear of any obstructions to optimize sight distance. Providing the appropriate sight distance reduces the likelihood of a collision at the driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit the driveway. No parking zones should be established immediately adjacent to the project driveways to ensure that exiting vehicles can see pedestrians on the sidewalk, as well as bikes and vehicles traveling on these streets. There are no roadway curves or landscaping features shown on the site plan that would obstruct the vision of exiting drivers. However, street parking is allowed on Saratoga Avenue and Manzanita Drive near the driveways and could obstruct the view of exiting drivers if there were cars parked adjacent to the driveway. Red curbs should be implemented adjacent to the project driveways to ensure adequate sight distance. Fire code requires driveways to provide at least 32 feet for fire access. Therefore, with a 26-foot wide driveway, a total of 6 feet of red curb should be added.

On-Site Circulation

Avalon Site Surface Parking and Parking Garage

At the Avalon building site, at-grade parking spaces for retail employees and customers and residential visitors would be provided along the Saratoga Avenue driveway and in the Avalon Building (See Figure 12). Parking for residents would be located in a separate, two-level below-grade parking garage with its own entrance (see Figure 13).

The project would provide 90-degree uniform parking stalls throughout the site. All two-way drive aisles are shown to be 26 feet wide (City of San Jose standard width) and would be adequate to allow vehicles to navigate through the garage and maneuver in and out of parking spaces. The site plan shows adequate vehicular circulation throughout the site. However, there is one dead-end drive aisle shown on each below-grade parking level (levels B1 and B2). A space to turn around is provided at the dead-end drive aisle on level B2 (bottom level) but not on level B1. The dead-end drive aisles would not be problematic if the residential parking is assigned parking. Also, there are several spaces within the parking garage that are next to a wall or at a corner with no door buffer space. It would be appropriate to label these spaces “compact” and assign them to residents with compact vehicles.

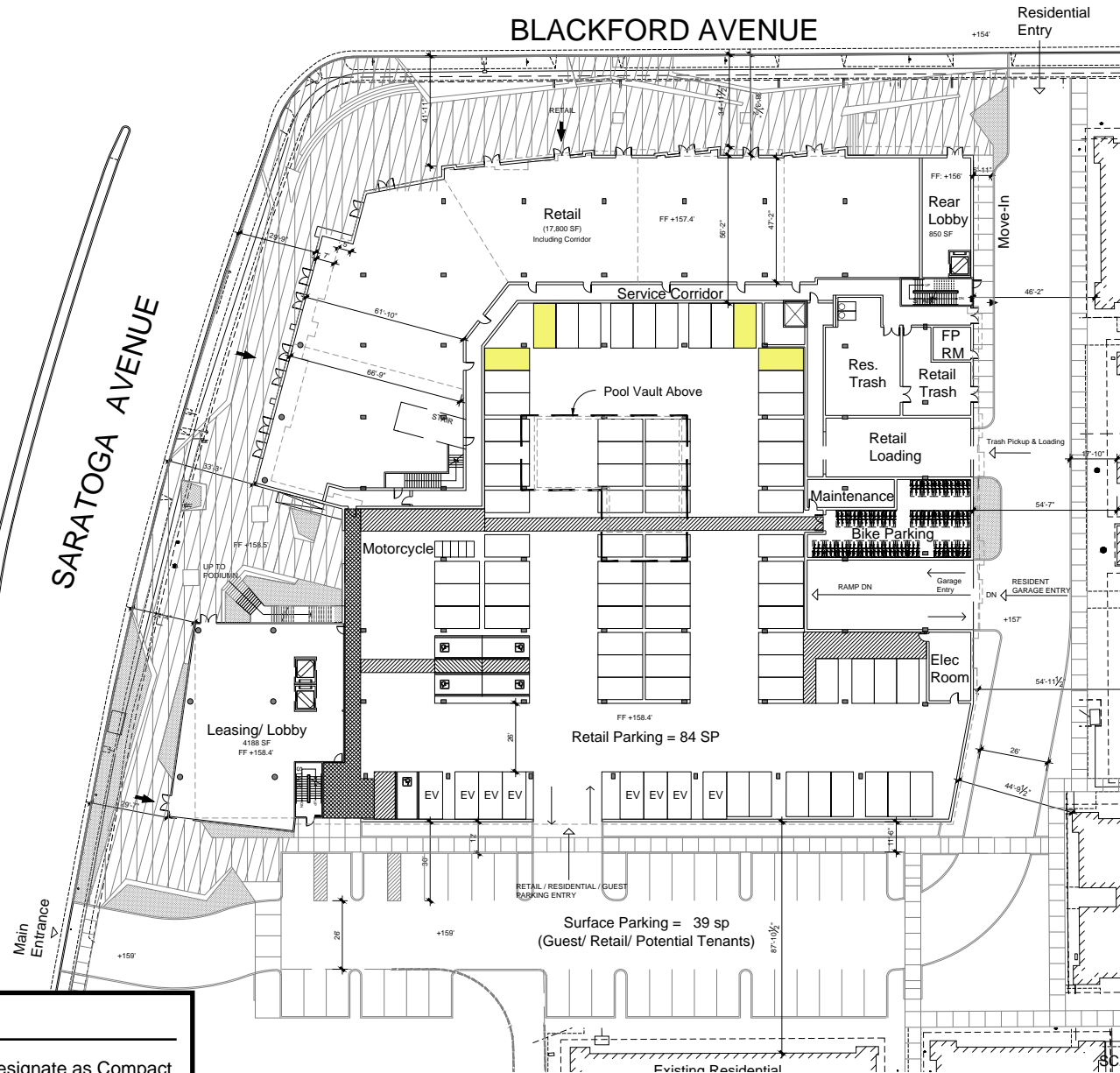
Manzanita Parking Garage

The project would provide 90-degree uniform parking stalls within a five-level parking garage: one below-grade level and four above-grade levels (see Figures 14 and 15). All two-way drive aisles are shown to be 26 feet wide, which meets the City’s standard for drive aisle width where 90-degree parking is provided. The site plan shows efficient vehicular circulation throughout the Manzanita parking garage, with only one dead-end drive aisle on the basement level. However, there are several spaces in the parking garages that are located at corners with little to no buffer space. As a result, large vehicles parked in the corner spaces may block the path of the adjacent perpendicular space. It is recommended to designate these spaces “compact” spaces and assign them to residents with compact vehicles.

Truck Access and Circulation

Freight Loading

As shown on Figure 12, the Avalon building would provide a curb loading area along the project Driveway A (Blackford Avenue driveway) for residential moving and delivery vehicles and an on-site loading space for retail loading. Moving and delivery trucks would enter the project site from Blackford Avenue, access the loading areas, and exit the site via the Saratoga Avenue driveway.



LEGEND

= Example Space to Designate as Compact

Figure 12
Avalon Building Parking Garage Ground Level Plan



LEGEND

= Example Space to Designate as Compact

Figure 13
Avalon Building Parking Garage Basement Level Plan

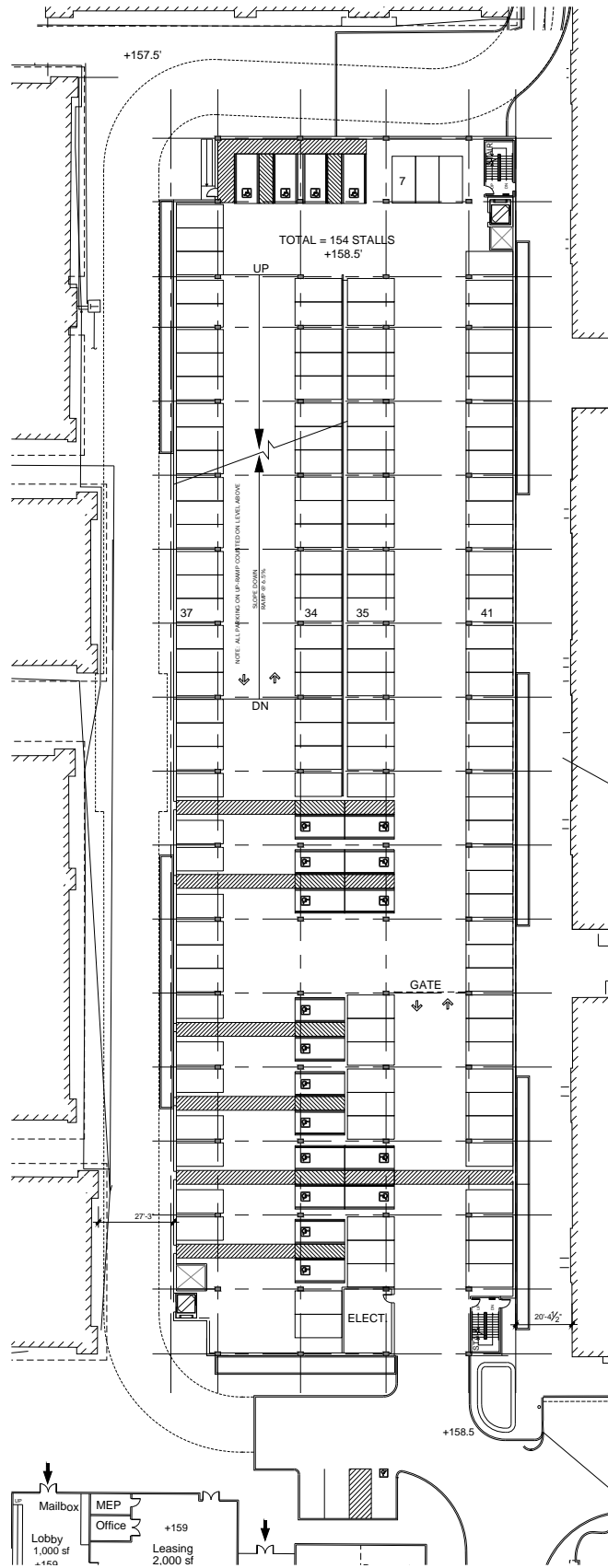
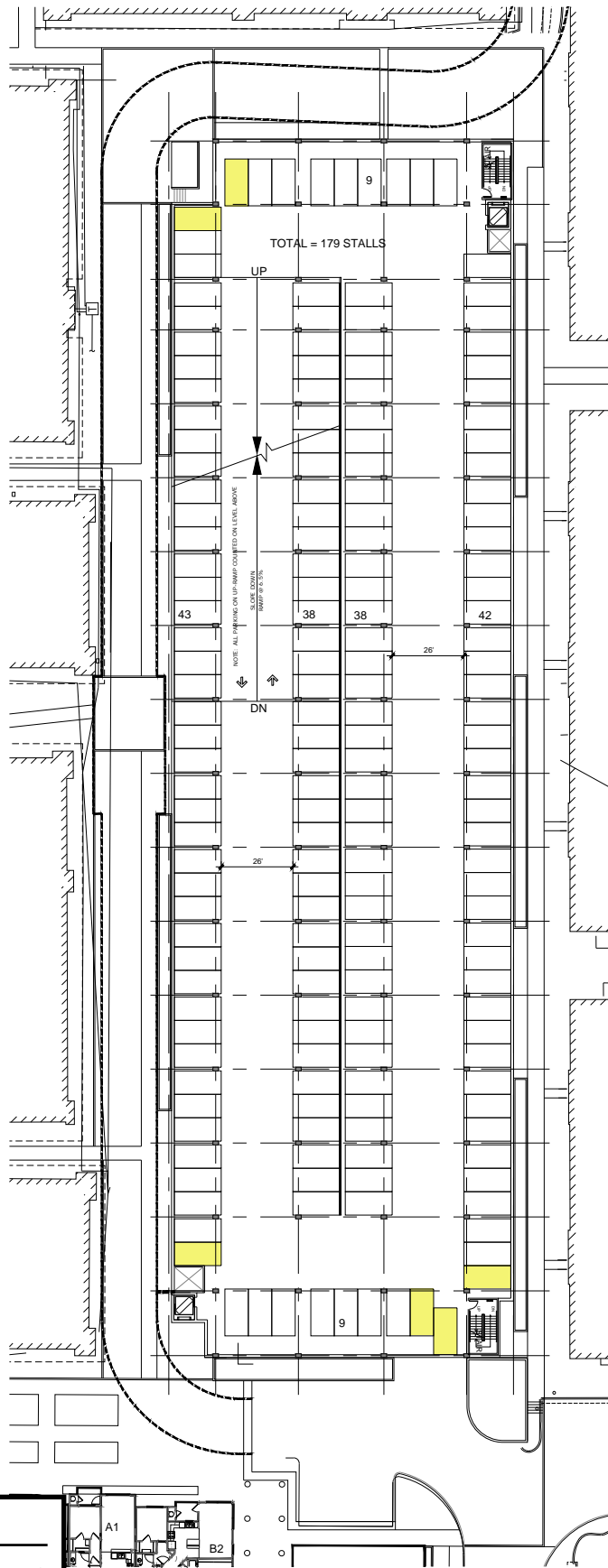


Figure 14
Manzanita Parking Garage Ground Level Plan



LEGEND

 = Example Space to Designate as Compact

Figure 15
Manzanita Parking Garage Level 3 Plan

The site plan does not indicate a freight loading zone for the Manzanita building. The City of San Jose typically prefers that freight loading areas be provided on-site and not within the public right-of-way. The project applicant should coordinate with City staff to determine the best location for a freight loading zone or short-term timed parking near the Manzanita building for use by moving vans and delivery vehicles.

Garbage Collection

The Avalon building would provide an on-site curb loading area for trash pickup. The loading area is adjacent to the residential and retail trash rooms near the Blackford Avenue project driveway. The trash bins would be wheeled out to the loading area on garbage collection days, and all garbage trucks would perform their operations along the internal driveway. Garbage trucks would enter via Blackford Avenue and exit via Saratoga Avenue.

For the Manzanita building, one trash room would be located on the north side of the building next to the main entry. The trash bins would need to be wheeled out to Manzanita Drive on garbage collection days, and all garbage trucks would perform their operations outside of the development at the curb. The trash bins should be removed from the public right-of-way after trash pickup and returned to the on-site trash room.

Emergency Vehicle Access

The City of San Jose Fire Department requires that all portions of the buildings are within 150 feet of a fire department access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. All areas of the proposed buildings would be within 150 feet of Blackford Avenue, Saratoga Avenue, Manzanita Drive, and fire department access road, and the site plan shows a setback of more than 6 feet from the property line along all sides of the buildings. Thus, the project would meet the fire access requirements.

Pedestrian Site Access and Circulation

Pedestrian access to the project site would be provided via sidewalks on Blackford Avenue, Saratoga Avenue, and Manzanita Drive. Saratoga Avenue and Blackford Avenue would provide pedestrian access to the Avalon building, including the lobbies, leasing office, mail room, elevators, staircases, and retail stores (see Figure 12). The bicycle parking area, which is located on the ground level of the parking garage, could be accessed via either Blackford Avenue or Saratoga Avenue, as well as from the main lobby. The Avalon building would have a podium courtyard supporting resident activities. Exterior egress staircases would provide pedestrian access to Saratoga Avenue and the Blackford Avenue driveway. Internal and external pedestrian walkways/sidewalks are shown on the site plan and would provide pedestrian connections between the streets, the Avalon building, and the existing Eaves residential development.

Sidewalks along Manzanita Drive and around the Manzanita building would provide pedestrian access to the Manzanita building, including the courtyards, lobby, leasing office, elevator, staircase, and community amenities (see Figure 16). Pedestrian walkways are provided within the Manzanita building site that provide pedestrian connections between Manzanita Drive, the Manzanita building, and the Manzanita parking garage.

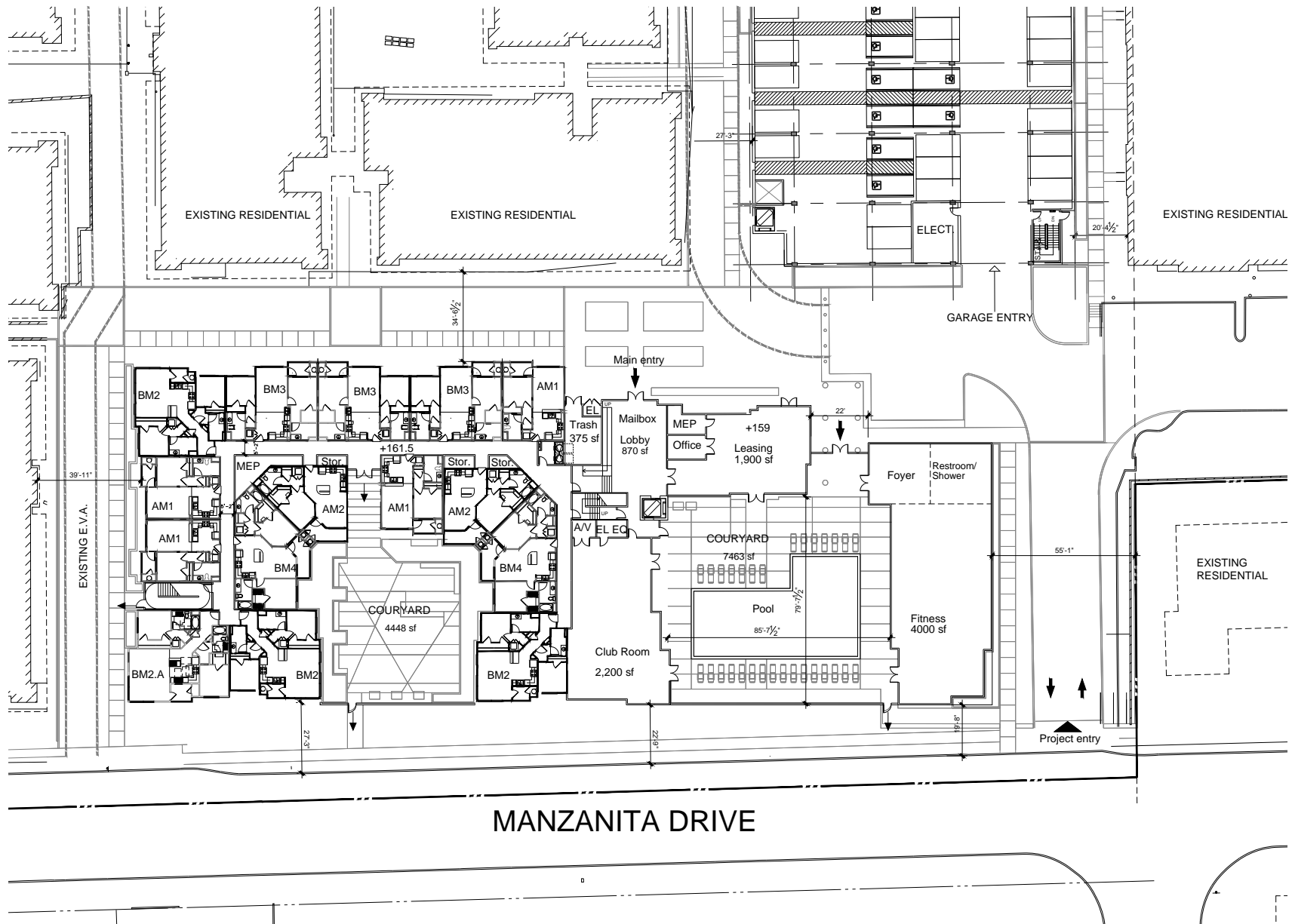


Figure 16
Manzanita Building Site Plan

Effects on Neighborhood Streets

Based on recent counts of the driveways serving the site and adjacent intersections, most project-generated traffic (at least 90 percent) is expected to travel to and from Saratoga Avenue. Very little project traffic (10 percent or less) is expected to travel to and from the east via either Blackford Avenue or Manzanita Drive. For this reason, the project would not result in a noticeable change in traffic conditions along Blackford Avenue or Manzanita Drive east of the project site, or along the residential streets within the adjacent neighborhood south of Manzanita Drive.

Effects on Pedestrian, Bicycle, and Transit Facilities

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along many City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Pedestrian Facilities

Pedestrian facilities consist of sidewalks and crosswalks along the streets and intersections in the immediate vicinity of the project site. Crosswalks with pedestrian signal heads and push buttons are located at all the signalized intersections in the study area. Overall, the existing network of sidewalks and crosswalks exhibits good connectivity and would provide new residents with safe pedestrian routes to transit services and other points of interest in the study area.

Project Improvements

At the Avalon building, the project would provide wider sidewalks ranging from 8 to 23 feet along its frontages on Saratoga Avenue and Blackford Avenue and large open space areas near the intersection and in front of the lobby. The sidewalks would include streetscape elements to enhance the pedestrian experience.

Pedestrian Access to Schools

There is one public school located just under one-mile walking distance from the project site. Easterbrook Discovery School (K1 to K8) is part of the Morland School District and is located southwest of the project site. A private school, Harker Middle School, is located 2,000 feet east of the project site on Blackford Avenue. Safe and direct pedestrian access to both schools is provided via a continuous network of sidewalks on the surrounding roadway network and crosswalks on Saratoga Avenue at Williams Road and Doyle Road. Crosswalks are provided at all signalized intersections and at many unsignalized intersections, and wheel chair ramps are provided at all corners of the intersections. Though some ramps do not meet the current ADA design standards, they met the standards at the time they were constructed.

Students who choose to walk to these nearby schools would use Saratoga Avenue, Doyle Road, Williams Road and/or Blackford Avenue. These pedestrian routes contain adequate sidewalks, and wheel chair ramps are provided at all corners of the intersections. Crosswalks with push buttons and pedestrian signal heads are provided at all signalized intersections along these routes. There are no bike lanes on Saratoga Avenue. Therefore, to access Easterbrook Discovery School by bicycle, the best option would be to turn on to westbound Williams Road (has bike lanes) from Saratoga Avenue and use the network of residential streets to access the school.

The project should consider working with these nearby schools to implement a Safe Routes to Schools program, if one does not already exist, since the project would add traffic to the area, and some students attending these schools may reside at the project site. Safe Routes to Schools is designed to decrease traffic and pollution and increase the health of children and the community as a whole. The program promotes walking and biking to school through education and incentives. The program also addresses the safety concerns of parents by encouraging greater enforcement of traffic laws, educating the public, and exploring ways to create safer streets. A comprehensive Safe Routes to Schools program should identify a focused area surrounding the school, provide a map with the routes that children can take to and from school, and recommend improvements to routes if necessary. It should address such pedestrian safety issues as dangerous intersections and missing or ineffective crosswalks and sidewalks.

Bicycle Facilities

There are no designated striped bike lanes or shared bike routes on streets in the immediate vicinity of the project site, including Saratoga Avenue, Blackford Avenue, Manzanita Drive, and the surrounding residential streets. Bike lanes exist on Moorpark Avenue and Williams Road. Wide shoulders are provided on San Tomas Expressway and Lawrence Expressway and bicyclists are permitted to utilize the shoulders. The surrounding residential streets carry relatively low traffic volumes and are conducive to bicycle travel.

Planned Bicycle Facilities

According to the City of San Jose 2020 Bike Plan, in the project vicinity bike lanes are planned for Boynton Avenue between Moorpark Avenue and Payne Avenue.

To improve traffic flow along Saratoga Avenue, the City of San Jose has developed an improvement plan for Saratoga Avenue between Stevens Creek Boulevard and Blackford Avenue. The plan includes bike lanes on Saratoga Avenue between Stevens Creek Boulevard and Blackford Avenue. The bicycle improvements would benefit the project considerably.

Transit Services

There are two VTA local bus routes (Routes 57 and 58) that serve the project area. Both bus routes run on Saratoga Avenue in the project vicinity. The bus stops closest to the project site are located on Saratoga Avenue at Blackford Avenue and at Manzanita Drive. It is estimated that the small increase in transit demand generated by the proposed project could be accommodated by the current available ridership capacity of the bus service in the study area, and no project-sponsored transit related improvements are being proposed. Existing bus routes and schedules are not expected to change as a result of the increase in transit demand generated by the project.

Transit Delay

To assess the project's effect on transit vehicle delay, the delay experienced by each route running through the study intersections was estimated based on the average vehicle delay that is calculated as part of the intersection level of service analysis. Table 12 summarizes the bus travel times through the study area and the increase in transit vehicle delay with the addition of the project traffic. VTA does not have significance thresholds to determine impacts on transit vehicle delay. Therefore, this analysis is presented for information purposes only. The results show that the project would result in minimal changes (less than 1 percent) in transit travel time for every bus route in the study area. Thus, it can be concluded that the addition of project-generated traffic is so minor that the delay increases experienced by the bus routes that operate within the study area would be imperceptible.

**Table 12
Increase in Transit Vehicle Delay**

Bus Route	Direction	Peak Hour	Existing		Background	Background+Project			
			Travel Time ¹ min / sec	Delay ² (sec)	Delay ² (sec)	Delay ² (sec)	Increase in Delay ³ (sec)	% Increase in Travel Time ³	
57/58	Northbound	AM	8	480	95.5	97.7	100.2	2.5	0.5%
		PM	8	480	121.6	122.2	126.2	4.0	0.8%
	Southbound	AM	7	420	87.3	86.8	88.0	1.2	0.3%
		PM	9	540	87.0	86.8	90.7	3.9	0.7%

Note:

1. Travel time based on the VTA's bus schedule for two timepoints closest to each end of the study area.
2. The total movement delay of all relevant study intersections added together.
3. Increase in delay/travel time over background conditions.

Parking Analysis

The project would remove existing parking spaces on the Avalon site and replace the spaces as part of the new parking structure on Manzanita Drive. The vehicle parking for the proposed new residential and retail uses on the Avalon site would be provided on the site via a parking garage. The on-site vehicle parking for the proposed Manzanita apartment building would be provided in a new parking structure on Manzanita Drive. The vehicle parking for the existing Eaves apartment buildings also would be provided in the new parking structure on Manzanita Drive, as well as an existing parking garage on Blackford Drive and surface parking spaces throughout the site.

The on-site parking was evaluated based on the City of San Jose parking standards (*San Jose Municipal Code Chapter 20.90*).

Vehicular Parking Requirement

The City of San Jose vehicle parking requirements for multiple residential dwellings are as follows:

- 1.25 spaces per studio/one-bedroom unit
- 1.7 spaces per two-bedroom unit

The City of San Jose vehicle parking requirement for retail uses located in areas with an Urban Village designation is as follows:

- 1 space per 400 s.f.

The project is proposing 24 studio units, 147 one-bedroom units, 129 two-bedroom units, and up to 17,800 s.f. of retail space. Based on this breakdown, the project is required to provide a total of 472 vehicle parking spaces: 434 spaces to serve the new Avalon and Manzanita residential developments and 38 spaces to serve the Avalon retail space (based on 85 percent of the gross floor area of the retail space).

In addition, the site must provide adequate parking for the existing Eaves residences. The existing Eaves residential development consists of 260 studio units, 433 one-bedroom units, and 180 two-bedroom units. Based on this breakdown, a total of 1,173 vehicle parking spaces are required to serve the Eaves apartments.

Thus, to meet the City's standard parking requirements, the project is required to provide 386 off-street parking spaces for the proposed Avalon mixed-use development (38 for the retail use and 348 for the residential use), 86 off-street parking spaces for the proposed Manzanita residential development, and 1,173 off-street parking spaces for the existing Eaves apartment buildings (see Table 13).

Since the project is located in an area designated as an Urban Village (Saratoga Avenue Commercial Corridor and Center Urban Village), and if the project meets the City's bicycle parking requirement, the residential component of the project is eligible for a 20 percent reduction in off-street vehicle parking (*San Jose Municipal Code Section 20.90.220*). With this 20 percent reduction, the proposed project would be required to provide a total of 386 vehicle parking spaces: 279 spaces for the Avalon residential development, 38 spaces for the Avalon retail space, and 69 spaces for the Manzanita residential development. Applying the same criteria to the Eaves apartments equates to 938 spaces required to serve the existing Eaves residences. Therefore, after applying the 20 percent parking reduction 1,324 parking spaces would be required to serve all three residential developments and the retail space on the site.

The project would provide 406 parking spaces on the Avalon site, which meets the off-street parking requirement of 317 spaces (after applying the 20 percent reduction). The project would provide a total of 1,113 parking spaces for the proposed Manzanita and existing Eaves apartment buildings (742 spaces in the new parking structure and 371 existing on-site parking spaces), which meets the off-street parking requirement of 1,007 spaces (after applying the 20 percent reduction). Therefore, with the allowed Urban Village parking reduction, the total number of proposed parking spaces on the site would meet the City's residential and retail parking requirements.

Note that the project must designate eight percent of the required parking supply as clean air vehicle parking. Clean air vehicle parking spaces can be any combination of low-emitting, fuel efficient, and carpool/vanpool designated parking spaces.

Bicycle Parking Requirement

According to the San Jose Municipal Code, the project is required to provide 67 bicycle parking spaces for the Avalon building site (5 for retail use and 62 for residential use) and 14 bicycle parking spaces for the proposed Manzanita building (see Table 13). For residential uses, a minimum of 60 percent of bicycle parking should be long-term spaces. For retail uses, a minimum of 80 percent of bicycle parking should be short-term spaces. The site plan shows bicycle storage in the Avalon building but does not indicate the number of bicycle parking spaces for long-term and short-term parking. The site plan does not show any bicycle parking for the Manzanita building. It is recommended that the project provide bicycle parking that meets the City requirements to encourage the use of non-auto modes of travel and allow the reduced vehicular parking requirement (20 percent Urban Village reduction) as previously discussed.

Construction Activities

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely.

The project would be required to submit a construction management plan for City approval that addresses schedule, closures/detours, staging, parking, and truck routes. Adequate parking must be provided for residents of the existing Eaves apartments during construction of the project.

Table 13
Required Vehicle and Bicycle Parking

Proposed Land Use	Size	Required Vehicle Parking		Required Vehicle Parking with Urban Village Overlay Reduction		Required Bicycle Parking	
		Rate	Spaces	Rate	Spaces	Rate	Spaces
Avalon Building							
Residential	245 total units						
Studio	24 units	1.25/unit					
1 bedroom	129 units	1.25/unit	348	20%	279	1 per 4 units	62
2 bedroom	92 units	1.7/unit					
Retail	17,800 gross s.f. ¹	1/400 s.f. of floor area ¹	38	1/400 s.f. of floor area ¹	38	1/3,000 s.f. of floor area ¹	5
Avalon Building Required Parking			386		317		67
Avalon Building Proposed Parking			406		406		N/A²
Manzanita Building and Existing Eaves Buildings							
Manzanita Building							
	55 total units						
1 bedroom	18 units	1.25/unit					
2 bedroom	37 units	1.7/unit	86	20%	69	1 per 4 units	14
Existing Eaves Building:							
	873 total units						
Studio	260 units	1.25/unit					
1 bedroom	433 units	1.25/unit	1,173	20%	938		
2 bedroom	180 units	1.7/unit					
Manzanita and Eaves Buildings Required Parking			1,259		1,007		
<i>Existing On-site Parking (excludes Avalon Site)</i>			371		371		
<i>New Parking Garage Proposed Parking</i>			742		742		
Total Proposed Parking for Manzanita and Eaves Buildings			1,113		1,113		N/A²
Note:							
1. As defined by City Code, "floor area" means 85% of the "total gross floor area" of the building. Therefore, 85% was applied to the gross floor area for retail and office space.							
2. Site plans do not show the amount of bicycle parking provided.							

7. Cumulative Conditions

This chapter presents a summary of the traffic conditions that would occur under cumulative conditions. Cumulative development typically includes projects that are in the pipeline (pending projects) but are not yet approved. A significant cumulative traffic impact is identified by comparing cumulative plus project traffic conditions against either background conditions or cumulative no project conditions, depending on the jurisdiction in which the study intersections are located.

Roadway Network Under Cumulative Conditions

The roadway network under cumulative conditions would be the same as the existing roadway network because: 1) there are no approved projects in the area that would alter the existing roadway network, 2) the project would not alter the existing roadway network, and 3) there are no pending projects in the area that would alter the existing roadway network in the future.

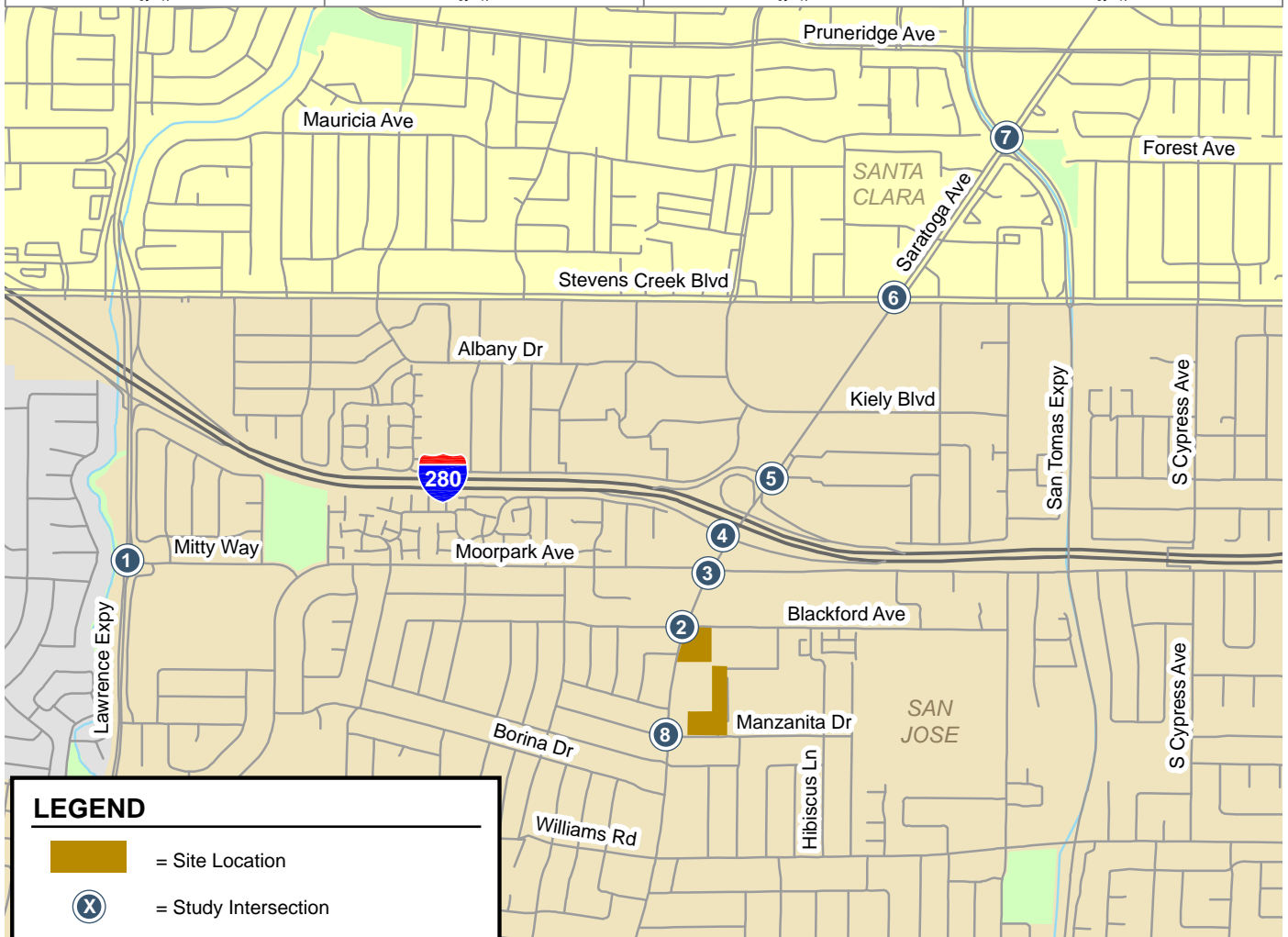
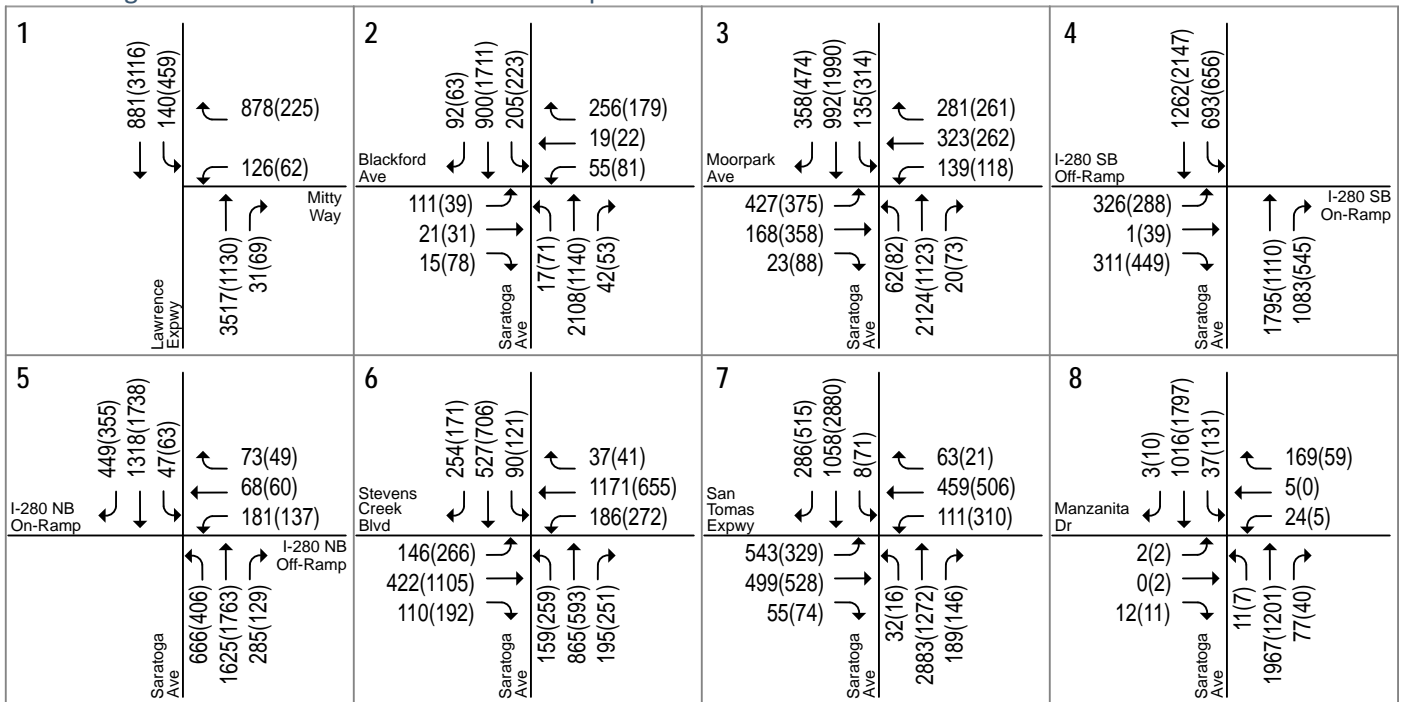
Cumulative Traffic Volumes

Traffic volumes under cumulative conditions were estimated by adding the trips from approved developments, estimated project trips, and trips from proposed but not yet approved (pending) development projects. The pending developments considered for cumulative conditions include:

- Garden City Site Mixed-Use Development
- Fort-Bay Mixed-Use Development
- 609 Saratoga Avenue Commercial Use
- North San Jose Phase II
- City Place in the City of Santa Clara

Figure 17 show the cumulative traffic volumes with the propose project. Traffic volumes for all components of traffic are tabulated in Appendix C.

700 Saratoga Avenue Mixed-Use Residential Development



LEGEND

- = Site Location
- X = Study Intersection
- XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 17
Cumulative Traffic Volumes

Cumulative Intersection Levels of Service

The results of the intersection level of service analysis under cumulative conditions (see Table 14) show that the estimated cumulative project trips collectively would create a significant adverse traffic impact at the Lawrence Expressway/Mitty Way intersection. However, the project’s contribution to growth in total volume from background traffic conditions to cumulative traffic conditions (14 percent) would be less than 25 percent. Therefore, the project would not make a considerable contribution toward the cumulative traffic impact at this intersection.

The San Tomas Expressway/Saratoga Avenue intersection in Santa Clara would operate at an unacceptable LOS F during the AM and PM peak hours under both cumulative no project and cumulative with project conditions, but the project would not cause the intersection’s critical-movement delay to increase by four or more seconds and the V/C to increase by 0.01 or more compared to cumulative no project conditions. Therefore, the intersection impact is considered less than significant.

All other signalized study intersections would operate at acceptable levels of service during both the AM and PM peak hours of traffic. The intersection level of service calculation sheets are included in Appendix D.

