Attachment E

Hexagon Transportation Consultants, Inc.

Memorandum

Date: June 20, 2019

To: Mr. Ciyavash Moazzami, Dutchints Developments, LLC.

From: Gary Black
Jocelyn Lee

Subject: Traffic Impact Analysis for the Residential Development at 444-450 First Street in Los Altos, California

Hexagon Transportation Consultants, Inc. has completed a traffic impact analysis for the proposed residential development at 444-450 First Street in Los Altos, California (see Figure 1). The project would consist of a four-level residential building with 26 residential units including three one-bedroom, 20 two-bedroom units, and three two- to three-bedroom units. The project proposes to demolish the existing 10,000 square-foot office building on the site. Vehicle access to the parking garage would be provided via an existing driveway on First Street (see Figure 2A). The parking would be provided in a two-level underground garage (see Figures 2B and 2C).

The study includes an evaluation of intersection levels of service, an evaluation of potential impacts to bicycle, pedestrian, and transit facilities, and a review of site access, on-site circulation, and parking demand.

Scope of Study

The purpose of the traffic analysis is to satisfy the requirements of the City of Los Altos and the Santa Clara Valley Transportation Authority (VTA). VTA administers the Santa Clara County Congestion Management Program (CMP). Because the project would generate fewer than 100 peak-hour trips, an analysis of impacts on CMP facilities is not required. The traffic analysis includes an analysis of weekday AM and PM peak-hour traffic conditions and determines the traffic impacts of the proposed residential development on key intersections in the vicinity of the site. The intersections are identified below.

1. First Street and Lyell Street (unsignalized)
2. San Antonio Road and Lyell Street (unsignalized)
3. San Antonio Road and First Street/Cuesta Drive
4. San Antonio Road and Foothill Expressway (CMP)
5. First Street and Main Street
6. Foothill Expressway and Main Street (CMP)

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. Locally, the AM peak hour of traffic is usually 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.

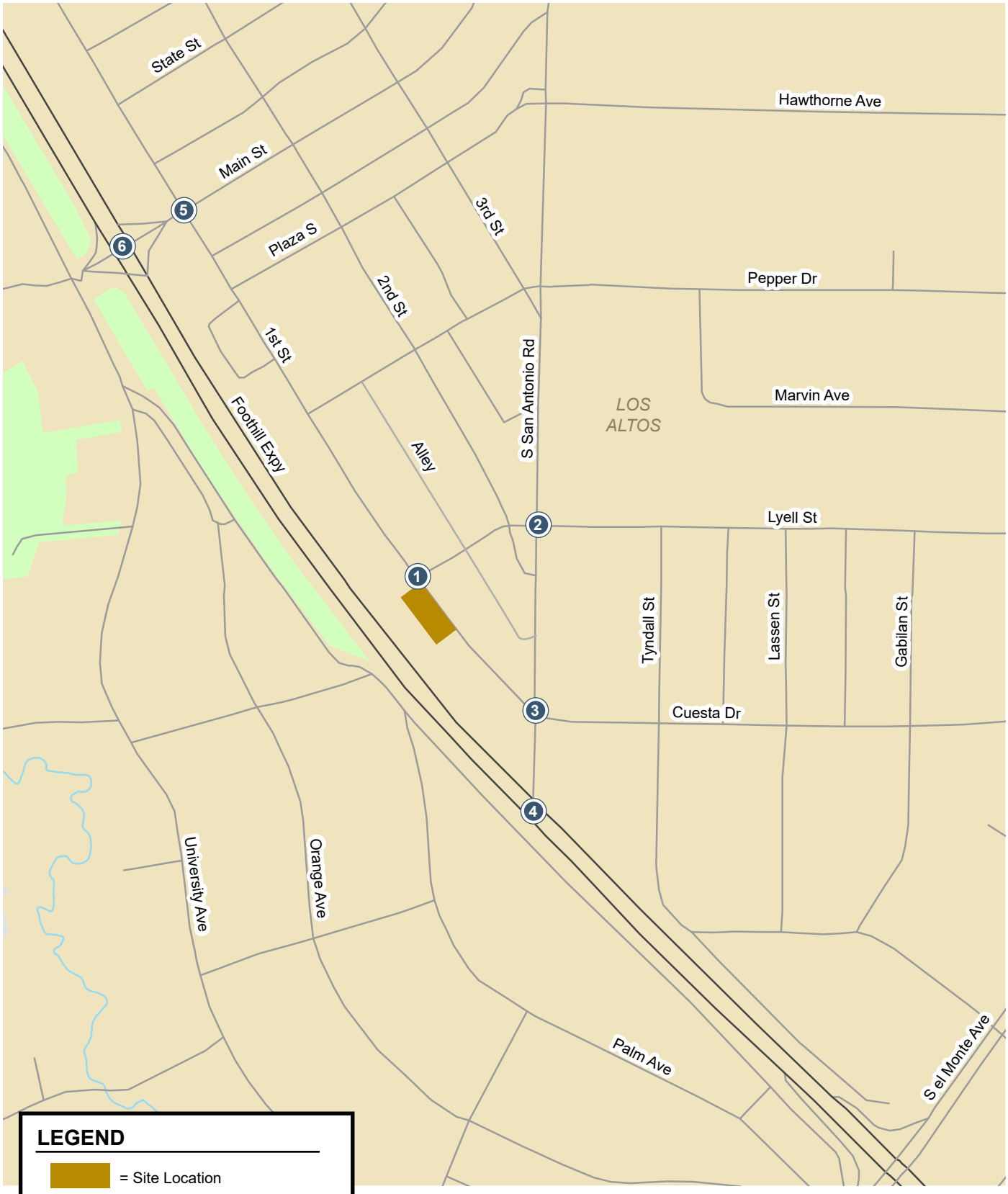


Figure 1
Site Location and Study Intersections

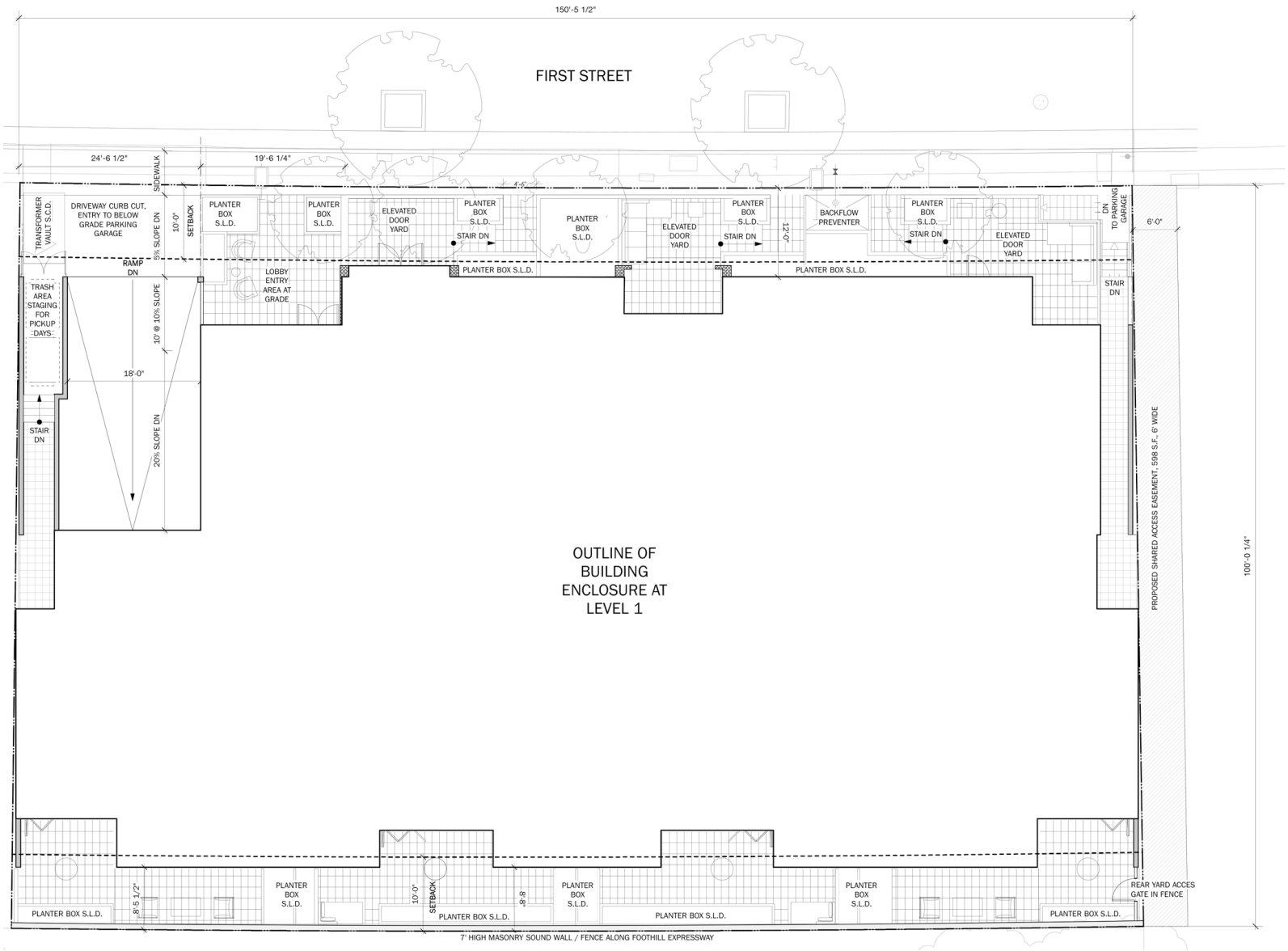


Figure 2A
Project Site Plan

NORTH
Not to Scale

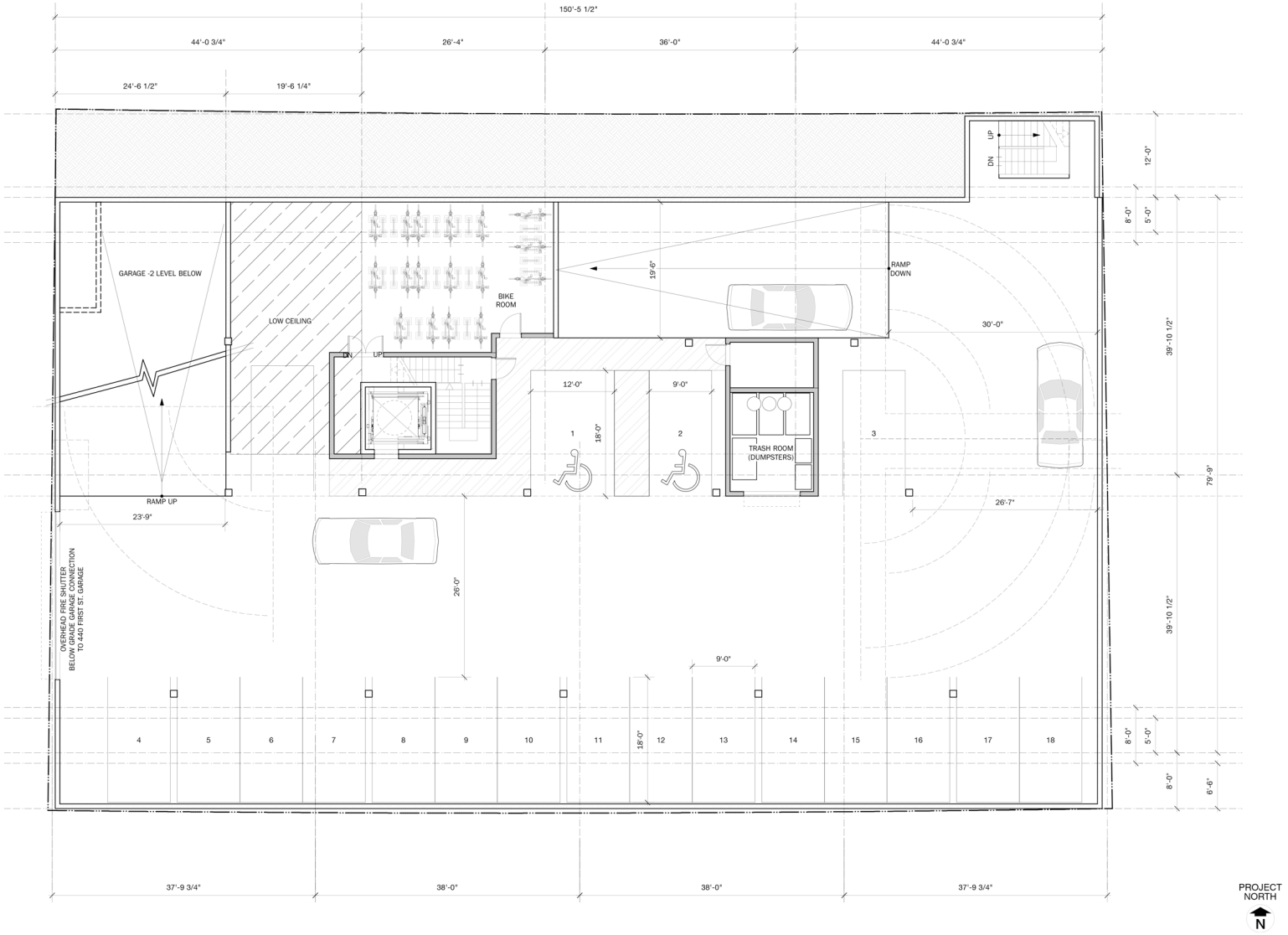


Figure 2B
Upper Garage Turning Template

NORTH
Not to Scale

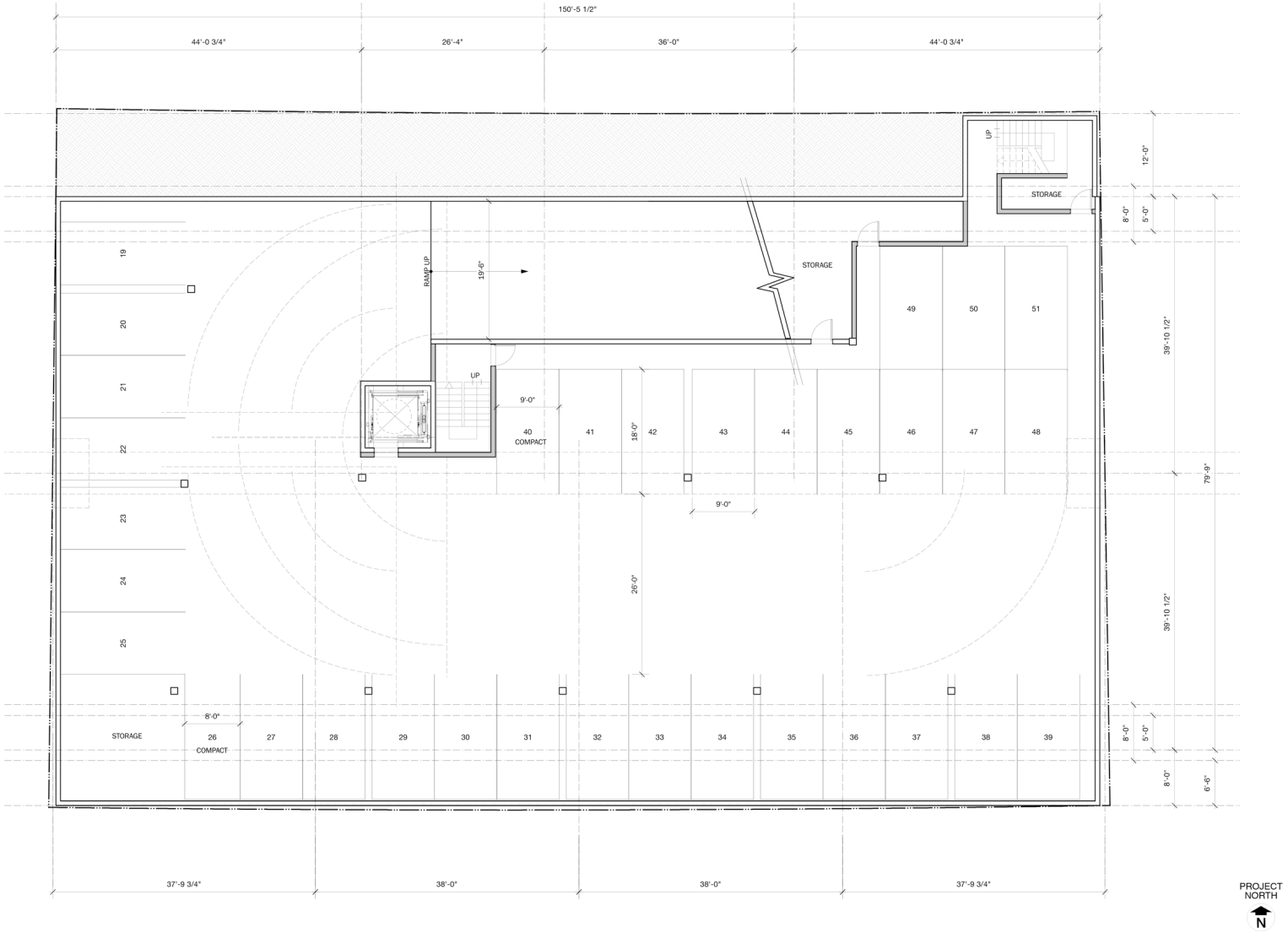


Figure 2C
Lower Garage Turning Template

NORTH
Not to Scale

Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Existing AM and PM peak-hour traffic volumes at the study intersections were based on traffic counts collected in June 2018 and March 2019. The study used whichever counts were higher for each intersection. Existing AM and PM peak-hour traffic volumes at the CMP intersections were obtained from recent counts conducted in April 2017 and the 2018 CMP Annual Monitoring Report, respectively.

Scenario 2: *Existing Plus Project Conditions.* Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the proposed development. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Scenario 3: *Background Conditions.* Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed or occupied developments. The added traffic from approved but not yet completed developments was provided by the City of Los Altos.

Scenario 4: *Background Plus Project Conditions*. Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project.

This report describes existing transportation conditions including the existing roadway network, transit service, bicycle and pedestrian facilities. The report analyzes the number of trips the project would generate, as well as the intersection operations analysis for existing plus project, background, and background plus project conditions. The report also includes stop control analysis for the intersection at First Street and Lyell Street, parking, site access and on-site circulation review, project frontage improvements, effects on bicycle, pedestrian, and transit facilities, and nearby school connections.

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 field observations and new traffic counts. The following data were collected from these sources:

- Existing intersection peak-hour volumes
- Lane configurations
- Signal timing and phasing

Analysis Methodologies

Signalized Intersection Levels of Service

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 City of Los Altos evaluates intersection levels of service using the TRAFFIX software, which is based on the Highway Capacity Manual (HCM) 2000 method for signalized intersections. Since TRAFFIX is the level of service methodology for the CMP-designated intersections, the City of Los Altos employs the CMP default values for the analysis parameters. The HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. This average delay can then be correlated to a level of service. Table 1 presents the current VTA level of service definitions for signalized intersections, which replaces the older standards found in the Los Altos General Plan.

The City of Los Altos level of service standard for signalized intersections is LOS D or better. One of the study intersections is a CMP intersection. The CMP level of service standard for signalized intersections is LOS E or better.

Table 1
Signalized Intersection Level of Service Definitions Based on 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+ B 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 12.1 to 18.0 18.1 to 20.0
C+ C 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 23.1 to 32.0 32.1 to 35.0
D+ D D-	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lenghts, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E 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 60.1 to 75.0 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.

Unsignalized Intersection Levels of Service

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in the type of intersection control (i.e., all-way stop or signalization). As part of the evaluation, traffic volumes, delays and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

For unsignalized intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. Thus, for all-way stop controlled intersections, level of service is determined by the average delay for all movements through the intersection. For side street stop-controlled intersections (two-way or T-intersections), operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. For two-way or T-intersections, the level of service is reported based on the average delay for the worst approach. The level of service definitions

for unsignalized intersections is shown in Table 2. This study utilizes the TRAFFIX software to determine intersection levels of service based on the 2000 HCM methodology for unsignalized intersections.

The City of Los Altos does not have an adopted level of service standard for unsignalized intersections. For the purpose of this study, the minimum acceptable level of service for unsignalized intersections is LOS D.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p17-2.

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized intersections are based on City of Los Altos Level of Service standards. Impacts to the unsignalized study intersections were identified based on engineering judgment. Impacts to pedestrian and bicycle facilities and transit services were evaluated based on the VTA Transportation Impact Analysis (TIA) Guidelines (October 2014) and professional judgment.

City of Los Altos Signalized Intersections

According to City of Los Altos level of service standards and VTA guidelines, a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection drops below its respective level of service standard (LOS D or better for local intersections) when project traffic is added, or

2. An intersection that operates below its level of service standard under no-project conditions experiences an increase in critical-movement delay of four (4) or more seconds, and the volume-to-capacity ratio (v/c) is increased by one percent (0.01) or more when project traffic is added. The critical-movement delay describes the delay per vehicle for the turning movements, usually four, that control the intersection operations. The average delay describes the delay per vehicle for all the turning movements, usually twelve.

A significant impact at a signalized intersection is said to be satisfactorily mitigated when measures are implemented that would restore intersection operations back to background (without the project) conditions or better.

CMP Signalized Intersections

The definition of a significant impact at a CMP intersection is the same as for the City of Los Altos, except that the CMP standard for acceptable level of service at a CMP intersection 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.