Table 14
Cumulative Intersection Levels of Service

ID	Intersection	LOS Standard	Peak Hour	Background		Cumulative						
				Avg. Delay	LOS	No Project		With Project			% of Project Contribution	
						Avg. Delay	LOS	Avg. Delay	Incr. In Crit. Delay	Incr. In Crit. V/C		
1	Lawrence Expwy and Mitty Wy	D	AM	104.4	F	-- ¹	111.1	F	8.0	0.019	14%	
			PM	12.9	B	-- ¹	13.0	B	0.2	0.011		
2	Saratoga Ave and Blackford Ave	D	AM	33.4	C-	-- ¹	34.8	C-	2.0	0.046		
			PM	32.4	C-	-- ¹	33.8	C-	1.0	0.034		
3	Saratoga Ave and Moorpark Avenue*	D	AM	41.1	D	-- ¹	41.6	D	0.7	0.035		
			PM	42.6	D	-- ¹	43.4	D	1.3	0.040		
4	Saratoga Ave and I-280 SB Ramp*	D	AM	46.3	D	-- ¹	53.3	D-	16.7	0.052		
			PM	35.5	D+	-- ¹	37.6	D+	3.1	0.053		
5	Saratoga Ave and I-280 NB Ramp*	D	AM	28.5	C	-- ¹	27.9	C	0.3	0.025		
			PM	22.5	C+	-- ¹	21.8	C+	-0.9	0.040		
6	Saratoga Ave and Stevens Creek Blvd*	D	AM	36.5	D+	-- ¹	38.1	D+	2.0	0.061		
			PM	41.5	D	-- ¹	43.6	D	3.8	0.088		
7	San Tomas Expwy and Saratoga Ave*	E	AM	-- ²		84.9	F	85.3	F	0.6	0.001	
			PM	-- ²		82.7	F	82.8	F	0.3	0.001	

Notes:
 * Denotes VTA CMP intersection
 Average delay is in seconds per vehicle.
 1. For San Jose intersections, a significant cumulative traffic impact is identified by comparing cumulative plus project traffic conditions against background traffic conditions.
 2. For Santa Clara intersections, a significant cumulative traffic impact is identified by comparing cumulative plus project traffic conditions against cumulative no project conditions.
Bold indicates a substandard level of service.

8. Conclusions

The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the Cities of San Jose and Santa Clara and the Santa Clara Valley Transportation Authority (VTA). The transportation study analyzed AM and PM peak-hour traffic conditions for seven signalized intersections and one unsignalized intersection.

The study also includes a freeway segment capacity analysis, freeway ramp operations analysis, vehicle queuing analysis, peak-hour signal warrant analysis, and an evaluation potential impacts to bicycle, pedestrian, and transit facilities.

Intersection Level of Service Analysis

The results of the intersection level of service analysis under background plus project conditions show that none of the study intersections would be significantly impacted by the project.

Under cumulative conditions, the estimated cumulative project trips collectively would create a significant adverse traffic impact at the Lawrence Expressway/Mitty Way intersection. However, the project's contribution to growth in total volume from background traffic conditions to cumulative traffic conditions (14 percent) would be less than the 25 percent threshold. Therefore, the project would not make a considerable contribution toward the cumulative traffic impact at this intersection.

The San Tomas Expressway/Saratoga Avenue intersection in Santa Clara would operate at an unacceptable LOS F during the AM and PM peak hours under both cumulative no project and cumulative with project conditions, but the project would not cause the intersection's critical-movement delay to increase by four or more seconds and the V/C to increase by 0.01 or more compared to cumulative no project conditions. Therefore, the intersection impact is considered less than significant.

Freeway Segment Capacity Analysis

Based on CMP freeway impact criteria, none of the study freeway segments would be significantly impacted by the project.

Freeway Ramp Operations Analysis

An analysis of freeway ramps providing access to I-280 from the project site was performed to identify the effects of project traffic on the vehicle queues and wait times at the metered ramps. The project is not expected to noticeably worsen vehicle queuing or delay at the metered on-ramps that were evaluated.

Vehicle Queuing Analysis

The queuing analysis indicates that the 95th percentile southbound left-turn vehicle queue at the Saratoga Avenue/Blackford Avenue intersection currently exceeds the existing vehicle storage capacity during the AM and PM peak hours, and the project would increase the vehicle queue by one vehicle length during both peak hours. The southbound left-turn pocket could be extended approximately 100 feet by shortening the back-to-back northbound left-turn pocket at Moorpark Avenue. Field observations show that the northbound left-turn vehicle queue at Moorpark Avenue is shorter than the storage capacity during the AM and PM peak hours. Field observations also show that except during the AM peak hour, the southbound left-turn pocket on Saratoga Avenue at Blackford Avenue only occasionally fills to capacity and the queue clears within one signal cycle. During the AM peak hour of traffic, however, the southbound left-turn queue would still exceed the pocket length even with lengthening the left-turn pocket.

Other Transportation Issues

The site plan shows adequate site access and on-site circulation, and no significant traffic operational issues are expected to occur as a result of the project. The project would not have an adverse effect on the existing transit, pedestrian, or bicycle facilities in the study area, nor would it conflict with any adopted plans or policies for new transit, pedestrian or bicycle facilities.

Hexagon has the following recommendations resulting from the site access and circulation evaluation.

Recommendations

- The curb segments adjacent to the project driveways on Saratoga Avenue, Blackford Avenue, and Manzanita Drive should be painted red to prohibit parking and provide the 32-foot width necessary to comply with the City's fire code. With the 26-foot wide driveway, a total of 6 feet of red curb should be added to the project driveways.
- The project applicant should coordinate with City staff to determine the best location for a freight loading zone or short-term timed parking near the Manzanita building for use by moving vans and delivery vehicles.
- The project should provide bicycle parking for the Avalon and Manzanita developments that meets the City requirements to encourage the use of non-auto modes of travel and allow the reduced vehicular parking requirement (20 percent Urban Village reduction).
- The City recommends installing a new traffic signal at the Saratoga Avenue/Manzanita Drive intersection.

700 Saratoga Avenue Residential Development TIA

Technical Appendices

October 15, 2018

Appendix A

Traffic Counts



(303) 216-2439
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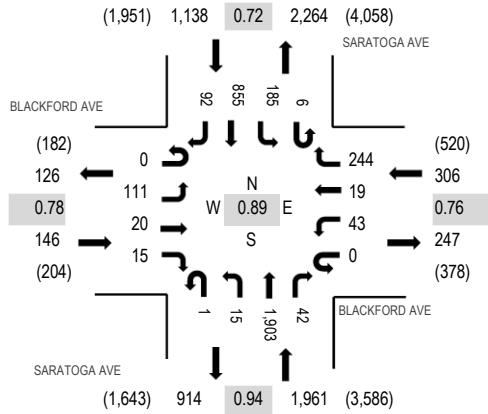
Location: 1 SARATOGA AVE & BLACKFORD AVE AM

Date and Start Time: Wednesday, March 7, 2018

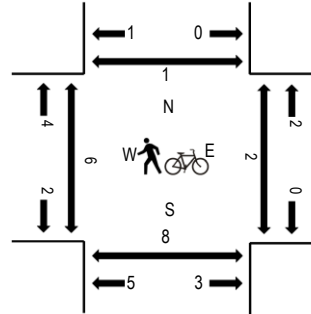
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	BLACKFORD AVE Eastbound				BLACKFORD AVE Westbound				SARATOGA AVE Northbound				SARATOGA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	5	1	1	0	6	1	33	0	2	344	4	0	6	116	2	521	2,975	1	0	0	0
7:15 AM	0	4	2	4	0	6	0	49	1	1	416	5	1	18	139	10	656	3,373	0	1	0	0
7:30 AM	0	8	3	5	0	13	1	48	0	2	437	8	2	36	221	14	798	3,539	1	4	0	0
7:45 AM	0	21	5	5	0	15	3	86	1	4	431	11	0	101	281	36	1,000	3,551	2	1	2	0
8:00 AM	0	36	2	3	0	20	5	63	0	4	469	16	3	40	233	25	919	3,286	0	1	0	0
8:15 AM	0	37	7	3	0	5	8	50	0	5	493	7	2	16	168	21	822		3	0	4	0
8:30 AM	0	17	6	4	0	3	3	45	0	2	510	8	1	28	173	10	810		0	0	0	0
8:45 AM	0	15	6	4	0	7	4	46	1	6	380	18	6	24	205	13	735		6	1	5	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	4	0	0	0	6	0	11
Lights	0	110	20	15	0	43	19	241	1	15	1,877	42	6	180	828	91	3,488
Mediums	0	0	0	0	0	0	0	3	0	0	22	0	0	5	21	1	52
Total	0	111	20	15	0	43	19	244	1	15	1,903	42	6	185	855	92	3,551



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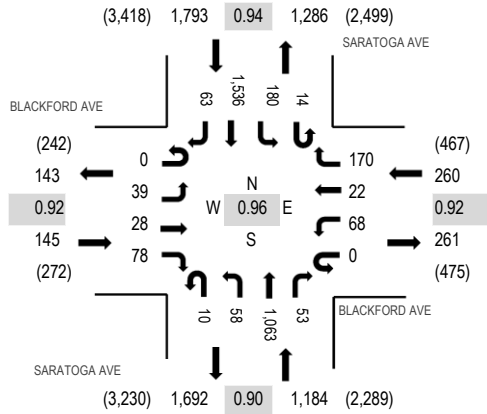
Location: 1 SARATOGA AVE & BLACKFORD AVE PM

Date and Start Time: Wednesday, March 7, 2018

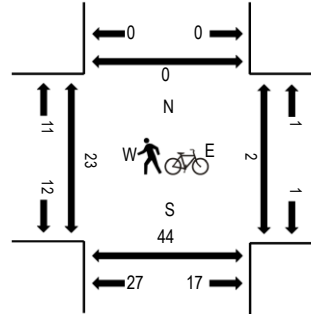
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	BLACKFORD AVE Eastbound				BLACKFORD AVE Westbound				SARATOGA AVE Northbound				SARATOGA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	10	2	8	0	17	3	34	1	14	242	10	5	31	357	8	742	3,105	3	1	3	0
4:15 PM	0	11	6	17	0	12	5	32	0	12	278	17	4	35	332	8	769	3,236	1	3	5	0
4:30 PM	0	9	12	21	1	12	2	34	0	14	234	9	4	35	322	8	717	3,248	2	0	0	0
4:45 PM	0	6	9	27	0	18	2	40	2	14	302	9	2	40	391	15	877	3,382	1	2	10	0
5:00 PM	0	10	5	14	0	15	2	54	1	17	257	13	4	49	413	19	873	3,341	7	0	8	0
5:15 PM	0	13	10	18	0	12	10	37	4	10	214	13	5	52	370	13	781		10	0	15	0
5:30 PM	0	10	4	19	0	23	8	39	3	17	290	18	3	39	362	16	851		5	0	9	0
5:45 PM	0	17	5	9	0	10	3	42	2	9	249	14	8	37	418	13	836		3	0	5	0

Peak Rolling Hour Flow Rates

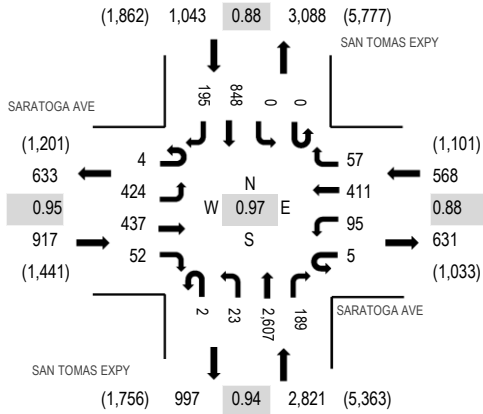
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3	0	5
Lights	0	38	27	75	0	68	22	169	10	58	1,048	53	14	178	1,525	62	3,347
Mediums	0	1	1	2	0	0	0	1	0	0	14	0	0	2	8	1	30
Total	0	39	28	78	0	68	22	170	10	58	1,063	53	14	180	1,536	63	3,382



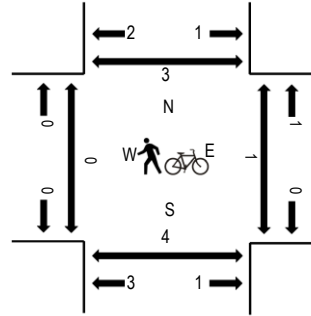
(303) 216-2439
www.alltrafficdata.net

Location: 3 SAN TOMAS EXPY & SARATOGA AVE AM
Date and Start Time: Wednesday, March 7, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SARATOGA AVE Eastbound				SARATOGA AVE Westbound				SAN TOMAS EXPY Northbound				SAN TOMAS EXPY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	28	34	4	2	11	84	13	0	0	566	25	0	0	94	32	894	4,538	0	0	0	2
7:15 AM	2	50	31	4	2	21	95	16	0	1	714	27	0	0	126	37	1,126	5,004	1	0	2	0
7:30 AM	0	64	73	4	1	34	102	19	0	4	567	27	0	1	187	60	1,143	5,158	0	0	0	2
7:45 AM	4	80	76	22	2	26	129	14	0	3	699	44	0	0	233	43	1,375	5,349	0	1	2	1
8:00 AM	0	124	106	11	2	21	105	16	2	7	692	55	0	0	173	46	1,360	5,229	0	0	1	0
8:15 AM	0	125	122	6	0	30	80	15	0	6	602	43	0	0	196	55	1,280		0	0	0	0
8:30 AM	0	95	133	13	1	18	97	12	0	7	614	47	0	0	246	51	1,334		0	0	0	1
8:45 AM	0	88	130	11	1	31	93	8	0	7	556	48	0	0	232	50	1,255		1	0	0	1

Peak Rolling Hour Flow Rates

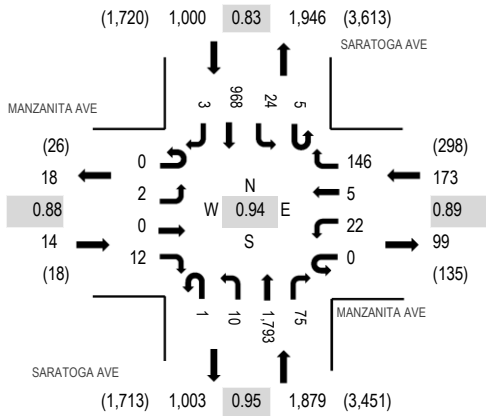
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	4	1	0	0	6	1	13
Lights	4	422	432	51	5	94	404	57	2	23	2,587	188	0	0	828	192	5,289
Mediums	0	2	5	1	0	1	6	0	0	0	16	0	0	0	14	2	47
Total	4	424	437	52	5	95	411	57	2	23	2,607	189	0	0	848	195	5,349



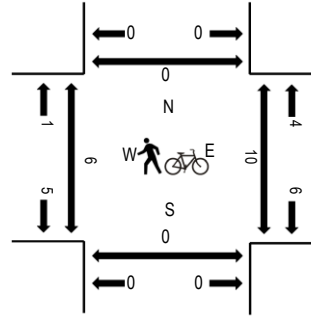
(303) 216-2439
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Location: 2 SARATOGA AVE & MANZANITA AVE AM
Date and Start Time: Wednesday, March 7, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MANZANITA AVE Eastbound				MANZANITA AVE Westbound				SARATOGA AVE Northbound				SARATOGA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	0	1	0	2	0	21	0	0	362	0	0	1	2	132	1	522	2,738	1	3	0	0
7:15 AM	0	0	0	1	0	4	0	34	1	1	396	4	1	3	174	0	619	2,991	1	1	0	0	
7:30 AM	0	0	0	4	0	6	0	42	0	1	438	14	1	5	270	0	781	3,066	1	2	0	0	
7:45 AM	0	2	0	2	0	9	2	36	1	1	430	29	1	12	290	1	816	2,946	1	3	0	0	
8:00 AM	0	0	0	3	0	6	3	43	0	4	450	17	0	4	245	0	775	2,749	2	1	0	0	
8:15 AM	0	0	0	3	0	1	0	25	0	4	475	15	3	3	163	2	694		2	3	0	0	
8:30 AM	0	0	0	0	0	1	1	33	1	3	439	9	1	5	168	0	661		1	0	0	0	
8:45 AM	0	0	0	2	0	1	1	27	0	1	351	4	1	9	222	0	619		7	2	0	0	

Peak Rolling Hour Flow Rates

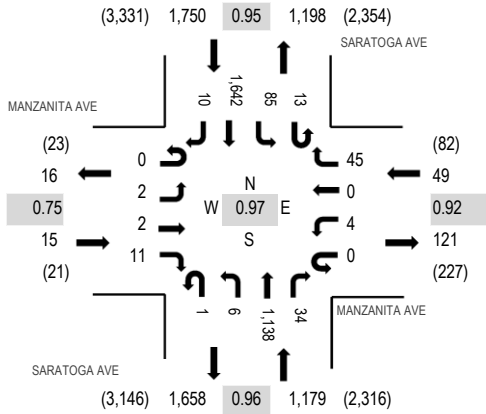
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10
Lights	0	2	0	12	0	22	5	146	1	9	1,772	75	5	24	935	3	3,011
Mediums	0	0	0	0	0	0	0	0	0	1	18	0	0	0	26	0	45
Total	0	2	0	12	0	22	5	146	1	10	1,793	75	5	24	968	3	3,066



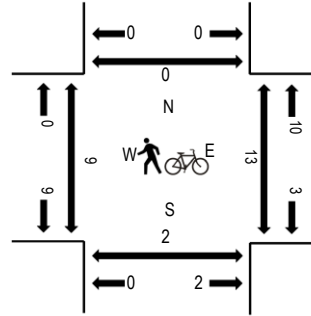
(303) 216-2439
www.alltrafficdata.net

Location: 2 SARATOGA AVE & MANZANITA AVE PM
Date and Start Time: Wednesday, March 7, 2018
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MANZANITA AVE Eastbound				MANZANITA AVE Westbound				SARATOGA AVE Northbound				SARATOGA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	2	0	1	0	5	0	2	275	9	8	14	360	0	676	2,802	3	3	0	0
4:15 PM	0	0	0	0	0	0	0	6	1	0	288	10	9	12	330	0	656	2,877	2	8	0	0
4:30 PM	0	0	0	1	0	0	0	8	2	0	277	5	6	24	399	2	724	2,942	4	4	0	0
4:45 PM	0	1	1	3	0	0	0	7	1	2	280	8	2	22	417	2	746	2,993	4	3	2	0
5:00 PM	0	0	1	3	0	2	0	12	0	0	297	10	2	13	410	1	751	2,948	3	2	0	0
5:15 PM	0	1	0	1	0	1	0	12	0	3	274	9	2	25	390	3	721		0	4	0	0
5:30 PM	0	0	0	4	0	1	0	14	0	1	287	7	7	25	425	4	775		0	4	0	0
5:45 PM	0	0	0	3	0	2	0	11	0	1	256	11	7	21	387	2	701		2	4	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3
Lights	0	2	2	11	0	4	0	45	1	6	1,123	33	13	85	1,629	10	2,964
Mediums	0	0	0	0	0	0	0	0	0	0	14	1	0	0	11	0	26
Total	0	2	2	11	0	4	0	45	1	6	1,138	34	13	85	1,642	10	2,993

Appendix B

San Jose Approved Trips Inventory and Santa Clara Project List

AM APPROVED TRIPS

02/02/2018

Intersection of: 280/SARATOGA (N)

Page No: 1

Traffic Node Number: 3038

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	4	21	3	0	4	1	0	0	0	0	0	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	10	0	0	2	0	0	0	0	0	0	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	12	0	0	1	0	0	0	0	0	0	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	37	0	0	4	0	0	0	0	0	0	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	3	0	0	0	0	0	0	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL: 4 83 3 0 11 1 0 0 0 0 0 0 0

	LEFT	THRU	RIGHT
NORTH	0	11	1
EAST	0	0	0
SOUTH	4	83	3
WEST	0	0	0

PM APPROVED TRIPS

02/02/2018

Intersection of: 280/SARATOGA (N)

Page No: 2

Traffic Node Number: 3038

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	1	7	0	0	18	3	0	0	0	0	0	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	5	0	0	9	0	0	0	0	0	0	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	3	0	0	12	0	0	0	0	0	0	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	6	0	0	33	0	0	0	0	0	0	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	2	0	0	0	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	2	0	0	2	0	0	0	0	0	0	0

TOTAL: 1 23 0 0 76 3 0 0 0 0 0 0 0

	LEFT	THRU	RIGHT
NORTH	0	76	3
EAST	0	0	0
SOUTH	1	23	0
WEST	0	0	0

AM APPROVED TRIPS

02/02/2018

Intersection of: 280/SARATOGA (S)

Page No: 1

Traffic Node Number: 3039

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	0	33	22	4	7	0	0	0	0	0	0	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	10	0	0	2	0	0	0	0	0	0	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	12	0	0	1	0	0	0	0	0	0	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	37	0	0	4	0	0	0	0	0	0	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	3	0	0	0	0	0	0	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL: 0 95 22 4 14 0 0 0 0 0 0 0 0

	LEFT	THRU	RIGHT
NORTH	4	14	0
EAST	0	0	0
SOUTH	0	95	22
WEST	0	0	0

PM APPROVED TRIPS

02/02/2018

Intersection of: 280/SARATOGA (S)

Page No: 2

Traffic Node Number: 3039

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	0	10	6	8	31	0	0	0	0	0	0	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	5	0	0	9	0	0	0	0	0	0	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	3	0	0	12	0	0	0	0	0	0	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	6	0	0	33	0	0	0	0	0	0	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	2	0	0	0	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	2	0	0	2	0	0	0	0	0	0	0

TOTAL: 0 26 6 8 89 0 0 0 0 0 0 0 0

	LEFT	THRU	RIGHT
NORTH	8	89	0
EAST	0	0	0
SOUTH	0	26	6
WEST	0	0	0

AM APPROVED TRIPS

02/02/2018

Intersection of: MOORPARK/SARATOGA

Page No: 1

Traffic Node Number: 3113

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	0	42	0	2	7	2	15	8	1	0	0	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	6	0	0	1	1	3	3	0	0	1	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	9	0	0	1	0	4	4	0	0	0	0
PDC14-040 WINCHESTER RESERVE 863-917 WINCHESTER BLVD	0	0	0	3	0	0	0	0	0	0	0	12
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	25	0	0	3	2	13	13	0	0	2	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	2	0	0	0	0	1	1	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL: 0 84 0 5 12 5 36 29 1 0 3 12

	LEFT	THRU	RIGHT
NORTH	5	12	5
EAST	0	3	12
SOUTH	0	84	0
WEST	36	29	1

PM APPROVED TRIPS

02/02/2018

Intersection of: MOORPARK/SARATOGA

Page No: 2

Traffic Node Number: 3113

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
NSJ NORTH SAN JOSE	0	7	0	4	30	4	3	3	0	4	7	8
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	4	0	0	6	3	2	2	0	0	3	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	2	0	0	8	3	1	1	0	0	3	0
PDC14-040 WINCHESTER RESERVE 863-917 WINCHESTER BLVD	0	0	1	13	0	0	0	0	0	1	0	6
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	4	0	0	23	11	3	3	0	0	11	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	2	1	0	0	0	0	1	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	1	0	0	1	1	1	1	0	0	1	0

TOTAL: 0 18 1 17 70 23 10 10 0 5 26 14

	LEFT	THRU	RIGHT
NORTH	17	70	23
EAST	5	26	14
SOUTH	0	18	1
WEST	10	10	0

AM APPROVED TRIPS

02/02/2018

Intersection of: SARATOGA/STEVENS CREEK

Page No: 1

Traffic Node Number: 3116

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
H06-027 VALLEY FAIR EXPANSION N/S OF STEVENS CREEK BLVD BETW WINCHESTER BLVD	0	0	0	0	0	0	0	10	0	0	16	0
NSJ NORTH SAN JOSE	4	18	1	0	4	1	3	8	2	0	5	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	10	0	0	0	0	10	0	2	2	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	0	12	0	0	0	0	12	0	1	0	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	0	37	0	0	0	0	37	0	4	4	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	3	0	0	0	0	3	0	0	0	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	2	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL: 4 18 63 0 4 1 3 80 2 7 29 0

	LEFT	THRU	RIGHT
NORTH	0	4	1
EAST	7	29	0
SOUTH	4	18	63
WEST	3	80	2

PM APPROVED TRIPS

02/02/2018

Intersection of: SARATOGA/STEVENS CREEK

Page No: 2

Traffic Node Number: 3116

Permit No. / Description / Location	M09	M08	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
H06-027 VALLEY FAIR EXPANSION N/S OF STEVENS CREEK BLVD BETW WINCHESTER BLVD	0	0	0	0	0	0	0	45	0	0	42	0
NSJ NORTH SAN JOSE	1	5	2	4	20	4	0	2	0	3	11	0
PDC12-009 SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	5	0	0	0	0	5	0	9	9	0
PDC13-050 SANTANA ROW LOTS 9 & 17 SANTANA ROW PARCEL 9 & 17	0	0	3	0	0	0	0	3	0	12	12	0
PDC14-068 SANTANA WEST 3161 OLSEN DRIVE	0	0	6	0	0	0	0	6	0	33	33	0
PDC97-036 OFF SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	0	0	2	2	0
PDC97-036 RES SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	0	0	0	0	0	1	0	0	0	0
PDC97-036 RET SANTANA ROW STEVENS CREEK & WINCHESTER (SE/C)	0	0	2	0	0	0	0	2	0	2	2	0

TOTAL: 1 5 18 4 20 4 0 64 0 61 111 0

	LEFT	THRU	RIGHT
NORTH	4	20	4
EAST	61	111	0
SOUTH	1	5	18
WEST	0	64	0

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
5402 Great America Pkwy	Approved	3 Com/Cognac Great America	Existing office use redeveloped to 278,000 sf of office/research & development	0	-	278,000	-	-
2350 Mission College Blvd	Approved	2350 Mission College Boulevard Office Retail	300,000 sf of office in two buildings and a 6 story parking garage; 6,000 square feet of retail	0	-	300,000	-	6,000
4301, 4401, 4551 Great America Pkwy	Approved	Sobrato Office Development	Rezone from PD & PD[ML] to construct (2) 12-story office buildings totaling 718,000 sq.ft. & (1) four-story parking garage on a developed property w/ (2) 300,000 sq.ft. existing office buildings that are to remain	0	-	1,318,000	-	-
900 Kiely Blvd	Completed/Occupied	Fairfield Development	781 housing units, 57 SFD, 68 row houses, 116 townhouses/ 552 apartments (Modification to current PD-MC approval allowing additional 21 apartment units	781	-	-	-	-
2620-2727 Augustine Dr	Approved	Augustine Bowers Industrial Campus / Equity Office	1,969,600 sf of office and up to 35,000 sf of retail	0	-	1,969,600	-	35,000
2600 San Tomas Expy 2800 San Tomas Expy 2400 Condensa St	Approved	NVIDIA	1,200,000 sf of office and high-tech lab buidlings replacing approx. 690,000 sf of office space. Revised DA	0	-	1,200,000	-	-
Mission College Blvd	Completed/Occupied	Mission College Master Plan	427,000 sq. ft.	0	427,000	-	-	-
5010 Old Ironsides Dr	Approved	(formerly Yahoo! Campus) 2016 LeEcco owned property	Phased development of a 3,060,000 sq.ft. office/R&D campus consisting of 13 six-story buildings, three commons buildings, surface parking & two levels of below grade parking	0	-	3,060,000	-	-
2875 Lakeside Dr	Completed/Occupied	Marriot Townplace Suites	Rezone from Commercial Park (CP) to Planned Development (PD) to facilitate the development of a 107 room extended stay hotel with at-grade podium parking	0	63,837	-	-	-
3333 Scott Blvd	Completed/Occupied	Menlo Equities Office Park	Lot Line Adjustment and Architectural Review to facilitate the development of 735,000 square foot (5 buildings) office space	0	-	735,000	-	-
5403 Stevens Creek Blvd	Approved	Mellon Bank /Perry Airellaga	General Plan Amendment from Low Intensity Office R&D to High Intensity Office R&D, Rezone from CT to PD & Architectural Review to construct (2) 6-story office buildings totalling 375,000 sq.ft. & (1) parking structure w/1281 spaces (2 below & 4 above) & 38 surface parking spaces in conjunction w/ demo of existing one-story commercial building (IHOP Restaurant)		-	375,000	-	-
3137 Forbes Ave	Approved	Calvary Southern Baptist Church	Use Permit Amendment to U.417 to allow Sunday School classrooms and a weekday day care in the existing church facility in conjunction with construction of a new 2-story building, 14,000+ sq.ft. and parking, landscaping improvements	0	-	-	14,000	-
1043 Alviso St	Completed/Occupied	Santa Clara University	Rezone properties from CT & B to PD to construct a a 4-story parking garage and 3-story Art & Art History building in conjunction with removal/demo/relocation of (e) structures on the project site (CEQ2011-01129) including historically significant structures.	1	44,111	-	-	-

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
3499 The Alameda	Completed/Occupied	6 Single family project (formerly 9 unit townhome condominium project)	Rezoning to PD from ML to facilitate development of six single family homes	6	-	-	-	-
4306 Fillmore St	Completed/Occupied	James Redfield	Rezoning single family property to PD to allow lot split and building of second new SFD on smaller lots. Tentative parcel map application	2	-	-	-	-
1079 Alviso St	Approved	SCU Steve Brodie	Rezoning of one parcel to allow Larrder House relocation	0	-	2,000	-	-
2200 Lawson Ln	Approved	Sobrato	Amend PD zoning (PLN2007-06379) and Development Agreement (PLN2008-06880) for approved office R&D campus to increase building sq.ft. of allowable office space from 516,000 to 613,800 sq.ft.	0	-	613,800	-	-
3000 Bowers Ave	Approved	Office Building	New (2) 5-story 150,000 sq.ft. office buildings, (1) 2-story 17,400 sq.ft. amenity building, and 6 story parking structure with a total of 1,200 parking spaces in conjunction with demolition of an existing 100,042 sq.ft. 2-story office building	0	-	67,358	-	-
2585 El Camino Real	Completed/Occupied	Silicon Valley Builders	GPA #76 from Community Mixed Use to High Density Residential 60 condo for sale units (CEQ2013-01157)	60	-	-	-	-
555 Saratoga Ave	Approved	Silicon Valley Builders	3-story condominium project with 13 units	13	-	-	-	-
4880 Great America Pkwy	Approved	Brad Krouskup	New 171,000 sq. ft. office building and new site improvements and two level parking garage	0	-	171,000	-	-
2611, 2621, 2635, 2645, 2655 El Camino Real	Completed/Occupied	Elaine Breeze/Urban Planning Group	Application to allow development of a multi-family residential project (183 units) on 5 parcels including former Russels Furniture property and El Real Nursery site	183	-	-	-	-
3515-3585 Monroe St	Completed/Occupied	Irvine Co.	New project submitted by Irvine Co. 825 housing units and 40,000 square feet of retail	825	-	-	-	40,000
2620 Augustine Dr	Approved	Irvine Co.	General Plan Amendment #80 from High Intensity Office/R&D to Community Commercial [Retail Center] and Light Industrial to High Intensity Office/R&D [Office Phase II & III]; Rezone from Planned Development (PD) to Planned Development (PD) [Retail Center], and from Light Industrial (ML) to Commercial Park (CP) [Office Phase II & III] to allow the construction of up to 1,243,300 square feet of office space and up to 125,000 square feet of retail space for a total (inclusive of Office Phase I) of up to 2,000,100 square feet of development; Approval of Development Agreement Amendment No. 2	0	-	1,862,100	-	1,380,000
3303 Scott Blvd	Completed/Occupied	Applied Materials	New three-story office building at approximately 78,000 square feet. Design review and initial study required.	0	-	78,000	-	-
1460 Monroe St	Approved	Silicon Sage Builders	Rezone from CT to PD to construct a 4-story mixed use development with 6726 sq.ft. of ground floor retail and 28 residential units above; 43 surface parking spaces	28	-	5,528	-	6,726
45 Buckingham Dr	Completed/Occupied	Prometheus	Four-story 222 unit multi-family residential development with wrap parking structure w/ 375 on-site parking spaces in conjunction w/ demo of (e) commercial building (CEQ2013-01157)	222	-	-	-	-

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
3051 Homestead Rd	Completed/Occupied	David Tymn for Mozart Dev.	Application for Rezone from A to PD for the demolition of an existing s.f. residence, and replacement with 8 detached homes	8	-	-	-	-
4301 Great America Pkwy	Approved	SOBRATO	Rezone from PD & PD[ML] to PD to construct two high rise office buildings and one parking structure (CEQ2007-01051)construct up to 718,000 square feet of new office space in up to 1,018,000 square feet of office development; up to two, five-level parking structures with up to 3,360 total parking spaces;	0	-	1,018,000	-	-
865 Pomeroy Ave	Approved	Dennis Chargin	Rezoning application to allow an additional 20-1 bedroom apartment units within an existing apartment complex with 51 current units	71	-	-	-	-
3001 Coronado Dr	Approved	Tiemo Miehner/coresite	Architectural Review to amend the previously approved CoreSite Campus master plan with two three story 92147 square foot buildings and other improvements such as bio-swales, parking, and landscaping.	0	-	-	204,870	-
2620 Augustine Dr	Approved	Irvine Co.	125,000 square foot retail center (adjustment to PD with office campus)	0	-	1,862,100	-	138,000
5450 Great America Pkwy	Approved	BNP Leasing Corp	Architectural review for Phase 2 of approved 6-story office building on an existing office/R&D site with 3 office buildings subgrade and surface parking (certified EIR).	0	-	513,325	-	-
166 Saratoga Ave	Completed/Occupied	Charles McKeag	Submission for GPA, Rezone and AC to allow 33 unit residential project (phase I) on 1.74 acre site. Total building area 54K sq. ft.	33	-	-	-	-
2520 Augustine Dr 3333 Octavius Dr	Approved	Irvine Co. Carlene Matchniff	Santa Clara Square Office Project (Phase II and III- see a. Two additional parcels are proposed to be added to the recently approved SCSQ Project. Addendum to the EIR and Amendment to Development Agreement is part of this proposal. The Office Sites proposed will not exceed the 2009 Project. Office Phase II and III are proposed to consist of 6-8 story office buildings with associated surface and structured parking at a ratio of 3.3/1000. Vesting Tentative Parcel Map proposal combines 6 parcels to create 3 parcels (See Drawings). Street bulb at Augustine Drive and Octavius Drive is proposed to be replaced with standard curb.	0	-	1,727,100	-	138,000
1313 Franklin St 1052 Monroe St 1358 Benton St	Approved	Silicon Valley Builders	Multifamily Residential project with 46 units and 16K or retail space and 4 stories	44	-	-	-	16,700
3001, 3032 Coronado Dr	Approved	Tiemo Mehner	AC and DA for two new data centers along with vacation of a portion of Coronado Drive	0	-	-	201,350	-
750 Walsh Ave	Completed/Occupied	DH family Partnership	New 57K industrial warehouse building and surface parking and site improvements	0	-	17,596	57,000	-
2930 Corvin Dr	Approved	TI and ARC	Architectural Review to convert an existing industrial building into a data center [2.5MW energy use]	0	-	-	20,000	-
4090 Network Cir	Completed/Occupied	Oracle	Construction of one new 3-story building and one new single story building with associated site improvements to an existing office campus.	0	-	-	-	-
3303 Scott Blvd	Completed/Occupied	Applied Materials	78,000 square foot building with underground parking/Repalced with proposal for service commercial use in existing building (10-1-13)	0	-	78,000	-	-

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
	Approved	Mehdi Shemirizi	Rezone to PD to allow a mixed use project with 12 residential apartments and 1,000 sq ft of retail on a approx. 15,000 square foot lot	12	-	-	-	1,000
3333 Scott Blvd	Completed/Occupied	Jane Vaughn	Expansion of previous approval from to allow 581,000 additional sq ft of office buildings for a total of 1.316m sq.ft	0	-	1,350,713	-	-
1701 Lawrence Rd	Approved	JOMA Studio architects	Rezone from PD (R3-18D) to PD to redevelopment of an existing developed parcel with 9 attached sfr (CEQA to be determined)	9	-	-	-	-
990 Wren Ave	Approved	Eli Engleman	Rezone from R1-6L to PD to construct 5 new detached 2-story single family residences w/attached garage in conjunction with demo of existing sfr (PLN2014-10385 Map & CEQ2014-01177)	5	-	-	-	-
3700 El Camino Real	Approved	Essex Property Trust	Gateway Santa Clara (formerly Kohls Site) Mixed use development- Redevelopment of entire site 87K retail/commercial and 476 housing units (apartments)	476	-	-	-	87,000
455 El Camino Real	Completed/Occupied	SCU Steve Brodie	Re-use of existing office building for SCU for graduate studies off-campus instruction/occupation	0	-	75,000	-	-
3345 Scott Blvd	Approved	Menlo Equities	Amendment to approved project - Modification to site plan and building height of to be constructed 6-story Building D.	0	-	244,880	-	-
2950 Lakeside Dr	Approved	Rashik Patel T2	New 7 story hotel with 188 rooms	0	94,200	-	55,500	-
2820 Northwestern Pkwy	Completed/Occupied	Spencer Myers/Vantage Data Center	Architectural Review to allow a two-story 42,900 square foot addition to an existing two-story industrial building, housing data modules, electrical rooms and office. Project includes maintenance and installation of landscaping and other on-site improvements	0	-	-	42,900	-
2600 Augustine	Approved	Irvine	Santa Clara Square Mixed Use Project - - phased project 100+ acres 2,000 rental housing units 40,000 sf retail added 30 acres parks/open	1800	-	-	-	-
3000 Bowers Ave	Approved	Sobrato	(2) 5-story 150,000 sq.ft.office buildings, (1) 2-story 17,400 sq.ft. amenity building 6 story parking structure with a total of 1,200 parking spaces in conjunction with demolition of an existing 100,042 sq.ft. 2-story office building to allow construction of (2) 165,000 sq.ft. 5-story office buildings and (1) 5-story parking structure and surface parking totaling 991 parking spaces (amended project does not include an amenity building)	0	-	300,000	-	-
100 N Winchester Blvd	Approved	Santana Atrium Professional Center	92 unit senior apartment home community with onsite clubhouse and recreational amenities.	92	-	-	-	-
820 Civic Center Dr	Approved	Michael Fischer	application for a 3 unit Townhome development (retention of one historic home- total of four units)	3	-	-	-	-
2855 Stevens Creek Blvd	Completed/Occupied	Westfield Valley Fair	15K Chase bank bldg. near SCB and Winchester intersection	0	15,000	-	-	-