Unsignalized Intersections

The City of Los Altos has not established significant impact criteria for unsignalized intersections. Unlike signalized intersections, which typically represent constraint points for the roadway network, unsignalized intersections rarely limit the potential capacity of a roadway. The determination of appropriate improvements to unsignalized intersections typically includes a qualitative and quantitative analysis of movement delay, movement traffic volumes, intersection safety, and need for signalization. For this reason, significant impacts and the associated improvements to unsignalized intersections are frequently determined on the basis of professional judgment.

Existing Roadway Network

Regional access to the project is provided via Interstate 280 (I-280) and Foothill Expressway. Local access to the project site is provided via San Antonio Road, First Street, Second Street, Lyell Street, and the alley. These facilities are described below.

I-280 is an eight-lane freeway in the study area. It is considered to run north-south between San Francisco and San Jose, although in the project area it runs east-west. In the project vicinity, I-280 has an interchange serving Los Altos at El Monte Avenue.

Foothill Expressway is a four-lane divided expressway that extends between Cupertino and Palo Alto through Los Altos. The City of Los Altos considers Foothill Expressway to be north-south because it is parallel to US 101. It has eight points of access within the Los Altos city limits including an interchange at I-280. The access to the project site from Foothill Expressway is via San Antonio Road or Main Street. The speed limit on Foothill Expressway is 45 mph.

San Antonio Road is a north-south arterial that extends northward from Foothill Expressway to US 101. For the purpose of this study, San Antonio Road is treated as east-west since it intersects with Foothill Expressway, which is considered north-south by the City of Los Altos. In the project vicinity, it is four lanes wide and has landscaped medians with left-turn pockets at intersections and bike lanes and sidewalks on both sides of the street. San Antonio Road provides access to the project site via First Street or Lyell Street. The speed limit on San Antonio Road is 35 mph.

First Street is a two-lane local street that runs parallel to and east of Foothill Expressway between San Antonio Road and Edith Avenue. East of San Antonio Road it becomes Cuesta Drive, and north of Edith Avenue it becomes Los Altos Avenue. First Street provides direct vehicle and pedestrian access to the project site. On-street parking is available on both sides of First Street. A sidewalk is present along the east side of First Street but is discontinuous on the west side. The speed limit on First Street is 25 mph.

Second Street is a two-lane local street that runs parallel to and east of Foothill Expressway between Lyell Street and Edith Avenue. Second Street provides access to the project site via Lyell

Street. Sidewalks are present on both sides of Second Street. The speed limit on Second Street is 25 mph.

Lyell Street is an east-west local street that extends eastward from First Street, through San Antonio Road, and ends in a cul-de-sac. It is two lanes wide and has discontinuous sidewalks. Access to the project site is provided via First Street. The speed limit on Lyell Street is 25 mph.

Intersection Lane Configurations and Existing Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 3).

Existing peak-hour traffic volumes were obtained from turning-movement counts conducted in June 2018 while schools were not in session. The traffic counts from June 2018 were factored by 10% to represent the school year. In response to comments by the City's Complete Streets Commission, intersection counts were conducted again in March 2019, while schools were in session. As a conservative approach, Hexagon took the higher count between the two counts for intersection analysis. Existing AM and PM peak-hour traffic volumes at the CMP intersections were obtained from recent counts conducted in April 2017 and the 2018 CMP Annual Monitoring Report, respectively (see Figure 4). Intersection turning-movement counts conducted for this analysis are presented in Appendix A. Traffic volumes for all components of traffic are tabulated in Appendix C.

Existing Intersection Levels of Service

The intersection level of service analysis results show that all study intersections currently operate at acceptable levels of service during both AM and PM peak hours (see Table 3). The intersection level of service calculation sheets are included in Appendix B.

Table 3
Existing Intersection Level of Service Summary

Intersection	Peak Hour	Traffic Control	Existing Conditions Count Date	Existing Conditions Avg. Delay (sec)	Existing Conditions LOS
First Street and Lyell Street (unsignalized)	AM	TWSC[1]	03/12/19	10.0	A
	PM		06/12/18	13.6	B
San Antonio Road and Lyell Street (unsignalized)	AM	TWSC[1]	03/12/19	25.9	D
	PM		06/12/18	33.7	D
San Antonio Road and First Street/Cuesta Drive	AM	Signal	03/12/19	23.7	C
	PM		06/12/18	20.9	C+
Foothill Expwy and Main St/Burke Rd*	AM	Signal	04/18/17	20.9	C+
	PM		11/01/18	21.7	C+
1st St and Main Ave	AM	Signal	03/12/19	19.2	B-
	PM		03/12/19	19.9	B-
Foothill Expwy and San Antonio Rd*	AM	Signal	03/12/19	10.3	B+
	PM		11/01/18	66.2	E

Note:
* Denotes the CMP designated Intersection
[1] Average delay for a two way stop controlled intersection is reported for the worst stop-controlled approach.

Field observations showed that the study intersections operated adequately during both the AM and PM peak hours of traffic, and the level of service analysis appears to accurately reflect actual existing traffic conditions. Field observations showed that some operational issues occurred between the closely spaced intersections on San Antonio Road. However, the operational issues did not result in operational deficiencies at the intersections.

San Antonio Road between Foothill Expressway and First Street

During the AM and PM peak hours, the vehicle queues on San Antonio Road approaching Foothill Expressway extended past First Street. However, because the traffic signals at the two intersections are coordinated, the queued vehicles were not observed to block or extend past any downstream intersections. The long vehicle queues at the San Antonio Road/First Street intersection occasionally took more than one cycle to clear both intersections during the PM peak hour. During the AM peak hour, the vehicle queues cleared both intersections in one signal cycle. During the PM peak hour, Foothill Expressway experiences very heavy traffic volume southbound. This creates stop-and-go conditions on the expressway. Southbound vehicles occasionally required two signal cycles to clear the intersection at San Antonio Road.

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing volumes the estimated traffic from other projects that have submitted development entitlement applications in the downtown area. Background traffic volumes are shown on Figure 5. The following projects were included in this study:

- 440 First Street – a 7-unit residential project

- 425 First Street – a 20-unit residential project
- 389 First Street – a 10-unit residential project
- 376 First Street – a 15-unit residential project

Background volumes were estimated using previous studies submitted to the City and trip generation rates from the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition* (2017) (see Table 4). For the all the proposed projects, the rates published for Low-Rise Multifamily Housing (Land Use 220) were used to estimate the trips generated by the proposed multifamily dwelling units. The rates published for Small Office Building (Land Use 712), Quality Restaurant (Land Use 931), and Animal Hospital/Veterinary Clinic (Land Use 640) were used to estimate the trips generated by the existing uses. The Quality Restaurant category was used over the Fast-Casual Restaurant and the Fast-Food Restaurant categories because the existing restaurant is a full-service eating establishment. 389 First Street used the trips estimated by Kimley-Horn in their 2018 Traffic Assessment Final Letter.

Table 4
Background Trip Generation Estimates

						AM Peak Hour				PM Peak Hour			
Project	Land Use	Size		Daily Rate	Daily Trips	Rate	In	Out	Total Trips	Rate	In	Out	Total Trips
425 First Street	**Proposed Use**												
	Multi-Family Condos[1]	20	units	7.32	146	0.46	2	7	9	0.56	7	4	11
	Existing Land Use												
	Office[2]	5,000	sq.ft.	16.19	(81)	1.92	(8)	(2)	(10)	2.45	(4)	(8)	(12)
	Net New Trips:				**65**		**(6)**	**5**	**(1)**		**3**	**(4)**	**(1)**
376 First Street	**Proposed Use**												
	Multi-Family Condos[1]	15	units	7.32	110	0.46	2	5	7	0.56	5	3	8
	Existing Land Use												
	Restaurant[3]	3,463	sq.ft.	83.84	(290)	0.73	(2)	(1)	(3)	7.80	(18)	(9)	(27)
	Net New Trips:				**(180)**		**1**	**4**	**4**		**(13)**	**(6)**	**(19)**
440 First Street	**Proposed Use**												
	Multi-Family Condos[1]	7	units	7.32	51	0.46	1	2	3	0.56	3	1	4
	Existing Land Use												
	Veterinary Clinic[4]	1,840	sq.ft.	21.50	(40)	3.64	(5)	(2)	(7)	3.53	(3)	(3)	(6)
	Net New Trips:				**11**		**(4)**	**0**	**(4)**		**0**	**(2)**	**(2)**
389 First Street[5]	**Proposed Use**												
	Multi-Family Condos	10	units		36		2	7	9		5	3	8
	Office	2,890	sq.ft.		48		5	1	6		2	5	7
	Existing Land Use												
	Office	3,163	sq.ft.		(52)		(5)	(1)	(6)		(3)	(5)	(8)
	Net New Trips:				**32**		**2**	**7**	**9**		**4**	**3**	**7**
	Net Background Trips				**(72)**		**(8)**	**16**	**8**		**(6)**	**(10)**	**(16)**

Notes:
[1] Low-Rise Multifamily Housing (Land Use 220), *ITE Trip Generation Manual, 10th Edition (2017)* , average rates for General Urban/Suburban settings are used.
[2] Small Office Building (Land Use 712), ITE Trip Generation Manual, 10th Edition (2017), average rates for General Urban/Suburban settings are used.
[3] Quality Restaurant (Land Use 931), ITE Trip Generation Manual, 10th Edition (2017), average rates for General Urban/Suburban settings are used.
[4] Animal Hospital/Veterinary Clinic (Land Use 640), *ITE Trip Generation Manual, 10th Edition (2017)* , average rates for General Urban/Suburban settings are used.
[5] Project Trip Generation provided by Kimley Horn in 2018 Traffic Assessment Final Letter

Background Intersection Levels of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under background conditions (see Table 5). The intersection level of service calculation sheets are included in Appendix B.

Table 5
Background Intersection Level of Service Summary

Intersection	Peak Hour	Traffic Control	Background Conditions	
			Avg. Delay (sec)	LOS
First Street and Lyell Street (unsignalized)	AM	TWSC[1]	9.9	A
	PM		13.4	B
San Antonio Road and Lyell Street (unsignalized)	AM	TWSC[1]	25.8	D
	PM		29.2	D
San Antonio Road and First Street/Cuesta Drive	AM	Signal	23.6	C
	PM		20.8	C+
Foothill Expwy and Main St/Burke Rd*	AM	Signal	20.8	C+
	PM		21.7	C+
1st St and Main Ave	AM	Signal	19.3	B-
	PM		19.9	B-
Foothill Expwy and San Antonio Rd*	AM	Signal	10.3	B+
	PM		65.3	E

Note:
* Denotes the CMP designated Intersection
[1] Average delay for a two way stop controlled intersection is reported for the worst stop-controlled approach.

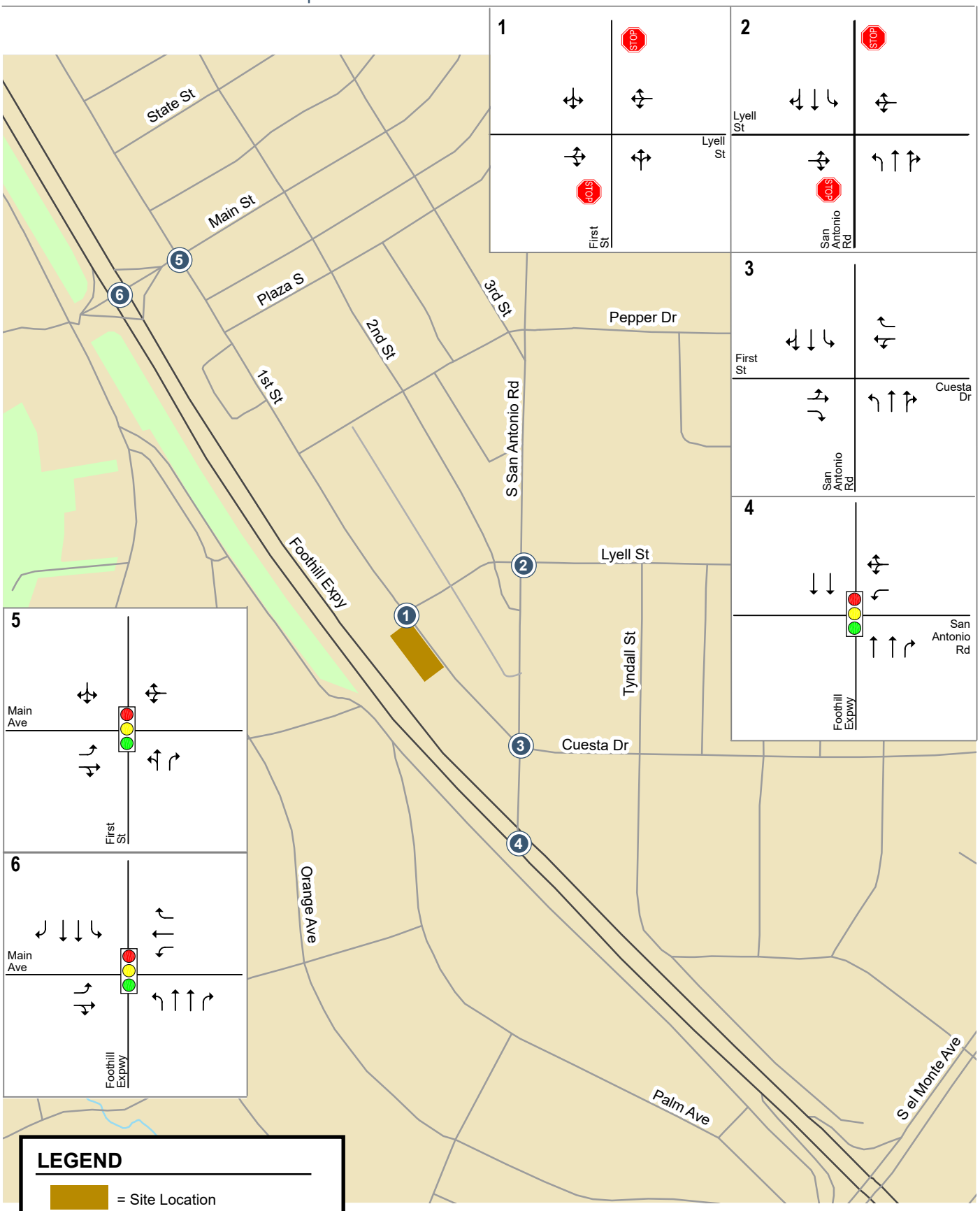


Figure 3
Existing Lane Configurations

Figure 4
Existing Traffic Volumes

NORTH
Not to Scale

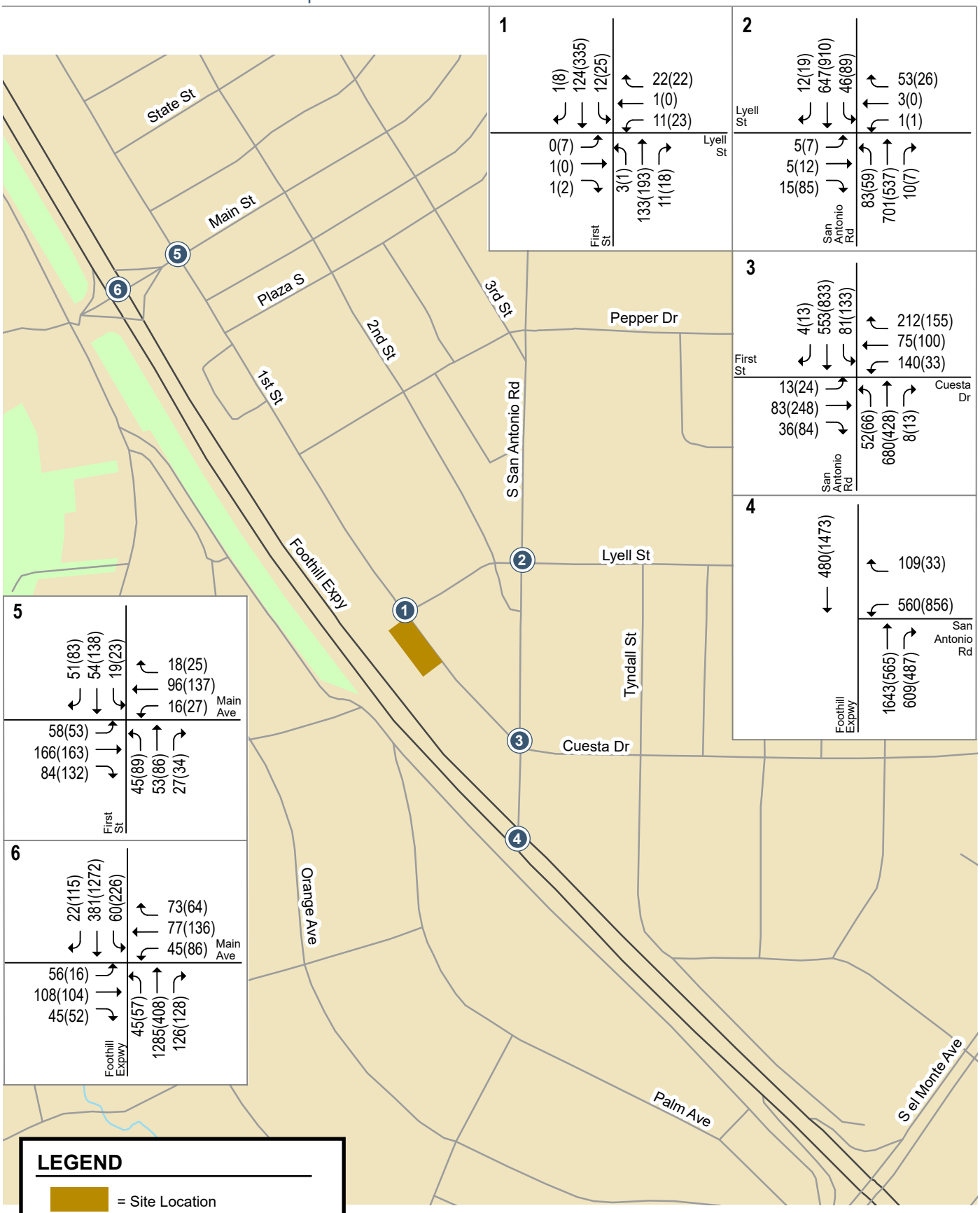


Figure 5
Background Traffic Volumes

NORTH
Not to Scale

Project Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by many types of land uses. The trip generation research is published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation, 10th Edition* (2017). Trip generation rates from the manual were used for this analysis. The rates published for Multifamily Housing – Mid-Rise (Land Use 221) were used to estimate the trips generated by the proposed multifamily dwelling units. The ITE Manual defines Mid-Rise housing as a building with at least three other dwelling units between three and 10 floors. Based on these rates, the proposed project would generate 141 daily trips with 9 trips during the AM peak hour and 11 trips during the PM peak hour (see Table 6).

The magnitude of traffic that is being generated by the existing businesses on the site was estimated based on trip generation rates for General Office Building (Land Use 710) published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, *10th Edition.* Land Use 710 was used versus Land Use 712 (Small Office Building) because Land Use 712 is defined as office buildings with less than 5,000 square feet. While the office building is not currently fully occupied, it was fully occupied in the past, and therefore full occupancy establishes the baseline for environmental analysis. As shown in Table 6, the existing uses on the site are estimated to generate 97 daily trips with 12 trips during the AM peak hour and 12 trips during the PM peak hour when fully occupied.

After accounting for the trips generated by the existing offices, the proposed residential project is estimated to generate 44 new daily trips with a net decrease of 3 trips in the AM peak hour and a net decrease of one trip in the PM peak hour.

Table 6
Project Trip Generation Estimates

			Daily		AM Peak Hour				PM Peak Hour			
Land Use	**Size**	**Unit**	**Rate**	**Trips**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
Proposed Uses												
Apartments[1]	26	DU	5.44	141	0.36	2	7	9	0.44	7	4	11
Existing Use												
Office Building[2]	10	KSF	9.74	97	1.16	10	2	12	1.15	2	10	12
Net Project Trips				**44**		**-8**	**5**	**-3**		**5**	**-6**	**-1**

Notes:
Trip rates for Multi-family Housing and Office uses are from the ITE Trip Generation Manual, 10th Edition, 2017.
1. Mid-Rise Multi-family Housing (Land Use 221), average rates expressed in trips per Dwelling Unit (DU) are used.
2. General Office Building (Land Use 710), average rates expressed in trips per 1000 square feet (KSF) are used.

Trip Distribution and Assignment

The trip distribution pattern for the proposed development was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses (see Figure 6).

The peak-hour trips generated by the existing and proposed uses were assigned to the roadway system based on the directions of approach and departure, the roadway network connections, and the location of the project driveway (see Figure 7). The trips generated by the existing uses were subtracted from the roadway network prior to assigning project trips.

Intersection Traffic Volumes

Project trips, as represented in the above project trip assignment, were added to existing and background traffic volumes to obtain existing plus project traffic volumes (see Figure 8) and background plus traffic volumes (see Figure 9). Traffic volumes for all components of traffic are tabulated in Appendix C.

Intersection Levels of Service

The intersection level of service analysis results show that all study intersections would operate at acceptable levels of service during both AM and PM peak hours under existing plus project conditions (see Table 7) and the background plus project conditions (see Table 8). It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no-project conditions. This occurs because the project would subtract from some traffic movements. The intersection level of service calculation sheets are included in Appendix B.