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
1055 Helen Ave	Approved	Mehdi Sadri	Rezone from R1-6L to PD & Architectural Review to construct a 4 unit townhome project w/ private street (Tentative Parcel Map PLN2015-11358)	4	-	-	-	-
3535 Garrett Dr	Completed/Occupied	Menlo Equities	Architectural Review for new eight story office and three level parking structure; Variance for increase in building height to 150'	0	-	150,000	115,400	-
3033 Scott Blvd	Approved	MCA	Expansion of activities at Muslim Community Association to include new high school student base, administrative offices. Director of Planning and Inspection administrative approval an increase of 150 students. Use Permit for further expansion on hold. Initial Study/MND/MMRP prepared.	0	-	-	-	-
575 Benton St	Approved	Irvine	Mission Towne Center Mission Town Center- 5-story mixed use project consisting ground floor 25,942 sf commercial space and 318 apartments on approximately 6.42 acres	417	25,942	-	-	-
3607 Kifer Rd	Approved	Lennar Commercial	Use Permit to construct off-site 5-level parking structure at 3697 Tahoe Way and 5-story 199,460 sq.ft. office building at 3607 Kifer Rd as part of an existing off campus in conjunction with a Modification to increase maximum building height of the proposed office building to 87.5' and Architectural Review of the project	0	-	199,460	-	-
1871 Bellomy St	Approved	Jason and Linda Chen	Variance and AC approval for large duplex unit development	2	-	-	-	-
2855 Stevens Creek Blvd	Approved	Westfield Valley Fair	New 10 screen Movie Theater complex and new retail tenant space	0	-	-	-	25,000
1525 Alviso St	Approved	City Ventures (Pulte Homes purchased project)	Application for 40 unit townhouse project- 3 stories (next to Mission Inn motel)- application following preapplication	40	-	-	-	-
555 Reed St 2100-2160 De La Cruz Blvd 2000-2070 De La Cruz Blvd	Completed/Occupied	Xeres Dupont Fabros	New 110,175 square foot data center building connecting the existing 421,095 square foot data center building along with associated site improvements	0	-	-	-	-
1627 Monroe St	Approved	Samir Sharma	Architectural Review to construct 3 new two-story residences; Rezone from R1-6L to PD; Tentative Parcel Map to subdivide one lot into 3 lots	3	-	-	-	-
1777 Laurelwood Rd	Approved	Ray Hashimoto /HMH for River of Life Church	New 35K sanctuary structure adjacent to existing building to allow full congregation to attend one service.	0	-	-	35,000	-
3215 Stevens Creek Blvd	Approved	Oscar Bakhtiari	Use Permit Expansion of an existing car dealership with new replacement construction of a 2-story 45,778 sq.ft. showroom/service facility & integrated parking structure w/ Modification to increase maximum building height to 40'2". Outdoor display. Project involves demolition of 1-story showroom/service facility and surface parking lot	0	-	-	-	-
820 Civic Center Dr	Approved	Michael Fischer	Amendment to approved 3 unit Townhome development (retention of one historic home- total of four units) and amendment to approve a 5th single family unit	3	-	-	-	-
5155 5120 Stars And Stripes Dr	Approved	Related	City Place -Related Co project for redevelopment of five parcels that include Santa Clara Golf & Tennis Club, BMX track, Fire Station #10, and former City landfill and two parcels on other side of Stars and Stripes (formerly for Montana Lowe project) directly across from Levi's Stadium. Master Development totals of 9.2M square feet and proposes 5.7M sq ft office; 1.1M sq ft retail; 1,360 mixed density residential units; 700 hotel rooms; 250K restaurant uses; 190K entertainment space	1360	990,000	5,700,000	-	1,100,000

Santa Clara Project as of 1/23/2018

Street Number & Street Name	Status of Entitlement	Applicant	Tidemark Description	Net Amount of Dwelling Units	Net Commercial (non-office) SQ. FT.	Net Existing Office SQ. FT.	Net Industrial SQ. FT.	Net Retail SQ. FT.
1627 Monroe St	Approved	Samir Sharma	3 new two-story residences; Rezone from R1-6L to PD; Tentative Parcel Map to subdivide one lot into 3 lots	3	-	-	-	-
4935 Stevens Creek Blvd	Approved	Bright Horizons/Camas J. Steinmetz	Demolition of existing car wash and construct a new two-story child care center Approx 18K building.	0	-	-	-	-
3155 Stevens Creek Blvd	Approved	Oscar Bakhtiari	Rezoning of one parcel from A to CT to allow for expansion of car dealership. Zoning must be approved to allow commercial use.	0	-	-	-	-
3226 Scott Blvd	Approved	Courtney Bauer	Architectural Review and ZA Modification to allow the demolition of the existing industrial building and development of a new 230,500 square foot office building with 93,640 parking structure and other onsite improvements.	0	-	-	-	-
2880 Northwestern Pkwy	Approved	Vantage Data Centers 4 LLC	Architectural review of proposed 108,858 square foot, 4-story Vantage V5 building. Proposal is for a new data center and involves parcel line changes.	0	-	-	108,858	-
2041 Mission College Blvd	Approved	Washington Holdings/Kelly Snyder	Build 5 new retail buildings totaling 24,000 sq. ft., a 5-story 175-room hotel, and various site improvements; Tentative Parcel Map to subdivide two parcels into three parcels	0	115,000	-	-	25,000
3100-3200 Coronado Dr	Approved	Irvine Company	Proposal for new office structures (2) totaling 245,000 and new parking garage	0	-	245,000	-	-
1550 Space Park Dr	Approved	Bourns	New 65,000 sq. ft. two story data center on an 89,000 sq. ft. lot.	0	-	-	65,000	-
1479, 1485 Bellomy St	Completed/Occupied	Julie Salinas	Rezone from R1-6L to PD to allow a lot split for two existing homes on a 7K R1-6L lot	0	-	-	-	-
4525 Stevens Creek Blvd	Approved	Enterprise/Paul Hernandez	New outdoor auto sales - Enterprise Rent-a-Car New Construction of a 6,300 sq. ft. showroom building and site improvements	0	-	-	-	6,300
2895 Northwestern Pkwy	Approved	Scott Chappelle/Vantage Data Centers	Vantage 6 (V6) 69,025 sq.ft. (total both floors) new two story data center building with rooftop mechanical equipment, with Initial Study and/or Negative Declaration.	0	-	-	69,025	-
1890 El Camino Real	Approved	Pinn Bros	56 for sale units condo units (no commercial removed from project by CC and reduced project by 4 units)	56	-	-	-	-
1990 El Camino Real	Approved	Leah Lombardi for Chick-fil-A	Use Permit to demo the existing drive-through restaurant (McDonald) and construct a new drive-through restaurant (Chick-fil-A) with on- and off-site improvement. The new tenant (Chick-fil-A) also proposes an indoor play area and a total of 36 outdoor seats in an existing patio.	0	5,000	-	-	-
1 Great America Pkwy	Approved	Cedar Fair	PD rezone to allow 140,000 new retail for open access to general public and year round operation of park	0	140,000	-	-	-
651, 725, and 825 Mathew St	Approved	Vantage	New Data Center campus- Vantage 420,000 sq. ft. Total in up to 4 buildings with electrical substation	0	-	-	420,000	-
3375 Scott Blvd	Approved	John Duquette	New six story office buildin 237,104 sf, 4 story parking structure with 14,000 sq.ft. amenity building (2 story building attached to garage for employee cafe and/or fitness center, etc.)	0	-	212,400	-	-
2250 El Camino Real	Pending	Sobrato	Pre-application for 55 apartments- 3 floors over podium parking (Western Motel site)	55	10,595	-	-	-
1530, 1540 Pomeroy Ave	Pending	Omid Shakeri	Rezoning of two different parcels (see also 1540 Pomeroy) from R1-6L for 1530 to PD and from A for 1540 to PD, one project, with Tentative Subdivison Map for 8 Townhome units and Lot A common lot.	8	-	-	-	-
1205 Coleman Ave	Pending	Hunter Storm Properties	New multi-family residential project on former BAE site, up to 1360 residential units, approximately 15,000-25,000 square feet of community-serving retail and restaurant space, and amenities.	1360	-	-	-	25,000
917 Warburton Ave	Approved	Samir Sharma	6 unit single family homes - subdivision map to allow for sale housing	6	-	-	-	-

Santa Clara Project as of 1/23/2018

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967 Warburton Ave	Approved	Robert Botham	Rezone from Light Industrial (ML) to Planned Development (PD) to construct (4) detached two-story single family residences on a lot with an existing single family residence to be retained (Subdivision Tentative Map to create 5 for-sale single family lots & 1 common lot PL.N2016-12065)	5	-	-	-	-
3001 Tasman Dr	Pending	Mike Hodges/Bixby Land Co	New 4-story core and shell building and two new parking structures and associated site improvements	0	-	558,753	-	-
3305 Kifer Rd	Approved	Leah Draeger/True Life Co.	Development of 45 attached townhomes and stacked flats with 109 parking spaces and open space as part of the Lawrence Station Area Plan . 7.5 acre site project. The environmental review for this project will be covered under the LSAP EIR	45	-	-	-	-
3069 Lawrence Expy	Pending	Westlake Urban/Gaye Quinn	Proposal for 333 unit multi-family development; Tentative Subdivision Map 3.82 acres	333	-	-	-	-
3023 Homestead Rd	Approved	Kurt Keegan	Application to subdivide one lot into four lots and construct three new 1,900 sq. ft. detached homes, and move the existing listed resource onto lot four	4	-	-	-	-
3501 El Camino Real	Pending	Prometheus/ Nathan Tuttle	Pre-application for the development of 100,000 square foot shopping center into a mixed use development including 80,000-86,000 sqft retail and up to 700 apartments	700	-	-	-	86,000
3505 and 3485 Kifer Road; 2985, 2951, 2901, 2900 and 2960 Gordon Avenue; 3060, 2960, 3045 and 3049 Copper Road; and 3570 Ryder Street	Approved	Johnathon Fearn/Summerhill Homes	Development of 996 residential units with 37,000 square foot retail and associated open space, landscaping, parking and other improvements as part of the Lawrence Station Area Plan.	996	-	-	839,884	37,000
2891 Homestead Rd	pending	Anthony Ho	Pre-zone a 0.39 acre site to PD pending annexation, for the construction of 8 townhouses on a podium over subterranean parking area	10	-	-	-	-
2490, 2500 El Camino Real	pending	Lou Mariani; Miles Barber	Proposal for 332 market rate residential units and 66 senior residential units totaling 398 dwelling units, a 306-room hotel with a 6,000 square foot restaurant comprising 205,197 square feet of commercial space on a 7.14 acre site	398	206,000	-	-	-
909 Kiely Blvd	pending	Swim Center at Central Park	International Swim Center (ISC) proposal at Central Park CIP project #3172: project includes the following components: ISC, Community Recreation Center, Swimming Hall of Fame	0	-	-	-	-
90 North Winchester Boulevard (1834 Worthington Circle)	pending	CORE	Portion of former BAREC site (approx 6 acres). Amendment to Existing PD allowing 165 senior affordable units; 419 mixed income apts. up to 584 housing units with 50% of units affordable, and up to 25,000 site serving commercial. Up to 1.5 acre open space	359	-	-	-	-
281 Serena Way	pending	Hanna Smolich / Bi Yun Liu	Conversion of SFD to daycare operation/ GPA and rezone needed	0	-	-	-	-
1500 Duane	Approved	Richard Pedley	Arch review to allow the a 949 square foot addition and modifaicon of the existing 68,499 square foot warehouse building to convert a vacant warehouse to a new 69,448 square foot data center.	0	-	-	70,437	-
2904 Corvin	pending	Concentric	121 residential units 5-story multi-family with	121	-	-	-	-

Santa Clara Project as of 1/23/2018

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3905 Freedom Circle	Pending	Greystar	A new mixed-use development w/following uses: Office (606,968 square feet; Residential 1018 units; Commercial 18,653 square feet Publicly Accessible Open Space (2.5 acres). 16.58 acres of land bounded by Freedom Circle, Mission College Boulevard, Highway 101, and the San Thomas Aquino Creek. The existing site consists of 17,000 square feet Pedro's restaurant and a surface parking lot (APN 104-40-020), and 13.5 acres of vacant land.	1018	18,653	606,968	-	-
2305 Mission College	Pending	Aligned Data Centers	Architectural review to allow a demolition of an existing office building and construct a new 495,660 square foot two-story data center, including generator yard, equipment yard, underground water storage, parking for 75 cars (with land banking), and a new SVP substation.	0	-	-	495,660	-
3625 Peterson Way	Pending	Boston Properties	Pre-application for construction of 2- 8 story steel frame class A office buildings a total of 672,000 square feet with adjacent 4 level above grade parking structure with 1834 parking stalls. Existing 260,000 sq. ft. building to be demolished	0	-	618,931	-	-
3402 El Camino Real	Pending	John Vidovich	Rezoning of a 2.27 acre site that was recently burned down, and redevelop a mixed-use project with 66 apartment units, 9,440 square feet of retail, amenities on the third floor, surface parking, and two-level garage parking.	66	9,900	-	-	-
575 Benton	Pending	Prometheus	(New MTC project proposal) GPA, Rezoning to PD to construct a mixed-use residential development project that consist of 355 apartment units, and approx. 26,000 square feet of retail with 697 parking spaces	355	14,000	-	-	-
1647 Lafayette	Pending	ROEM	Pre-ap review for new 4,800 sq.ft. office building, 2 stories; above grade parking podium with 16 parking spaces, zoned CT (Note: General Plan designation is Very Low Density Residential).	0	-	-	-	-
2780 El Camino Real	Pending	Prometheus RE group (Marilyn Ponte)	General Plan Amendment from Regional Commercial to Medium Density Residential; Rezone from CC to PD & Architectural Review for 58- 3 story townhomes	58	-	-	-	-
1530 and 1540 Pomeroy	Pending	Omid Shakeri	Rezoning of a 0.48 acre site from Low Density Multiple Dwelling (R3-18D) and Agriculture (A) to Planned Development (PD) to construct eight attached townhomes with Tentative Subdivision Map for eight private residential lots and one common lot for driveway and guest parking areas. 1540 Pomeroy (A), 1530 Pomeroy (R3-18D) (CEQ2017-01036)	0	-	-	-	-
1700 Russell Ave	Approved	Air Products	Use Permit to expand an existing air separation and gas production facility to increase the production of hydrogen for delivery to hydrogen fueling facilities (CEQ2017-01030)	0	-	-	-	-
1990 El Camino Real	Approved	Chik-fil-A	Building façade upgrade, site improvement, and an addition of 1,790 square foot basement to an existing 3,234 square foot drive-through restaurant (McDonald). The new tenant (Chick-fil-A) also proposes a total of 80 outdoor seats in an existing patio.	0	-	-	-	-
1375 El Camino Real	Pending	SCS Development	53 townhomes inclusive of 8 live work units	0	-	-	-	-
2232 El Camino Real	Approved	Summerhill	Rezoning a 2.74 acre project site to PD for a four-story mixed-use project with 151 senior apartment homes, 17,909 square foot of commercial space, and 277 parking spaces provided in a wrapped parking structure and parking lot.	151	-	-	-	10,000
1575 Pomeroy	Pending	Kurt Anderson and Nick Speno	Preliminary Review for a four-story 122 unit senior living apartment community					

Santa Clara Project as of 1/23/2018

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3045 Stender	Pending	Tiemo Mehner	Arch review for new 4-story 175,670 s.f. data center building with rooftop mechanical equipment. The project includes demolition of the existing single-story building.	0	-	-	-	-
1800 De La Cruz	Pending	Linda Evans	Use Permit for tenant improvements to an existing building in the heavy Industrial Area (MH) for conversion into a dog day care and boarding facility with covered outdoor activity area, landscape improvements and a new trash enclosure.	0	-	-	-	-
1150 Walsh	Pending	Raging Wire/NTT	Proposed 248,000 square foot data center and substation					
1725 De La Cruz	Pending	Silicon Valley Taproom	Use Permit to conversion of an existing 2,535 square foot light industrial building suite into a restaurant and tap room with a distilled spirits (Type 47 ABC) alcoholic beverage service license, 70 indoor seats and 12 outdoor patio seats, and to allow occasional indoor events live entertainment	0	-	-	-	-
500 El Camino Real	Approved	Santa Clara University	Architectural review of four-story, 368 bed dormitory (South Residence Hall)	0	-	-	-	-
2788 San Tomas Expressway	Pending	Saris Regis for NVIDIA	Architectural review for a new 754,100 square-foot office building and a trellis; PHASE 2 of DA and allowed area additional 300K added to to Phase II originally planned for Phase III on other parcel.	0	-	754,100	-	-
2961 Corvin	Pending	Summerhill	Development application for 38 townhomes on .27 acre site consistent with LSAP. Tentative Subdivision Map filed.	38	-	-	-	-
3005 Democracy	Pending	Ghenzan	General Plan Amendment from the High-Intensity Office/Research and Development (R&D) to a new designation allowing high-intensity mixed use development, including residential and office. 48.6 acre site. Former Yahoo office campus approval.	0	-	-	-	-
3035 El Camino Real	Pending	Hayden Land Corp.	Pre-application for 48 residential units (6 of which live-work units)	48	-	-	-	-
1900 Warburton	Pending	Samir Sharma	Rezone from General Office (OG) to Planned Development (PD) to construct 13 attached condo units in two buildings with a shared driveway on a 0.55 acre site	13	-	-	-	-
500 El Camino Real	Pending	SCU	Architectural review of STEM complex (a 273,429 sq.ft. 4-story building over basement) and demolition of 4 buildings totaling 130,993 sq.ft. (Murphy Hall, Bannan Engineering Labs, Bannan Engineering, & Bannan Hall) approved as part of the 5-year Master Plan Use Permit project (PLN2014-10779 and certified EIR CEQ2014-01184)	0	-	-	-	-

Appendix C

Volume Summary

Intersection Number:	1													
Traffic Node Number:	5632													
Intersection Name:	Lawrence Expwy and Mitty Wy													
Peak Hour:	AM	Date of Analysis: 04/16/18												
Count Date:	03/09/17													
		Movements												
Scenario		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions		0	831	136	865	0	125	31	3066	0	0	0	0	5054
Approved Project Trips														
	San Jose ATI	0	2	0	0	0	0	0	32	0	0	0	0	34
	Apple Campus 2 (Cupertino)	0	37	1	0	0	0	0	334	0	0	0	0	372
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	4	0	0	0	0	0	29	0	0	0	0	33
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	43	1	0	0	0	0	395	0	0	0	0	439
Background Conditions		0	874	137	865	0	125	31	3461	0	0	0	0	5493
Proposed Project Trips		0	0	3	8	0	0	0	0	0	0	0	0	11
Existing + Project Conditions		0	831	139	873	0	125	31	3066	0	0	0	0	5065
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		0	874	140	873	0	125	31	3461	0	0	0	0	5504
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	3	0	5	0	1	0	33	0	0	0	0	42
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	4	0	0	0	0	0	23	0	0	0	0	27
	Garden City Site Mixed-use Development (San Jose)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	7	0	5	0	1	0	56	0	0	0	0	69
Cumulative No Project Conditions		0	881	137	870	0	126	31	3517	0	0	0	0	5562
Cumulative + Project Conditions		0	881	140	878	0	126	31	3517	0	0	0	0	5573
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	2													
Traffic Node Number:	3307													
Intersection Name:	Saratoga Ave and Blackford Ave													
Peak Hour:	AM	Date of Analysis: 04/16/18												
Count Date:	03/07/18													
		Movements												
Scenario		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions		92	855	191	244	19	43	42	1903	16	15	20	111	3551
Approved Project Trips														
	San Jose ATI	0	13	0	0	0	0	0	84	0	0	0	0	97
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	13	0	0	0	0	0	84	0	0	0	0	97
Background Conditions		92	868	191	244	19	43	42	1987	16	15	20	111	3648
Proposed Project Trips		0	4	18	22	0	12	0	36	1	0	1	0	94
Reassignment of Existing Driveway Trips		0	4	-4	-10	0	0	0	0	0	0	0	0	-10
Existing + Project Conditions		92	863	205	256	19	55	42	1939	17	15	21	111	3635
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		92	876	205	256	19	55	42	2023	17	15	21	111	3732
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	8	0	0	0	0	0	42	0	0	0	0	50
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	7	0	0	0	0	0	18	0	0	0	0	25
	Garden City Site Mixed-use Development (San Jose)	0	6	0	0	0	0	0	20	0	0	0	0	26
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	3	0	0	0	0	0	5	0	0	0	0	8
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	24	0	0	0	0	0	85	0	0	0	0	109
Cumulative No Project Conditions		92	892	191	244	19	43	42	2072	16	15	20	111	3757
Cumulative + Project Conditions		92	900	205	256	19	55	42	2108	17	15	21	111	3841
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	3													
Traffic Node Number:	3113													
Intersection Name:	Saratoga Ave and Moorpark Avenue*													
Peak Hour:	AM	Date of Analysis: 04/16/18												
Count Date:	10/25/16													
		Movements												
Scenario		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions		345	929	124	265	320	137	20	1909	49	18	130	364	4610
Approved Project Trips														
	San Jose ATI	5	12	5	12	3	0	0	84	0	1	29	36	187
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	5	12	5	12	3	0	0	84	0	1	29	36	187
Background Conditions		350	941	129	277	323	137	20	1993	49	19	159	400	4797
Proposed Project Trips		0	19	0	0	0	0	0	51	8	3	0	0	81
Existing + Project Conditions		345	948	124	265	320	137	20	1960	57	21	130	364	4691
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		350	960	129	277	323	137	20	2044	57	22	159	400	4878
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	2	7	2	0	0	0	0	42	0	1	8	15	77
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	4	7	4	4	0	0	0	18	0	0	0	0	37
	Garden City Site Mixed-use Development (San Jose)	2	6	0	0	0	0	0	20	0	0	0	6	34
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	12	0	0	0	2	0	0	5	0	1	6	26
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	8	32	6	4	0	2	0	80	5	1	9	27	174
Cumulative No Project Conditions		358	973	135	281	323	139	20	2073	54	20	168	427	4971
Cumulative + Project Conditions		358	992	135	281	323	139	20	2124	62	23	168	427	5052
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	4													
Traffic Node Number:	3039													
Intersection Name:	Saratoga Ave and I-280 SB Ramp*													
Peak Hour:	AM	Date of Analysis: 04/16/18												
Count Date:	10/11/16													
		Movements												
Scenario		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions		0	1196	610	0	0	0	1025	1575	0	298	1	305	5010
Approved Project Trips														
	San Jose ATI	0	14	4	0	0	0	22	95	0	0	0	0	135
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	4	9	0	0	0	0	1	0	0	0	2	16
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	9	0	0	0	0	0	0	0	0	0	9
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	18	22	0	0	0	22	96	0	0	0	2	160
Background Conditions		0	1214	632	0	0	0	1047	1671	0	298	1	307	5170
Proposed Project Trips		0	9	0	0	0	0	12	39	0	9	0	0	69
Existing + Project Conditions		0	1205	610	0	0	0	1037	1614	0	307	1	305	5079
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		0	1223	632	0	0	0	1059	1710	0	307	1	307	5239
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	7	4	0	0	0	22	33	0	0	0	0	66
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	15	48	0	0	0	0	22	0	0	0	0	85
	Garden City Site Mixed-use Development (San Jose)	0	9	9	0	0	0	0	26	0	0	0	19	63
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	8	0	0	0	0	2	4	0	4	0	0	18
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	39	61	0	0	0	24	85	0	4	0	19	232
Cumulative No Project Conditions		0	1253	693	0	0	0	1071	1756	0	302	1	326	5402
Cumulative + Project Conditions		0	1262	693	0	0	0	1083	1795	0	311	1	326	5471
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	5														
Traffic Node Number:	3038														
Intersection Name:	Saratoga Ave and I-280 NB Ramp*														
Peak Hour:	AM														Date of Analysis: 04/16/18
Count Date:	10/11/16														
		Movements													
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT			
Existing Conditions	415	1190	47	73	68	181	279	1330	630	0	0	0	4213		
Approved Project Trips															
San Jose ATI	1	11	0	0	0	0	3	83	4	0	0	0	102		
Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0		
City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	9	13	0	0	0	0	0	5	0	0	0	0	27		
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Residential at 900 Kiely Blvd (Santa Clara)	0	9	0	0	0	0	0	0	0	0	0	0	9		
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Approved Trips	10	33	0	0	0	0	3	88	4	0	0	0	138		
Background Conditions	425	1223	47	73	68	181	282	1418	634	0	0	0	4351		
Proposed Project Trips	0	5	0	0	0	0	0	12	27	0	0	0	44		
Existing + Project Conditions	415	1195	47	73	68	181	279	1342	657	0	0	0	4257		
	check	0	0	0	0	0	0	0	0	0	0	0	0		
Background + Project Conditions	425	1228	47	73	68	181	282	1430	661	0	0	0	4395		
	check	0	0	0	0	0	0	0	0	0	0	0	0		
Pending Project Trips															
NSJ Phase II	1	4	0	0	0	0	3	21	4	0	0	0	33		
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	18	63	0	0	0	0	0	96	0	0	0	0	177		
Garden City Site Mixed-use Development (San Jose)	5	18	0	0	0	0	0	75	0	0	0	0	98		
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	5	0	0	0	0	0	3	1	0	0	0	9		
Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0		
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Pending Trips	24	90	0	0	0	0	3	195	5	0	0	0	317		
Cumulative No Project Conditions	449	1313	47	73	68	181	285	1613	639	0	0	0	4668		
Cumulative + Project Conditions	449	1318	47	73	68	181	285	1625	666	0	0	0	4712		
	check	0	0	0	0	0	0	0	0	0	0	0	0		

Intersection Number:	6													
Traffic Node Number:	3116													
Intersection Name:	Saratoga Ave and Stevens Creek Blvd*													
Peak Hour:	AM													Date of Analysis: 04/16/18
Count Date:	10/25/16													
		Movements												
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total	
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	189	423	47	37	1031	155	118	748	124	93	212	103	3280	
Approved Project Trips														
San Jose ATI	1	4	0	0	29	7	63	18	4	2	80	3	211	
Apple Campus 2 (Cupertino)	5	14	0	0	16	14	1	2	0	0	2	1	55	
City Place Phases 1, 2, and 3 (Santa Clara)	0	9	0	0	7	0	0	11	0	0	16	0	43	
Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	16	22	43	0	4	0	0	0	5	0	0	0	90	
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	6	0	0	0	3	0	0	0	3	3	3	5	23	
Townhomes at 166 Saratoga Ave (Santa Clara)	0	6	0	0	0	0	0	2	0	0	0	0	8	
Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stevens Creek Subaru Expansion (Santa Clara)	4	0	0	0	4	2	0	0	0	0	8	0	18	
Total Approved Trips	32	55	43	0	63	23	64	33	12	5	109	9	448	
Background Conditions	221	478	90	37	1094	178	182	781	136	98	321	112	3728	
Proposed Project Trips	0	2	0	0	0	1	2	5	0	0	0	0	10	
Existing + Project Conditions	189	425	47	37	1031	156	120	753	124	93	212	103	3290	
	check	0	0	0	0	0	0	0	0	0	0	0	0	
Background + Project Conditions	221	480	90	37	1094	179	184	786	136	98	321	112	3738	
	check	0	0	0	0	0	0	0	0	0	0	0	0	
Pending Project Trips														
NSJ Phase II	1	4	0	0	5	0	1	18	4	2	8	3	46	
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	32	0	0	0	66	0	0	0	0	0	31	31	160	
Garden City Site Mixed-use Development (San Jose)	0	13	0	0	0	7	10	8	19	10	28	0	95	
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	5	0	0	0	0	0	3	0	0	0	0	8	
Santa Clara Swim Center at 909 Kiely Blvd	0	5	0	0	0	0	0	0	0	0	0	0	5	
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	6	0	0	0	0	0	4	0	10	
City Place Remaining Phases (Santa Clara)	0	20	0	0	0	0	0	50	0	0	30	0	100	
Total Pending Trips	33	47	0	0	77	7	11	79	23	12	101	34	424	
Cumulative No Project Conditions	254	525	90	37	1171	185	193	860	159	110	422	146	4152	
Cumulative + Project Conditions	254	527	90	37	1171	186	195	865	159	110	422	146	4162	
	check	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Number:	7												
Traffic Node Number:	5422												
Intersection Name:	San Tomas Expwy and Saratoga Ave*												
Peak Hour:	AM												
Count Date:	03/07/18												
	Date of Analysis: 04/16/18												
	Movements												
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	195	848	0	57	411	100	189	2607	25	52	437	428	5349
Approved Project Trips													
San Jose ATI	0	105	0	0	5	0	0	58	0	0	21	0	189
Apple Campus 2 (Cupertino)	7	1	0	0	12	0	0	9	0	0	1	1	31
City Place Phases 1, 2, and 3 (Santa Clara)	9	4	7	3	7	8	1	20	7	3	9	11	89
Homes at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	3	0	0	0	3	0	0	0	0	0	2	3	11
Townhomes at 166 Saratoga Ave (Santa Clara)	1	0	0	0	0	0	0	0	0	0	0	5	6
Residential at 900 Kiely Blvd (Santa Clara)	0	9	0	0	0	0	0	0	0	0	0	0	9
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Creek Subaru Expansion (Santa Clara)	0	4	0	0	0	0	0	2	0	0	0	0	6
Total Approved Trips	20	123	7	3	27	8	1	89	7	3	33	20	341
Background Conditions	215	971	7	60	438	108	190	2696	32	55	470	448	5690
Proposed Project Trips	1	1	0	0	0	0	1	2	0	0	1	3	9
Reassignment of Existing Driveway Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing + Project Conditions	196	849	0	57	411	100	190	2609	25	52	438	431	5358
	check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	216	972	7	60	438	108	191	2698	32	55	471	451	5699
	check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips													
NSJ Phase II	4	13	1	3	11	3	-2	-20	0	0	5	3	21
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	27	0	0	0	6	0	0	0	0	0	1	30	64
Garden City Site Mixed-use Development (San Jose)	9	5	0	0	4	0	0	1	0	0	2	6	27
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	5	0	0	0	0	0	0	0	0	0	0	3	8
Santa Clara Swim Center at 909 Kiely Blvd	5	8	0	0	0	0	0	4	0	0	0	0	17
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Remaining Phases (Santa Clara)	20	60	0	0	0	0	0	200	0	0	20	50	350
Total Pending Trips	70	86	1	3	21	3	-2	185	0	0	28	92	487
Cumulative No Project Conditions	285	1057	8	63	459	111	188	2881	32	55	498	540	6177
Cumulative + Project Conditions	286	1058	8	63	459	111	189	2883	32	55	499	543	6186
	check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	8												
Traffic Node Number:	1008												
Intersection Name:	Saratoga Ave and Manzanita Dr												
Peak Hour:	AM												
Count Date:	03/07/18												
	Date of Analysis: 04/16/18												
	Movements												
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	3	968	29	146	5	22	75	1793	11	12	0	2	3066
Approved Project Trips													
San Jose ATI	0	13	0	0	0	0	0	84	0	0	0	0	97
Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Homes at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	13	0	0	0	0	0	84	0	0	0	0	97
Background Conditions	3	981	29	146	5	22	75	1877	11	12	0	2	3163
Proposed Project Trips	0	11	4	12	0	2	1	6	0	0	0	0	36
Reassignment of Existing Driveway Trips	0	0	4	11	0	0	1	-1	0	0	0	0	15
Existing + Project Conditions	3	979	37	169	5	24	77	1798	11	12	0	2	3117
	check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	3	992	37	169	5	24	77	1882	11	12	0	2	3214
	check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips													
NSJ Phase II	0	8	0	0	0	0	0	42	0	0	0	0	50
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	7	0	0	0	0	0	18	0	0	0	0	25
Garden City Site Mixed-use Development (San Jose)	0	6	0	0	0	0	0	20	0	0	0	0	26
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	3	0	0	0	0	0	5	0	0	0	0	8
Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pending Trips	0	24	0	0	0	0	0	85	0	0	0	0	109
Cumulative No Project Conditions	3	1005	29	146	5	22	75	1962	11	12	0	2	3272
Cumulative + Project Conditions	3	1016	37	169	5	24	77	1967	11	12	0	2	3323
	check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	1													
Traffic Node Number:	5632													
Intersection Name:	Lawrence Expwy and Mitty Wy													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	03/09/17													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		0	2741	445	218	0	57	69	1027	0	0	0	0	4557
Approved Project Trips														
	San Jose ATI	0	38	0	0	0	0	0	4	0	0	0	0	42
	Apple Campus 2 (Cupertino)	0	266	6	0	0	0	0	85	0	0	0	0	357
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	28	0	0	0	0	0	4	0	0	0	0	32
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	332	6	0	0	0	0	93	0	0	0	0	431
Background Conditions		0	3073	451	218	0	57	69	1120	0	0	0	0	4988
Proposed Project Trips		0	0	8	5	0	0	0	0	0	0	0	0	13
Existing + Project Conditions		0	2741	453	223	0	57	69	1027	0	0	0	0	4570
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		0	3073	459	223	0	57	69	1120	0	0	0	0	5001
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	34	0	2	0	5	0	5	0	0	0	0	46
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	9	0	0	0	0	0	5	0	0	0	0	14
	Garden City Site Mixed-use Development (San Jose)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	43	0	2	0	5	0	10	0	0	0	0	60
Cumulative No Project Conditions		0	3116	451	220	0	62	69	1130	0	0	0	0	5048
Cumulative + Project Conditions		0	3116	459	225	0	62	69	1130	0	0	0	0	5061
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	2													
Traffic Node Number:	3307													
Intersection Name:	Saratoga Ave and Blackford Ave													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	03/07/18													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		63	1536	194	170	22	68	53	1063	68	78	28	39	3382
Approved Project Trips														
	San Jose ATI	0	75	0	0	0	0	0	19	0	0	0	0	94
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	75	0	0	0	0	0	19	0	0	0	0	94
Background Conditions		63	1611	194	170	22	68	53	1082	68	78	28	39	3476
Proposed Project Trips		0	11	50	13	0	13	0	27	3	0	3	0	120
Reassignment of Existing Driveway Trips		0	21	-21	-4	0	0	0	0	0	0	0	0	-4
Existing + Project Conditions		63	1568	223	179	22	81	53	1090	71	78	31	39	3498
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		63	1643	223	179	22	81	53	1109	71	78	31	39	3592
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	34	0	0	0	0	0	7	0	0	0	0	41
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	13	0	0	0	0	0	5	0	0	0	0	18
	Garden City Site Mixed-use Development (San Jose)	0	23	0	0	0	0	0	15	0	0	0	0	38
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	-2	0	0	0	0	0	4	0	0	0	0	2
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	68	0	0	0	0	0	31	0	0	0	0	99
Cumulative No Project Conditions		63	1679	194	170	22	68	53	1113	68	78	28	39	3575
Cumulative + Project Conditions		63	1711	223	179	22	81	53	1140	71	78	31	39	3691
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	3												
Traffic Node Number:	3113												
Intersection Name:	Saratoga Ave and Moorpark Avenue*												
Peak Hour:	PM	Date of Analysis: 04/16/18											
Count Date:	10/11/16												
		Movements											
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	432	1792	289	235	229	107	72	1044	71	79	346	360	5056
Approved Project Trips													
San Jose ATI	23	70	17	14	26	5	1	18	0	0	10	10	194
Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	23	70	17	14	26	5	1	18	0	0	10	10	194
Background Conditions	455	1862	306	249	255	112	73	1062	71	79	356	370	5250
Proposed Project Trips	0	53	0	0	0	0	0	34	7	9	0	0	103
Existing + Project Conditions	432	1845	289	235	229	107	72	1078	78	88	346	360	5159
	check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	455	1915	306	249	255	112	73	1096	78	88	356	370	5353
	check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips													
NSJ Phase II	4	30	4	8	7	4	0	7	0	0	3	3	70
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	8	13	4	4	0	0	0	5	0	0	0	0	34
Garden City Site Mixed-use Development (San Jose)	7	23	0	0	0	0	0	15	0	0	0	6	51
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	9	0	0	0	2	0	0	4	0	-1	-4	10
Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pending Trips	19	75	8	12	7	6	0	27	4	0	2	5	165
Cumulative No Project Conditions	474	1937	314	261	262	118	73	1089	75	79	358	375	5415
Cumulative + Project Conditions	474	1990	314	261	262	118	73	1123	82	88	358	375	5518
	check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	4												
Traffic Node Number:	3039												
Intersection Name:	Saratoga Ave and I-280 SB Ramp*												
Peak Hour:	PM	Date of Analysis: 04/16/18											
Count Date:	11/30/16												
		Movements											
Scenario	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	1938	543	0	0	0	527	1017	0	419	39	272	4755
Approved Project Trips													
San Jose ATI	0	89	8	0	0	0	6	26	0	0	0	0	129
Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	2	3	0	0	0	0	4	0	0	0	7	16
Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	91	11	0	0	0	6	30	0	0	0	7	145
Background Conditions	0	2029	554	0	0	0	533	1047	0	419	39	279	4900
Proposed Project Trips	0	26	0	0	0	0	7	27	0	27	0	0	87
Existing + Project Conditions	0	1964	543	0	0	0	534	1044	0	446	39	272	4842
	check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions	0	2055	554	0	0	0	540	1074	0	446	39	279	4987
	check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips													
NSJ Phase II	0	31	8	0	0	0	6	10	0	0	0	0	55
Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	25	60	0	0	0	0	9	0	0	0	0	94
Garden City Site Mixed-use Development (San Jose)	0	30	34	0	0	0	0	20	0	0	0	9	93
Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	6	0	0	0	0	-1	-3	0	3	0	0	5
Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Pending Trips	0	92	102	0	0	0	5	36	0	3	0	9	247
Cumulative No Project Conditions	0	2121	656	0	0	0	538	1083	0	422	39	288	5147
Cumulative + Project Conditions	0	2147	656	0	0	0	545	1110	0	449	39	288	5234
	check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	5													
Traffic Node Number:	3038													
Intersection Name:	Saratoga Ave and I-280 NB Ramp*													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	12/13/16													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		304	1472	63	49	60	137	129	1595	389	0	0	0	4198
Approved Project Trips														
	San Jose ATI	3	76	0	0	0	0	0	23	1	0	0	0	103
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	3	5	0	0	0	0	0	18	0	0	0	0	26
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	7	0	0	0	0	7
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	6	81	0	0	0	0	0	48	1	0	0	0	136
Background Conditions		310	1553	63	49	60	137	129	1643	390	0	0	0	4334
Proposed Project Trips		0	15	0	0	0	0	0	11	16	0	0	0	42
Existing + Project Conditions		304	1487	63	49	60	137	129	1606	405	0	0	0	4240
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		310	1568	63	49	60	137	129	1654	406	0	0	0	4376
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	3	18	0	0	0	0	0	7	1	0	0	0	29
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	22	85	0	0	0	0	0	54	0	0	0	0	161
	Garden City Site Mixed-use Development (San Jose)	20	63	0	0	0	0	0	50	0	0	0	0	133
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	4	0	0	0	0	0	-2	-1	0	0	0	1
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	45	170	0	0	0	0	0	109	0	0	0	0	324
Cumulative No Project Conditions		355	1723	63	49	60	137	129	1752	390	0	0	0	4658
Cumulative + Project Conditions		355	1738	63	49	60	137	129	1763	406	0	0	0	4700
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	6													
Traffic Node Number:	3116													
Intersection Name:	Saratoga Ave and Stevens Creek Blvd*													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	10/11/16													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		119	539	98	41	435	169	203	512	186	149	948	223	3622
Approved Project Trips														
	San Jose ATI	4	20	4	0	111	61	18	5	1	0	64	0	288
	Apple Campus 2 (Cupertino)	1	4	0	0	4	3	11	11	0	0	12	4	50
	City Place Phases 1, 2, and 3 (Santa Clara)	0	57	0	0	13	0	0	8	0	0	8	0	86
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	6	8	15	0	14	0	0	0	18	0	0	0	61
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	6	0	0	0	3	0	0	0	3	4	4	7	27
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	4	0	0	0	0	0	5	0	0	0	0	9
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	2	0	0	0	10	5	0	0	0	0	4	0	21
	Total Approved Trips	19	93	19	0	155	69	29	29	22	4	92	11	542
Background Conditions		138	632	117	41	590	238	232	541	208	153	1040	234	4164
Proposed Project Trips		0	5	0	0	0	2	1	3	0	0	0	0	11
Existing + Project Conditions		119	544	98	41	435	171	204	515	186	149	948	223	3633
		check	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		138	637	117	41	590	240	233	544	208	153	1040	234	4175
		check	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	4	20	4	0	11	3	2	5	1	0	2	0	52
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	29	0	0	0	29	0	0	0	0	0	53	32	143
	Garden City Site Mixed-use Development (San Jose)	0	22	0	0	0	29	16	19	50	39	5	0	180
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	4	0	0	0	0	0	-2	0	0	0	0	2
	Santa Clara Swim Center at 909 Kiely Blvd	0	3	0	0	0	0	0	7	0	0	0	0	10
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	5	0	0	0	0	0	5	0	10
	City Place Remaining Phases (Santa Clara)	0	20	0	0	20	0	0	20	0	0	0	0	60
	Total Pending Trips	33	69	4	0	65	32	18	49	51	39	65	32	457
Cumulative No Project Conditions		171	701	121	41	655	270	250	590	259	192	1105	266	4621
Cumulative + Project Conditions		171	706	121	41	655	272	251	593	259	192	1105	266	4632
		check	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Number:	7													
Traffic Node Number:	5422													
Intersection Name:	San Tomas Expwy and Saratoga Ave*													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	10/06/16													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		358	2484	13	12	418	297	135	948	12	72	466	225	5440
Approved Project Trips														
	San Jose ATI	0	68	0	0	28	0	0	115	0	0	5	0	216
	Apple Campus 2 (Cupertino)	2	7	0	0	3	0	0	2	0	0	10	5	29
	City Place Phases 1, 2, and 3 (Santa Clara)	57	257	58	8	8	0	1	28	3	0	8	8	436
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	14	0	0	0	7	0	0	0	0	0	3	6	30
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	3	0	0	0	3	0	0	0	0	0	4	3	13
	Townhomes at 166 Saratoga Ave (Santa Clara)	5	0	0	0	0	0	0	0	0	0	0	3	8
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	7	0	0	0	0	7
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	2	0	0	0	0	0	5	0	0	0	0	7
	Total Approved Trips	81	334	58	8	49	0	1	157	3	0	30	25	746
Background Conditions		439	2818	71	20	467	297	136	1105	15	72	496	250	6186
Proposed Project Trips		3	2	0	0	1	1	1	1	0	0	1	2	12
Existing + Project Conditions		361	2486	13	12	419	298	136	949	12	72	467	227	5452
	check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		442	2820	71	20	468	298	137	1106	15	72	497	252	6198
	check	0	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	1	10	0	1	22	12	9	60	1	2	22	10	150
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	28	0	0	0	1	0	0	0	0	0	4	28	61
	Garden City Site Mixed-use Development (San Jose)	17	1	0	0	5	0	0	5	0	0	5	14	47
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	4	0	0	0	0	0	0	0	0	0	0	-2	2
	Santa Clara Swim Center at 909 Kiely Blvd	3	9	0	0	0	0	0	11	0	0	0	7	30
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	20	40	0	0	10	0	0	90	0	0	0	20	180
	Total Pending Trips	73	60	0	1	38	12	9	166	1	2	31	77	470
Cumulative No Project Conditions		512	2878	71	21	505	309	145	1271	16	74	527	327	6656
Cumulative + Project Conditions		515	2880	71	21	506	310	146	1272	16	74	528	329	6668
	check	0	0	0	0	0	0	0	0	0	0	0	0	0

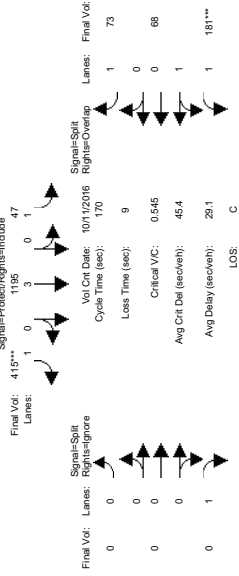
Intersection Number:	8													
Traffic Node Number:	1008													
Intersection Name:	Saratoga Ave and Manzanita Dr													
Peak Hour:	PM	Date of Analysis: 04/16/18												
Count Date:	03/07/18													
		Movements												
		Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions		10	1642	98	45	0	4	34	1138	7	11	2	2	2993
Approved Project Trips														
	San Jose ATI	0	75	0	0	0	0	0	19	0	0	0	0	94
	Apple Campus 2 (Cupertino)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Phases 1, 2, and 3 (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condominiums at 45 Buckingham Dr/50 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Childcare at 4935 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Townhomes at 166 Saratoga Ave (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Residential at 900 Kiely Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Office at 5403 Stevens Creek Blvd (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stevens Creek Subaru Expansion (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Approved Trips	0	75	0	0	0	0	0	19	0	0	0	0	94
Background Conditions		10	1717	98	45	0	4	34	1157	7	11	2	2	3087
Proposed Project Trips		0	12	12	7	0	1	2	17	0	0	0	0	51
Reassignment of Existing Driveway Trips		0	0	21	7	0	0	4	-4	0	0	0	0	28
Existing + Project Conditions		10	1654	131	59	0	5	40	1151	7	11	2	2	3072
	check	0	0	0	0	0	0	0	0	0	0	0	0	0
Background + Project Conditions		10	1729	131	59	0	5	40	1170	7	11	2	2	3166
	check	0	0	0	0	0	0	0	0	0	0	0	0	0
Pending Project Trips														
	NSJ Phase II	0	34	0	0	0	0	0	7	0	0	0	0	41
	Mixed-use at 4300 Stevens Creek Blvd (San Jose)	0	13	0	0	0	0	0	5	0	0	0	0	18
	Garden City Site Mixed-use Development (San Jose)	0	23	0	0	0	0	0	15	0	0	0	0	38
	Commercial/Retail Use at 609 Saratoga Ave (San Jose)	0	-2	0	0	0	0	0	4	0	0	0	0	2
	Santa Clara Swim Center at 909 Kiely Blvd	0	0	0	0	0	0	0	0	0	0	0	0	0
	Daycare at 281 Serena Way (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	City Place Remaining Phases (Santa Clara)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Pending Trips	0	68	0	0	0	0	0	31	0	0	0	0	99
Cumulative No Project Conditions		10	1785	98	45	0	4	34	1188	7	11	2	2	3186
Cumulative + Project Conditions		10	1797	131	59	0	5	40	1201	7	11	2	2	3265
	check	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix D

Level of Service Calculations

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1100 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 639***
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include
 Final Vol: 1330
 Signal-Protect/Rights-Include
 Final Vol: 279
 Signal-Protect/Rights-Include
 Final Vol: 657***
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include
 Final Vol: 1342
 Signal-Protect/Rights-Include
 Final Vol: 279

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 7:30-8:30
 Base Vol: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 630 1330 279 47 1190 415 0 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 630 1330 279 47 1190 415 0 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 630 1330 279 47 1190 415 0 0 0 181 68 73

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92 0.93 0.95 0.92 0.92
 Lanes: 2.00 2.46 0.54 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00 1.46 0.54 1.00 1.46
 Final Sat.: 3150 4628 971 1750 5700 1750 0 0 1750 2580 969 1750 2580 969 1750 2580

Capacity Analysis Module:
 Vol/Sat: 0.20 0.29 0.29 0.03 0.21 0.24 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 Vol/Sat: 0.21 0.29 0.29 0.03 0.21 0.24 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 Crit Moves: ****
 Green Time: 63.5 121.4 17.4 75.3 75.3 0.0 0.0 0.0 22.3 22.3 39.6 22.3 22.3 39.6 22.3 22.3
 Volume/Cap: 0.54 0.40 0.40 0.26 0.47 0.54 0.00 0.00 0.00 0.54 0.54 0.18 0.54 0.54 0.18 0.54
 Delay/Veh: 42.2 9.8 9.8 71.2 33.5 35.3 0.0 0.0 0.0 70.3 70.3 52.4 70.3 70.3 52.4 70.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.2 9.8 9.8 71.2 33.5 35.3 0.0 0.0 0.0 70.3 70.3 52.4 70.3 70.3 52.4 70.3
 LOS by Move: D A A C D+ A A A E E D-
 HCM2kVgQ: 15 11 11 3 14 17 0 0 0 7 7 0 7 7 0 7

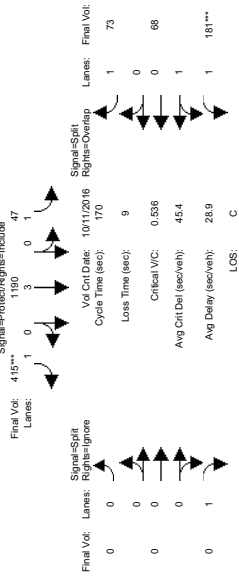
Note: Queue reported is the number of cars per lane.

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Traffic 6.0.0.715

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1100 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Existing AM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 639***
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include
 Final Vol: 1330
 Signal-Protect/Rights-Include
 Final Vol: 279
 Signal-Protect/Rights-Include
 Final Vol: 657***
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include
 Final Vol: 1342
 Signal-Protect/Rights-Include
 Final Vol: 279

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 7:30-8:30
 Base Vol: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 630 1330 279 47 1190 415 0 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 630 1330 279 47 1190 415 0 0 0 181 68 73
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 630 1330 279 47 1190 415 0 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 630 1330 279 47 1190 415 0 0 0 181 68 73

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92 0.93 0.95 0.92 0.92
 Lanes: 2.00 2.46 0.54 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00 1.46 0.54 1.00 1.46
 Final Sat.: 3150 4628 971 1750 5700 1750 0 0 1750 2580 969 1750 2580 969 1750 2580

Capacity Analysis Module:
 Vol/Sat: 0.20 0.29 0.29 0.03 0.21 0.24 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 Vol/Sat: 0.21 0.29 0.29 0.03 0.21 0.24 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 Crit Moves: ****
 Green Time: 63.5 121.4 17.4 75.3 75.3 0.0 0.0 0.0 22.3 22.3 39.6 22.3 22.3 39.6 22.3 22.3
 Volume/Cap: 0.54 0.40 0.40 0.26 0.47 0.54 0.00 0.00 0.00 0.54 0.54 0.18 0.54 0.54 0.18 0.54
 Delay/Veh: 42.2 9.8 9.8 71.2 33.5 35.3 0.0 0.0 0.0 70.3 70.3 52.4 70.3 70.3 52.4 70.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.2 9.8 9.8 71.2 33.5 35.3 0.0 0.0 0.0 70.3 70.3 52.4 70.3 70.3 52.4 70.3
 LOS by Move: D A A C D+ A A A E E D-
 HCM2kVgQ: 15 11 11 3 14 17 0 0 0 7 7 0 7 7 0 7

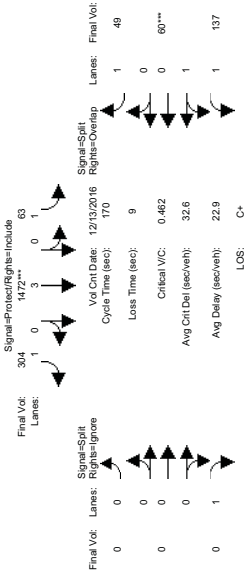
Note: Queue reported is the number of cars per lane.

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Traffic 6.0.0.715

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
12101 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 389
Lanes: 2 0 2 1 0
Signal=Protect/Right=Include

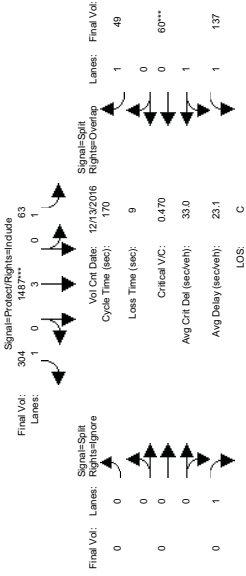
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 13 Dec 2016 << 4:00 - 5:00 PM
Base Vol: 389 1595 129 63 1472 304 0 0 719 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
12101 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 405
Lanes: 2 0 2 1 0
Signal=Protect/Right=Include

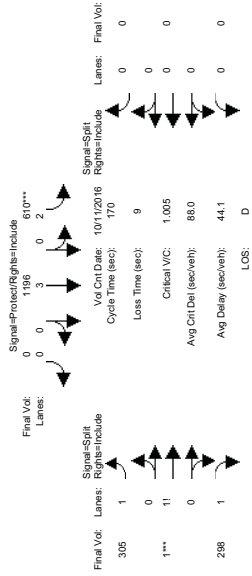
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 13 Dec 2016 << 4:00 - 5:00 PM
Base Vol: 389 1595 129 63 1472 304 0 0 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1614 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3039: 280/SARATOGA (S)



Final Vol: Lanes: Rights=Split Signal=Split Signal=Split Signal=Split
305 1 0 1575 1025 1011/2016 Rights=Include Lanes: Final Vol:
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 1,005
Avg Crt Del (sec/veh): 88.0
Avg Delay (sec/veh): 44.1
LOS: D

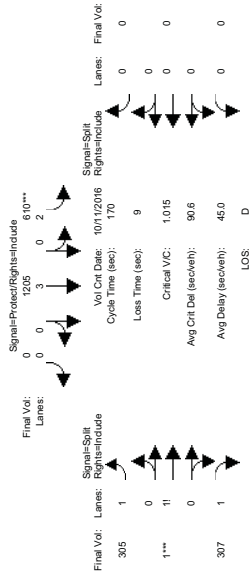
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 7:25-8:25
Base Vol: 0 1575 1025 610 1196 0 305 1 298 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1614 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3039: 280/SARATOGA (S)



Final Vol: Lanes: Rights=Split Signal=Split Signal=Split Signal=Split
305 1 0 1575 1025 1011/2016 Rights=Include Lanes: Final Vol:
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 1,015
Avg Crt Del (sec/veh): 90.6
Avg Delay (sec/veh): 45.0
LOS: D

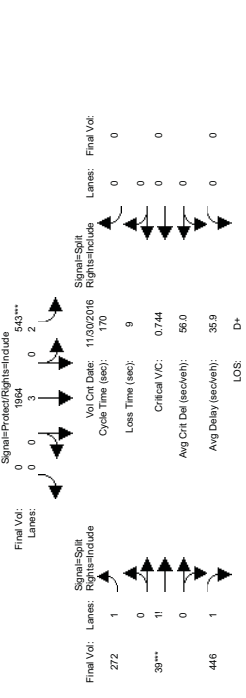
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 7:25-8:25
Base Vol: 0 1575 1025 610 1196 0 305 1 298 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Note: Queue reported is the number of cars per lane.

COMPARE
 700 Saratoga Ave (Avion Bay) Residential TIA
 Heavison Transportation Consultants, Inc.
 11450 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module: >> Count Date: 30 Nov 2016 << 4:00 - 5:00 PM
 Base Vol: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1017 527 543 1938 0 272 39 419 0 0 0 0

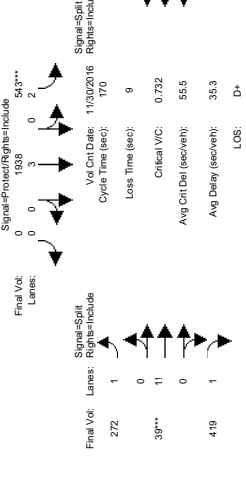
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.34 0.10 1.56 0.00 0.00 0.00
 Final Sat: 0 3800 1750 3150 5700 0 2348 171 2731 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.27 0.31 0.17 0.34 0.00 0.12 0.23 0.16 0.00 0.00 0.00
 Crit Moves: ****
 Green Time: 0.0 69.7 69.7 39.4 109 0.0 51.9 51.9 51.9 0.0 0.0 0.0
 Volume/Cap: 0.00 0.67 0.74 0.74 0.54 0.00 0.38 0.74 0.53 0.00 0.00 0.00
 Delay/Veh: 0.0 41.2 46.0 63.8 16.2 0.0 47.2 56.2 49.6 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 41.2 46.0 63.8 16.2 0.0 47.2 56.2 49.6 0.0 0.0 0.0
 LOS by Move: A D E B A D E+ D A A A
 HCM2kAVQ: 0 21 25 17 17 0 9 20 13 0 0 0

Note: Queue reported is the number of cars per lane.

COMPARE
 700 Saratoga Ave (Avion Bay) Residential TIA
 Heavison Transportation Consultants, Inc.
 11450 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Existing PM

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module: >> Count Date: 30 Nov 2016 << 4:00 - 5:00 PM
 Base Vol: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1017 527 543 1938 0 272 39 419 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1017 527 543 1938 0 272 39 419 0 0 0 0

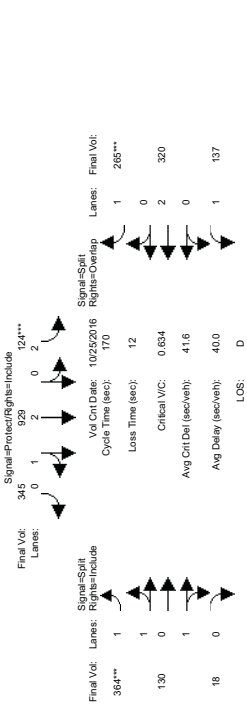
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.35 0.10 1.55 0.00 0.00 0.00
 Final Sat: 0 3800 1750 3150 5700 0 2369 178 2704 0 0 0 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.27 0.30 0.17 0.34 0.00 0.11 0.22 0.15 0.00 0.00 0.00
 Crit Moves: ****
 Green Time: 0.0 69.9 69.9 40.0 110 0.0 51.0 51.0 51.0 0.0 0.0 0.0
 Volume/Cap: 0.00 0.65 0.73 0.73 0.53 0.00 0.38 0.73 0.52 0.00 0.00 0.00
 Delay/Veh: 0.0 41.2 46.0 63.8 16.2 0.0 47.2 56.2 49.6 0.0 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 41.2 46.0 63.8 16.2 0.0 47.2 56.2 49.6 0.0 0.0 0.0
 LOS by Move: A D E B A D E+ D A A A
 HCM2kAVQ: 0 21 25 17 17 0 9 20 13 0 0 0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
1000 S. Bascom Avenue, Suite 200
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 345
Lanes: 0 1 2 0 2
Signal=Split Rights=Include
Signal=Split Rights=Overlap
Vol Cnt Date: 10/25/2016
Cycle Time (sec): 170
Loss Time (sec): 12
Critical VIC: 0.634
Avg Cnt Del (sec/veh): 41.6
Avg Delay (sec/veh): 40.0
LOS: D

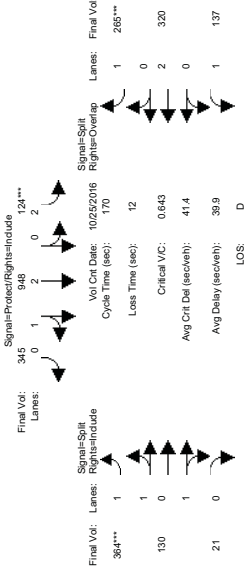
Final Vol: 1980***
Lanes: 1 0 3 0 1
Signal=ProtectRights=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module: >> Count Date: 25 Oct 2016 << 7:30-8:30
Base Vol: 49 1909 20 124 929 345 364 130 18 137 320 265
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 49 1909 20 124 929 345 364 130 18 137 320 265
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 49 1909 20 124 929 345 364 130 18 137 320 265
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 49 1909 20 124 929 345 364 130 18 137 320 265
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 49 1909 20 124 929 345 364 130 18 137 320 265

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.94 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.16 0.84 2.00 0.88 0.12 1.00 2.00 1.00
Final Sat: 1750 5700 1750 3150 4082 1516 3553 1581 219 1750 3800 1750
Capacity Analysis Module:
Vol/Sat: 0.03 0.33 0.01 0.04 0.23 0.23 0.10 0.08 0.08 0.08 0.08 0.15
Vol/Sat: 0.03 0.34 0.01 0.04 0.23 0.23 0.10 0.08 0.08 0.08 0.08 0.15
Crit Moves: ****
Green Time: 15.4 89.9 119.5 10.6 85.1 85.1 27.5 27.5 29.6 29.6 40.1
Volume/Cap: 0.31 0.63 0.02 0.63 0.45 0.45 0.63 0.51 0.51 0.45 0.48 0.64
Delay/Veh: 73.5 28.8 7.6 84.5 27.6 27.6 68.2 65.5 65.5 64.0 63.9 61.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 73.5 28.8 7.6 84.5 27.6 27.6 68.2 65.5 65.5 64.0 63.9 61.8
LOS by Move: E C A F C C E E E E E E
HCM2kAvQ: 2 22 0 4 14 14 10 8 8 8 7 8 14
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
1000 S. Bascom Avenue, Suite 200
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 345
Lanes: 0 1 2 0 2
Signal=Split Rights=Include
Signal=Split Rights=Overlap
Vol Cnt Date: 10/25/2016
Cycle Time (sec): 170
Loss Time (sec): 12
Critical VIC: 0.643
Avg Cnt Del (sec/veh): 41.4
Avg Delay (sec/veh): 39.9
LOS: D

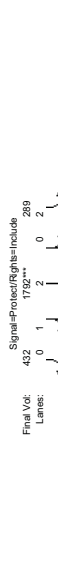
Final Vol: 1980***
Lanes: 1 0 3 0 1
Signal=ProtectRights=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module: >> Count Date: 25 Oct 2016 << 7:30-8:30
Base Vol: 49 1909 20 124 929 345 364 130 18 137 320 265
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 49 1909 20 124 929 345 364 130 18 137 320 265
Added Vol: 8 51 0 0 19 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 57 1960 20 124 948 345 364 130 21 137 320 265
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 57 1960 20 124 948 345 364 130 21 137 320 265
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 57 1960 20 124 948 345 364 130 21 137 320 265

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.17 0.83 2.00 0.86 0.14 1.00 2.00 1.00
Final Sat: 1750 5700 1750 3150 4104 1493 3553 1550 250 1750 3800 1750
Capacity Analysis Module:
Vol/Sat: 0.03 0.34 0.01 0.04 0.23 0.23 0.10 0.08 0.08 0.08 0.08 0.15
Vol/Sat: 0.03 0.34 0.01 0.04 0.23 0.23 0.10 0.08 0.08 0.08 0.08 0.15
Crit Moves: ****
Green Time: 15.3 90.9 120.0 10.4 86.0 86.0 27.1 27.1 29.1 29.1 39.5
Volume/Cap: 0.36 0.64 0.02 0.64 0.46 0.46 0.64 0.53 0.53 0.46 0.49 0.65
Delay/Veh: 74.1 28.5 7.4 85.2 27.1 27.1 68.7 66.1 66.1 64.4 64.3 62.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 74.1 28.5 7.4 85.2 27.1 27.1 68.7 66.1 66.1 64.4 64.3 62.7
LOS by Move: E C A F C C E E E E E E
HCM2kAvQ: 3 23 0 4 14 14 10 8 8 8 7 8 14
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avlon Bay Residential TIA)
San Jose, CA
Heurizon Transportation Consultants, Inc.
1000 S Bascom Avenue, Suite 300
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 432
Lanes: 0 1 1 2 0 2

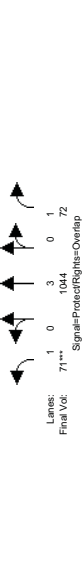
Signal-Protect/Right=Include
Signal-Split
Final Vol: Lanes: Right=Include
360 1
346 0
79*** 0

Vol Cnt Date: 10/11/2016
Cycle Time (sec): 170
Loss Time (sec): 12
Critical VC: 0.695
Avg Cnt Del (sec/veh): 39.4
Avg Delay (sec/veh): 41.7

Final Vol: 235
Lanes: 1 2 29
Final Vol: 229
Lanes: 2 29

Final Vol: 107***
Lanes: 1 107***

LOS: D



Final Vol: 78**
Lanes: 1 0 3 0 1

Signal-Protect/Right=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 5:00-6:00PM
Base Vol: 71 1044 72 289 1792 432 360 346 79 107 229 235
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 71 1044 72 289 1792 432 360 346 79 107 229 235
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 71 1044 72 289 1792 432 360 346 79 107 229 235
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 71 1044 72 289 1792 432 360 346 79 107 229 235
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 71 1044 72 289 1792 432 360 346 79 107 229 235

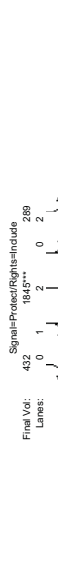
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.40 0.60 1.39 1.31 0.30 1.00 2.00 1.00
Final Sat: 1750 5700 1750 3150 4511 1087 2453 2358 538 1750 3800 1750

Capacity Analysis Module:
Vol/Sat: 0.04 0.18 0.04 0.09 0.40 0.40 0.15 0.15 0.15 0.06 0.06 0.13
Vol/Sat: 0.04 0.18 0.04 0.09 0.40 0.40 0.15 0.15 0.15 0.06 0.06 0.13
Crit Moves: ****
Green Time: 9.9 71.4 86.3 35.8 97.2 97.2 35.9 35.9 35.9 15.0 15.0 50.7
Volume/Cap: 0.69 0.44 0.08 0.44 0.69 0.69 0.69 0.69 0.69 0.69 0.68 0.45
Delay/Veh: 97.3 35.1 21.5 58.8 26.5 26.5 63.9 63.9 63.9 88.2 81.0 49.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 97.3 35.1 21.5 58.8 26.5 26.5 63.9 63.9 63.9 88.2 81.0 49.0
LOS by Move: F D+ C+ E+ C E E F F D
HCM2kAVGQ: 4 12 2 8 27 14 14 14 14 7 7 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avlon Bay Residential TIA)
San Jose, CA
Heurizon Transportation Consultants, Inc.
1000 S Bascom Avenue, Suite 300
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 432
Lanes: 0 1 1 2 0 2

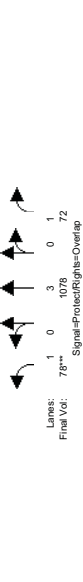
Signal-Protect/Right=Include
Signal-Split
Final Vol: Lanes: Right=Include
360 1
346*** 0
88 0

Vol Cnt Date: 10/11/2016
Cycle Time (sec): 170
Loss Time (sec): 12
Critical VC: 0.711
Avg Cnt Del (sec/veh): 40.0
Avg Delay (sec/veh): 42.0

Final Vol: 235
Lanes: 1 235
Final Vol: 229
Lanes: 2 229

Final Vol: 107***
Lanes: 1 107***

LOS: D



Final Vol: 78**
Lanes: 1 0 3 0 1

Signal-Protect/Right=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 11 Oct 2016 << 5:00-6:00PM
Base Vol: 71 1044 72 289 1792 432 360 346 79 107 229 235
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 71 1044 72 289 1792 432 360 346 79 107 229 235
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 71 1044 72 289 1792 432 360 346 79 107 229 235
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 71 1044 72 289 1792 432 360 346 79 107 229 235
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 71 1044 72 289 1792 432 360 346 79 107 229 235

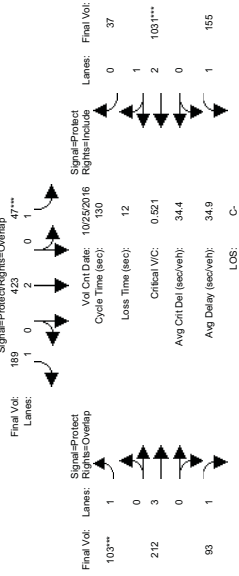
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.40 0.60 1.38 1.29 0.33 1.00 2.00 1.00
Final Sat: 1750 5700 1750 3150 4536 1062 2425 2331 593 1750 3800 1750

Capacity Analysis Module:
Vol/Sat: 0.04 0.19 0.04 0.09 0.41 0.41 0.15 0.15 0.15 0.06 0.06 0.13
Vol/Sat: 0.04 0.19 0.04 0.09 0.41 0.41 0.15 0.15 0.15 0.06 0.06 0.13
Crit Moves: ****
Green Time: 10.7 72.7 87.3 35.2 97.2 97.2 35.5 35.5 35.5 14.6 14.6 49.9
Volume/Cap: 0.71 0.44 0.08 0.44 0.71 0.71 0.71 0.71 0.71 0.71 0.70 0.46
Delay/Veh: 97.7 34.5 21.0 59.3 27.0 27.0 64.7 64.7 64.7 90.3 82.2 49.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 97.7 34.5 21.0 59.3 27.0 27.0 64.7 64.7 64.7 90.3 82.2 49.7
LOS by Move: F C+ C+ E+ C E E F F D
HCM2kAVGQ: 4 13 2 8 28 15 15 15 15 7 7 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
San Jose, CA
Heason Traffic Systems
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 25 Oct 2016 << 8:00-9:00
Base Vol: 124 748 118 47 423 189 103 212 93 155 1031 37
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 124 748 118 47 423 189 103 212 93 155 1031 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 124 748 118 47 423 189 103 212 93 155 1031 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 124 748 118 47 423 189 103 212 93 155 1031 37
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 124 748 118 47 423 189 103 212 93 155 1031 37

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 0.98 0.95
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.89 0.11
Final Sat.: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5406 194

Capacity Analysis Module:
Vol/Sat: 0.07 0.20 0.07 0.03 0.11 0.11 0.06 0.04 0.05 0.09 0.19 0.19
Crit Moves: ****
Green Time: 21.8 48.9 82.2 7.0 34.2 48.8 14.6 28.8 50.6 33.2 47.4 47.4
Volume/Cap: 0.42 0.52 0.11 0.50 0.42 0.29 0.52 0.17 0.14 0.35 0.52 0.52
Delay/Veh: 49.5 31.8 9.5 63.9 40.0 28.7 56.9 40.9 25.7 40.0 32.7 32.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.5 31.8 9.5 63.9 40.0 28.7 56.9 40.9 25.7 40.0 32.7 32.7
LOS by Move: D C A E D C E+ D C D C-
HCM2kAVGQ: 5 12 2 2 7 5 5 2 3 5 11 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
San Jose, CA
Heason Traffic Systems
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 25 Oct 2016 << 8:00-9:00
Base Vol: 124 748 118 47 423 189 103 212 93 155 1031 37
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 124 748 118 47 423 189 103 212 93 155 1031 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 124 748 118 47 423 189 103 212 93 155 1031 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 124 748 118 47 423 189 103 212 93 155 1031 37
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 124 748 118 47 423 189 103 212 93 155 1031 37

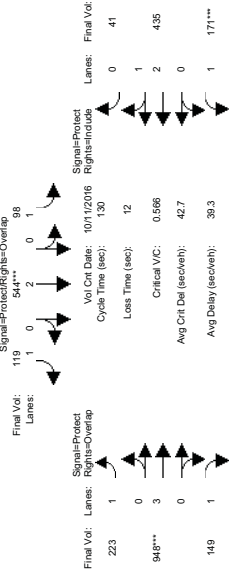
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 0.98 0.95
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.89 0.11
Final Sat.: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5406 194

Capacity Analysis Module:
Vol/Sat: 0.07 0.20 0.07 0.03 0.11 0.11 0.06 0.04 0.05 0.09 0.19 0.19
Crit Moves: ****
Green Time: 21.8 49.1 82.3 7.0 34.4 48.9 14.6 28.7 50.4 33.2 47.3 47.3
Volume/Cap: 0.42 0.52 0.11 0.50 0.42 0.29 0.52 0.17 0.14 0.35 0.52 0.52
Delay/Veh: 49.5 31.7 9.4 63.9 39.9 28.6 57.0 41.1 25.8 40.0 32.8 32.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.5 31.7 9.4 63.9 39.9 28.6 57.0 41.1 25.8 40.0 32.8 32.8
LOS by Move: D C A E D C E+ D C D C-
HCM2kAVGQ: 5 12 2 2 7 5 5 2 3 5 11 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heavison Transportation Consultants, Inc.
11450 S. Bascom Avenue, Suite 200
Palo Alto, CA 94304
2000 HCM Operations (Future Volume Alternative)
Existing PHM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	MIF Adj	Final Volume	Sat/Flane	Adj	Lanes	Final Sat
7	10	10	0.0	1.00	10	0	1.00	1.00	10	1900	0.92	1	1900
4.0	4.0	4.0	0.0	1.00	4.0	0	1.00	1.00	4.0	1900	0.92	1	1900

Volume Module: >> Count Date: 11 Oct 2016 << 5:00 - 6:00 PM
 Base Vol: 186 512 203 98 539 119 223 948 149 169 435 41
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 186 512 203 98 539 119 223 948 149 169 435 41
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 186 512 203 98 539 119 223 948 149 169 435 41
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 186 512 203 98 539 119 223 948 149 169 435 41
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 186 512 203 98 539 119 223 948 149 169 435 41

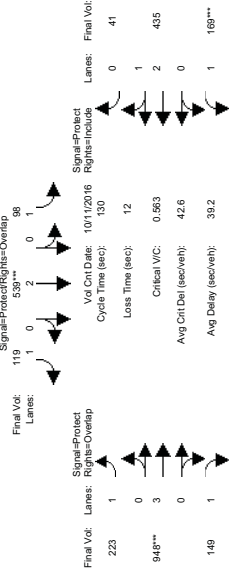
Saturation Flow Module:
 Sat/Flane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00 1.00
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5117 482

Capacity Analysis Module:
 Vol/Sat: 0.11 0.13 0.12 0.06 0.14 0.07 0.13 0.17 0.09 0.10 0.09 0.09
 Crit Moves: ****
 Green Time: 24.5 40.5 62.8 16.8 32.8 69.2 36.4 38.4 62.9 22.3 24.3 24.3
 Volume/Cap: 0.56 0.43 0.24 0.43 0.56 0.13 0.45 0.56 0.18 0.56 0.45 0.45
 Delay/Veh: 50.1 35.9 19.8 53.5 43.2 15.3 39.3 39.1 19.0 51.8 47.3 47.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 50.1 35.9 19.8 53.5 43.2 15.3 39.3 39.1 19.0 51.8 47.3 47.3
 LOS by Move: D D+ D- D B D B D B- D D
 HCM2kAVQ: 8 8 5 4 9 2 8 11 4 7 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heavison Transportation Consultants, Inc.
11450 S. Bascom Avenue, Suite 200
Palo Alto, CA 94304
2000 HCM Operations (Future Volume Alternative)
Existing PHM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	MIF Adj	Final Volume	Sat/Flane	Adj	Lanes	Final Sat
7	10	10	0.0	1.00	10	0	1.00	1.00	10	1900	0.92	1	1900
4.0	4.0	4.0	0.0	1.00	4.0	0	1.00	1.00	4.0	1900	0.92	1	1900

Volume Module: >> Count Date: 11 Oct 2016 << 5:00 - 6:00 PM
 Base Vol: 186 512 203 98 539 119 223 948 149 169 435 41
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 186 512 203 98 539 119 223 948 149 169 435 41
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 186 512 203 98 539 119 223 948 149 169 435 41
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 186 512 203 98 539 119 223 948 149 169 435 41
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 186 512 203 98 539 119 223 948 149 169 435 41

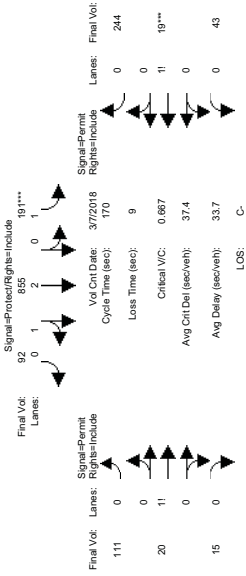
Saturation Flow Module:
 Sat/Flane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00 1.00
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5117 482

Capacity Analysis Module:
 Vol/Sat: 0.11 0.13 0.12 0.06 0.14 0.07 0.13 0.17 0.09 0.10 0.09 0.09
 Crit Moves: ****
 Green Time: 24.5 40.5 62.8 16.8 32.8 69.2 36.4 38.4 62.9 22.3 24.3 24.3
 Volume/Cap: 0.56 0.43 0.24 0.43 0.56 0.13 0.45 0.56 0.18 0.56 0.45 0.45
 Delay/Veh: 50.1 35.9 19.8 53.5 43.2 15.3 39.3 39.1 19.0 51.8 47.3 47.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 50.1 35.9 19.8 53.5 43.2 15.3 39.3 39.1 19.0 51.8 47.3 47.3
 LOS by Move: D D+ D- D B D B D B- D D
 HCM2kAVQ: 8 8 5 4 9 2 8 11 4 7 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1750 S. Bascom Avenue, Suite 200
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: Lanes: Signal=Permit Rights=Include Lanes: Final Vol:
111 0 0 0 0 0 0 0 0 0 0 0 0 244
20 11 0 0 0 0 0 0 0 0 0 0 0 19***
15 0 0 0 0 0 0 0 0 0 0 0 0 43
LOS: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 7 Mar 2018 << 7:45-8:45
Base Vol: 16 1903 42 191 855 92 111 20 15 43 19 244

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 16 1903 42 191 855 92 111 20 15 43 19 244
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 1903 42 191 855 92 111 20 15 43 19 244

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 1903 42 191 855 92 111 20 15 43 19 244
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 16 1903 42 191 855 92 111 20 15 43 19 244

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.99 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92

Lanes: 1.00 2.93 0.07 1.00 2.70 0.30 0.76 0.14 0.10 0.14 0.06 0.80
Final Sat.: 1750 5479 121 1750 5055 544 1330 240 180 246 109 1395

Capacity Analysis Module:
Vol/Sat: 0.01 0.35 0.35 0.11 0.17 0.17 0.08 0.08 0.08 0.17 0.17 0.17 0.17
Crit Moves: ****

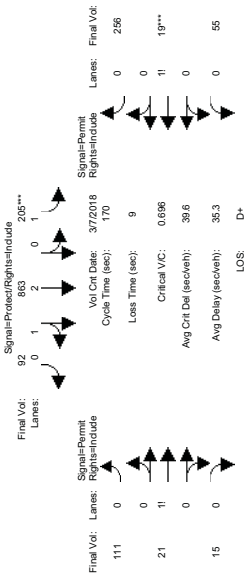
Green Time: 22.8 88.6 88.6 27.8 93.6 93.6 44.6 44.6 44.6 44.6 44.6 44.6
Volume/Cap: 0.07 0.67 0.31 0.31 0.32 0.32 0.32 0.32 0.67 0.67 0.67 0.67
Delay/Veh: 64.4 30.5 30.5 72.6 20.7 20.7 50.9 50.9 59.8 59.8 59.8 59.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 64.4 30.5 30.5 72.6 20.7 20.7 50.9 50.9 59.8 59.8 59.8 59.8
LOS by Move: E C- C E C+ C+ D D D E+ E+
HCM2kAVQ: 1 24 24 10 9 9 6 6 6 6 6 6 6 16 16

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1750 S. Bascom Avenue, Suite 200
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: Lanes: Signal=Permit Rights=Include Lanes: Final Vol:
111 0 0 0 0 0 0 0 0 0 0 0 0 256
21 11 0 0 0 0 0 0 0 0 0 0 0 19***
15 0 0 0 0 0 0 0 0 0 0 0 0 55
LOS: D+

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 7 Mar 2018 << 7:45-8:45
Base Vol: 16 1903 42 191 855 92 111 20 15 43 19 244

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 16 1903 42 191 855 92 111 20 15 43 19 244
Added Vol: 1 36 0 18 4 0 0 0 0 0 0 0 0 22
Reassigned: 0 0 0 -4 4 0 0 0 0 0 0 0 0 -10
Initial Fut: 17 1939 42 205 863 92 111 21 15 55 19 256

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 1939 42 205 863 92 111 21 15 55 19 256
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 17 1939 42 205 863 92 111 21 15 55 19 256

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.99 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92

Lanes: 1.00 2.93 0.07 1.00 2.70 0.30 0.76 0.14 0.10 0.14 0.06 0.77
Final Sat.: 1750 5481 119 1750 5060 539 1321 250 179 292 101 1388

Capacity Analysis Module:
Vol/Sat: 0.01 0.35 0.35 0.12 0.17 0.17 0.08 0.08 0.08 0.19 0.19 0.19 0.19
Crit Moves: ****

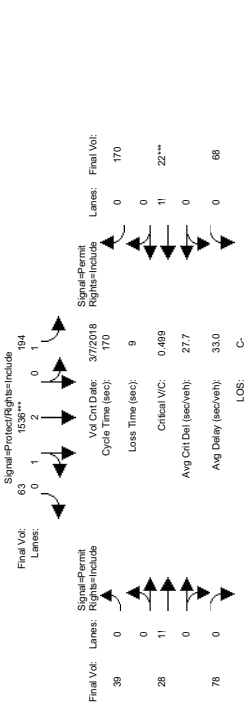
Green Time: 22.4 86.4 86.4 28.6 92.6 92.6 46.0 46.0 46.0 46.0 46.0 46.0 46.0
Volume/Cap: 0.07 0.70 0.31 0.31 0.31 0.31 0.31 0.31 0.31 0.31 0.31 0.31 0.31
Delay/Veh: 64.9 32.6 32.6 73.7 21.3 21.3 49.7 49.7 49.7 49.7 49.7 49.7 49.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 64.9 32.6 32.6 73.7 21.3 21.3 49.7 49.7 49.7 49.7 49.7 49.7 49.7
LOS by Move: E C- C E C+ C+ D D D E E
HCM2kAVQ: 1 26 26 11 9 9 6 6 6 6 6 6 6 17 17

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1700 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 63 1536 194
Lanes: 0 1 2 0 1
Signal=Permit Rights=Include
Vol Cnt Date: 3/7/2018
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.489
Avg Cnt Del (sec/veh): 27.7
Avg Delay (sec/veh): 33.0
LOS: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

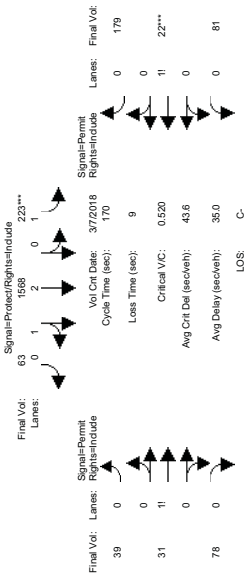
Volume Module: >> Count Date: 7 Mar 2018 << 4:45-5:45
Base Vol: 68 1063 53 194 1536 63 39 28 78 68 22 170
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 68 1063 53 194 1536 63 39 28 78 68 22 170
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 68 1063 53 194 1536 63 39 28 78 68 22 170
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 68 1063 53 194 1536 63 39 28 78 68 22 170
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 68 1063 53 194 1536 63 39 28 78 68 22 170