Table 7
Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Traffic Control	Existing Conditions				
			No Project		With Project		
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Critical Delay (sec)
First Street and Lyell Street (unsignalized)	AM	TWSC[1]	10.0	A	10.0	A	0.0
	PM		13.6	B	13.6	B	0.0
San Antonio Road and Lyell Street (unsignalized)	AM	TWSC[1]	25.9	D	26.9	D	0.0
	PM		33.7	D	31.5	D	-0.1
San Antonio Road and First Street/Cuesta Drive	AM	Signal	23.7	C	23.7	C	-0.1
	PM		20.9	C+	20.9	C+	0.1
Foothill Expwy and Main St/Burke Rd*	AM	Signal	20.9	C+	20.9	C+	-0.2
	PM		21.7	C+	21.8	C+	0.1
1st St and Main Ave	AM	Signal	19.2	B-	19.2	B-	0.0
	PM		19.9	B-	19.9	B-	0.0
Foothill Expwy and San Antonio Rd*	AM	Signal	10.3	B+	10.3	B+	0.0
	PM		66.2	E	65.8	E	-0.5

Note:
* Denotes the CMP designated Intersection
[1] Average delay for a two way stop controlled intersection is reported for the worst stop-controlled approach.

Table 8
Background Plus Project Intersection Levels of Service

Intersection	Peak Hour	Traffic Control	Background Conditions					
			No Project		With Project			
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Critical Delay (sec)	Incr. In Crit. V/C
First Street and Lyell Street (unsignalized)	AM	TWSC[1]	9.9	A	9.9	A	-0.1	0.000
	PM		13.4	B	13.3	B	0.0	0.002
San Antonio Road and Lyell Street (unsignalized)	AM	TWSC[1]	25.8	D	26.8	D	0.0	0.000
	PM		29.2	D	27.2	D	-0.1	0.000
San Antonio Road and First Street/Cuesta Drive	AM	Signal	23.6	C	23.5	C	-0.1	-0.002
	PM		20.8	C+	20.8	C+	0.1	0.001
Foothill Expwy and Main St/Burke Rd*	AM	Signal	20.8	C+	20.8	C+	-0.1	-0.001
	PM		21.7	C+	21.7	C+	0.1	0.001
1st St and Main Ave	AM	Signal	19.3	B-	19.3	B-	0.0	-0.001
	PM		19.9	B-	19.9	B-	0.0	0.001
Foothill Expwy and San Antonio Rd*	AM	Signal	10.3	B+	10.3	B+	0.0	0.001
	PM		65.3	E	64.9	E	-0.5	-0.001

Note:
* Denotes the CMP designated Intersection
[1] Average delay for a two way stop controlled intersection is reported for the worst stop-controlled approach.

Based on the City of Los Altos' significant impact criteria, the project would not create a significant impact to any of the study intersections under the existing plus project or background plus project conditions.

In order for the project, or any residential project in downtown Los Altos, to create a significant impact, the project would have to add 15 seconds of delay to the background plus project PM peak hour at the Foothill Expressway and San Antonio Road intersection. It would take 242 additional vehicles passing through the intersection during the peak hour to add 15 seconds of delay. Given that not all downtown traffic uses the Foothill Expressway & San Antonio Road intersection, a downtown project would need to generate about 600 peak-hour trips to add 242 trips to that intersection. A residential project would need to have about 1,400 dwelling units in order to generate 600 PM peak hour trips.