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 1.00 2.85 0.15 1.00 2.88 0.12 0.27 0.19 0.54 0.26 0.08 0.66
Final Sat.: 1750 5334 266 1750 5379 221 471 338 941 458 148 1144

Capacity Analysis Module:
Vol/Sat: 0.04 0.20 0.20 0.11 0.29 0.29 0.08 0.08 0.15 0.15 0.15 0.15
Crit Moves: ****
Green Time: 13.2 71.0 71.0 39.5 97.2 97.2 50.6 50.6 50.6 50.6 50.6 50.6
Volume/Cap: 0.50 0.48 0.48 0.48 0.50 0.50 0.28 0.28 0.28 0.50 0.50 0.50
Delay/Veh: 78.1 36.2 36.2 57.2 21.9 21.9 46.0 46.0 46.0 50.0 50.0 50.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.1 36.2 36.2 57.2 21.9 21.9 46.0 46.0 46.0 50.0 50.0 50.0
LOS by Move: E- D+ E+ C+ C+ D D D D
HCM2kAvQ: 4 14 14 9 16 16 6 6 6 6 12 12
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1700 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 63 1536 194
Lanes: 0 1 2 0 1
Signal=Permit Rights=Include
Vol Cnt Date: 3/7/2018
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.520
Avg Cnt Del (sec/veh): 43.6
Avg Delay (sec/veh): 35.0
LOS: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

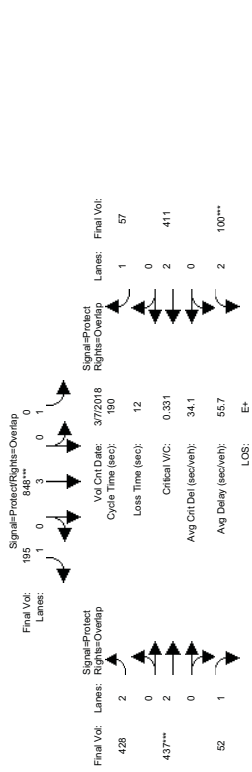
Volume Module: >> Count Date: 7 Mar 2018 << 4:45-5:45
Base Vol: 68 1063 53 194 1536 63 39 28 78 68 22 170
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 68 1063 53 194 1536 63 39 28 78 68 22 170
Added Vol: 3 27 0 0 0 0 0 0 0 0 0 0
Reassigned: 0 0 0 -21 21 0 0 0 0 0 0 0
Initial Fut: 71 1090 53 223 1568 63 39 31 78 81 22 179
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 71 1090 53 223 1568 63 39 31 78 81 22 179
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 71 1090 53 223 1568 63 39 31 78 81 22 179

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 1.00 2.86 0.14 1.00 2.88 0.12 0.26 0.21 0.53 0.29 0.08 0.63
Final Sat.: 1750 5340 260 1750 5383 216 461 367 922 503 137 1111

Capacity Analysis Module:
Vol/Sat: 0.04 0.20 0.20 0.13 0.29 0.29 0.08 0.08 0.16 0.16 0.16 0.16
Crit Moves: ****
Green Time: 13.4 66.7 66.7 41.6 94.9 94.9 52.7 52.7 52.7 52.7 52.7 52.7
Volume/Cap: 0.51 0.52 0.52 0.52 0.52 0.52 0.27 0.27 0.27 0.52 0.52 0.52
Delay/Veh: 78.4 39.7 39.7 56.7 23.6 23.6 44.5 44.5 44.5 49.2 49.2 49.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.4 39.7 39.7 56.7 23.6 23.6 44.5 44.5 44.5 49.2 49.2 49.2
LOS by Move: E- D D E+ C+ C+ D D D D
HCM2kAvQ: 4 15 15 10 17 17 6 6 6 6 13 13
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
Heavon Transportation Consultants, Inc.
San Jose, CA
16000 Saratoga Road
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 7 Mar 2018 << 7:45 - 8:45 AM
Base Vol: 25 2607 189 0 848 195 428 437 52 100 411 57
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 25 2607 189 0 848 195 428 437 52 100 411 57
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 25 2607 189 0 848 195 428 437 52 100 411 57
User Adj: 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25 2216 189 0 848 195 428 437 52 100 411 57
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 25 2216 189 0 848 195 428 437 52 100 411 57

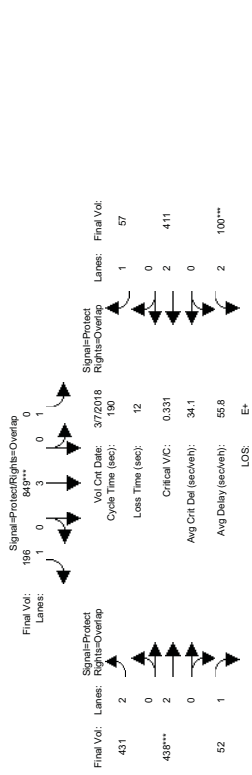
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 1.00 2.00 1.00 1.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat: 1750 3800 1750 1750 5700 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
Vol/Sat: 0.01 0.58 0.11 0.00 0.15 0.11 0.14 0.12 0.03 0.03 0.11 0.03
Crit Moves: ****
Green Time: 4.0 113 127.0 0.0 109 138.0 29.0 51.0 55.0 14.0 36.0 36.0
Volume/Cap: 0.68 0.98 0.16 0.00 0.26 0.15 0.89 0.43 0.10 0.43 0.57 0.17
Delay/Veh: 133.1 66.4 18.3 0.0 12.9 1.1 97.2 57.7 49.5 85.5 71.1 64.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 133.1 66.4 18.3 0.0 12.9 1.1 97.2 57.7 49.5 85.5 71.1 64.8
LOS by Move: F E B- A B A F E H
HCM2kVgQ: 3 68 7 0 5 1 16 10 2 4 11 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
Heavon Transportation Consultants, Inc.
San Jose, CA
16000 Saratoga Road
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 7 Mar 2018 << 7:45 - 8:45 AM
Base Vol: 25 2607 189 0 848 195 428 437 52 100 411 57
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 25 2607 189 0 848 195 428 437 52 100 411 57
Added Vol: 0 2 1 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 25 2609 190 0 849 196 431 438 52 100 411 57
User Adj: 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25 2218 190 0 849 196 431 438 52 100 411 57
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 25 2218 190 0 849 196 431 438 52 100 411 57

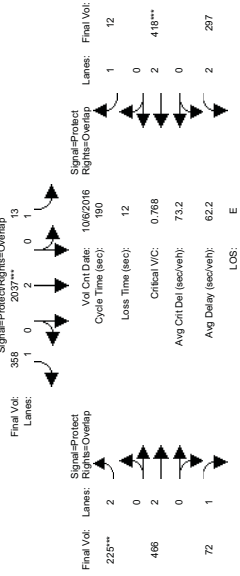
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 1.00 2.00 1.00 1.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat: 1750 3800 1750 1750 5700 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
Vol/Sat: 0.01 0.58 0.11 0.00 0.15 0.11 0.14 0.12 0.03 0.03 0.11 0.03
Crit Moves: ****
Green Time: 4.0 113 127.0 0.0 109 138.0 29.0 51.0 55.0 14.0 36.0 36.0
Volume/Cap: 0.68 0.98 0.16 0.00 0.26 0.15 0.90 0.43 0.10 0.43 0.57 0.17
Delay/Veh: 133.1 66.6 18.3 0.0 12.9 1.1 98.2 57.8 49.5 85.5 71.1 64.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 133.1 66.6 18.3 0.0 12.9 1.1 98.2 57.8 49.5 85.5 71.1 64.8
LOS by Move: F E B- A B A F E H
HCM2kVgQ: 3 68 7 0 5 1 16 10 2 4 11 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
14500 S. Bascom Avenue, Suite 200, San Jose, CA 95129
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5422: SAN TOMAS EXPWY/SARATOGA AVE



Final Vol: 369 Lanes: 1 0 2 0 0 1
Signal=Protect Rights=Overlap
Vol Cnt Date: 10/6/2016 Rights=Overlap Lanes: Final Vol:
Cycle Time (sec): 190 0 1 12
Loss Time (sec): 12 0 0 0 0 0
Critical VIC: 0.768 2 418***
Avg Cnt Del (sec/veh): 73.2 0 0 0 0 0
Avg Delay (sec/veh): 62.2 2 287

LOS: E
Lanes: 1 0 3 0 1
Final Vol: 948
Signal=Protect Rights=Overlap
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 14 112 112 14 117 117 26 40 4.0 26 41 41
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

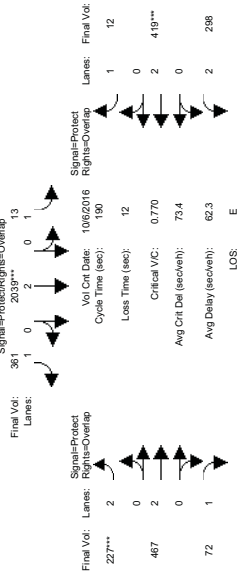
Volume Module: >> Count Date: 6 Oct 2016 << 5:15-6:15PM
Base Vol: 12 948 135 13 2484 358 225 466 72 297 418 12
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 12 948 135 13 2484 358 225 466 72 297 418 12
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 12 948 135 13 2484 358 225 466 72 297 418 12
User Adj: 1.00 1.00 1.00 1.00 0.82 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 12 948 135 13 2037 358 225 466 72 297 418 12
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 12 948 135 13 2037 358 225 466 72 297 418 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.82 0.83 1.00 0.92 0.83 1.00 0.82
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750
Capacity Analysis Module:
Vol/Sat: 0.01 0.17 0.08 0.01 0.54 0.20 0.07 0.12 0.04 0.09 0.11 0.01
Crit Moves: ****
Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
Volume/Cap: 0.10 0.30 0.11 0.11 0.96 0.30 0.58 0.63 0.16 0.75 0.56 0.03
Delay/Veh: 92.5 32.9 18.5 92.0 70.5 21.5 88.9 79.7 60.1 96.4 77.4 57.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 92.5 32.9 18.5 92.0 70.5 21.5 88.9 79.7 60.1 96.4 77.4 57.2
LOS by Move: F C- B- F C+ F E- F E+
HCM2kAVQ: 1 13 5 1 67 15 8 13 4 12 12 1

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
14500 S. Bascom Avenue, Suite 200, San Jose, CA 95129
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5422: SAN TOMAS EXPWY/SARATOGA AVE



Final Vol: 369 Lanes: 1 0 2 0 0 1
Signal=Protect Rights=Overlap
Vol Cnt Date: 10/6/2016 Rights=Overlap Lanes: Final Vol:
Cycle Time (sec): 190 0 1 12
Loss Time (sec): 12 0 0 0 0 0
Critical VIC: 0.770 2 419***
Avg Cnt Del (sec/veh): 73.4 0 0 0 0 0
Avg Delay (sec/veh): 62.3 2 288

LOS: E
Lanes: 1 0 3 0 1
Final Vol: 949
Signal=Protect Rights=Overlap

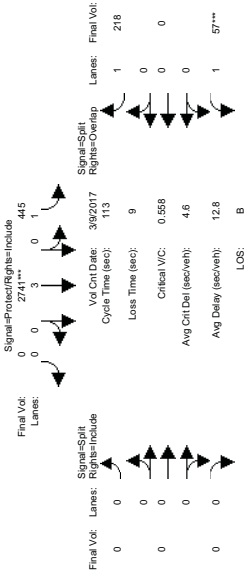
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 14 112 112 14 117 117 26 40 4.0 26 41 41
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module: >> Count Date: 6 Oct 2016 << 5:15-6:15PM
Base Vol: 12 948 135 13 2484 358 225 466 72 297 418 12
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 12 948 135 13 2484 358 225 466 72 297 418 12
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 12 948 135 13 2484 358 225 466 72 297 418 12
User Adj: 1.00 1.00 1.00 1.00 0.82 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 12 948 135 13 2039 361 227 467 72 298 419 12
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 12 948 136 13 2039 361 227 467 72 298 419 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.82 0.83 1.00 0.92 0.83 1.00 0.82
Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750
Capacity Analysis Module:
Vol/Sat: 0.01 0.17 0.08 0.01 0.54 0.21 0.07 0.12 0.04 0.09 0.11 0.01
Crit Moves: ****
Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
Volume/Cap: 0.10 0.30 0.11 0.11 0.96 0.30 0.58 0.64 0.16 0.75 0.56 0.03
Delay/Veh: 92.5 33.0 18.5 92.0 70.7 21.6 89.1 79.7 60.1 96.6 77.4 57.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 92.5 33.0 18.5 92.0 70.7 21.6 89.1 79.7 60.1 96.6 77.4 57.2
LOS by Move: F C- B- F C+ F E- F E+
HCM2kAVQ: 1 14 5 1 67 15 8 13 4 12 12 1

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5632: LAWRENCE/MITTY



Final Vol: Lanes: Signal=Split Rights=Include Signal=Split Rights=Overlap Lanes: Final Vol:
0 0 0 0 39/2017 113 1 218
Loss Time (sec): 9 Critical VIC: 0.558 0 0
Avg Crt Del (sec/veh): 4.6 Avg Delay (sec/veh): 1 57***

LOS: B
Lanes: 0 0 3 0 1
Final Vol: 0** 1027 69
Signal=Protect/Right=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 0 0 0 0 10 0 10 0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0
Volume Module: >> Count Date: 9 Mar 2017 << 5:00-6:00
Base Vol: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
Growth Adj: 1.00
Initial Base: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
Added Vol: 0
PasserByVol: 0
Initial Fut: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
Reduced Vol: 0
PCE Adj: 1.00
MIF Adj: 1.00
Final Volume: 0 1027 69 445 2741 0 0 0 0 0 57 0 218

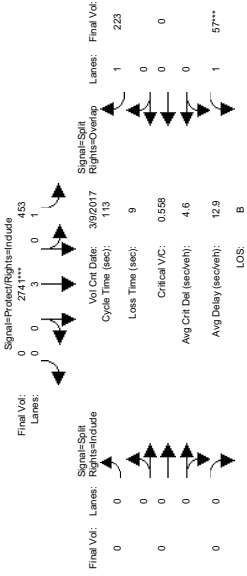
Saturation Flow Module:
Sat/Lane: 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750

Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.04 0.25 0.48 0.00 0.00 0.00 0.00 0.00 0.03 0.00 0.12
Crit Moves: ****
Green Time: 0.0 39.0 49.0 55.0 94.0 0.0 0.0 0.0 0.0 0.0 10.0 0.0 65.0
Volume/Cap: 0.00 0.52 0.09 0.52 0.58 0.00 0.00 0.00 0.00 0.00 0.37 0.00 0.22
Delay/Veh: 0.0 30.6 19.1 22.2 3.6 0.0 0.0 0.0 0.0 0.0 55.1 0.0 12.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.6 19.1 22.2 3.6 0.0 0.0 0.0 0.0 0.0 55.1 0.0 12.1
LOS by Move: A C B- C+ A A A A A A E+ A B
HCM2kAVGQ: 0 10 1 12 11 0 0 0 0 0 0 0 2 0 4

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5632: LAWRENCE/MITTY



Final Vol: Lanes: Signal=Split Rights=Include Signal=Split Rights=Overlap Lanes: Final Vol:
0 0 0 0 39/2017 113 1 223
Loss Time (sec): 9 Critical VIC: 0.558 0 0
Avg Crt Del (sec/veh): 4.6 Avg Delay (sec/veh): 1 57***

LOS: B
Lanes: 0 0 3 0 1
Final Vol: 0** 1027 69
Signal=Protect/Right=Overlap

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 0 0 0 0 10 0 10 0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0
Volume Module: >> Count Date: 9 Mar 2017 << 5:00-6:00
Base Vol: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
Growth Adj: 1.00
Initial Base: 0 1027 69 445 2741 0 0 0 0 0 57 0 218
Added Vol: 0
PasserByVol: 0
Initial Fut: 0 1027 69 445 2741 0 0 0 0 0 57 0 223
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0 1027 69 445 2741 0 0 0 0 0 57 0 223
Reduced Vol: 0
PCE Adj: 1.00
MIF Adj: 1.00
Final Volume: 0 1027 69 445 2741 0 0 0 0 0 57 0 223

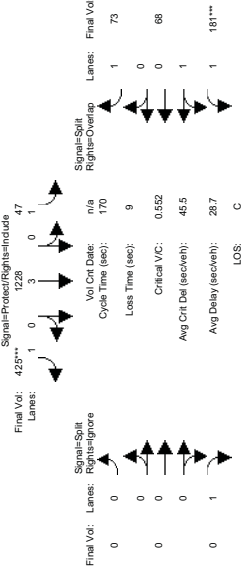
Saturation Flow Module:
Sat/Lane: 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750 0 1750

Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.04 0.26 0.48 0.00 0.00 0.00 0.00 0.00 0.03 0.00 0.13
Crit Moves: ****
Green Time: 0.0 38.6 48.6 55.4 94.0 0.0 0.0 0.0 0.0 0.0 10.0 0.0 65.4
Volume/Cap: 0.00 0.53 0.09 0.53 0.58 0.00 0.00 0.00 0.00 0.00 0.37 0.00 0.22
Delay/Veh: 0.0 30.9 19.4 22.1 3.6 0.0 0.0 0.0 0.0 0.0 55.1 0.0 12.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.9 19.4 22.1 3.6 0.0 0.0 0.0 0.0 0.0 55.1 0.0 12.0
LOS by Move: A C B- C+ A A A A A A E+ A B
HCM2kAVGQ: 0 10 1 12 11 0 0 0 0 0 0 0 2 0 4

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #3038: 280/SARATOGA (N)



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 634 1418 282 47 1223 425 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 634 1418 282 47 1223 425 0 0 181 68 73
 Added Vol: 27 12 0 0 5 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 661 1430 282 47 1228 425 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 661 1430 282 47 1228 425 0 0 181 68 73
 Reduced Vol: 661 1430 282 47 1228 425 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 661 1430 282 47 1228 425 0 0 181 68 73

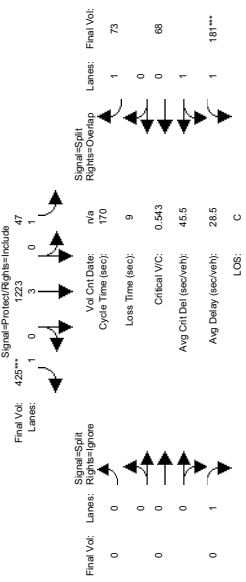
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92 0.93 0.95 0.92 0.92
 Lanes: 2.00 2.49 0.51 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00 1.46 0.54 1.00 1.46
 Final Sat: 3150 4676 922 1750 5700 1750 0 0 1750 2580 969 1750 2580 969 1750 2580

Capacity Analysis Module:
 Vol/Sat: 0.21 0.31 0.31 0.03 0.22 0.24 0.00 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07
 Crit Moves: ****
 Green Time: 64.6 123 122.9 16.5 74.8 74.8 0.0 0.0 0.0 21.6 21.6 38.1 21.6 21.6 38.1 21.6
 Volume/Cap: 0.55 0.42 0.42 0.28 0.49 0.55 0.00 0.00 0.00 0.00 0.55 0.55 0.55 0.55 0.55 0.55
 Delay/Veh: 41.9 9.5 9.5 72.1 34.1 36.1 0.0 0.0 0.0 71.1 71.1 53.6 71.1 71.1 53.6 71.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.9 9.5 9.5 72.1 34.1 36.1 0.0 0.0 0.0 71.1 71.1 53.6 71.1 71.1 53.6 71.1
 LOS by Move: D A A C- D+ A A A E D-
 HCM2kAVQ: 15 12 12 3 14 17 0 0 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #3038: 280/SARATOGA (N)



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 634 1418 282 47 1223 425 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 634 1418 282 47 1223 425 0 0 181 68 73
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 634 1418 282 47 1223 425 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 634 1418 282 47 1223 425 0 0 181 68 73
 Reduced Vol: 634 1418 282 47 1223 425 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 634 1418 282 47 1223 425 0 0 181 68 73

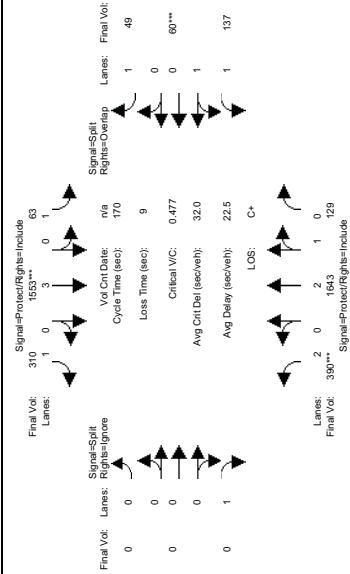
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92 0.93 0.95 0.92 0.92
 Lanes: 2.00 2.48 0.52 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00 1.46 0.54 1.00 1.46
 Final Sat: 3150 4670 929 1750 5700 1750 0 0 1750 2580 969 1750 2580 969 1750 2580

Capacity Analysis Module:
 Vol/Sat: 0.20 0.30 0.30 0.03 0.21 0.24 0.00 0.00 0.00 0.00 0.07 0.07 0.07 0.07 0.07 0.07
 Crit Moves: ****
 Green Time: 63.0 122 122.4 16.6 76.0 76.0 0.0 0.0 0.0 22.0 22.0 38.6 22.0 22.0 38.6 22.0
 Volume/Cap: 0.54 0.42 0.42 0.27 0.48 0.54 0.00 0.00 0.00 0.00 0.54 0.54 0.54 0.54 0.54 0.54
 Delay/Veh: 42.7 9.6 9.6 72.0 33.2 35.1 0.0 0.0 0.0 70.7 70.7 53.2 70.7 70.7 53.2 70.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 42.7 9.6 9.6 72.0 33.2 35.1 0.0 0.0 0.0 70.7 70.7 53.2 70.7 70.7 53.2 70.7
 LOS by Move: D A A C- D+ A A A E D-
 HCM2kAVQ: 15 12 12 3 14 17 0 0 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
Signal=Split
Rights=Signore
Lanes: 0 0
Vol Cnt Date: n/a
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.477
Avg Cnt Del (sec/veh): 32.0
Avg Delay (sec/veh): 22.5
LOS: C+

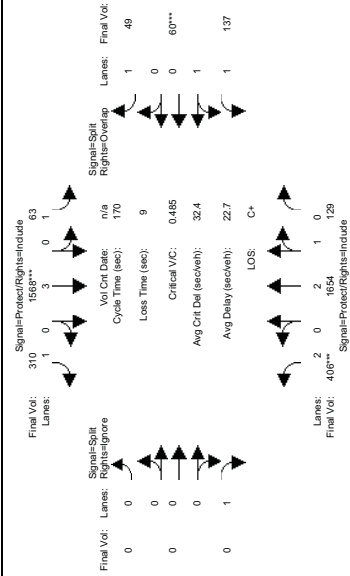
Intersection #3038: 280/SARATOGA (N)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module:
Base Vol: 390 1643 129 63 1553 310 0 0 0 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 390 1643 129 63 1553 310 0 0 0 137 60 49
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 390 1643 129 63 1553 310 0 0 0 137 60 49
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 390 1643 129 63 1553 310 0 0 0 137 60 49
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 390 1643 129 63 1553 310 0 0 0 137 60 49
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 390 1643 129 63 1553 310 0 0 0 137 60 49
Saturation Flow Module:
Vol/Sat: 0.12 0.32 0.32 0.04 0.27 0.18 0.00 0.00 0.00 0.06 0.06 0.06 0.03
Crit Moves: ****
Green Time: 44.1 125.0 163.3 97.1 97.1 0.0 0.0 0.0 19.8 19.8 36.0
Volume/Cap: 0.48 0.43 0.43 0.38 0.48 0.31 0.00 0.00 0.00 0.48 0.48 0.13
Delay/Veh: 53.6 8.8 8.8 73.5 21.6 19.2 0.0 0.0 0.0 71.1 71.1 54.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.6 8.8 8.8 73.5 21.6 19.2 0.0 0.0 0.0 71.1 71.1 54.5
LOS by Move: D- A A B- A A A E E D-
HCM2kAvQ: 10 12 12 4 15 9 0 0 0 6 6 6 2
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
Signal=Split
Rights=Signore
Lanes: 0 0
Vol Cnt Date: n/a
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.485
Avg Cnt Del (sec/veh): 32.4
Avg Delay (sec/veh): 22.7
LOS: C+

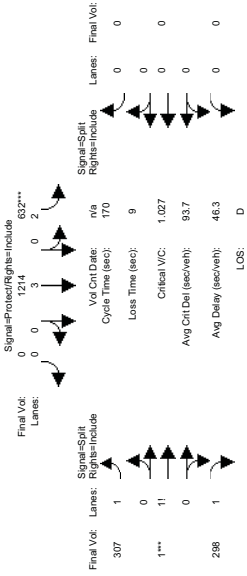
Intersection #3038: 280/SARATOGA (N)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module:
Base Vol: 390 1643 129 63 1553 310 0 0 0 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 390 1643 129 63 1553 310 0 0 0 137 60 49
Added Vol: 16 11 0 0 15 0 0 0 0 11 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 406 1654 129 63 1568 310 0 0 0 11 137 60 49
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 406 1654 129 63 1568 310 0 0 0 137 60 49
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 406 1654 129 63 1568 310 0 0 0 137 60 49
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 406 1654 129 63 1568 310 0 0 0 137 60 49
Saturation Flow Module:
Vol/Sat: 0.13 0.32 0.32 0.04 0.28 0.18 0.00 0.00 0.00 0.06 0.06 0.06 0.03
Crit Moves: ****
Green Time: 45.2 125.3 162.2 96.4 96.4 0.0 0.0 0.0 19.4 19.4 35.7
Volume/Cap: 0.49 0.43 0.43 0.38 0.49 0.31 0.00 0.00 0.00 0.49 0.49 0.13
Delay/Veh: 53.1 8.7 8.7 73.6 22.1 19.5 0.0 0.0 0.0 71.5 71.5 54.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.1 8.7 8.7 73.6 22.1 19.5 0.0 0.0 0.0 71.5 71.5 54.8
LOS by Move: D- A A B- A A A E E D-
HCM2kAvQ: 11 12 12 4 16 9 0 0 0 6 6 6 2
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Traffic Systems
2000 HCM Operations (Future Volume Alternative)

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

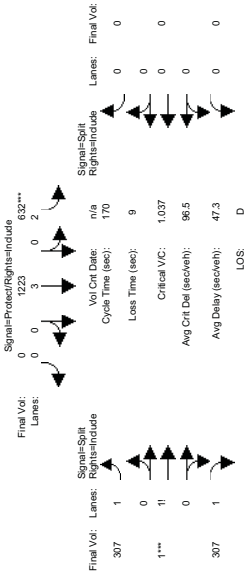
Volume Module:
Base Vol: 0 1671 1047 632 1214 0 307 1 298 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1671 1047 632 1214 0 307 1 298 0 0 0

Saturation Flow Module:
Vol/Sat: 0.00 0.44 0.60 0.20 0.21 0.00 0.12 0.17 0.11 0.00 0.00 0.00
Crit Moves: ****

Note: Queue reported is the number of cars per lane.
HCM2kAVGQ: 0 32 66 26 6 0 12 23 11 0 0 0

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Traffic Systems
2000 HCM Operations (Future Volume Alternative)

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

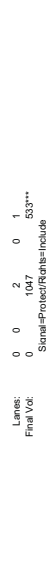
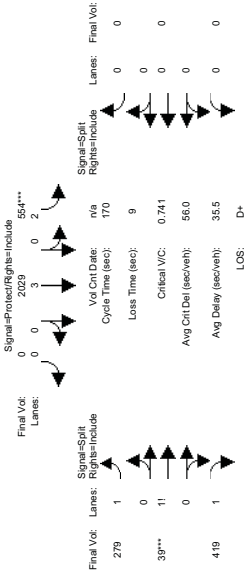
Volume Module:
Base Vol: 0 1671 1047 632 1214 0 307 1 298 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1671 1047 632 1214 0 307 1 298 0 0 0

Saturation Flow Module:
Vol/Sat: 0.00 0.45 0.61 0.20 0.21 0.00 0.12 0.18 0.12 0.00 0.00 0.00
Crit Moves: ****

Note: Queue reported is the number of cars per lane.
HCM2kAVGQ: 0 33 67 26 6 0 12 23 12 0 0 0

700 Saratoga Ave (Avilon Bay) Residential TIA
Heesoon Tran, Designer
Heesoon Tran, Consultant, Inc.
Traffic (Q) Scenario (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 0 1047 533 554 2029 0 279 39 419 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0
Reduced Vol: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.36 0.10 1.54 0.00 0.00 0.00 0.00
Final Sat.: 0 3800 1750 3150 5700 0 2379 176 2695 0 0 0 0 0

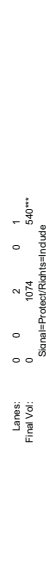
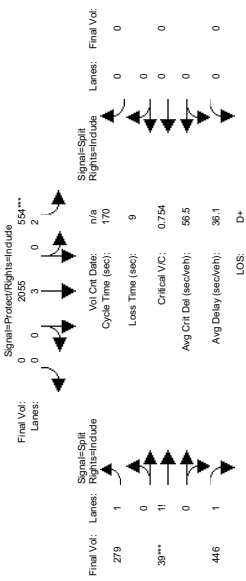
Capacity Analysis Module:

Vol/Sat: 0.00 0.28 0.30 0.18 0.36 0.00 0.12 0.22 0.16 0.00 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 69.8 69.8 110 0.0 50.8 50.8 50.8 0.0 0.0 0.0 0.0 0.0
Volume/Cap: 0.00 0.67 0.74 0.74 0.55 0.00 0.39 0.74 0.52 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 41.9 46.6 64.0 16.5 0.0 47.4 56.7 49.8 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 41.9 46.6 64.0 16.5 0.0 47.4 56.7 49.8 0.0 0.0 0.0 0.0
LOS by Move: A D E B A D A D A A
HCM2kVgQ: 0 22 25 17 19 0 9 20 13 0 0 0 0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
Heesoon Tran, Designer
Heesoon Tran, Consultant, Inc.
Traffic (Q) Scenario (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3039: 280/SARATOGA (S)



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:

Base Vol: 0 1047 533 554 2029 0 279 39 419 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1047 533 554 2029 0 279 39 419 0 0 0 0 0
Added Vol: 0 27 7 0 26 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1074 540 554 2055 0 279 39 446 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1074 540 554 2055 0 279 39 446 0 0 0 0 0
Reduced Vol: 0 1074 540 554 2055 0 279 39 446 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1074 540 554 2055 0 279 39 446 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.35 0.10 1.55 0.00 0.00 0.00 0.00
Final Sat.: 0 3800 1750 3150 5700 0 2358 170 2722 0 0 0 0 0

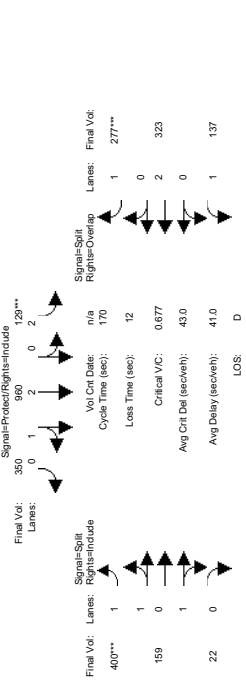
Capacity Analysis Module:

Vol/Sat: 0.00 0.28 0.31 0.18 0.36 0.00 0.12 0.23 0.16 0.00 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 69.6 69.6 109 0.0 51.7 51.7 51.7 0.0 0.0 0.0 0.0 0.0
Volume/Cap: 0.00 0.69 0.75 0.75 0.56 0.00 0.39 0.75 0.54 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 42.7 47.4 65.1 17.2 0.0 46.8 56.6 49.6 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 42.7 47.4 65.1 17.2 0.0 46.8 56.6 49.6 0.0 0.0 0.0 0.0
LOS by Move: A D E B A D A D A A
HCM2kVgQ: 0 23 26 17 19 0 9 21 13 0 0 0 0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1750 S Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #3113: MOORPARK/SARATOGA



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 Y.H.R.: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 49 1993 20 129 941 350 400 159 19 137 323 277
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 49 1993 20 129 941 350 400 159 19 137 323 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 1993 20 129 941 350 400 159 19 137 323 277
 Reduced Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 49 1993 20 129 941 350 400 159 19 137 323 277

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.17 0.83 2.00 0.88 0.11 1.00 2.00 1.00
 Final Sat.: 1750 5700 1750 3150 4080 1517 3552 1608 192 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.03 0.35 0.01 0.04 0.23 0.23 0.11 0.10 0.10 0.08 0.09 0.16
 Crit Moves: ****
 Green Time: 15.1 89.0 118.8 10.4 84.4 84.4 28.7 28.7 28.7 29.8 29.8 40.2
 Volume/Cap: 0.32 0.67 0.02 0.67 0.46 0.46 0.67 0.59 0.59 0.45 0.48 0.67
 Delay/Veh: 73.8 30.2 7.8 86.7 28.1 28.1 68.2 66.1 66.1 63.7 63.7 63.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 73.8 30.2 7.8 86.7 28.1 28.1 68.2 66.1 66.1 63.7 63.7 63.0
 LOS by Move: E C A F C C E E E E E E
 HCM2kAVQ: 2 24 0 4 14 14 11 9 9 7 8 15

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1750 S Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #3113: MOORPARK/SARATOGA



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 Y.H.R.: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 49 1993 20 129 941 350 400 159 19 137 323 277
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 49 1993 20 129 941 350 400 159 19 137 323 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 1993 20 129 941 350 400 159 19 137 323 277
 Reduced Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 49 1993 20 129 941 350 400 159 19 137 323 277

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.17 0.83 2.00 0.88 0.11 1.00 2.00 1.00
 Final Sat.: 1750 5700 1750 3150 4102 1495 3552 1581 219 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.03 0.36 0.01 0.04 0.23 0.23 0.11 0.10 0.10 0.08 0.09 0.16
 Crit Moves: ****
 Green Time: 15.0 90.0 119.4 10.3 85.3 85.3 28.3 28.3 28.3 29.4 29.4 39.7
 Volume/Cap: 0.37 0.68 0.02 0.68 0.47 0.47 0.68 0.60 0.60 0.45 0.49 0.68
 Delay/Veh: 74.5 30.0 7.6 87.6 27.7 27.7 68.8 66.8 66.8 64.2 64.1 63.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 74.5 30.0 7.6 87.6 27.7 27.7 68.8 66.8 66.8 64.2 64.1 63.9
 LOS by Move: E C A F C C E E E E E E
 HCM2kAVQ: 3 25 0 4 14 14 11 10 10 7 8 15

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1750 S Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Background AM

Intersection #3113: MOORPARK/SARATOGA



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 Y.H.R.: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 49 1993 20 129 941 350 400 159 19 137 323 277
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 49 1993 20 129 941 350 400 159 19 137 323 277
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 1993 20 129 941 350 400 159 19 137 323 277
 Reduced Vol: 49 1993 20 129 941 350 400 159 19 137 323 277
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 49 1993 20 129 941 350 400 159 19 137 323 277

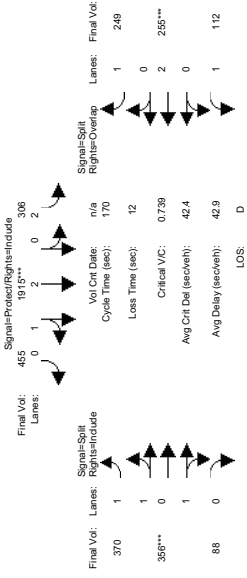
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.16 0.84 2.00 0.89 0.11 1.00 2.00 1.00
 Final Sat.: 1750 5700 1750 3150 4080 1517 3552 1608 192 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.03 0.35 0.01 0.04 0.23 0.23 0.11 0.10 0.10 0.08 0.09 0.16
 Crit Moves: ****
 Green Time: 15.1 89.0 118.8 10.4 84.4 84.4 28.7 28.7 28.7 29.8 29.8 40.2
 Volume/Cap: 0.32 0.67 0.02 0.67 0.46 0.46 0.67 0.59 0.59 0.45 0.48 0.67
 Delay/Veh: 73.8 30.2 7.8 86.7 28.1 28.1 68.2 66.1 66.1 63.7 63.7 63.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 73.8 30.2 7.8 86.7 28.1 28.1 68.2 66.1 66.1 63.7 63.7 63.0
 LOS by Move: E C A F C C E E E E E E
 HCM2kAVQ: 2 24 0 4 14 14 11 9 9 7 8 15

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 1400 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 465
 Lanes: 0 1 2 0 2
 Signal-Protect/Right-Include: 19 12 0 2
 Signal-Split: 0 1 1 1
 Right-Overlap: 0 0 0 0
 Final Vol: 370
 Lanes: 1 1 1 1
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0
 Final Vol: 356
 Lanes: 0 0 0 0
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0
 Final Vol: 88
 Lanes: 0 0 0 0
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0

Final Vol: 71
 Lanes: 1 0 3 0 1
 Signal-Protect/Right-Include: 10 86 73 73
 Signal-Protect/Right-Overlap: 0 0 0 0

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 71 1062 73 306 1862 455 370 356 79 112 255 249
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 1062 73 306 1862 455 370 356 79 112 255 249
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 71 1062 73 306 1862 455 370 356 79 112 255 249

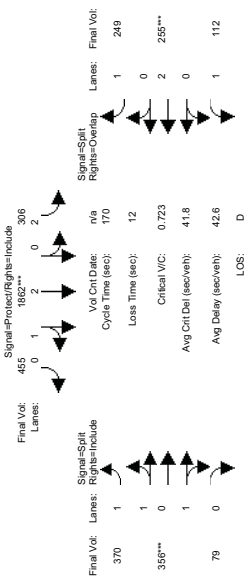
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.40 0.60 1.38 1.30 0.32 1.00 2.00 1.00
 Final Sat: 1750 5700 1750 3150 4523 1075 2432 2340 578 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.04 0.19 0.04 0.10 0.42 0.42 0.15 0.15 0.15 0.06 0.07 0.14
 Crit Moves: ****
 Green Time: 10.2 71.5 86.9 36.1 97.3 97.3 35.0 35.0 35.0 15.4 15.4 51.5
 Volume/Cap: 0.74 0.46 0.08 0.46 0.74 0.74 0.74 0.74 0.74 0.71 0.74 0.47
 Delay/Veh: 102.5 35.5 21.2 58.9 27.9 27.9 65.9 65.9 65.9 88.5 83.6 48.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 102.5 35.5 21.2 58.9 27.9 27.9 65.9 65.9 65.9 88.5 83.6 48.8
 LOS by Move: F D+ C+ E+ C C E E F F D
 HCM2kAVQ: 4 13 2 8 29 29 15 15 15 7 8 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 1400 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 465
 Lanes: 0 1 2 0 2
 Signal-Protect/Right-Include: 19 12 0 2
 Signal-Split: 0 1 1 1
 Right-Overlap: 0 0 0 0
 Final Vol: 370
 Lanes: 1 1 1 1
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0
 Final Vol: 356
 Lanes: 0 0 0 0
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0
 Final Vol: 79
 Lanes: 0 0 0 0
 Signal-Protect/Right-Include: 0 0 0 0
 Signal-Split: 0 0 0 0
 Right-Overlap: 0 0 0 0

Final Vol: 71
 Lanes: 1 0 3 0 1
 Signal-Protect/Right-Include: 10 86 73 73
 Signal-Protect/Right-Overlap: 0 0 0 0

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 71 1062 73 306 1862 455 370 356 79 112 255 249
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 71 1062 73 306 1862 455 370 356 79 112 255 249
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 71 1062 73 306 1862 455 370 356 79 112 255 249
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 71 1062 73 306 1862 455 370 356 79 112 255 249

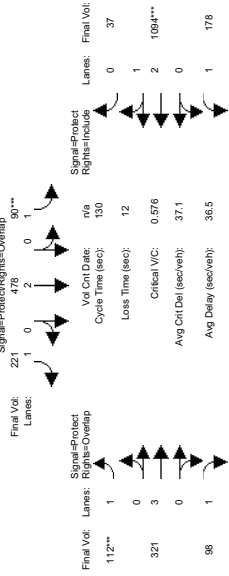
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.39 0.61 1.40 1.31 0.29 1.00 2.00 1.00
 Final Sat: 1750 5700 1750 3150 4499 1099 2459 2366 525 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.04 0.19 0.04 0.10 0.41 0.41 0.15 0.15 0.15 0.06 0.07 0.14
 Crit Moves: ****
 Green Time: 9.5 70.2 86.0 36.6 97.3 97.3 35.4 35.4 35.4 15.8 15.8 52.4
 Volume/Cap: 0.72 0.45 0.08 0.45 0.72 0.72 0.72 0.72 0.72 0.69 0.72 0.46
 Delay/Veh: 102.0 36.1 21.7 58.4 27.4 27.4 65.1 65.1 65.1 86.6 82.2 48.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 102.0 36.1 21.7 58.4 27.4 27.4 65.1 65.1 65.1 86.6 82.2 48.1
 LOS by Move: F D+ C+ E+ C C E E F F D
 HCM2kAVQ: 4 13 2 8 29 29 15 15 15 7 8 11

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heason Traffic Systems
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y.H.R.: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 136 781 182 90 478 221 112 321 98 178 1094 37
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 136 781 182 90 478 221 112 321 98 178 1094 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 136 781 182 90 478 221 112 321 98 178 1094 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 136 781 182 90 478 221 112 321 98 178 1094 37
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 136 781 182 90 478 221 112 321 98 178 1094 37

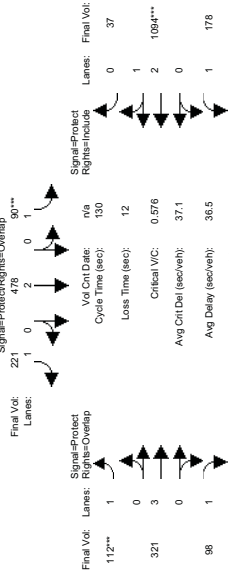
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 0.95
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.90 0.10
Final Sat.: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5417 183

Capacity Analysis Module:
Vol/Sat: 0.08 0.21 0.10 0.05 0.13 0.13 0.06 0.06 0.06 0.10 0.20 0.20
Crt Moves: ****
Green Time: 22.1 46.6 80.6 11.6 35.8 50.3 14.4 25.8 48.0 34.2 45.6 45.6
Volume/Cap: 0.46 0.58 0.17 0.58 0.46 0.33 0.58 0.28 0.15 0.39 0.58 0.58
Delay/Veh: 49.6 34.5 10.6 62.0 39.3 28.3 59.1 44.4 27.5 39.9 34.8 34.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.6 34.5 10.6 62.0 39.3 28.3 59.1 44.4 27.5 39.9 34.8 34.8
LOS by Move: D C- B+ C E+ D C D C-
HCM2kAvGQ: 6 13 3 4 8 6 5 4 3 6 13 13

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heason Traffic Systems
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y.H.R.: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 136 781 182 90 478 221 112 321 98 178 1094 37
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 136 781 182 90 478 221 112 321 98 178 1094 37
Added Vol: 0 5 2 0 0 2 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 136 786 184 90 480 221 112 321 98 179 1094 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 136 786 184 90 480 221 112 321 98 179 1094 37
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 136 786 184 90 480 221 112 321 98 179 1094 37

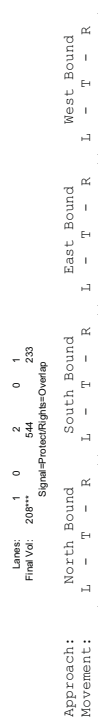
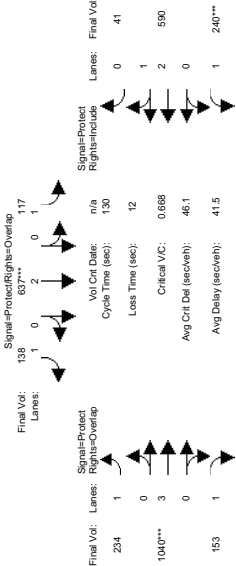
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 0.95
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.90 0.10
Final Sat.: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5417 183

Capacity Analysis Module:
Vol/Sat: 0.08 0.21 0.11 0.05 0.13 0.13 0.06 0.06 0.06 0.10 0.20 0.20
Crt Moves: ****
Green Time: 22.1 46.6 80.7 11.6 36.0 50.4 14.4 25.7 47.8 34.2 45.5 45.5
Volume/Cap: 0.46 0.58 0.17 0.58 0.46 0.33 0.58 0.28 0.15 0.39 0.58 0.58
Delay/Veh: 49.6 34.4 10.5 62.2 39.2 28.2 59.2 44.5 27.6 39.9 34.9 34.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.6 34.4 10.5 62.2 39.2 28.2 59.2 44.5 27.6 39.9 34.9 34.9
LOS by Move: D C- B+ C E+ D C D C-
HCM2kAvGQ: 6 13 3 4 8 6 5 4 3 6 13 13

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
16000 S. Bascom Avenue, Suite 200
San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3116: SARATOGA/STEVEENS CREEK



Volume Module:
Base Vol: 208 541 232 117 632 138 234 1040 153 238 590 41
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 208 541 232 117 632 138 234 1040 153 238 590 41
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 208 541 232 117 632 138 234 1040 153 238 590 41
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 208 541 232 117 632 138 234 1040 153 238 590 41
Reduced Vol: 208 541 232 117 632 138 234 1040 153 238 590 41
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 208 541 232 117 632 138 234 1040 153 238 590 41

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.80 0.20
Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5236 364

Capacity Analysis Module:
Vol/Sat: 0.12 0.14 0.13 0.07 0.17 0.08 0.13 0.18 0.09 0.14 0.11 0.11
Crit Moves: ****
Green Time: 23.1 38.0 64.7 17.8 32.6 66.4 33.8 35.5 58.7 26.7 28.5 28.5
Volume/Cap: 0.67 0.49 0.27 0.49 0.67 0.15 0.51 0.67 0.19 0.67 0.51 0.51
Delay/Veh: 55.1 38.4 19.2 53.4 45.6 17.0 42.1 43.0 21.4 52.3 45.1 45.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.1 38.4 19.2 53.4 45.6 17.0 42.1 43.0 21.4 52.3 45.1 45.1
LOS by Move: E+ D+ B- D- B D C+ D- D
HCM2kAVQ: 9 9 6 4 10 3 9 13 4 10 8 8

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
16000 S. Bascom Avenue, Suite 200
San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3116: SARATOGA/STEVEENS CREEK



Volume Module:
Base Vol: 208 541 232 117 632 138 234 1040 153 238 590 41
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 208 541 232 117 632 138 234 1040 153 238 590 41
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 208 541 232 117 632 138 234 1040 153 238 590 41
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 208 541 232 117 632 138 234 1040 153 238 590 41
Reduced Vol: 208 541 232 117 632 138 234 1040 153 238 590 41
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 208 541 232 117 632 138 234 1040 153 238 590 41

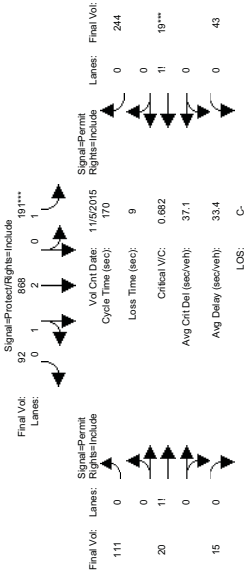
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.80 0.20
Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5236 364

Capacity Analysis Module:
Vol/Sat: 0.12 0.14 0.13 0.07 0.17 0.08 0.13 0.18 0.09 0.14 0.11 0.11
Crit Moves: ****
Green Time: 23.2 37.9 64.5 17.8 32.5 66.3 33.8 35.7 58.9 26.6 28.5 28.5
Volume/Cap: 0.67 0.49 0.27 0.49 0.67 0.15 0.51 0.67 0.19 0.67 0.51 0.51
Delay/Veh: 55.1 38.4 19.2 53.4 45.6 17.0 42.1 43.0 21.4 52.3 45.1 45.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.1 38.4 19.2 53.4 45.6 17.0 42.1 43.0 21.4 52.3 45.1 45.1
LOS by Move: E+ D+ B- D- B D C+ D- D
HCM2kAVQ: 9 9 6 4 10 3 9 13 4 10 8 8

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
11450 Saratoga Road, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3307: BLACKFORD/SARATOGA



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

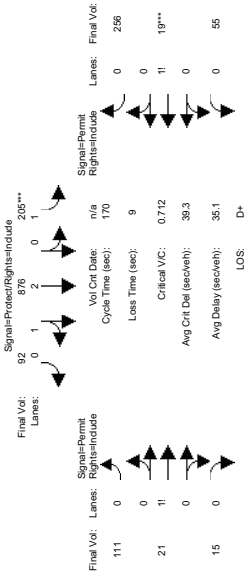
Volume Module: >> Count Date: 5 Nov 2015 << 7:25-8:25
Base Vol: 16 1987 42 191 868 92 111 20 15 43 19 244
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Vol/Sat: 0.01 0.36 0.36 0.11 0.17 0.17 0.08 0.08 0.17 0.17 0.17 0.17 0.17 0.17 0.17
Crit Moves: ****
Green Time: 22.7 90.3 90.3 27.2 94.7 94.7 43.6 43.6 43.6 43.6 43.6 43.6 43.6 43.6 43.6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
11450 Saratoga Road, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
BrightFrog AM

Intersection #3307: BLACKFORD/SARATOGA



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

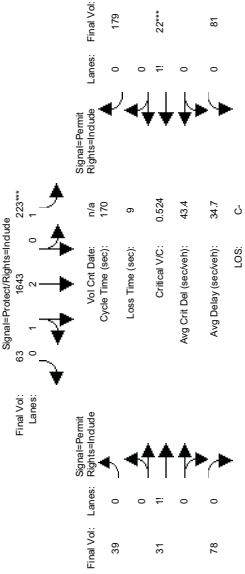
Volume Module:
Base Vol: 16 1987 42 191 868 92 111 20 15 43 19 244
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Vol/Sat: 0.01 0.37 0.37 0.12 0.17 0.17 0.08 0.08 0.19 0.19 0.19 0.19 0.19 0.19 0.19
Crit Moves: ****
Green Time: 22.3 88.0 88.0 28.0 93.7 93.7 45.0 45.0 45.0 45.0 45.0 45.0 45.0 45.0 45.0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 115/2015 Signal=Permit
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 63
 Lanes: 0 1 2 0 1
 Signal=Protect/Right=Include 233**

Final Vol: 68
 Lanes: 1 0 2 1 0
 Signal=Protect/Right=Include 53

Final Vol: 71
 Lanes: 1 0 2 1 0
 Signal=Protect/Right=Include 53

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 5 Nov 2015 << 5:00-6:00
 Base Vol: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 68 1082 53 194 1611 63 39 28 78 68 22 170
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 68 1082 53 194 1611 63 39 28 78 68 22 170

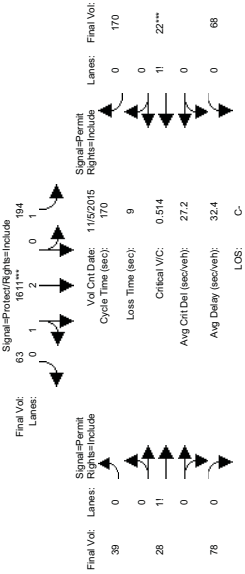
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.98 0.92 0.92 0.92
 Lanes: 1.00 2.85 0.15 1.00 2.88 0.12 0.27 0.19 0.54 0.26 0.08 0.66
 Final Sat.: 1750 5338 261 1750 5389 211 471 338 941 458 148 1144

Capacity Analysis Module:
 Vol/Sat: 0.04 0.20 0.20 0.11 0.30 0.30 0.08 0.08 0.15 0.15 0.15
 Crit Moves: ****
 Green Time: 12.9 72.3 72.3 39.5 99.0 99.0 49.2 49.2 49.2 49.2 49.2
 Volume/Cap: 0.51 0.48 0.48 0.48 0.51 0.51 0.29 0.29 0.29 0.51 0.51
 Delay/Veh: 79.0 35.4 35.4 57.2 21.3 21.3 47.1 47.1 47.1 51.3 51.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.0 35.4 35.4 57.2 21.3 21.3 47.1 47.1 47.1 51.3 51.3
 LOS by Move: E- D+ E+ C+ C+ D- D- D- D-
 HCM2kAVQ: 4 14 14 9 17 6 6 6 6 6 6 6 6 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 115/2015 Signal=Permit
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 63
 Lanes: 0 1 2 0 1
 Signal=Protect/Right=Include 194

Final Vol: 68
 Lanes: 1 0 2 1 0
 Signal=Protect/Right=Include 53

Final Vol: 71
 Lanes: 1 0 2 1 0
 Signal=Protect/Right=Include 53

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 5 Nov 2015 << 5:00-6:00
 Base Vol: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 68 1082 53 194 1611 63 39 28 78 68 22 170
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 1082 53 194 1611 63 39 28 78 68 22 170
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 68 1082 53 194 1611 63 39 28 78 68 22 170

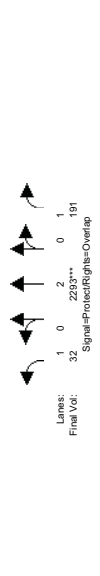
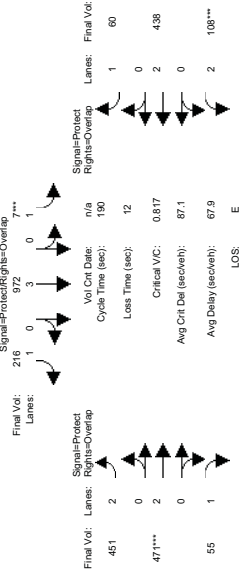
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.98 0.92 0.92 0.92
 Lanes: 1.00 2.85 0.15 1.00 2.88 0.12 0.27 0.19 0.54 0.26 0.08 0.66
 Final Sat.: 1750 5338 261 1750 5389 211 471 338 941 458 148 1144

Capacity Analysis Module:
 Vol/Sat: 0.04 0.20 0.20 0.11 0.30 0.30 0.08 0.08 0.15 0.15 0.15
 Crit Moves: ****
 Green Time: 12.9 72.3 72.3 39.5 99.0 99.0 49.2 49.2 49.2 49.2 49.2
 Volume/Cap: 0.51 0.48 0.48 0.48 0.51 0.51 0.29 0.29 0.29 0.51 0.51
 Delay/Veh: 79.0 35.4 35.4 57.2 21.3 21.3 47.1 47.1 47.1 51.3 51.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.0 35.4 35.4 57.2 21.3 21.3 47.1 47.1 47.1 51.3 51.3
 LOS by Move: E- D+ E+ C+ C+ D- D- D- D-
 HCM2kAVQ: 4 14 14 9 17 6 6 6 6 6 6 6 6 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavagon Transportation Consultants, Inc.
 2000 HCV Operations (Future Volume Alternative)
 Background AM

Intersection #5422: SAN TOMAS EXPWY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 32 2696 190 7 971 215 448 470 55 108 438 60
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 32 2696 190 7 971 215 448 470 55 108 438 60
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 32 2698 191 7 972 216 451 471 55 108 438 60
 User Adj: 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 32 2292 190 7 971 215 448 470 55 108 438 60
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 32 2292 190 7 971 215 448 470 55 108 438 60

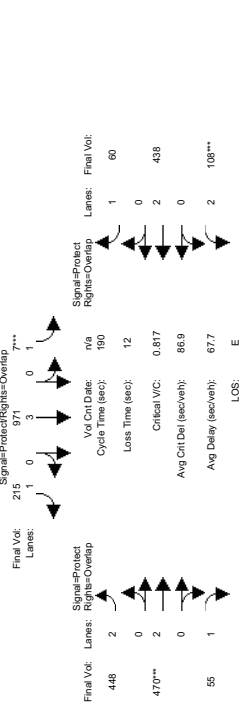
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat: 1750 3800 1750 1750 5700 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.02 0.60 0.11 0.00 0.17 0.12 0.14 0.12 0.03 0.03 0.12 0.03
 Crit Moves: ****
 Green Time: 4.0 108 122.0 5.0 109 138.0 29.0 51.0 55.0 14.0 36.0 41.0
 Volume/Cap: 0.87 1.06 0.17 0.15 0.30 0.17 0.93 0.46 0.11 0.47 0.61 0.16
 Delay/Veh: 189.5 92.8 20.4 92.0 13.2 1.1 104.6 58.4 49.6 85.9 72.1 60.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 189.5 92.8 20.4 92.0 13.2 1.1 104.6 58.4 49.6 85.9 72.1 60.7
 LOS by Move: F C+ F A F E H
 HCM2kAVQ: 4 77 7 1 6 1 17 11 2 4 12 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay Residential TIA)
 Heavagon Transportation Consultants, Inc.
 2000 HCV Operations (Future Volume Alternative)
 Background AM

Intersection #5422: SAN TOMAS EXPWY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 32 2696 190 7 971 215 448 470 55 108 438 60
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 32 2696 190 7 971 215 448 470 55 108 438 60
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 32 2698 191 7 972 216 451 471 55 108 438 60
 User Adj: 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 32 2292 190 7 971 215 448 470 55 108 438 60
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 32 2292 190 7 971 215 448 470 55 108 438 60

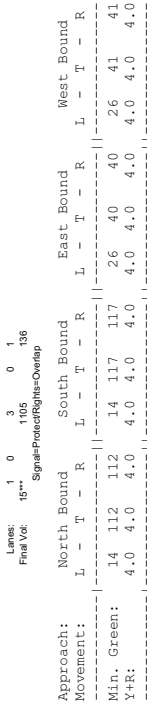
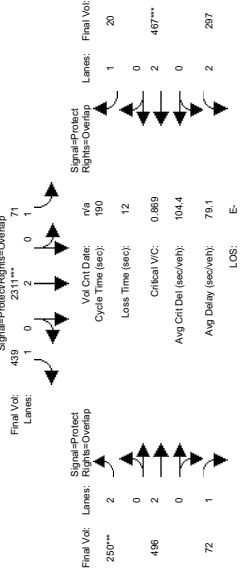
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 3.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat: 1750 3800 1750 1750 5700 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.02 0.60 0.11 0.00 0.17 0.12 0.14 0.12 0.03 0.03 0.12 0.03
 Crit Moves: ****
 Green Time: 4.0 108 122.0 5.0 109 138.0 29.0 51.0 55.0 14.0 36.0 41.0
 Volume/Cap: 0.87 1.06 0.17 0.15 0.30 0.17 0.93 0.46 0.11 0.47 0.61 0.16
 Delay/Veh: 189.5 92.8 20.4 92.0 13.2 1.1 104.6 58.4 49.6 85.9 72.1 60.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 189.5 92.8 20.4 92.0 13.2 1.1 104.6 58.4 49.6 85.9 72.1 60.7
 LOS by Move: F C+ F A F E H
 HCM2kAVQ: 4 77 7 1 6 1 17 11 2 4 12 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavagon Transp. from Consultants, Inc.
 1100 S. Bascom Avenue, Suite 200
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 14 112 112 14 117 117 26 40 40 26 41 41
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 15 1105 136 71 2818 439 250 496 72 297 467 20
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 15 1105 136 71 2818 439 250 496 72 297 467 20
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 15 1105 136 71 2818 439 250 496 72 297 467 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 15 1105 136 71 2311 439 250 496 72 297 467 20
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 15 1105 136 71 2311 439 250 496 72 297 467 20
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 15 1105 136 71 2311 439 250 496 72 297 467 20

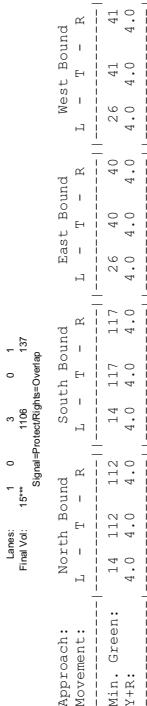
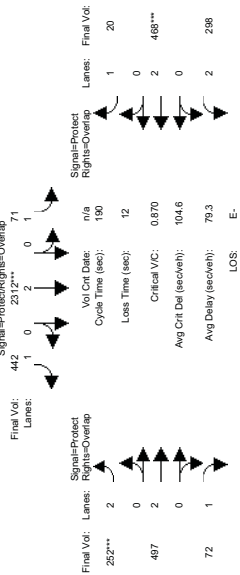
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.01 0.19 0.08 0.04 0.61 0.25 0.08 0.13 0.04 0.09 0.12 0.01
 Crit Moves: ****
 Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
 Volume/Cap: 0.13 0.35 0.11 0.59 1.09 0.37 0.64 0.68 0.16 0.75 0.63 0.04
 Delay/Veh: 92.8 34.1 18.5 102.0 111 22.9 91.2 81.1 60.1 96.4 79.3 57.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 92.8 34.1 18.5 102.0 111 22.9 91.2 81.1 60.1 96.4 79.3 57.5
 LOS by Move: F C- B- F C+ F F E F E+
 HCM2kAVQ: 1 16 5 6 87 19 9 14 4 12 14 1

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavagon Transp. from Consultants, Inc.
 1100 S. Bascom Avenue, Suite 200
 2000 HCM Operations (Future Volume Alternative)
 Background PM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 14 112 112 14 117 117 26 40 40 26 41 41
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 15 1105 136 71 2818 439 250 496 72 297 467 20
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 15 1105 136 71 2818 439 250 496 72 297 467 20
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 15 1106 137 71 2820 442 252 497 72 298 468 20
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 15 1106 137 71 2312 442 252 497 72 298 468 20
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 15 1106 137 71 2312 442 252 497 72 298 468 20
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 15 1106 137 71 2312 442 252 497 72 298 468 20

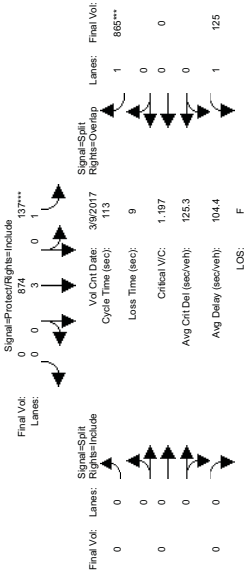
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.01 0.19 0.08 0.04 0.61 0.25 0.08 0.13 0.04 0.09 0.12 0.01
 Crit Moves: ****
 Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
 Volume/Cap: 0.13 0.35 0.12 0.59 1.09 0.37 0.65 0.68 0.16 0.75 0.63 0.04
 Delay/Veh: 92.8 34.1 18.6 102.0 111 23.0 91.4 81.1 60.1 96.6 79.3 57.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 92.8 34.1 18.6 102.0 111 23.0 91.4 81.1 60.1 96.6 79.3 57.5
 LOS by Move: F C- B- F C+ F F E F E+
 HCM2kAVQ: 1 16 5 6 87 19 9 14 4 12 14 1

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Traffic Systems, Inc.
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #5632: LAWRENCE/MITTY



Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10 0 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

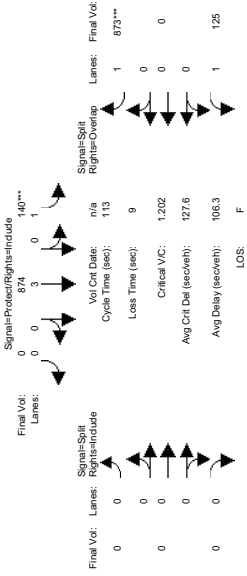
Volume Module: >> Count Date: 9 Mar 2017 << 7:45-8:45
Base Vol: 0 3461 31 137 874 0 0 0 0 0 125 0 865
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Vol/Sat: 0.00 0.61 0.02 0.08 0.15 0.00 0.00 0.00 0.00 0.07 0.00 0.49
Crit Moves: ****
Green Time: 0.0 57.3 96.6 7.4 64.7 0.0 0.0 0.0 0.0 39.3 0.0 46.7

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Traffic Systems, Inc.
2000 HCM Operations (Future Volume Alternative)
BrightFrog AM

Intersection #5632: LAWRENCE/MITTY



Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include
Final Vol: Lanes: Signal=Split Rights=Include

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10 0 10
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

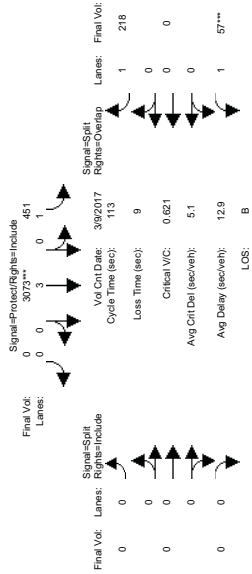
Volume Module:
Base Vol: 0 3461 31 137 874 0 0 0 0 0 125 0 865
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Vol/Sat: 0.00 0.61 0.02 0.08 0.15 0.00 0.00 0.00 0.00 0.07 0.00 0.50
Crit Moves: ****
Green Time: 0.0 57.1 96.5 7.5 64.6 0.0 0.0 0.0 0.0 39.4 0.0 46.9

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavison Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #5632: LAWRENCE/MTTY



Final Vol: Lanes: Signal-Split Rights-Include Signal-Split Rights-Overlap Lanes: Final Vol:
0 0 0 0 3/8/2017 113 1 218
Cycle Time (sec): 113
Loss Time (sec): 9
Critical VIC: 0.621
Avg Crt Del (sec/veh): 5.1
Avg Delay (sec/veh): 12.9

LOS: B
Lanes: 0 0 3 0 1
Final Vol: 0** 1120 69

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 0 0 0 0 0 10 0 10 0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0

Volume Module: >> Count Date: 9 Mar 2017 << 5:00-6:00

Base Vol: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
Growth Adj: 1.00
Initial Base: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
Added Vol: 0
PasserByVol: 0
Initial Fut: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
Reduct Vol: 0
PCE Adj: 1.00
MIF Adj: 1.00
Final Volume: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218

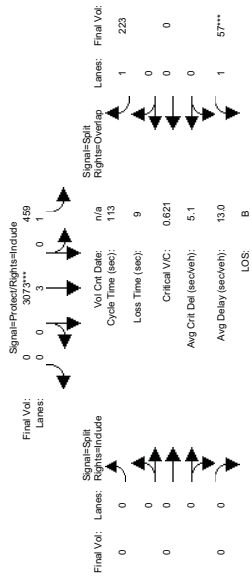
Saturation Flow Module:
Sat/Lane: 1900
Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 1750 0 1750

Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.04 0.26 0.54 0.00 0.00 0.00 0.00 0.00 0.00 0.03 0.00 0.12
Crit Moves: ****
Green Time: 0.0 40.7 50.7 53.3 94.0 0.0 0.0 0.0 0.0 10.0 0.0 63.3
Volume/Cap: 0.00 0.55 0.09 0.55 0.65 0.00 0.00 0.00 0.00 0.37 0.00 0.22
Delay/Veh: 0.0 29.9 18.1 23.8 4.2 0.0 0.0 0.0 0.0 55.1 0.0 13.0
User DelAdj: 1.00
AdjDel/Veh: 0.0 29.9 18.1 23.8 4.2 0.0 0.0 0.0 0.0 55.1 0.0 13.0
LOS by Move: A C B- C A A A A A A E+ A B
HCM2kAVQ: 0 11 1 12 14 0 0 0 0 0 0 2 0 4

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavison Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #5632: LAWRENCE/MTTY



Final Vol: Lanes: Signal-Split Rights-Include Signal-Split Rights-Overlap Lanes: Final Vol:
0 0 0 0 3/8/2017 113 1 223
Cycle Time (sec): 113
Loss Time (sec): 9
Critical VIC: 0.621
Avg Crt Del (sec/veh): 5.1
Avg Delay (sec/veh): 13.0

LOS: B
Lanes: 0 0 3 0 1
Final Vol: 0** 1120 69

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 0 0 0 0 0 10 0 10 0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0

Volume Module:
Base Vol: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
Growth Adj: 1.00
Initial Base: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 218
Added Vol: 0
PasserByVol: 0
Initial Fut: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 223
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 223
Reduct Vol: 0
PCE Adj: 1.00
MIF Adj: 1.00
Final Volume: 0 1120 69 451 3073 0 0 0 0 0 0 57 0 223

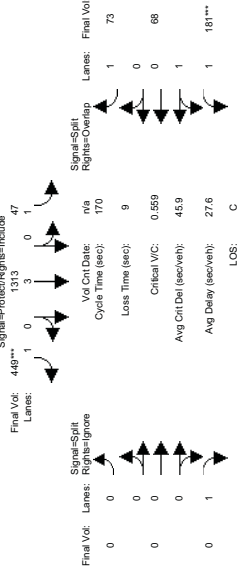
Saturation Flow Module:
Sat/Lane: 1900
Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 1750 0 1750

Capacity Analysis Module:
Vol/Sat: 0.00 0.20 0.04 0.26 0.54 0.00 0.00 0.00 0.00 0.00 0.00 0.03 0.00 0.13
Crit Moves: ****
Green Time: 0.0 40.3 50.3 53.7 94.0 0.0 0.0 0.0 0.0 10.0 0.0 63.7
Volume/Cap: 0.00 0.55 0.09 0.55 0.65 0.00 0.00 0.00 0.00 0.37 0.00 0.23
Delay/Veh: 0.0 30.2 18.4 23.7 4.2 0.0 0.0 0.0 0.0 55.1 0.0 12.8
User DelAdj: 1.00
AdjDel/Veh: 0.0 30.2 18.4 23.7 4.2 0.0 0.0 0.0 0.0 55.1 0.0 12.8
LOS by Move: A C B- C A A A A A A E+ A B
HCM2kAVQ: 0 11 1 12 14 0 0 0 0 0 0 2 0 4

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1625 (O) Saratoga Blvd (Future Volume Alternative)
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 449**
 Lanes: 1 0 3 0 1 1
 Signal-Protect/Rights-Include: 47 170 9 0.559 45.9 27.6 181***

Final Vol: 639**
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include: 1613 285

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 0 0 0 0 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 639 1613 285 47 1313 449 0 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 639 1613 285 47 1313 449 0 0 0 181 68 73
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 639 1613 285 47 1313 449 0 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 639 1613 285 47 1313 449 0 0 0 181 68 73
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 639 1613 285 47 1313 449 0 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 639 1613 285 47 1313 449 0 0 0 181 68 73

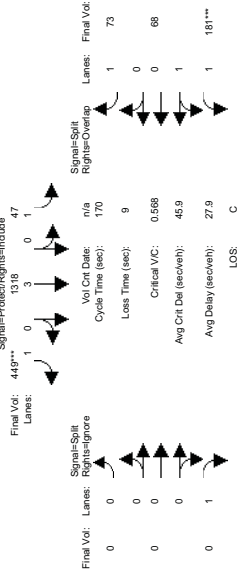
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92
 Lanes: 2.00 2.53 0.47 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00
 Final Sat: 3150 4758 841 1750 5700 1750 0 0 1750 2580 969 1750

Capacity Analysis Module:
 Vol/Sat: 0.20 0.34 0.34 0.03 0.23 0.26 0.00 0.00 0.00 0.07 0.07 0.04
 Crit Moves: ****
 Green Time: 61.7 125 124.5 15.1 78.0 78.0 0.0 0.0 0.0 21.3 21.3 36.5
 Volume/Cap: 0.56 0.46 0.46 0.30 0.50 0.56 0.00 0.00 0.00 0.56 0.56 0.19
 Delay/Veh: 43.9 9.3 9.3 73.6 32.5 34.4 0.0 0.0 0.0 71.5 71.5 55.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.9 9.3 9.3 73.6 32.5 34.4 0.0 0.0 0.0 71.5 71.5 55.0
 LOS by Move: D A A E C- A A A E D-
 HCM2kAVGQ: 16 13 13 3 16 18 0 0 0 7 7 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 1625 (O) Saratoga Blvd (Future Volume Alternative)
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 449**
 Lanes: 1 0 3 0 1 1
 Signal-Protect/Rights-Include: 47 170 9 0.568 45.9 27.9 181***

Final Vol: 666**
 Lanes: 2 0 2 1 0
 Signal-Protect/Rights-Include: 1625 285

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 0 0 0 0 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 639 1613 285 47 1313 449 0 0 0 181 68 73
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 639 1613 285 47 1313 449 0 0 0 181 68 73
 Added Vol: 27 12 0 0 5 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 666 1625 285 47 1318 449 0 0 0 181 68 73
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 666 1625 285 47 1318 449 0 0 0 181 68 73
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 666 1625 285 47 1318 449 0 0 0 181 68 73
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 666 1625 285 47 1318 449 0 0 0 181 68 73

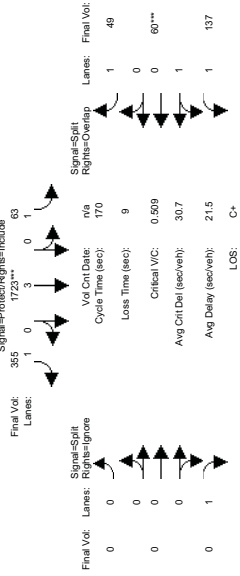
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92
 Lanes: 2.00 2.54 0.46 1.00 3.00 1.00 0.00 0.00 1.00 1.46 0.54 1.00
 Final Sat: 3150 4763 835 1750 5700 1750 0 0 1750 2580 969 1750

Capacity Analysis Module:
 Vol/Sat: 0.21 0.34 0.34 0.03 0.23 0.26 0.00 0.00 0.00 0.07 0.07 0.04
 Crit Moves: ****
 Green Time: 63.3 125 124.9 15.1 76.8 76.8 0.0 0.0 0.0 21.0 21.0 36.1
 Volume/Cap: 0.57 0.46 0.46 0.30 0.51 0.57 0.00 0.00 0.00 0.57 0.57 0.20
 Delay/Veh: 43.2 9.1 9.1 73.6 33.4 35.4 0.0 0.0 0.0 72.0 72.0 55.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.2 9.1 9.1 73.6 33.4 35.4 0.0 0.0 0.0 72.0 72.0 55.3
 LOS by Move: D A A E C- A A A E E+
 HCM2kAVGQ: 16 13 13 3 16 18 0 0 0 7 7 3

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1750 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 365 173 0 1
Lanes: 1 0 3 0 1
Signal=Split Rights=Signore
Vol Cnt Date: n/a
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.509
Avg Cnt Del (sec/veh): 30.7
Avg Delay (sec/veh): 21.5
LOS: C+

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

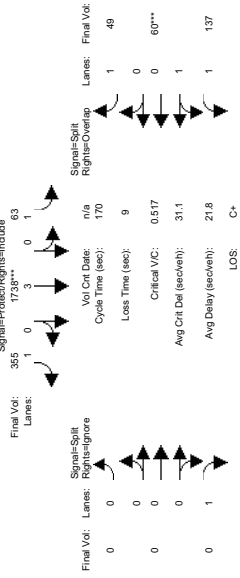
Volume Module:
Base Vol: 390 1752 129 63 1723 355 0 0 0 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 390 1752 129 63 1723 355 0 0 0 137 60 49
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 390 1752 129 63 1723 355 0 0 0 137 60 49
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 390 1752 129 63 1723 355 0 0 0 137 60 49
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 390 1752 129 63 1723 355 0 0 0 137 60 49
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 390 1752 129 63 1723 355 0 0 0 137 60 49

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92
Lanes: 2.00 2.79 0.21 1.00 3.00 1.00 0.00 0.00 1.00 1.40 0.60 1.00
Final Sat.: 3150 5215 384 1750 5700 1750 0 0 1750 2469 1081 1750

Capacity Analysis Module:
Vol/Sat: 0.12 0.34 0.34 0.04 0.30 0.20 0.00 0.00 0.00 0.06 0.06 0.03
Crit Moves: ****
Green Time: 41.4 127.6 9 15.6 101.1 0.0 0.0 0.0 18.6 18.6 34.1
Volume/Cap: 0.51 0.45 0.39 0.51 0.34 0.00 0.00 0.00 0.51 0.51 0.14
Delay/Veh: 56.1 8.3 8.3 74.4 20.2 17.7 0.0 0.0 72.5 72.5 56.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 56.1 8.3 8.3 74.4 20.2 17.7 0.0 0.0 72.5 72.5 56.1
LOS by Move: E+ A E A B A A A E E+
HCM2kAVQ: 11 12 12 4 17 10 0 0 0 6 6 2
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavon Transportation Consultants, Inc.
1750 S. Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3038: 280/SARATOGA (N)



Final Vol: 365 173 0 1
Lanes: 1 0 3 0 1
Signal=Split Rights=Signore
Vol Cnt Date: n/a
Cycle Time (sec): 170
Loss Time (sec): 9
Critical VIC: 0.517
Avg Cnt Del (sec/veh): 31.1
Avg Delay (sec/veh): 21.8
LOS: C+

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

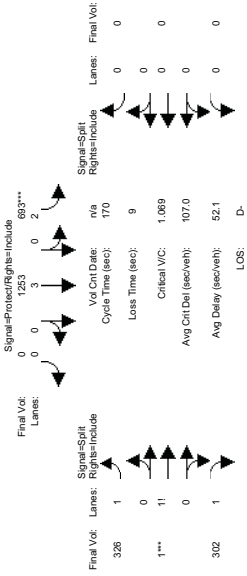
Volume Module:
Base Vol: 390 1752 129 63 1723 355 0 0 0 137 60 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 390 1752 129 63 1723 355 0 0 0 137 60 49
Added Vol: 16 11 0 0 15 0 0 0 11 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 390 1752 129 63 1723 355 0 0 0 137 60 49
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 406 1763 129 63 1738 355 0 0 0 137 60 49
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 406 1763 129 63 1738 355 0 0 0 137 60 49
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 406 1763 129 63 1738 355 0 0 0 137 60 49

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 0.99 0.95 0.92 1.00 0.92 0.92 1.00 0.92 0.93 0.95 0.92
Lanes: 2.00 2.79 0.21 1.00 3.00 1.00 0.00 0.00 1.00 1.40 0.60 1.00
Final Sat.: 3150 5218 382 1750 5700 1750 0 0 1750 2469 1081 1750

Capacity Analysis Module:
Vol/Sat: 0.13 0.34 0.34 0.04 0.30 0.20 0.00 0.00 0.00 0.06 0.06 0.03
Crit Moves: ****
Green Time: 42.4 127.2 15.5 100 100.3 0.0 0.0 0.0 18.3 18.3 33.8
Volume/Cap: 0.52 0.45 0.39 0.52 0.34 0.00 0.00 0.00 0.52 0.52 0.14
Delay/Veh: 55.6 8.2 8.2 74.4 20.7 18.1 0.0 0.0 72.9 72.9 56.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.6 8.2 8.2 74.4 20.7 18.1 0.0 0.0 72.9 72.9 56.3
LOS by Move: E+ A A A B A A A E E+
HCM2kAVQ: 11 12 12 4 17 10 0 0 0 6 6 2
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay/ Residential TIA)
Heavagon Trans. Sim Jose, CA
Traffic (Q) Scenario (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #3039: 280/SARATOGA (S)



Final Vol: 326 1
Lanes: 1
Signal=Split: n/a
Rights=Include:
Vol Cnt Date: 170
Cycle Time (sec): 9
Loss Time (sec): 9
Critical VIC: 1069
Avg Cnt Del (sec/veh): 107.0
Avg Delay (sec/veh): 52.1
LOS: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

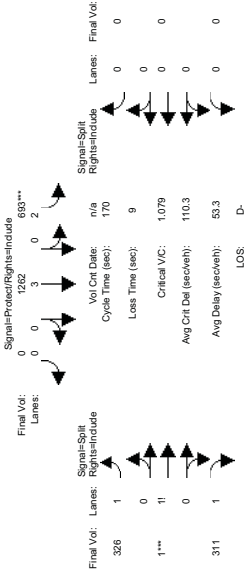
Volume Module:
Base Vol: 0 1756 1071 693 1253 0 326 1 302 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1756 1071 693 1253 0 326 1 302 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1756 1071 693 1253 0 326 1 302 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1756 1071 693 1253 0 326 1 302 0 0 0
Reduced Vol: 0 1756 1071 693 1253 0 326 1 302 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1756 1071 693 1253 0 326 1 302 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.51 0.01 1.48 0.00 0.00 0.00
Final Sat: 0 3800 1750 3150 5700 0 2656 6 2589 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.46 0.61 0.22 0.22 0.00 0.12 0.18 0.12 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 97.4 35.0 132 0.0 28.6 28.6 28.6 0.0 0.0 0.0 0.0
Volume/Cap: 0.0 0.81 1.07 1.07 0.28 0.00 0.73 1.07 0.69 0.00 0.00 0.00
Delay/Veh: 0.0 31.2 84.9 122.6 5.4 0.0 70.2 127 68.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 31.2 84.9 122.6 5.4 0.0 70.2 127 68.9 0.0 0.0 0.0
LOS by Move: A C F F A A A E F E A A A
HCM2kAVQ: 0 36 71 29 6 0 13 24 12 0 0 0
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay/ Residential TIA)
Heavagon Trans. Sim Jose, CA
Traffic (Q) Scenario (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #3039: 280/SARATOGA (S)