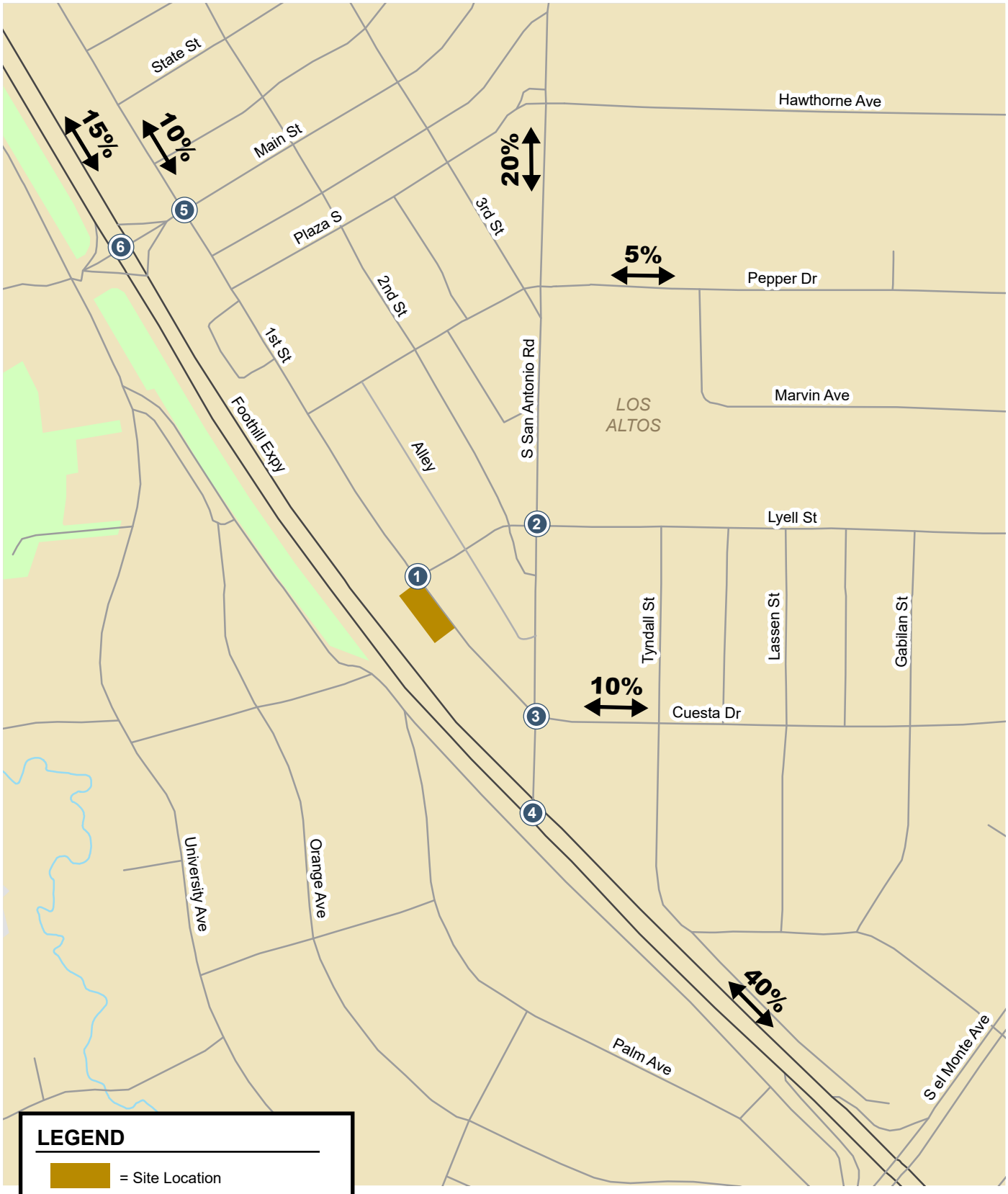


Figure 6
Project Trip Distribution

Figure 7
Net Project Trip Assignment

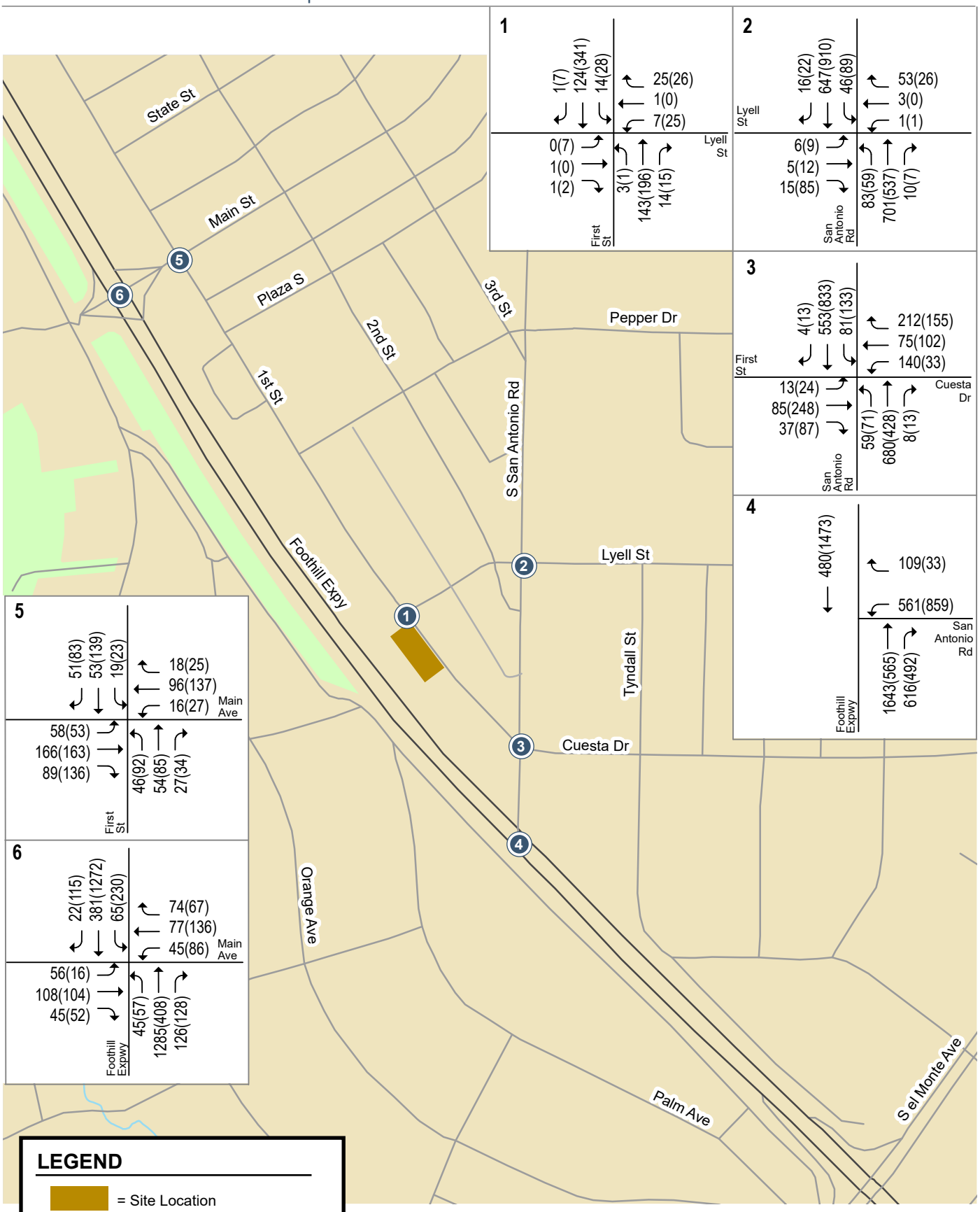


Figure 8
Existing Plus Project Traffic Volumes

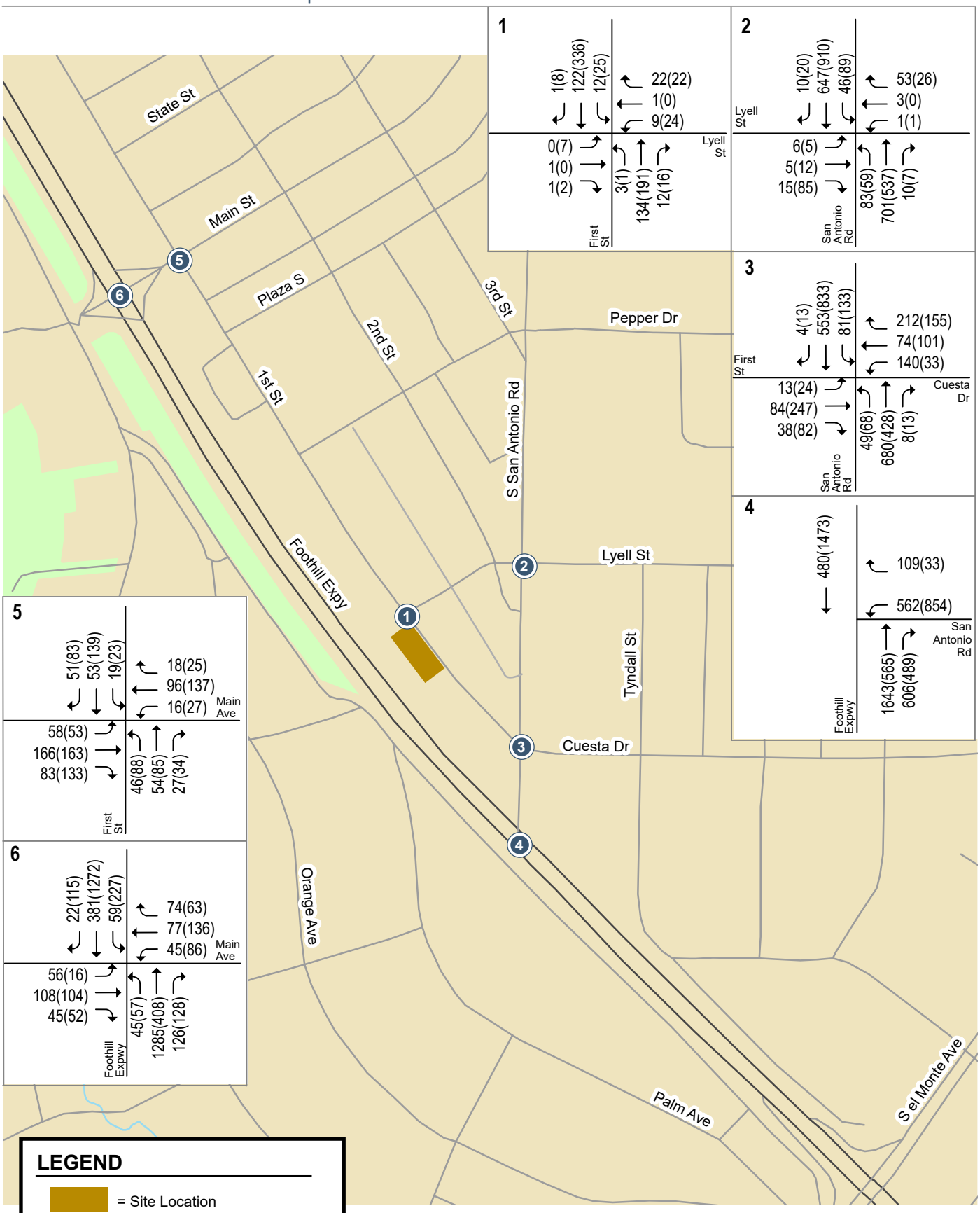


Figure 9
Background Plus Project Traffic Volumes

Stop Control Analysis at First Street & Lyell Street

The City is considering the installation of an all-way stop at the intersection of First Street and Lyell Street. According to the Manual on Uniform Traffic Control Devices (MUTCD) Section 2B.07, the following should be considered for a multiway stop sign installation:

A. Where traffic control signals are justified, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
B. Minimum volumes:
    1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, and
    2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
    3. If the 85th-percentile approach speed of the major-street traffic exceeds 65 km/h or exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.

A yield or stop sign should be considered at the intersection of two minor streets or local roads where the intersection has more than three approaches and where one or more of the following conditions exist:

A. The combined vehicular, bicycle, and pedestrian volume entering the intersection from all approaches averages more than 2,000 units per day;
B. The ability to see conflicting traffic on an approach is not sufficient to allow a road user to stop or yield in compliance with the normal right-of-way rule if such stopping or yielding is necessary; and/or\
C. An intersection of two residential neighborhood collector streets of similar design and operating characteristics where multi-way STOP control would improve traffic operational characteristics of the intersection.

Based on these considerations, the First Street and Lyell Street intersection would warrant an all-way stop sign. The benefits of a stop sign would be reduced traffic speed and a protected pedestrian crossing (see Appendix D). The disadvantage of a stop sign would be the loss of two parking spaces in front of 396 First Street and 440 First Street.

Parking Analysis

The proposed project would provide 4 Below Market Rate (BMR) units, which is more than 10 percent of the total number of units. According to the Los Altos Municipal Code Ordinance 14.28.040 (C), the project would be eligible for a density bonus and would be qualified for a parking reduction. According to the Los Altos Municipal Code, Ordinance 14.28.040 (G), for any development eligible for a density bonus, upon the request of the developer, the city shall not impose a parking requirement, inclusive of handicapped and guest parking, on a development that exceeds the following requirements:

i. For zero to one bedroom, one onsite parking space.
ii. For two to three bedrooms, two onsite parking spaces.
iii. For four and more bedrooms, two and one-half parking spaces.

According to the city code, the project would require a total of 49 parking spaces (3 for one bedroom and 46 for the two- and three-bedroom units). The site plan shows a two-level underground parking garage with a total of 51 parking spaces. Of the 51 parking spaces, there would be 47 regular spaces (including three pairs of tandem spaces), 2 compact spaces, and 2 handicapped accessible spaces. Thus, the parking would meet the City requirement.

The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this would equate to 9 Class I spaces and 2 Class II spaces. The project proposes 20 Class I spaces on level 1 of the garage but does not propose any Class II spaces. The project should add at least 2 Class II spaces.

Site Access and On-Site Circulation

A review of the project site plan was performed to determine whether adequate site access and on-site circulation would be provided. This review was based on the site plan provided by Platform. dated June 7, 2019 (see Figures 2A to 2C).

Site Access

The site access was evaluated to determine the adequacy of the site's driveway with regard to the following: traffic volume, delays, vehicle queues, truck access, pedestrian and bicycle access.

The project site plan shows that the new proposed residential building would be accessed by a driveway on First Street. According to the City's Zoning Code (14.74.200), a two-way driveway should be a minimum of 18 feet wide. Based on the project site plan, the garage driveway would be 18 feet wide, which complies with the City's standards.

The driveway would be shared with the residential project at 440 First Street. The properties would enter through the same garage ramp, and there is a proposed below grade connection to the 440 First Street garage. This design would eliminate one curb cut, which would improve pedestrian safety.

Sight distance generally should be provided in accordance with Caltrans design standards. Sight distance requirements vary depending on the roadway speeds. In the vicinity of the project site, the speed limit on the First Street is 25 mph. The Caltrans recommended sight distance is 150 feet. This means that a driver must be able to see 150 feet looking west while exiting the driveway to locate a sufficient gap to turn out of the driveway. There are no sharp roadway curves shown on the site plan that would obstruct the vision of exiting drivers. Red curb should be painted for 15 feet north of the project driveway to ensure that parked cars would not obscure sight distance.

Vehicles exiting the garage would have 11 feet of space between the end of garage ramp and the sidewalk and would, thus, be able to see pedestrians on the sidewalk. The site plan shows a planter in front of the lobby, which is to the right of an exiting vehicle. The planter should be no

more than 3 feet high in order for drivers to see if there are pedestrians approaching on the sidewalk.

Garage Ramp Design

The proposed garage ramps were measured to be approximately 19.5 to 23.75 feet wide, which meets the minimum width for a two-way drive aisle set forth by the City of Los Altos Zoning Code (14.74.200). Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. The ramp from the ground level to the first-floor garage shows a 20% slope with a 10% transition. The garage ramps between the first and second floor levels should be constructed with these requirements in mind.

Garbage Collection and Loading Space

The project site plan shows a trash room located in the underground garage. Garbage collection activities for the project are not expected to occur on-site because vehicle access would not be provided to the trash room. Therefore, the trash bins should be moved to the curb on First Street on designated garbage collection days. For loading and unloading, on-street parking is permitted along Lyell Street and First Street; thus, large delivery and service trucks may be able to park on the street, subject to the availability of spaces.

On-Site Circulation

On each level of the parking garage, there would be two aisles of parking. On all aisles, parking would be provided at 90 degrees to the main drive aisle. The drive aisles through the parking garage are shown to be 26 feet and 7 inches wide at the widest and 26 feet wide at the narrowest. Site access and circulation were evaluated with vehicle turning movement templates for a typical AASHTO Passenger Car defined in AASHTO handbook 2011. Some examples of this type of vehicles are: 2018 Cadillac Escalade, 2018 GMC Yukon, 2018 Chevrolet Suburban, 2018 Ford Expedition, and 2018 Toyota Sequoia. The turning template check shows that passenger vehicles (19 feet in length) would be able to circulate through the garage without encroachment (see Figure 2B and 2C).

The parking area has dead-end aisles, but there is 26 feet between the two rows of parking spaces at the dead-end aisles, which would allow cars to make a multi-point turn to exit.

Frontage Improvements

The project proposes improvements to the First Street frontage, including new street trees and bulb-outs, a one-foot section of private land given to provide a wider sidewalk, a landscaped outdoor area leading to the lobby, a shared vehicle garage ramp with the approved residential project at 440 First Street, and landscaped residential entryway terraces to provide “addresses” along the street.