Final Vol: 326 1
Lanes: 1
Signal=Split: n/a
Rights=Include:
Vol Cnt Date: 170
Cycle Time (sec): 9
Loss Time (sec): 9
Critical VIC: 1079
Avg Cnt Del (sec/veh): 110.3
Avg Delay (sec/veh): 53.3
LOS: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

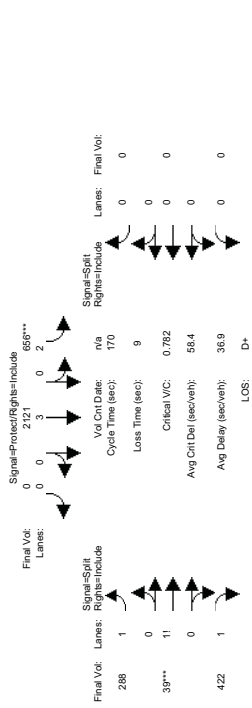
Volume Module:
Base Vol: 0 1756 1071 693 1253 0 326 1 302 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1756 1071 693 1253 0 326 1 302 0 0 0
Added Vol: 0 39 12 0 9 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1795 1083 693 1262 0 326 1 311 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1795 1083 693 1262 0 326 1 311 0 0 0
Reduced Vol: 0 1795 1083 693 1262 0 326 1 311 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1795 1083 693 1262 0 326 1 311 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92
Lanes: 0.00 2.00 1.00 2.00 3.00 0.00 1.51 0.01 1.48 0.00 0.00 0.00
Final Sat: 0 3800 1750 3150 5700 0 2643 5 2602 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.47 0.62 0.22 0.22 0.00 0.12 0.18 0.12 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 97.5 34.7 132 0.0 28.8 28.8 28.8 0.0 0.0 0.0 0.0
Volume/Cap: 0.0 0.82 1.08 1.08 0.28 0.00 0.73 1.08 0.71 0.00 0.00 0.00
Delay/Veh: 0.0 31.9 88.3 126.2 5.4 0.0 70.0 131 69.2 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 31.9 88.3 126.2 5.4 0.0 70.0 131 69.2 0.0 0.0 0.0
LOS by Move: A C F F A A A E F E A A A
HCM2kAVQ: 0 37 72 29 6 0 13 25 12 0 0 0
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay Residential TIA)
Heavon Traffic Systems, Inc.
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3039: 280/SARATOGA (S)



Final Vol: Lanes: Signal=Split Rights=Include Lanes: Final Vol:
288 1 0 0 0 0
39*** 11 0 0 0 0
422 1 0 0 0 0

Signal=Protect/Rights=Include
Lanes: Final Vol:
0 0 2 0 1
0 0 1083 538***

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 0 1083 538 656 2121 0 288 39 422 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1083 538 656 2121 0 288 39 422 0 0 0

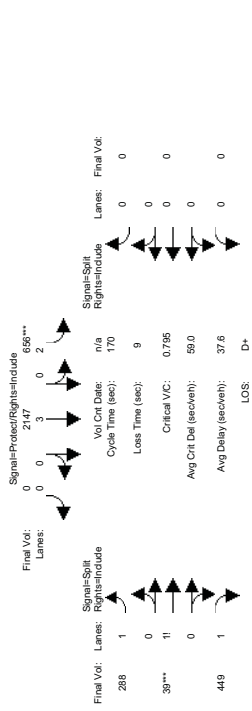
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.00 0.28 0.31 0.21 0.37 0.00 0.12 0.23 0.16 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 66.8 45.3 112 0.0 48.9 48.9 48.9 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay Residential TIA)
Heavon Traffic Systems, Inc.
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3039: 280/SARATOGA (S)



Final Vol: Lanes: Signal=Split Rights=Include Lanes: Final Vol:
288 1 0 0 0 0
39*** 11 0 0 0 0
449 1 0 0 0 0

Signal=Protect/Rights=Include
Lanes: Final Vol:
0 0 2 0 1
0 0 1110 545***

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 10 10 10 0 0 0
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 0 1083 538 656 2121 0 288 39 422 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 0 1083 538 656 2121 0 288 39 422 0 0 0

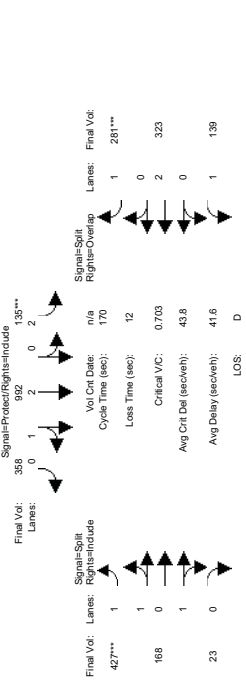
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92

Capacity Analysis Module:
Vol/Sat: 0.00 0.29 0.31 0.21 0.38 0.00 0.12 0.23 0.17 0.00 0.00 0.00
Crit Moves: ****
Green Time: 0.0 66.6 44.6 111 0.0 49.8 49.8 49.8 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Alvion Bay) Residential TIA
 Heavison Transportation Consultants, Inc.
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 369
 Lanes: 0 1 2 0 2

Signal-ProtectRights=Include
 Signal-ProtectRights=Include 13P***

Final Vol: 427***
 Lanes: 1 1 1 1

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 168 0
 Lanes: 0 0 0 0

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 1 1
 Lanes: 1 1 1 1

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 20 0
 Lanes: 0 0 0 0

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Vol Cnt Date: n/a
 Cycle Time (sec): 170
 Loss Time (sec): 12
 Critical VIC: 0.693
 Avg Cnt Del (sec/veh): 43.9
 Avg Del Delay (sec/veh): 41.7
 LOS: D

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 10 10 10
 Y.H.R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 54 2073 20 135 973 358 427 168 20 139 323 281
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 54 2073 20 135 973 358 427 168 20 139 323 281
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 54 2073 20 135 973 358 427 168 20 139 323 281
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 2073 20 135 973 358 427 168 20 139 323 281
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 2073 20 135 973 358 427 168 20 139 323 281
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 54 2073 20 135 973 358 427 168 20 139 323 281

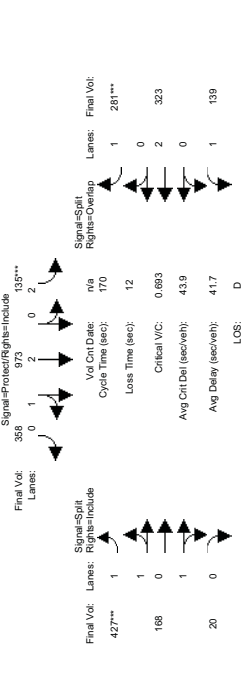
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.18 0.84 2.00 0.89 0.11 1.00 2.00 1.00
 Final Sat.: 1750 5700 1750 3150 4092 1506 3552 1609 191 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.03 0.36 0.01 0.04 0.24 0.24 0.12 0.10 0.10 0.08 0.09 0.16
 Vol/Sat: 0.04 0.37 0.01 0.04 0.24 0.24 0.12 0.11 0.11 0.08 0.09 0.16
 Crit Moves: ****
 Green Time: 14.7 89.2 118.0 10.5 85.0 85.0 29.5 29.5 29.5 28.9 28.9 39.4
 Volume/Cap: 0.36 0.69 0.02 0.69 0.48 0.48 0.69 0.60 0.60 0.47 0.50 0.69
 Delay/Veh: 74.6 30.9 8.0 88.5 28.0 28.0 68.4 65.9 65.9 64.8 64.7 64.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 74.6 30.9 8.0 88.5 28.0 28.0 68.4 65.9 65.9 64.8 64.7 64.9
 LOS by Move: E C A F C C C E E E E E
 HCM2kAVQ: 3 26 0 4 15 12 10 10 10 7 8 15

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Alvion Bay) Residential TIA
 Heavison Transportation Consultants, Inc.
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 369
 Lanes: 0 1 2 0 2

Signal-ProtectRights=Include
 Signal-ProtectRights=Include 13P***

Final Vol: 427***
 Lanes: 1 1 1 1

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 168 0
 Lanes: 0 0 0 0

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 1 1
 Lanes: 1 1 1 1

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Final Vol: 20 0
 Lanes: 0 0 0 0

Signal-Split
 Rights=Overlap
 Signal-Split
 Rights=Overlap

Vol Cnt Date: n/a
 Cycle Time (sec): 170
 Loss Time (sec): 12
 Critical VIC: 0.703
 Avg Cnt Del (sec/veh): 43.8
 Avg Del Delay (sec/veh): 41.6
 LOS: D

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 10 10 10
 Y.H.R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 54 2073 20 135 973 358 427 168 20 139 323 281
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 54 2073 20 135 973 358 427 168 20 139 323 281
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 54 2073 20 135 973 358 427 168 20 139 323 281
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 2073 20 135 973 358 427 168 20 139 323 281
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 2073 20 135 973 358 427 168 20 139 323 281
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 54 2073 20 135 973 358 427 168 20 139 323 281

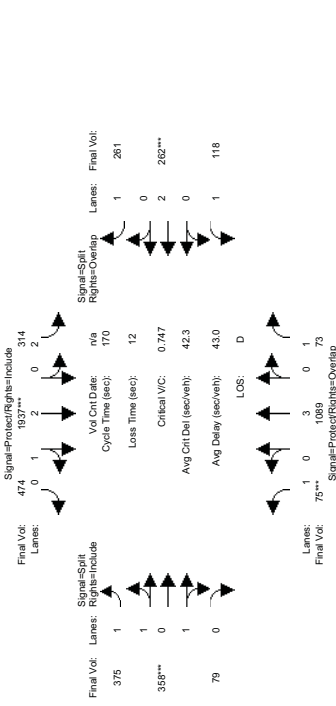
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.95 0.93 0.95 0.95 0.92 1.00 0.92
 Lanes: 1.00 3.00 1.00 2.00 2.18 0.82 2.00 0.88 0.12 1.00 2.00 1.00
 Final Sat.: 1750 5700 1750 3150 4113 1484 3552 1583 217 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.04 0.37 0.01 0.04 0.24 0.24 0.12 0.11 0.11 0.08 0.09 0.16
 Vol/Sat: 0.04 0.37 0.01 0.04 0.24 0.24 0.12 0.11 0.11 0.08 0.09 0.16
 Crit Moves: ****
 Green Time: 14.7 90.1 118.6 10.4 85.8 85.8 29.1 29.1 29.1 28.5 28.5 38.8
 Volume/Cap: 0.41 0.70 0.02 0.70 0.48 0.48 0.70 0.62 0.62 0.47 0.51 0.70
 Delay/Veh: 75.4 30.7 7.9 89.5 27.6 27.6 69.0 66.6 66.6 65.2 65.1 65.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 75.4 30.7 7.9 89.5 27.6 27.6 69.0 66.6 66.6 65.2 65.1 65.9
 LOS by Move: E- C A F C A C E E E E E
 HCM2kAVQ: 3 26 0 4 15 12 10 10 10 7 8 15

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavagon Trans...
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 375 Lanes: 1 Signal-Split Rights=Overlap Lanes: Final Vol: 261
358 0 1 Critical VC: 0.747 2 262***
88 0 1 Avg Del (sec/veh): 42.3 0
Avg Delay (sec/veh): 43.0 1 118

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

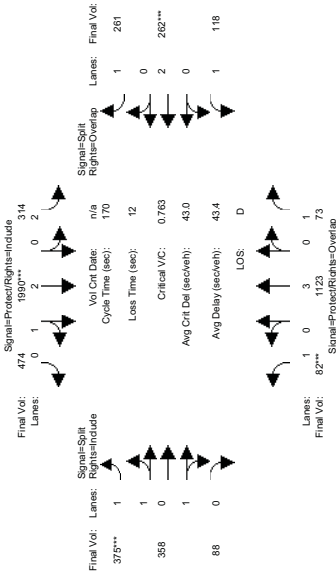
Volume Module: Base Vol: 75 1089 73 314 1937 474 375 358 79 118 262 261
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 75 1089 73 314 1937 474 375 358 79 118 262 261

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.39 0.61 1.40 1.31 0.29 1.00 2.00 1.00

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
Heavagon Trans...
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3113: MOORPARK/SARATOGA



Final Vol: 375 Lanes: 1 Signal-Split Rights=Overlap Lanes: Final Vol: 261
358 0 1 Critical VC: 0.763 2 262***
88 0 1 Avg Del (sec/veh): 43.0 0
Avg Delay (sec/veh): 43.4 1 118

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

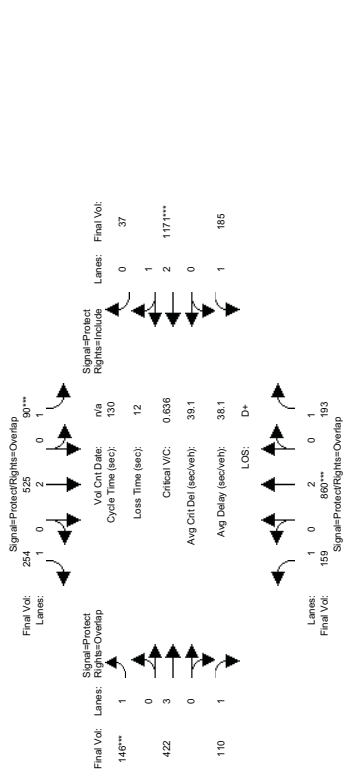
Volume Module: Base Vol: 75 1089 73 314 1937 474 375 358 79 118 262 261
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 75 1089 73 314 1937 474 375 358 79 118 262 261

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 0.99 0.95 0.93 0.95 0.95 0.92 1.00 0.92
Lanes: 1.00 3.00 1.00 2.00 2.40 0.60 1.38 1.30 0.32 1.00 2.00 1.00

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avlon Bay) Residential TIA
Hescong Traffic Engineering Consultants, Inc.
1000 S Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #3116: SARATOGA/STEVENS CREEK



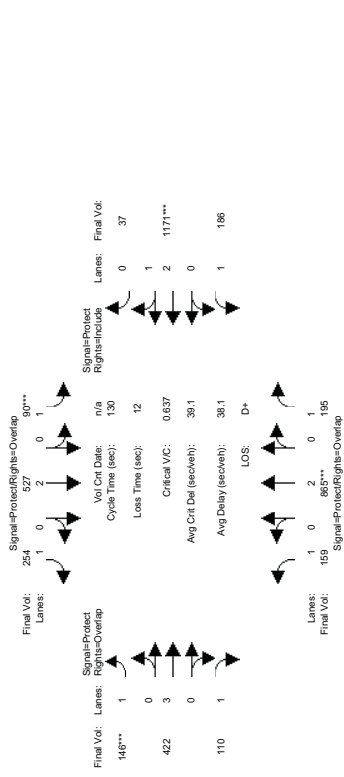
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Min. Green (7, 10, 4.0), YHR (4.0, 4.0, 4.0), Volume Module (Base Vol: 159, 860, 193; Growth Adj: 1.00; Initial Base: 159, 860, 193; Added Vol: 0; PasserByVol: 0; Initial Fut: 159, 860, 193; User Adj: 1.00; PHF Adj: 1.00; PHF Volume: 159, 860, 193; Reduced Vol: 159, 860, 193; PCE Adj: 1.00; MIF Adj: 1.00; Final Volume: 159, 860, 193), Sat/Flane: 1900, 1900, 1900, 1900, 1900, 1900, 1900, 1900; Adjustment: 0.92, 1.00, 1.00, 0.92, 1.00, 1.00, 1.00, 1.00; Lanes: 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1; Final Sat: 1750, 3800, 1750, 1750, 3800, 1750, 1750, 5700, 1750, 1750, 5700, 1750, 5700, 1750; Capacity Analysis Module: Vol/Sat: 0.09, 0.23, 0.11, 0.05, 0.14, 0.15, 0.08, 0.07, 0.06, 0.11, 0.22, 0.22; Crit Moves: ****; Green Time: 22.5, 46.3, 81.7, 10.5, 34.3, 51.3, 17.1, 25.8, 48.3, 35.4, 44.1, 44.1; Volume/Cap: 0.52, 0.64, 0.18, 0.64, 0.52, 0.37, 0.64, 0.37, 0.17, 0.39, 0.64, 0.64; Delay/Veh: 50.5, 35.8, 10.2, 67.1, 41.4, 28.2, 59.3, 45.3, 27.5, 39.0, 36.9, 36.9; User DelAdj: 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00; AdjDel/Veh: 50.5, 35.8, 10.2, 67.1, 41.4, 28.2, 59.3, 45.3, 27.5, 39.0, 36.9, 36.9; LOS by Move: D+, D+, B+, B+, C+, E+, D, C, E+, D, C, D+, D+; HCM2kVq: 7, 15, 3, 4, 9, 7, 7, 5, 3, 7, 14, 14

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avlon Bay) Residential TIA
Hescong Traffic Engineering Consultants, Inc.
1000 S Bascom Avenue, Suite 200, San Jose, CA 95128
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #3116: SARATOGA/STEVENS CREEK



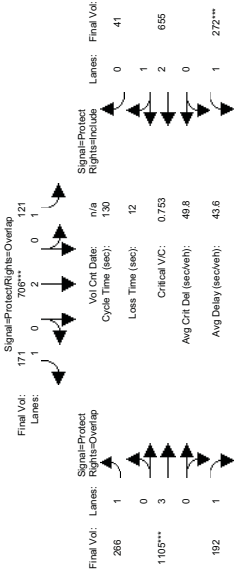
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Min. Green (7, 10, 4.0), YHR (4.0, 4.0, 4.0), Volume Module (Base Vol: 159, 860, 193; Growth Adj: 1.00; Initial Base: 159, 860, 193; Added Vol: 0; PasserByVol: 0; Initial Fut: 159, 860, 193; User Adj: 1.00; PHF Adj: 1.00; PHF Volume: 159, 860, 193; Reduced Vol: 159, 860, 193; PCE Adj: 1.00; MIF Adj: 1.00; Final Volume: 159, 860, 193), Sat/Flane: 1900, 1900, 1900, 1900, 1900, 1900, 1900, 1900; Adjustment: 0.92, 1.00, 1.00, 0.92, 1.00, 1.00, 1.00, 1.00; Lanes: 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1; Final Sat: 1750, 3800, 1750, 1750, 3800, 1750, 1750, 5700, 1750, 1750, 5700, 1750, 5700, 1750; Capacity Analysis Module: Vol/Sat: 0.09, 0.23, 0.11, 0.05, 0.14, 0.15, 0.08, 0.07, 0.06, 0.11, 0.22, 0.22; Crit Moves: ****; Green Time: 22.5, 46.5, 81.9, 10.5, 34.4, 51.4, 17.0, 25.6, 48.2, 35.4, 44.0, 44.0; Volume/Cap: 0.52, 0.64, 0.18, 0.64, 0.52, 0.37, 0.64, 0.38, 0.17, 0.39, 0.64, 0.64; Delay/Veh: 50.5, 35.8, 10.1, 67.2, 41.3, 28.1, 59.4, 45.5, 27.6, 39.0, 37.0, 37.0; User DelAdj: 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00, 1.00; AdjDel/Veh: 50.5, 35.8, 10.1, 67.2, 41.3, 28.1, 59.4, 45.5, 27.6, 39.0, 37.0, 37.0; LOS by Move: D+, D+, B+, B+, C+, E+, D, C, E+, D, C, D+, D+; HCM2kVq: 7, 15, 3, 4, 9, 7, 7, 5, 3, 7, 14, 14

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 259 590 250 121 701 171 266 1105 192 270 655 41
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 259 590 250 121 701 171 266 1105 192 270 655 41
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 259 593 251 121 706 171 266 1105 192 272 655 41
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 259 593 251 121 706 171 266 1105 192 272 655 41
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 259 593 251 121 706 171 266 1105 192 272 655 41
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 259 593 251 121 706 171 266 1105 192 272 655 41

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.82 0.18
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5270 330

Capacity Analysis Module:
 Vol/Sat: 0.15 0.16 0.14 0.07 0.19 0.10 0.15 0.19 0.11 0.15 0.12 0.12
 Crit Moves: ****
 Green Time: 25.6 40.0 66.8 17.7 32.1 65.3 33.2 33.5 59.1 26.8 27.1 27.1
 Volume/Cap: 0.75 0.51 0.28 0.51 0.75 0.19 0.60 0.75 0.24 0.75 0.60 0.60
 Delay/Veh: 58.3 37.3 18.2 53.8 48.7 18.0 44.7 46.5 21.8 57.0 47.3 47.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 58.0 37.3 18.2 53.8 48.7 18.0 44.7 46.5 21.8 57.0 47.3 47.3
 LOS by Move: E+ D+ B- D B- D C+ E+ D D
 HCM2kAVGQ: 12 10 6 4 12 4 11 15 5 12 9 9

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavison Transportation Consultants, Inc.
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3116: SARATOGA/STEVENS CREEK



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 259 590 250 121 701 171 266 1105 192 270 655 41
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 259 590 250 121 701 171 266 1105 192 270 655 41
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 259 590 250 121 701 171 266 1105 192 270 655 41
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 259 590 250 121 701 171 266 1105 192 270 655 41
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 259 590 250 121 701 171 266 1105 192 270 655 41
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 259 590 250 121 701 171 266 1105 192 270 655 41

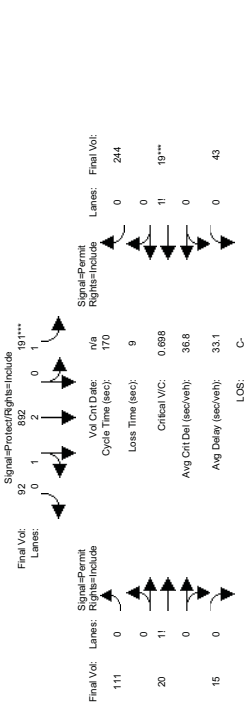
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00 1.00 2.82 0.18
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 5700 1750 1750 5270 330

Capacity Analysis Module:
 Vol/Sat: 0.15 0.16 0.14 0.07 0.18 0.10 0.15 0.19 0.11 0.15 0.12 0.12
 Crit Moves: ****
 Green Time: 25.7 39.9 66.6 17.8 32.0 65.2 33.2 33.6 59.3 26.7 27.2 27.2
 Volume/Cap: 0.75 0.51 0.28 0.51 0.75 0.19 0.60 0.75 0.24 0.75 0.60 0.60
 Delay/Veh: 58.0 37.3 18.2 53.8 48.7 18.0 44.7 46.5 21.8 57.0 47.3 47.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 58.0 37.3 18.2 53.8 48.7 18.0 44.7 46.5 21.8 57.0 47.3 47.3
 LOS by Move: E+ D+ B- D B- D C+ E+ D D
 HCM2kAVGQ: 12 10 6 4 12 4 11 15 5 12 9 9

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
 Heavagon Trans. from Consultants, Inc.
 San Jose, CA
 Signal=Permit
 Rights=Include
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 111
 Lanes: 0
 Signal=Permit
 Rights=Include
 Vol Cnt Date: n/a
 Cycle Time (sec): 170
 Loss Time (sec): 9
 Critical VIC: 0.688
 Avg Cnt Del (sec/veh): 36.8
 Avg Delay (sec/veh): 33.1
 LOS: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 16 2072 42 191 892 92 111 20 15 43 19 244
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 16 2072 42 191 892 92 111 20 15 43 19 244
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 16 2072 42 191 892 92 111 20 15 43 19 244
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 16 2072 42 191 892 92 111 20 15 43 19 244
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 16 2072 42 191 892 92 111 20 15 43 19 244

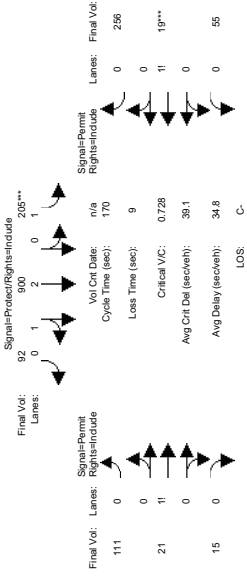
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 0.98 0.95 0.92 0.99 0.95 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 1.00 2.94 0.06 1.00 2.71 0.29 0.76 0.14 0.10 0.14 0.06 0.80
 Final Sat.: 1750 5489 111 1750 5076 524 1330 240 180 246 109 1395

Capacity Analysis Module:
 Vol/Sat: 0.01 0.38 0.38 0.11 0.18 0.18 0.08 0.08 0.17 0.17 0.17 0.17
 Crit Moves: ****
 Green Time: 22.5 91.9 91.9 26.6 96.0 96.0 42.6 42.6 42.6 42.6 42.6 42.6
 Volume/Cap: 0.07 0.70 0.70 0.31 0.31 0.33 0.33 0.33 0.70 0.70 0.70 0.70
 Delay/Veh: 64.7 29.6 29.6 75.7 19.6 19.6 52.6 52.6 62.8 62.8 62.8 62.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 64.7 29.6 29.6 75.7 19.6 19.6 52.6 52.6 62.8 62.8 62.8 62.8
 LOS by Move: E C B- D- E E
 HCM2kAVQ: 1 27 27 10 9 9 7 7 7 7 16 16

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
 Heavagon Trans. from Consultants, Inc.
 San Jose, CA
 Signal=Permit
 Rights=Include
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #3307: BLACKFORD/SARATOGA



Final Vol: 111
 Lanes: 0
 Signal=Permit
 Rights=Include
 Vol Cnt Date: n/a
 Cycle Time (sec): 170
 Loss Time (sec): 9
 Critical VIC: 0.728
 Avg Cnt Del (sec/veh): 39.1
 Avg Delay (sec/veh): 34.8
 LOS: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 16 2072 42 191 892 92 111 20 15 43 19 244
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 16 2072 42 191 892 92 111 20 15 43 19 244
 Added Vol: 1 36 0 18 4 0 0 0 0 0 0 0
 Reassigned: 0 0 0 -4 4 0 0 0 0 0 0 0
 Initial Fut: 17 2108 42 205 900 92 111 21 15 55 19 256
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 17 2108 42 205 900 92 111 21 15 55 19 256
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 17 2108 42 205 900 92 111 21 15 55 19 256

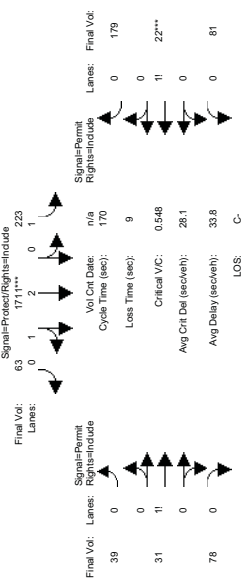
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 0.98 0.95 0.92 0.99 0.95 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 1.00 2.94 0.06 1.00 2.71 0.29 0.76 0.14 0.10 0.14 0.06 0.77
 Final Sat.: 1750 5490 109 1750 5080 519 1321 250 179 292 101 1388

Capacity Analysis Module:
 Vol/Sat: 0.01 0.38 0.38 0.12 0.18 0.18 0.08 0.08 0.19 0.19 0.19 0.19
 Crit Moves: ****
 Green Time: 22.1 89.6 89.6 27.3 94.9 94.9 44.0 44.0 44.0 44.0 44.0 44.0
 Volume/Cap: 0.07 0.73 0.73 0.32 0.32 0.32 0.32 0.32 0.73 0.73 0.73 0.73
 Delay/Veh: 65.1 31.8 31.8 77.0 20.2 20.2 51.4 51.4 63.4 63.4 63.4 63.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.1 31.8 31.8 77.0 20.2 20.2 51.4 51.4 63.4 63.4 63.4 63.4
 LOS by Move: E C B- D- E E
 HCM2kAVQ: 1 29 29 11 9 9 7 7 7 7 18 18

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavon Transportion Consultants, Inc.
17450 Saratoga Blvd, Suite 100
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3307: BLACKFORD/SARATOGA



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 68 1113 53 194 1679 63 39 28 78 68 22 170
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 68 1113 53 194 1679 63 39 28 78 68 22 170

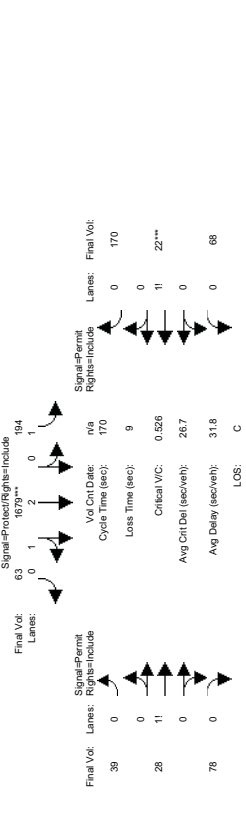
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 1.00 2.86 0.14 1.00 2.89 0.11 0.27 0.19 0.54 0.26 0.08 0.66
 Final Sat.: 1750 5345 255 1750 5397 203 471 338 941 458 148 1144

Capacity Analysis Module:
 Vol/Sat: 0.04 0.21 0.21 0.11 0.31 0.31 0.08 0.08 0.15 0.15 0.15
 Crit Moves: ****
 Green Time: 12.5 73.8 73.8 39.3 100 100.5 48.0 48.0 48.0 48.0 48.0 48.0 48.0
 Volume/Cap: 0.53 0.48 0.48 0.48 0.53 0.53 0.29 0.29 0.29 0.53 0.53
 Delay/Veh: 79.8 34.6 34.6 57.4 20.8 20.8 48.1 48.1 48.1 52.5 52.5 52.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.8 34.6 34.6 57.4 20.8 20.8 48.1 48.1 48.1 52.5 52.5 52.5
 LOS by Move: E- C- C- E+ C+ C+ D D D- D-
 HCM2kAVQ: 4 14 14 9 17 6 6 6 6 6 6 6 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
Heavon Transportion Consultants, Inc.
17450 Saratoga Blvd, Suite 100
2000 HCM Operations (Future Volume Alternative)
Cumulative PM

Intersection #3307: BLACKFORD/SARATOGA



Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 10 10 10 10 10 10 10 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 68 1113 53 194 1679 63 39 28 78 68 22 170
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 68 1113 53 194 1679 63 39 28 78 68 22 170
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 68 1113 53 194 1679 63 39 28 78 68 22 170

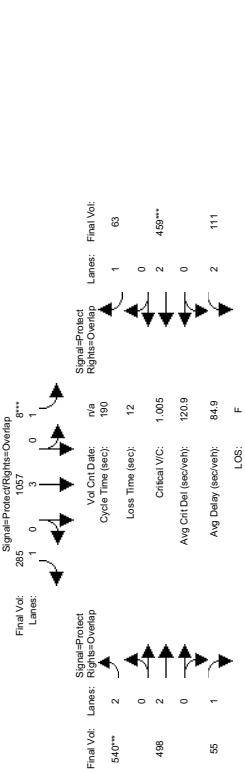
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 0.98 0.95 0.92 0.98 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 Lanes: 1.00 2.86 0.14 1.00 2.89 0.11 0.27 0.19 0.54 0.26 0.08 0.66
 Final Sat.: 1750 5345 255 1750 5397 203 471 338 941 458 148 1144

Capacity Analysis Module:
 Vol/Sat: 0.04 0.21 0.21 0.11 0.31 0.31 0.08 0.08 0.15 0.15 0.15
 Crit Moves: ****
 Green Time: 12.5 73.8 73.8 39.3 100 100.5 48.0 48.0 48.0 48.0 48.0 48.0 48.0
 Volume/Cap: 0.53 0.48 0.48 0.48 0.53 0.53 0.29 0.29 0.29 0.53 0.53
 Delay/Veh: 79.8 34.6 34.6 57.4 20.8 20.8 48.1 48.1 48.1 52.5 52.5 52.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.8 34.6 34.6 57.4 20.8 20.8 48.1 48.1 48.1 52.5 52.5 52.5
 LOS by Move: E- C- C- E+ C+ C+ D D D- D-
 HCM2kAVQ: 4 14 14 9 17 6 6 6 6 6 6 6 6 6

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heavon Transportation Consultants, Inc.
San Jose, CA
Traffic Operations (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Final Vol: Lanes: Signal=Protect Rights=Overlap
540*** 2
488 2
55 1

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 32 2881 188 8 1057 285 540 498 55 111 459 63
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

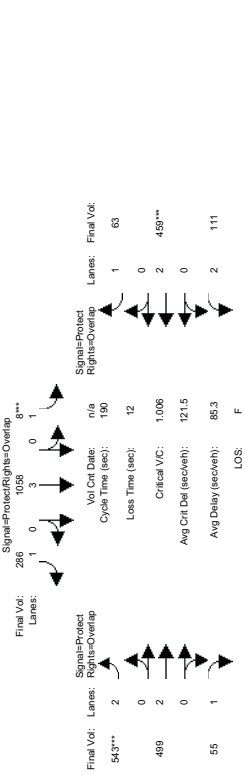
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92

Capacity Analysis Module:
Vol/Sat: 0.02 0.64 0.11 0.00 0.19 0.16 0.17 0.13 0.03 0.04 0.12 0.04
Crit Moves: *****
Green Time: 4.0 108 122.0 5.0 109 138.0 29.0 51.0 55.0 14.0 36.0 41.0

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avion Bay) Residential TIA
Heavon Transportation Consultants, Inc.
San Jose, CA
Traffic Operations (Future Volume Alternative)
2000 HCM Operations (Future Volume Alternative)
Cumulative AM

Intersection #5422: SAN TOMAS EXP/WY/SARATOGA AVE



Final Vol: Lanes: Signal=Protect Rights=Overlap
543*** 2
489 2
55 1

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 4 108 108 5 109 109 29 51 51 14 36 36
YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
Base Vol: 32 2881 188 8 1057 285 540 498 55 111 459 63
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92

Capacity Analysis Module:
Vol/Sat: 0.02 0.64 0.11 0.00 0.19 0.16 0.17 0.13 0.03 0.04 0.12 0.04
Crit Moves: *****
Green Time: 4.0 108 122.0 5.0 109 138.0 29.0 51.0 55.0 14.0 36.0 41.0

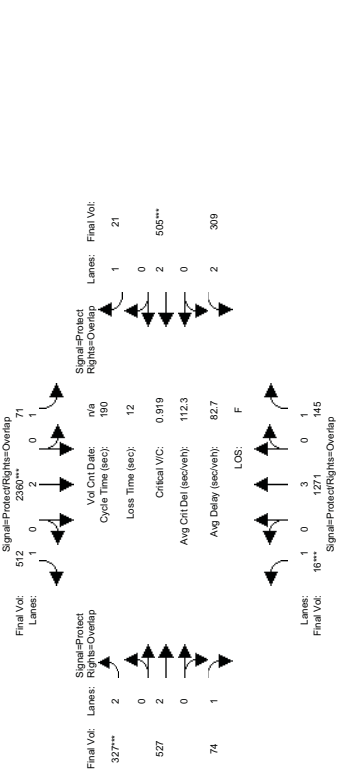
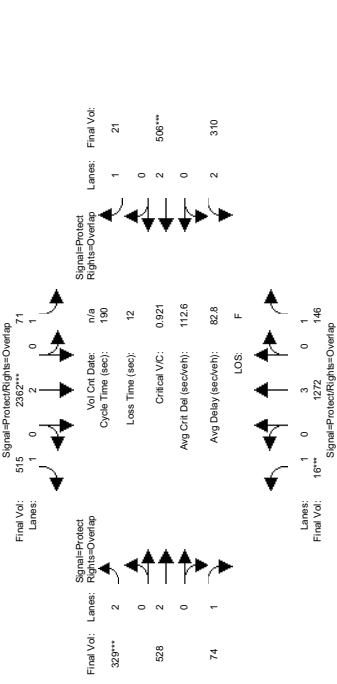
Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avilon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 16150 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Cumulative PM

700 Saratoga Ave (Avilon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 16150 S. Bascom Avenue, Suite 200
 San Jose, CA 95128
 2000 HCM Operations (Future Volume Alternative)
 Cumulative PM

Intersection #5422- SAN TOMAS EXP/WY/SARATOGA AVE

Intersection #5422- SAN TOMAS EXP/WY/SARATOGA AVE



Final Vol: Lanes: Signal=Protect Rights=Overlap
 327*** 2

Final Vol: Lanes: Signal=Protect Rights=Overlap
 327*** 2

Final Vol: Lanes: Signal=Protect Rights=Overlap
 528 2

Final Vol: Lanes: Signal=Protect Rights=Overlap
 527 2

Final Vol: Lanes: Signal=Protect Rights=Overlap
 74 1

Final Vol: Lanes: Signal=Protect Rights=Overlap
 74 1

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 14 112 112 14 117 117 26 40 40 26 41 41
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 14 112 112 14 117 117 26 40 40 26 41 41
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 16 1271 145 71 2878 512 327 527 74 309 505 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 16 1271 145 71 2878 512 327 527 74 309 505 21
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 16 1271 145 71 2878 512 327 527 74 309 505 21
 User Adj: 1.00 1.00 1.00 0.82 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 16 1271 145 71 2360 512 327 527 74 309 505 21
 Reduced Vol: 16 1271 145 71 2360 512 327 527 74 309 505 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 16 1271 145 71 2360 512 327 527 74 309 505 21

Volume Module:
 Base Vol: 16 1271 145 71 2878 512 327 527 74 309 505 21
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 16 1271 145 71 2878 512 327 527 74 309 505 21
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 16 1271 145 71 2878 512 327 527 74 309 505 21
 User Adj: 1.00 1.00 1.00 0.82 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 16 1271 145 71 2360 512 327 527 74 309 505 21
 Reduced Vol: 16 1271 145 71 2360 512 327 527 74 309 505 21
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 16 1271 145 71 2360 512 327 527 74 309 505 21

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 1.00 0.92 1.00 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 3.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
 Final Sat: 1750 5700 1750 1750 3800 1750 3150 3800 1750 3150 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.01 0.22 0.08 0.04 0.62 0.29 0.10 0.14 0.04 0.10 0.13 0.01
 Crit Moves: *****
 Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
 Volume/Cap: 0.14 0.40 0.12 0.59 1.12 0.43 0.84 0.72 0.16 0.78 0.68 0.05
 Delay/Veh: 92.8 35.4 18.7 102.0 121 24.4 105.3 82.8 60.2 98.6 81.1 57.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 92.8 35.4 18.7 102.0 121 24.4 105.3 82.8 60.2 98.6 81.1 57.5
 LOS by Move: F D+ B- F C F E F E F E+
 HCM2kAVGQ: 1 19 5 6 91 23 13 15 4 13 16 1

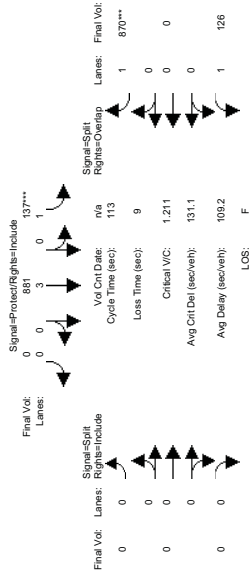
Capacity Analysis Module:
 Vol/Sat: 0.01 0.22 0.08 0.04 0.62 0.29 0.10 0.14 0.04 0.10 0.13 0.01
 Crit Moves: *****
 Green Time: 12.7 105 129.2 13.2 106 129.4 23.5 36.7 49.4 23.9 37.1 50.3
 Volume/Cap: 0.14 0.40 0.12 0.59 1.11 0.43 0.84 0.72 0.16 0.78 0.68 0.05
 Delay/Veh: 92.8 35.4 18.7 102.0 120 24.3 104.7 82.7 60.2 98.6 81.0 57.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 92.8 35.4 18.7 102.0 120 24.3 104.7 82.7 60.2 98.6 81.0 57.5
 LOS by Move: F D+ B- F C F E F E F E+
 HCM2kAVGQ: 1 19 5 6 91 23 12 15 4 13 16 1

Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 1400 S Bascom Avenue, Suite 200
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #5632: LAWRENCE/MTTY



Final Vol: 0
 Lanes: 0
 Signal=Split Rights=Include: 0 0 3 0 1 140
 Vol Cnt Date: n/a
 Cycle Time (sec): 113
 Loss Time (sec): 9
 Critical VIC: 1,211
 Avg Cnt Del (sec/veh): 131.1
 Avg Delay (sec/veh): 109.2
 LOS: F

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10 0 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870

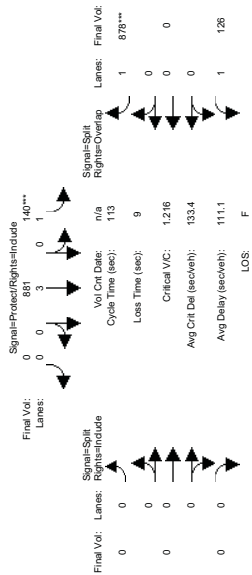
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 0 1750 0 1750

Capacity Analysis Module:
 Vol/Sat: 0.00 0.62 0.02 0.08 0.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.00 0.50
 Crit Moves: ****
 Green Time: 0.0 57.6 96.7 7.3 64.9 0.0 0.0 0.0 0.0 0.0 0.0 39.1 0.0 46.4
 Volume/Cap: 0.00 1.21 0.21 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.21 0.00 1.21
 Delay/Veh: 0.0 126 1.2 204.7 12.3 0.0 0.0 0.0 0.0 0.0 0.0 26.8 0.0 140.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 126 1.2 204.7 12.3 0.0 0.0 0.0 0.0 0.0 0.0 26.8 0.0 140.8
 LOS by Move: A F A F A A A A A A A A C A F
 HCM2kAVQ: 0 67 0 11 5 0 0 0 0 0 0 0 3 0 55

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay) Residential TIA
 Heavon Transportation Consultants, Inc.
 1400 S Bascom Avenue, Suite 200
 2000 HCM Operations (Future Volume Alternative)
 Cumulative AM

Intersection #5632: LAWRENCE/MTTY



Final Vol: 0
 Lanes: 0
 Signal=Split Rights=Include: 0 0 3 0 1 140
 Vol Cnt Date: n/a
 Cycle Time (sec): 113
 Loss Time (sec): 9
 Critical VIC: 1,216
 Avg Cnt Del (sec/veh): 133.4
 Avg Delay (sec/veh): 111.1
 LOS: F

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module:
 Base Vol: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 3517 31 137 881 0 0 0 0 0 0 0 126 0 870

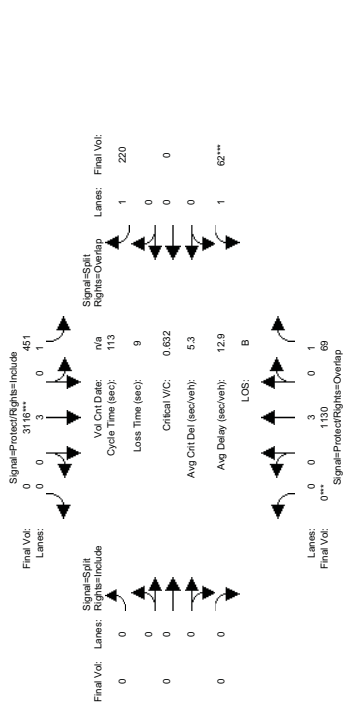
Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 0 1750 0 1750

Capacity Analysis Module:
 Vol/Sat: 0.00 0.62 0.02 0.08 0.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.00 0.50
 Crit Moves: ****
 Green Time: 0.0 57.4 96.6 7.4 64.8 0.0 0.0 0.0 0.0 0.0 0.0 39.2 0.0 46.6
 Volume/Cap: 0.00 1.22 0.22 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.21 0.00 1.22
 Delay/Veh: 0.0 128 1.2 205.7 12.4 0.0 0.0 0.0 0.0 0.0 0.0 26.7 0.0 142.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 128 1.2 205.7 12.4 0.0 0.0 0.0 0.0 0.0 0.0 26.7 0.0 142.6
 LOS by Move: A F A F A A A A A A A A C A F
 HCM2kAVQ: 0 68 0 11 5 0 0 0 0 0 0 0 3 0 56

Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 2000 HCV Operations (Future Volume Alternative)
 Cumulative PM

Intersection #5632: LAWRENCE/MTTY

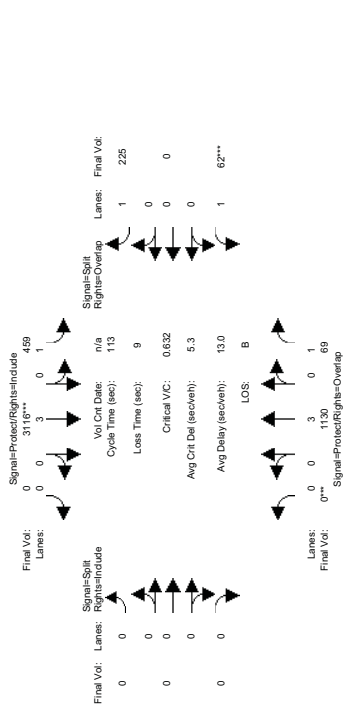


Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10 0 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 0 1750 0 1750
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.20 0.04 0.26 0.55 0.00 0.00 0.00 0.00 0.04 0.00 0.13
 Crit Moves: ****
 Green Time: 0.0 40.9 50.9 53.1 94.0 0.0 0.0 0.0 0.0 10.0 0.0 63.1
 Volume/Cap: 0.00 0.55 0.09 0.55 0.66 0.00 0.00 0.00 0.00 0.40 0.00 0.23
 Delay/Veh: 0.0 29.8 18.0 24.0 4.2 0.0 0.0 0.0 0.0 56.2 0.0 13.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 29.8 18.0 24.0 4.2 0.0 0.0 0.0 0.0 56.2 0.0 13.1
 LOS by Move: A C B- C A A A A A A E+ A B
 HCM2kAVGQ: 0 11 1 12 14 0 0 0 0 0 0 3 0 0 4
 Note: Queue reported is the number of cars per lane.

700 Saratoga Ave (Avonon Bay Residential TIA)
 Heavon Transportation Consultants, Inc.
 2000 HCV Operations (Future Volume Alternative)
 Cumulative PM

Intersection #5632: LAWRENCE/MTTY

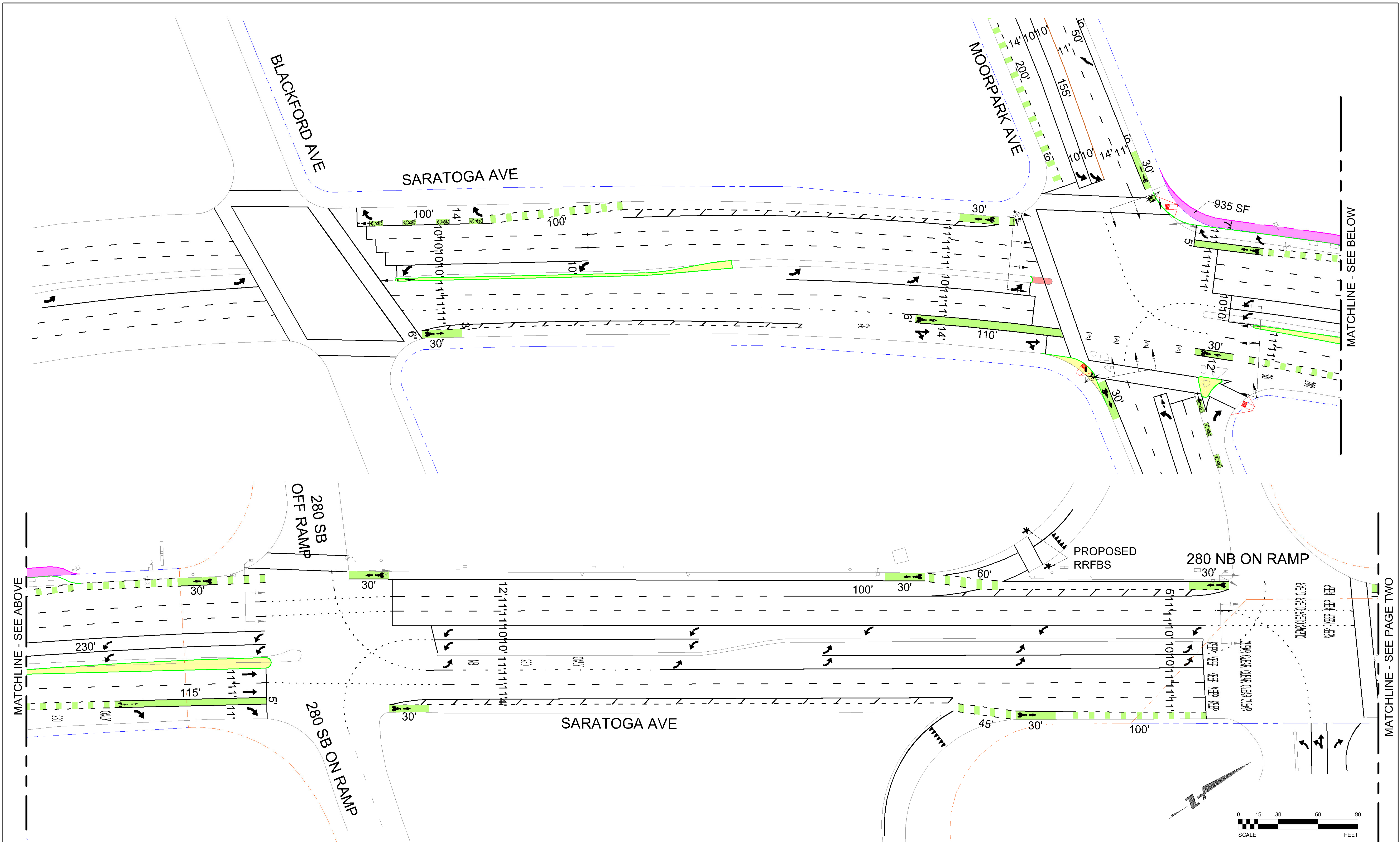


Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 0 10 10 7 10 0 0 0 0 0 0 0 10 0 10
 YHR: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module:
 Base Vol: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 220
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 225
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 225
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 0 1130 69 451 3116 0 0 0 0 0 0 0 62 0 225

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Final Sat: 0 5700 1750 1750 5700 0 0 0 0 0 0 0 1750 0 1750
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.20 0.04 0.26 0.55 0.00 0.00 0.00 0.00 0.04 0.00 0.13
 Crit Moves: ****
 Green Time: 0.0 40.5 50.5 53.5 94.0 0.0 0.0 0.0 0.0 10.0 0.0 63.5
 Volume/Cap: 0.00 0.55 0.09 0.55 0.66 0.00 0.00 0.00 0.00 0.40 0.00 0.23
 Delay/Veh: 0.0 30.1 18.2 23.9 4.2 0.0 0.0 0.0 0.0 56.2 0.0 13.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 30.1 18.2 23.9 4.2 0.0 0.0 0.0 0.0 56.2 0.0 13.0
 LOS by Move: A C B- C A A A A A A E+ A B
 HCM2kAVGQ: 0 11 1 12 14 0 0 0 0 0 0 3 0 0 4
 Note: Queue reported is the number of cars per lane.

Appendix E

Saratoga Avenue and Kiely Boulevard Planline

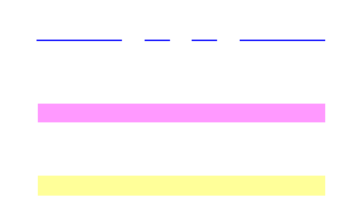


SARATOGA AVE AND MOORPARK AVE

LEGEND:
 PROPOSED FACE OF CURB
 EXISTING FACE OF CURB
 CALTRANS RIGHT OF WAY
 PROPOSED RIGHT OF WAY(CSJ)



EXISTING RIGHT OF WAY(CSJ)
 RIGHT OF WAY DEDICATION/PURCHASE
 PROPOSED CONCRETE WORK

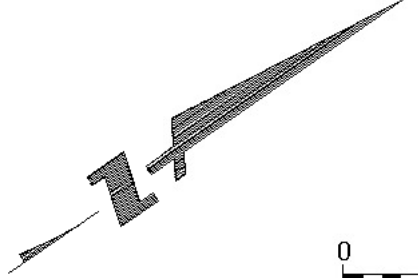


**DEPARTMENT OF TRANSPORTATION
 SAN JOSE, CALIFORNIA**

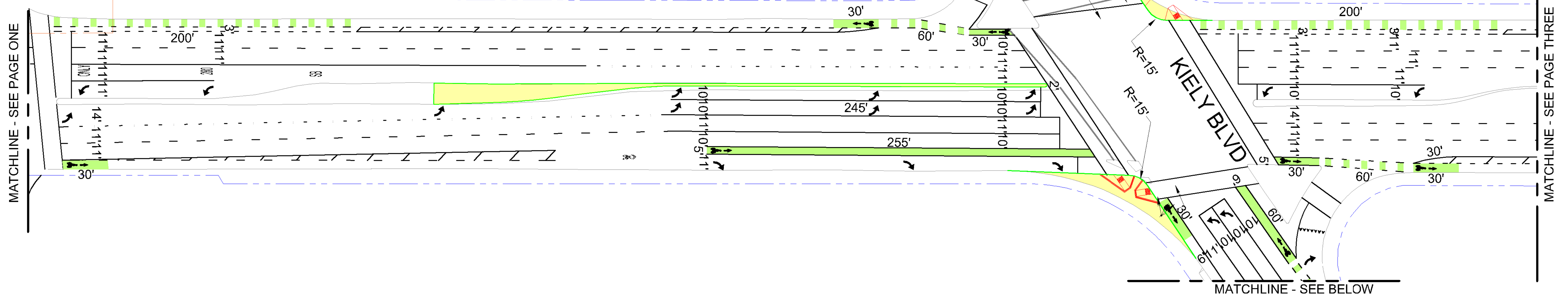
DESIGNED BY: X. GAO
 CHECKED BY: F. LAPUSTEA
 PROJ MGR: Z. KHATTAB
 DATE: MARCH 2017
 SCALE: 1" = 30'
 SHEET NO. 1 OF 3

JIM ORTBAL
 DIRECTOR

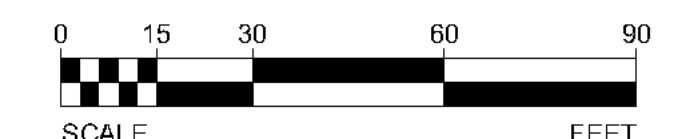
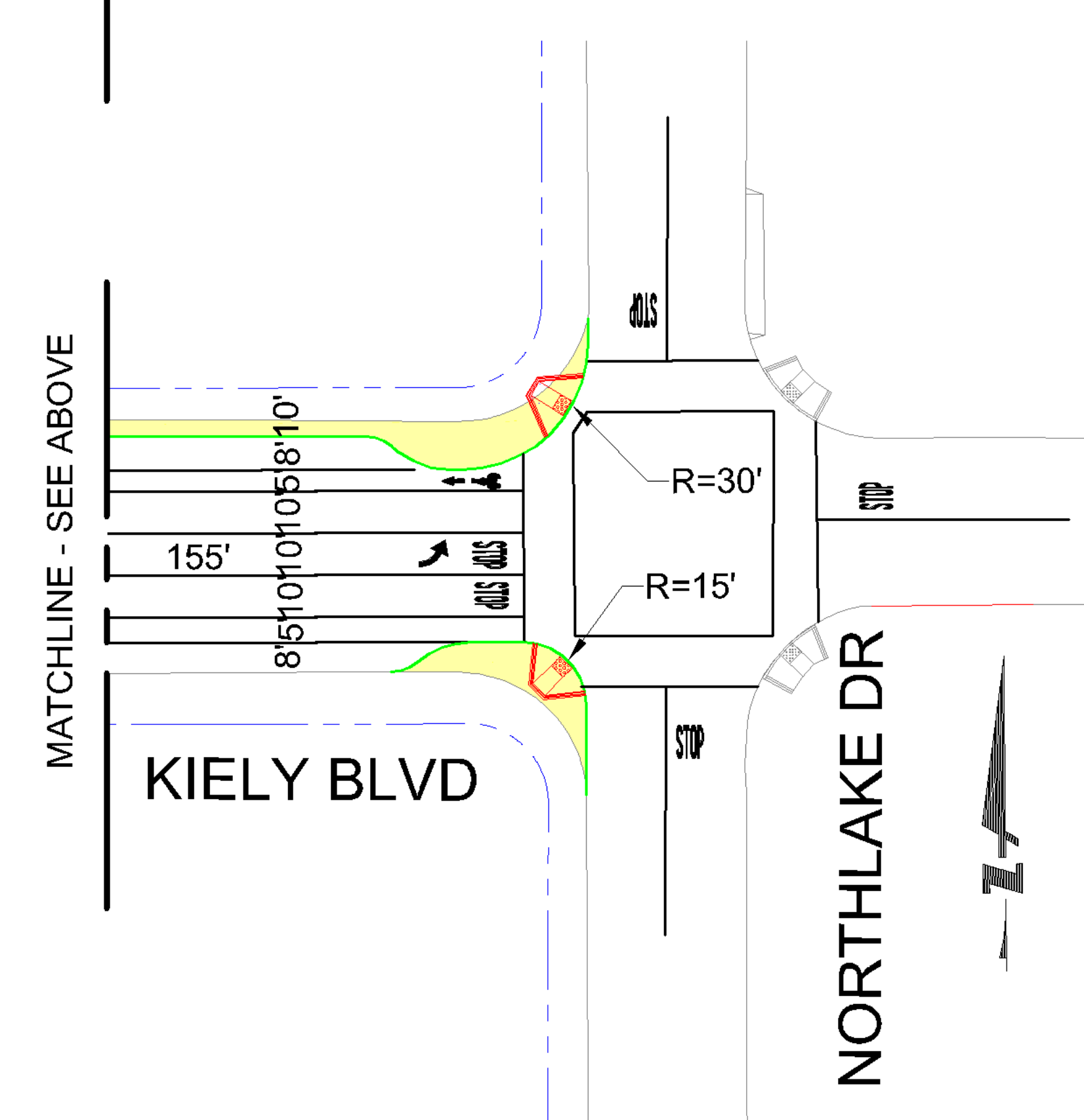
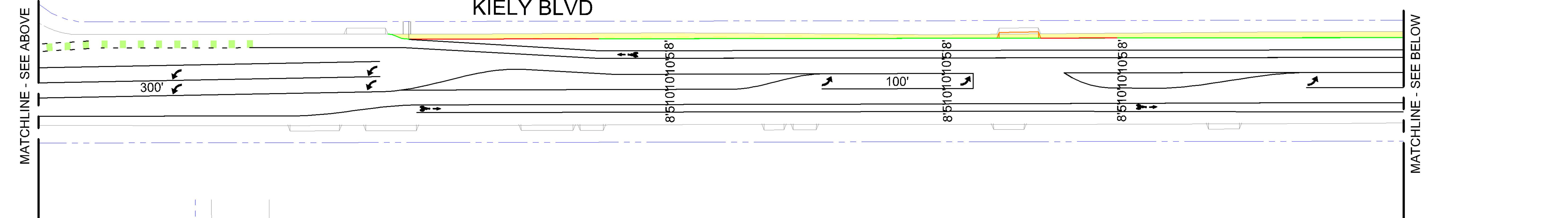
FILE NO. _____



SARATOGA AVE



KIELY BLVD



SARATOGA AVE AND KIELY BLVD

LEGEND:

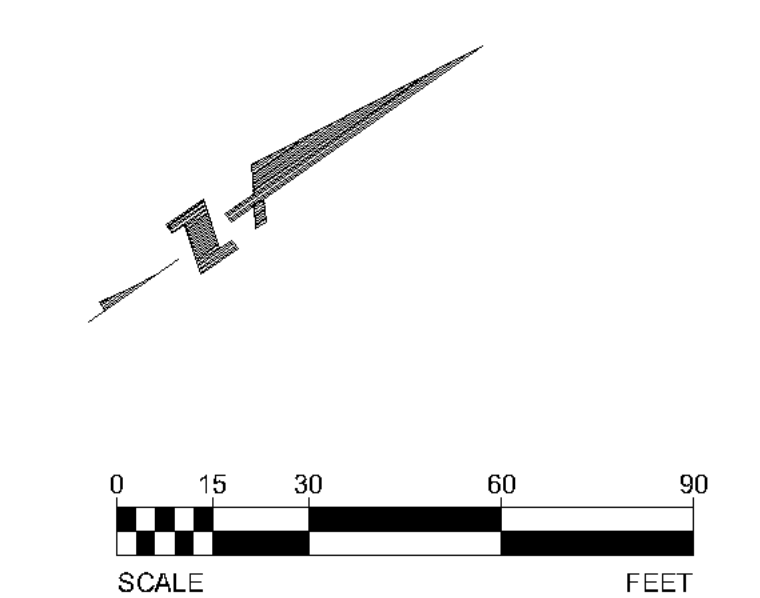
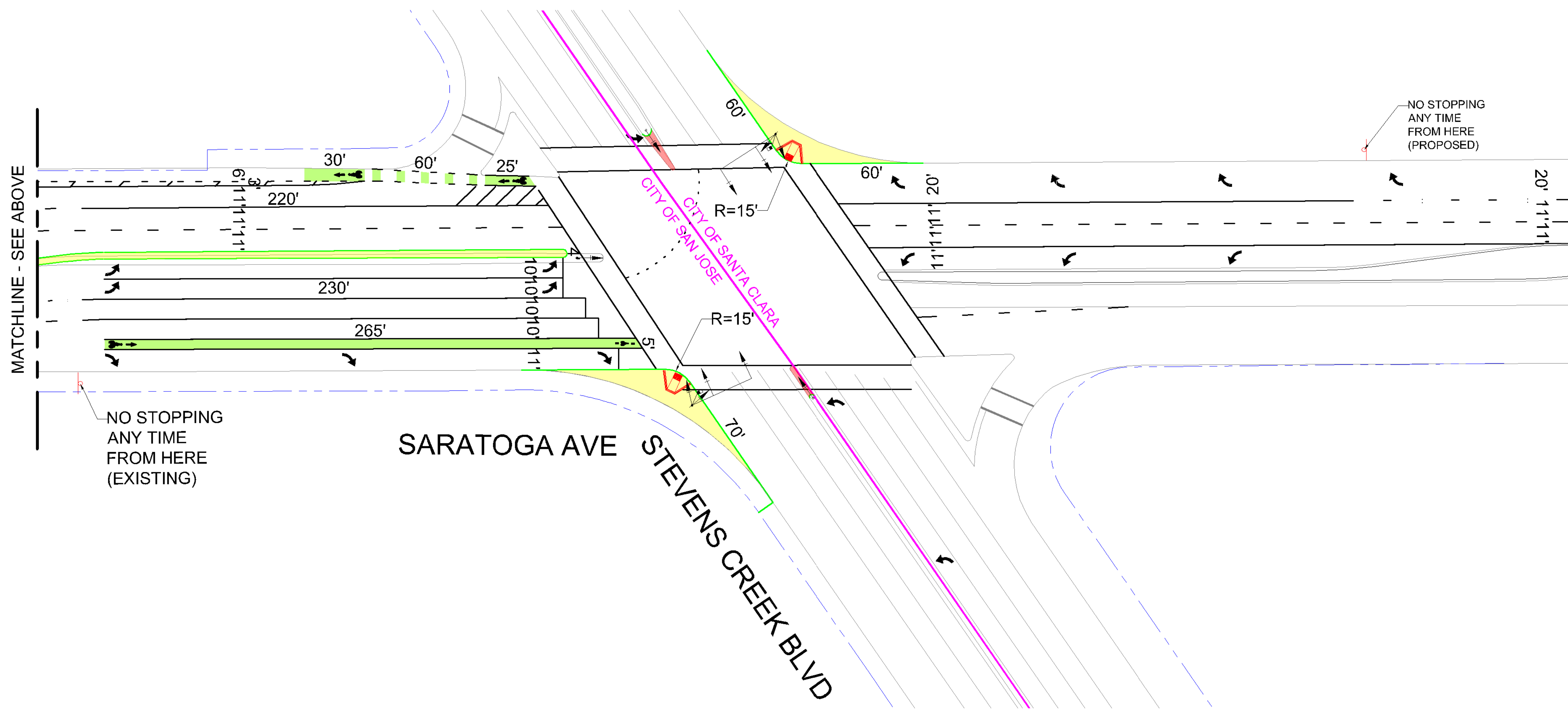
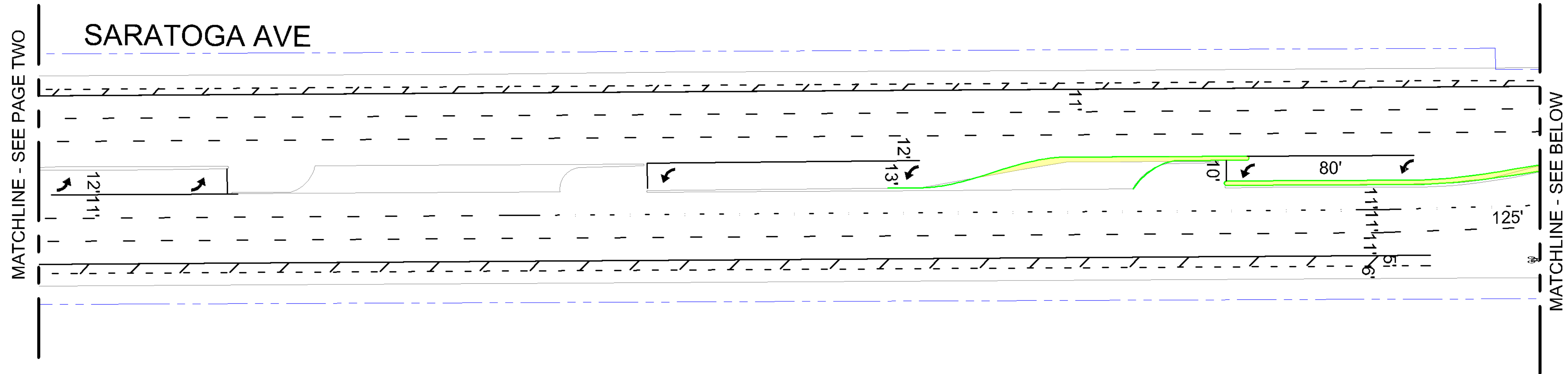
PROPOSED FACE OF CURB		EXISTING RIGHT OF WAY(CSJ)	
EXISTING FACE OF CURB		RIGHT OF WAY DEDICATION/PURCHASE	
CALTRANS RIGHT OF WAY		PROPOSED CONCRETE WORK	
PROPOSED RIGHT OF WAY(CSJ)			



DEPARTMENT OF TRANSPORTATION SAN JOSE, CALIFORNIA

DESIGNED BY: X. GAO
 CHECKED BY: F. LAPUSTEA
 PROJ MGR: Z. KHATTAB
 DATE: MARCH 2017
 SCALE: 1" = 30'
 SHEET NO. 2 OF 3

JIM ORTBAL
 DIRECTOR
 FILE NO. _____



SARATOGA AVE AND STEVENS CREEK BLVD

LEGEND:

PROPOSED FACE OF CURB		EXISTING RIGHT OF WAY(CSJ)	
EXISTING FACE OF CURB		RIGHT OF WAY DEDICATION/PURCHASE	
CALTRANS RIGHT OF WAY		PROPOSED CONCRETE WORK	
PROPOSED RIGHT OF WAY(CSJ)			

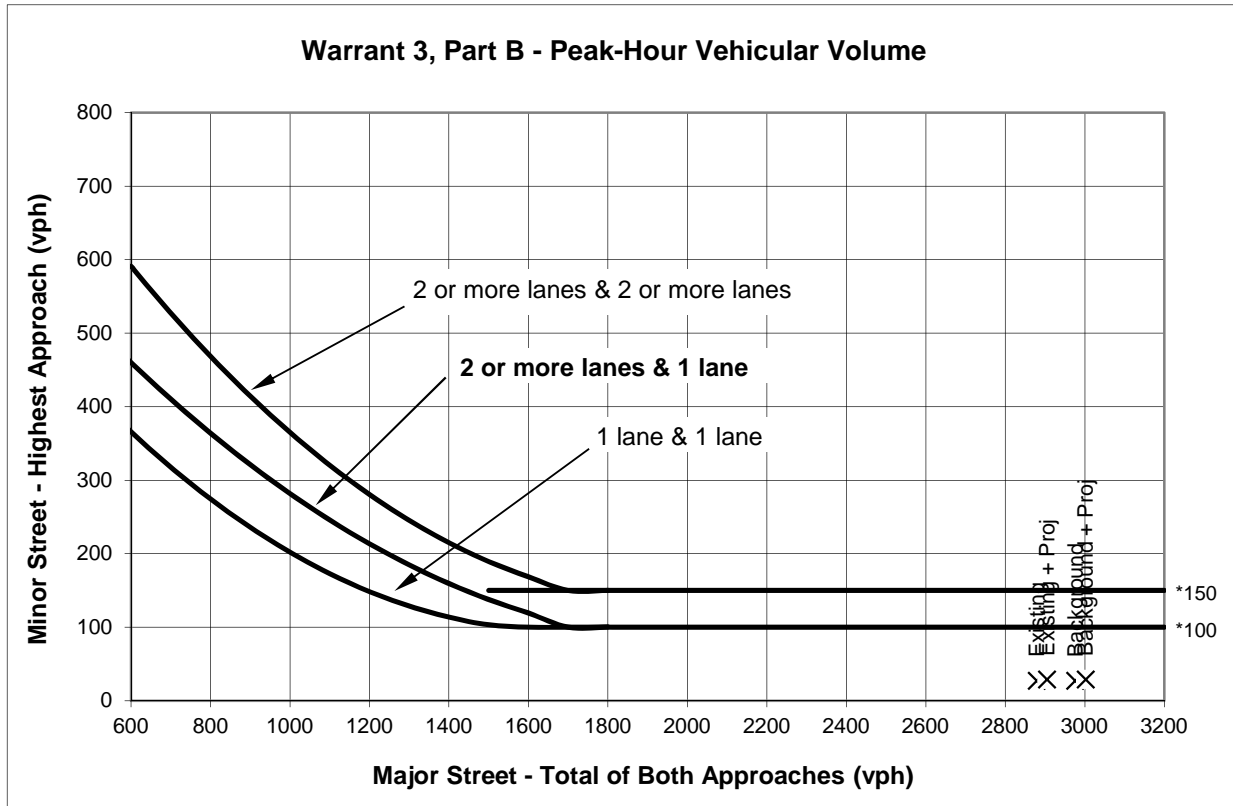


**DEPARTMENT OF TRANSPORTATION
SAN JOSE, CALIFORNIA**

DESIGNED BY: X. GAO	JIM ORTBAL DIRECTOR
CHECKED BY: F. LAPUSTEA	
PROJ MGR: Z. KHATTAB	
DATE: MARCH 2017	
SCALE: 1" = 30'	
SHEET NO. 3 OF 3	FILE NO. _____

Appendix F

Peak-Hour Signal Warrant Analysis



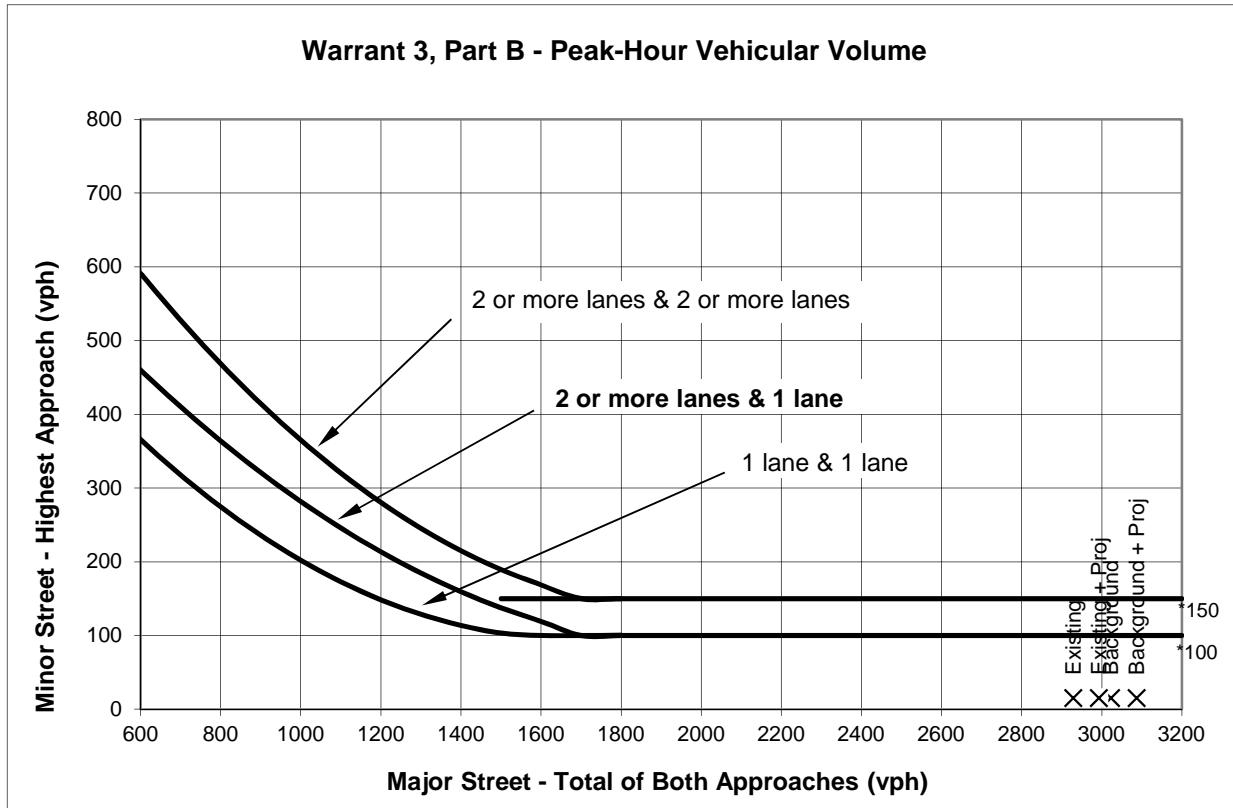
Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

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

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		AM PEAK PERIOD						
		2 or One	More	Existing	Background	Existing + Proj	Background + Proj			
Major Street - Both Approaches	Saratoga Avenue		X	2879	2976	2905	3002			
Minor Street - Highest Approach	Manzanita Drive	X		27	27	29	29			
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	No	No			

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.
 Note 1: Right turn volume was removed from the minor WB approach.



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

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

Warrant 3, Part B - Peak-Hour Vehicular Volume

		Approach Lanes		PM PEAK HOUR						
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj			
Major Street - Both Approaches	Saratoga Avenue		X	2929	3023	2993	3087			
Minor Street - Highest Approach	Manzanita Drive	X		15	15	15	15			
Signal Warranted Based on Part B - Peak-Hour Volumes?				No	No	No	No			

*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Note 1: Right turn volume was removed from the minor WB approach.



Memorandum

Date: November 29, 2018
To: Ms. Fiona Phung, David J. Powers and Associates
From: Brian Jackson
Subject: Supplemental Traffic Analysis for the Avalon Apartments Mixed-Use Project at 700 Saratoga Avenue in San Jose, CA



Hexagon Transportation Consultants, Inc. recently completed a Transportation Impact Analysis (TIA) for the proposed residential mixed-use project at 700 Saratoga Avenue in San Jose, California. The October 15, 2018 TIA evaluated a net increase of 300 apartment units and 17,800 square feet (s.f.) of retail space. The project has been revised slightly to include 7 additional apartment units (total of 307 apartments), with no change in the amount of retail space being proposed. Due to the small increase in the project size, the City has indicated that revising the entire TIA to address the change is not necessary. Instead, preparation of this focused supplemental traffic memo will be adequate to address the small increase in apartment units.



The purpose of this supplemental traffic analysis is to determine whether the change in the number of apartments, and associated minor increases in AM and PM peak hour vehicle trips, would affect the results of the original TIA. This memo includes a trip generation comparison and a figure showing the additional project trips at the study intersections. Project site access and circulation would remain unchanged from the previous study.



Project Trip Generation

Based on the trip generation estimates contained in the October 15, 2018 TIA, the originally proposed project would generate 113 new AM peak hour trips (32 inbound and 81 outbound) and 155 new PM peak hour trips (92 inbound and 63 outbound) as shown in Table 1 below.



The revised trip generation estimates (see Table 2) show the currently proposed project would generate 116 new AM peak hour trips (33 inbound and 83 outbound) and 158 new PM peak hour trips (93 inbound and 65 outbound). Thus, the new project would generate 3 additional trips during both the AM and PM peak hours of traffic compared to the originally proposed project.



Once the 3 additional peak hour trips are distributed to the surrounding roadway network, they become scattered, and the increase in trips for individual turning movements at intersections becomes negligible (see Figure 1). Thus, it can be concluded that the new proposed project would not change the results of the October 15, 2018 Transportation Impact Analysis, and no further analysis, including intersection level of service and traffic operations, is warranted.



Table 1
Original Project Trip Generation Estimates

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Proposed Uses											
Apartments ¹	300 units	5.44	1,632	0.36	28	80	108	0.44	81	51	132
			<i>Residential & Retail Internal Capture (15%)³</i>		(1)	(2)	(3)		(5)	(5)	(10)
Retail ²	17,800 s.f.	37.75	672	0.94	11	6	17	3.81	33	35	68
			<i>Residential & Retail Internal Capture (15%)³</i>		(2)	(1)	(3)		(5)	(5)	(10)
			<i>Retail Pass-By Reduction (25%)⁴</i>		(2)	(1)	(3)		(7)	(8)	(15)
Subtotal:			1,959		34	82	116		97	68	165
<i>Existing Eaves Community Reduction (15%)⁵</i>					(2)	(1)	(3)		(5)	(5)	(10)
Net New Trips:			1,858		32	81	113		92	63	155

Notes:

Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Multifamily Housing Mid-Rise (Land Use 221) located in a General Urban/Suburban setting. Rates are expressed in trips per unit.

Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Shopping Center (Land Use 820) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet.

A 15% residential/retail mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator

A typical 25% pass-by trip reduction was applied to the retail component of the project.

An additional 15% trip reduction was applied to the retail component of the project, since some existing residents of the adjacent Eaves Community development would utilize the new retail use.

Table 2
Revised Project Trip Generation Estimates

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Proposed Uses											
Apartments ¹	307 units	5.44	1,670	0.36	29	82	111	0.44	82	53	135
			<i>Residential & Retail Internal Capture (15%)³</i>		(1)	(2)	(3)		(5)	(5)	(10)
Retail ²	17,800 s.f.	37.75	672	0.94	11	6	17	3.81	33	35	68
			<i>Residential & Retail Internal Capture (15%)³</i>		(2)	(1)	(3)		(5)	(5)	(10)
			<i>Retail Pass-By Reduction (25%)⁴</i>		(2)	(1)	(3)		(7)	(8)	(15)
Subtotal:			1,997		35	84	119		98	70	168
<i>Existing Eaves Community Reduction (15%)⁵</i>					(2)	(1)	(3)		(5)	(5)	(10)
Net New Trips:			1,896		33	83	116		93	65	158

Notes:

Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Multifamily Housing Mid-Rise (Land Use 221) located in a General Urban/Suburban setting. Rates are expressed in trips per unit.

Trip generation based on average rates contained in the *ITE Trip Generation Manual, 10th Edition*, for Shopping Center (Land Use 820) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet.

A 15% residential/retail mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator

A typical 25% pass-by trip reduction was applied to the retail component of the project.

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700 Saratoga Avenue Mixed-Use Residential Development

<p>1</p> <p>Lawrence Expy</p>	<p>2</p> <p>Blackford Ave</p> <p>Mitty Way</p> <p>Saratoga Ave</p> <p>1(1)</p> <p>2(2)</p>	<p>3</p> <p>Moorpark Ave</p> <p>Saratoga Ave</p> <p>1(1)</p> <p>2(2)</p>	<p>4</p> <p>I-280 SB Off-Ramp</p> <p>I-280 SB On-Ramp</p> <p>1(1)</p> <p>1(1)</p> <p>1(1)</p>
<p>5</p> <p>I-280 NB On-Ramp</p> <p>Saratoga Ave</p> <p>1(1)</p>	<p>6</p> <p>Stevens Creek Blvd</p> <p>Saratoga Ave</p>	<p>7</p> <p>San Tomas Expy</p> <p>Saratoga Ave</p>	<p>8</p> <p>Manzanita Dr</p> <p>Saratoga Ave</p> <p>1(1)</p> <p>2(2)</p>



Figure 1
Additional Project Trips