Potential Impacts on Pedestrians, Bicycles and Transit

Pedestrian facilities within the study area consist of sidewalks, signalized crossings, and unsignalized crossings. Local streets in the study area, including First Street and Lyell Street have sidewalks on at least one side of the street. There are gaps in the sidewalk along Lyell Street at First Street, as well as further along Lyell Street on the northern edge of the street. First Street also has gaps in the sidewalk north of the project along the western edge of the street. Sidewalks are found on both sides of Main Street, Second Street and San Antonio Road. Crosswalks with

pedestrian signal heads and push buttons are located at the San Antonio Road and First Street/Cuesta Drive and the Foothill Expressway and Main Street signalized study intersections. Crosswalks are present on the east approach and south approach at First Street and Lyell Street. Crosswalks are also present on the north, east, and west approaches at San Antonio Road and Cuesta Drive/First Street. Crosswalks are present along all four legs of the intersection at First Street and Main Street.

Existing pedestrian counts were conducted as part of the peak-hour intersection turning movement counts for the project. The highest pedestrian crossing counts were 33 pedestrians during the AM peak hour at the Foothill Expressway/Main Street intersection and 53 pedestrians during the PM peak hour at the First Street/Main Street intersection.

The project would improve pedestrian circulation by building a sidewalk along its frontage. It also would consolidate access with the project next door and eliminate one driveway on First Street. The project proposes a bulb-out along its frontage, which would reduce the crossing width of First Street. The City is considering all-way stop control at the First Street & Lyell Street intersection, which would provide a protected crosswalk across First Street. The current crosswalk is unprotected.

Bicycle facilities in the study area include bike lanes and a bike route. Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are existing rights-of-way that accommodate bicycles but are not separate from the existing travel lanes. Routes are typically designated only with signs or pavement markers.

Within the project study area, bike lanes are provided along Foothill Expressway, San Antonio Road, Los Altos Avenue, El Monte Avenue, and westbound Edith Avenue. Eastbound Edith Avenue, Hillview Avenue and Cuesta Drive are marked as bike routes. Local streets near the project site, such as First Street, Second Street and Lyell Street, are not marked as bike lanes or routes, but they carry low traffic volumes and are conducive to bicycling. Overall, the bicycle network within the project vicinity is good.

Local VTA route 40 provides service between Foothill College in Los Altos Hills and La Avenida Street in Mountain View via San Antonio Road, Lyell Street and First Street (near the project site) with 25 to 40-minute commute hour headways through weekdays and 30 to 60-minute headway on weekends. In the project vicinity, the closest bus stops are located at San Antonio Road and Lyell Street. The distance between the project site and these bus stops is approximately 0.3 mile, which is considered an acceptable walking distance.

School Connections

There are a number of public schools in the area where students from the development might attend, including Almond Elementary School, Covington Elementary School, Egan Junior High School, and Los Altos High School. Covington Elementary School and Los Altos High School are the only schools within a 1-mile radius. The City of Los Altos created Suggested Routes to Schools Maps for ½-mile and 1-mile walking radii. Suggested walking and biking routes are shown on Figure 10.

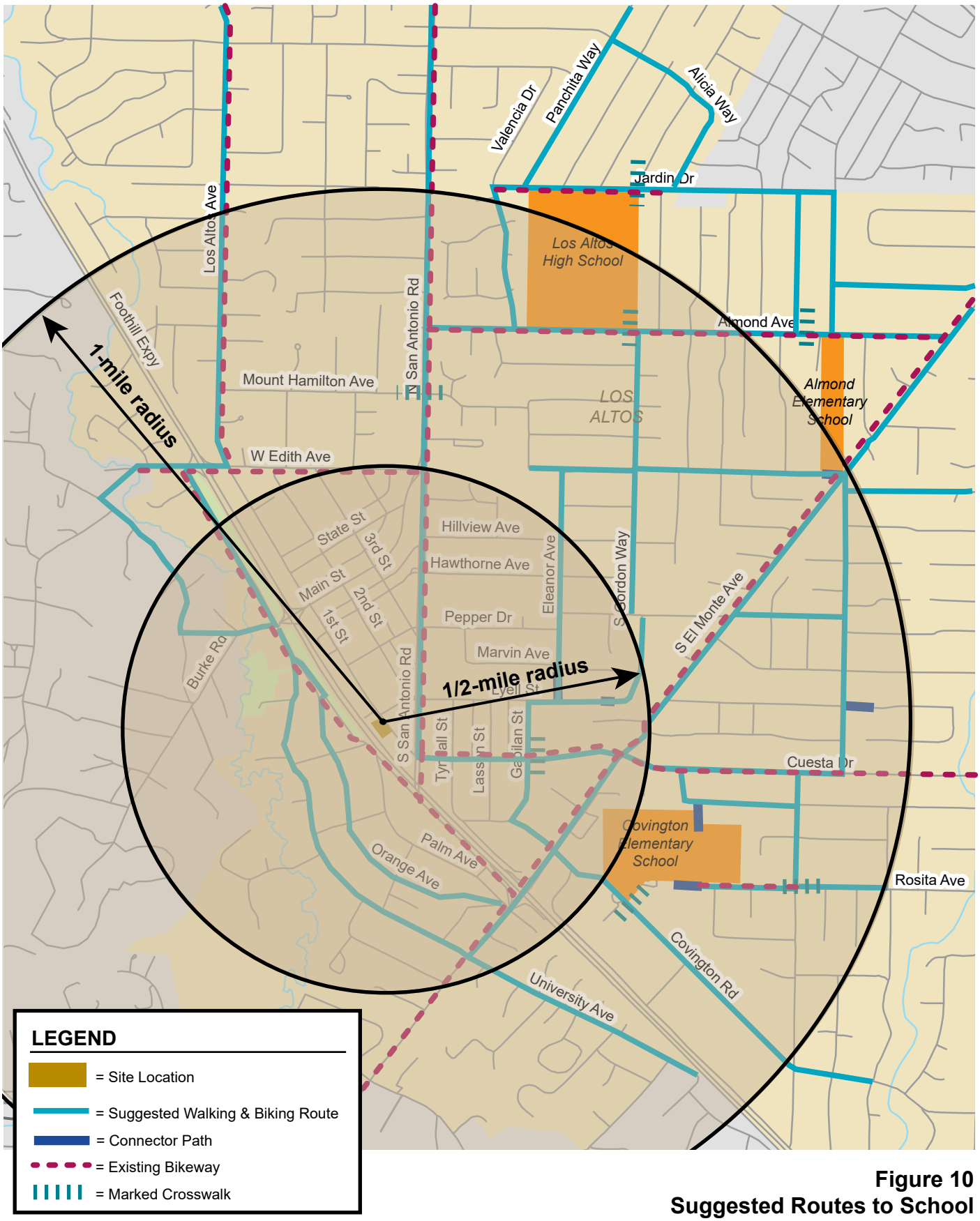


Figure 10
Suggested Routes to School

Conclusions

The proposed residential development would not result in any significant impacts to the study intersections during the AM and PM peak hours. The project would generate less peak hour traffic than the building it replaces. The AM peak hour traffic would decrease by 3 trips (8 fewer trips inbound and 5 more trips outbound). The PM peak hour traffic would decrease by 1 trip (5 more trips inbound and 6 fewer trips outbound).

The existing building has no sidewalks along the frontage. The project would enhance pedestrian circulation with its project frontage improvements. The project proposes a one-foot section of private land given to provide a wider sidewalk and a landscaped outdoor area leading to the lobby.

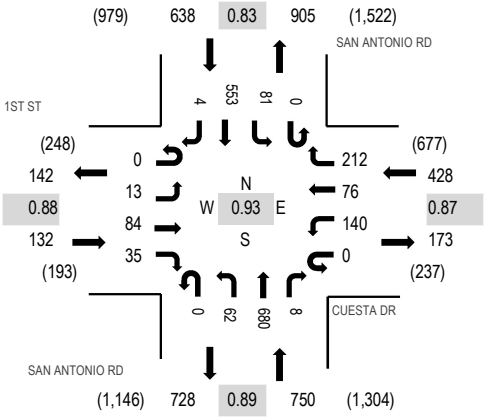
The project site plan shows a two-level underground parking garage with 52 parking spaces, including 35 standard parking spaces, 5 pairs of tandem parking spaces, and 2 accessible parking spaces. The project site plan was reviewed for site access and on-site circulation and no operational issues were found.

Appendix A
Traffic Counts

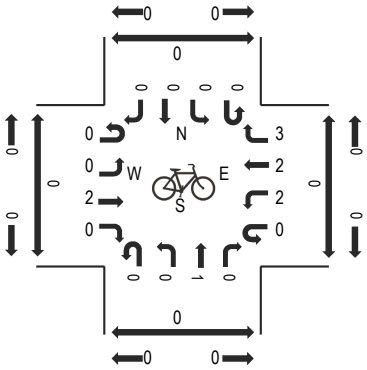
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 3 SAN ANTONIO RD & CUESTA DR AM
Date: Tuesday, March 12, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

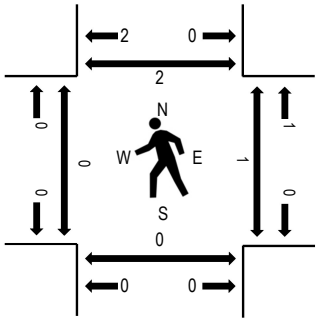
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	1ST ST Eastbound				CUESTA DR Westbound				SAN ANTONIO RD Northbound				SAN ANTONIO RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	4	2	0	8	9	23	0	5	100	3	0	5	44	1	204	1,290	0	0	0	0
7:15 AM	0	2	9	7	0	11	10	21	0	8	109	1	0	6	67	2	253	1,583	0	0	0	0
7:30 AM	0	0	4	5	0	24	14	27	0	12	155	0	0	5	92	2	340	1,852	0	0	0	0
7:45 AM	0	2	22	3	0	45	15	40	0	8	203	1	0	11	143	0	493	1,948	0	0	0	0
8:00 AM	0	6	24	3	0	28	18	53	0	17	153	2	0	29	163	1	497	1,863	0	0	0	0
8:15 AM	0	4	15	15	0	37	25	62	0	18	182	3	0	24	135	2	522		0	1	0	1
8:30 AM	0	1	23	14	0	30	18	57	0	19	142	2	0	17	112	1	436		0	0	0	1
8:45 AM	0	1	14	13	0	41	17	44	0	24	135	2	0	11	104	2	408		0	0	0	1

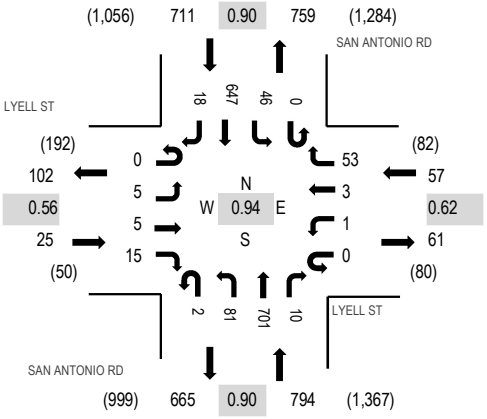
Peak Rolling Hour Flow Rates

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	1	0	1	0	0	0	0	0	0	2	0	0	0	1	0	5
Bicycles on Road	0	0	2	0	0	2	2	3	0	0	1	0	0	0	0	0	10
Lights	0	11	80	33	0	138	74	208	0	61	667	8	0	81	544	3	1,908
Mediums	0	1	2	1	0	0	0	1	0	1	10	0	0	0	8	1	25
Total	0	13	84	35	0	140	76	212	0	62	680	8	0	81	553	4	1,948

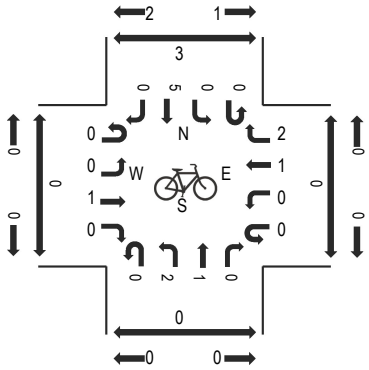
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 2 SAN ANTONIO RD & LYELL ST AM
Date: Tuesday, March 12, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

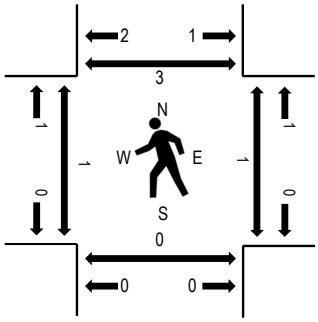
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	LYELL ST Eastbound				LYELL ST Westbound				SAN ANTONIO RD Northbound				SAN ANTONIO RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	6	0	0	0	2	1	19	103	0	0	1	49	0	181	1,100	0	1	0	4
7:15 AM	0	1	0	2	0	1	1	4	2	15	110	1	0	6	74	2	219	1,329	0	0	0	1
7:30 AM	0	2	0	2	0	0	1	4	0	18	153	1	1	3	90	1	276	1,531	0	2	0	0
7:45 AM	0	3	1	6	0	0	1	12	1	11	206	5	0	5	171	2	424	1,587	0	1	0	0
8:00 AM	0	0	1	4	0	0	1	9	1	21	171	4	0	18	177	3	410	1,455	1	0	0	1
8:15 AM	0	0	1	3	0	1	1	21	0	31	175	1	0	17	167	3	421		0	0	0	2
8:30 AM	0	2	2	2	0	0	0	11	0	18	149	0	0	6	132	10	332		0	0	0	0
8:45 AM	0	4	0	8	0	1	0	11	0	21	129	0	1	7	98	12	292		1	0	0	5

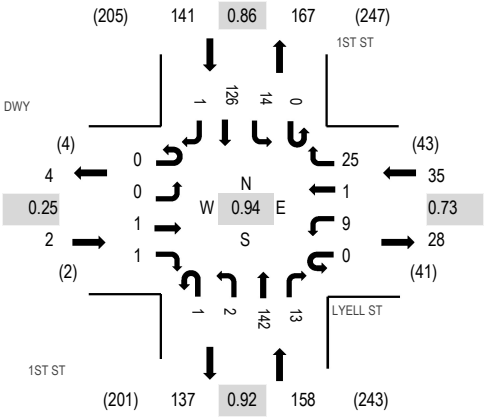
Peak Rolling Hour Flow Rates

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	0	0	3
Bicycles on Road	0	0	1	0	0	0	1	2	0	2	1	0	0	0	5	0	12
Lights	0	5	4	15	0	1	2	49	2	79	688	10	0	46	632	16	1,549
Mediums	0	0	0	0	0	0	0	2	0	0	9	0	0	0	10	2	23
Total	0	5	5	15	0	1	3	53	2	81	701	10	0	46	647	18	1,587

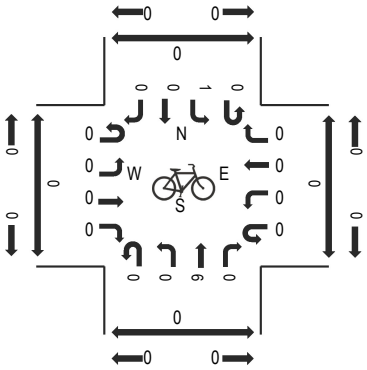
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 1 1ST ST & LYELL ST AM
Date: Tuesday, March 12, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

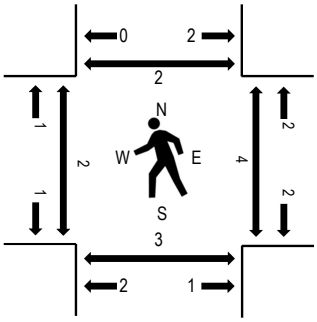
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DWY Eastbound				LYELL ST Westbound				1ST ST Northbound				1ST ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	1	0	1	0	0	13	3	0	1	5	0	24	157	0	0	0	0
7:15 AM	0	0	0	0	0	2	0	0	0	0	17	0	0	1	16	0	36	211	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	23	3	0	1	10	0	39	260	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	23	3	0	1	29	0	58	310	0	1	1	2
8:00 AM	0	0	0	0	0	1	0	4	0	0	32	4	0	5	32	0	78	336	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	5	0	1	39	3	0	1	34	0	85		2	3	3	1
8:30 AM	0	0	0	0	0	3	1	7	1	0	33	2	0	7	35	0	89		0	0	0	1
8:45 AM	0	0	1	1	0	3	0	9	0	1	38	4	0	1	25	1	84		0	1	0	0

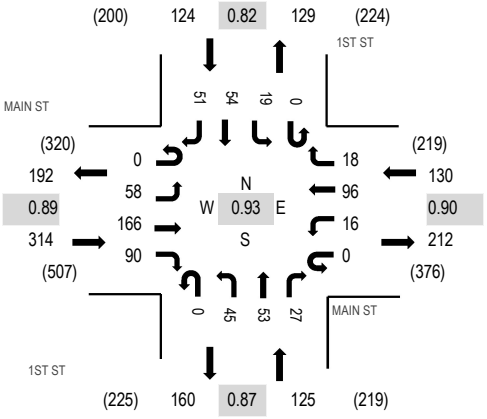
Peak Rolling Hour Flow Rates

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	0	0	0	0	1	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	7
Lights	0	0	1	1	0	7	1	25	1	2	133	12	0	13	119	1	316
Mediums	0	0	0	0	0	2	0	0	0	0	3	1	0	0	6	0	12
Total	0	0	1	1	0	9	1	25	1	2	142	13	0	14	126	1	336

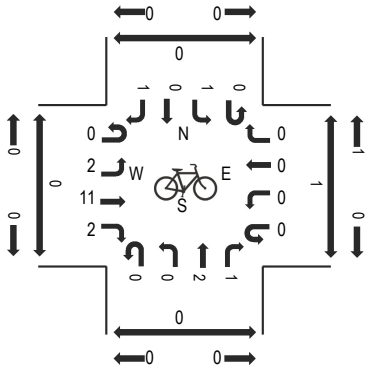
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 1ST ST & MAIN ST AM
Date: Tuesday, March 12, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

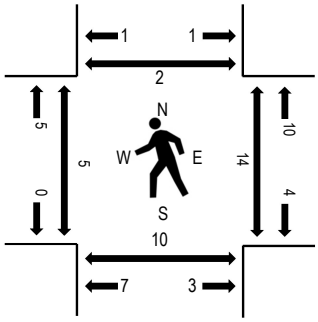
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				1ST ST Northbound				1ST ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	7	27	4	1	2	12	2	0	6	7	3	0	2	3	14	90	466	0	2	0	0
7:15 AM	0	16	22	10	0	2	16	2	0	2	8	6	0	2	9	5	100	542	0	2	2	2
7:30 AM	0	7	36	4	0	3	13	4	0	7	9	7	0	3	6	8	107	614	0	2	1	3
7:45 AM	0	14	50	19	0	5	20	7	0	10	13	5	0	3	10	13	169	693	0	2	2	2
8:00 AM	0	12	39	23	0	3	26	6	0	8	8	7	0	5	13	16	166	679	0	5	2	0
8:15 AM	0	10	38	21	0	4	19	4	0	12	16	10	0	8	19	11	172		0	3	0	0
8:30 AM	0	22	39	27	0	4	31	1	0	15	16	5	0	3	12	11	186		5	4	6	0
8:45 AM	0	15	36	9	0	3	26	3	0	9	15	15	0	4	10	10	155		1	5	0	4

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	0	0	0	0	1	1	2
Bicycles on Road	0	2	11	2	0	0	0	0	0	0	2	1	0	1	0	1	20
Lights	0	56	153	87	0	15	95	18	0	44	51	26	0	18	53	48	664
Mediums	0	0	2	1	0	1	1	0	0	1	0	0	0	0	0	1	7
Total	0	58	166	90	0	16	96	18	0	45	53	27	0	19	54	51	693

All Traffic Data Services Inc.
(303) 216-2439
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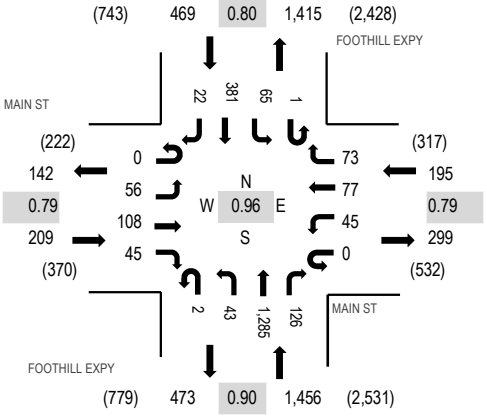
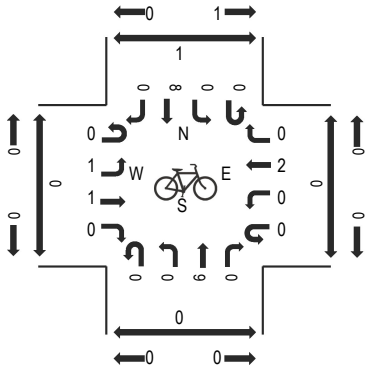
Location: 6 FOOTHILL EXPY & MAIN ST AM
Date: Tuesday, March 12, 2019
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

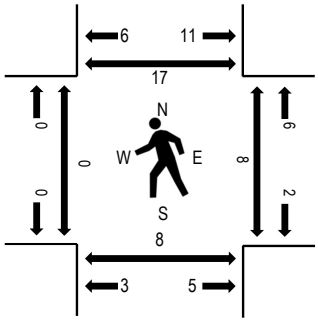
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				FOOTHILL EXPY Northbound				FOOTHILL EXPY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	6	11	3	0	11	8	12	0	6	180	23	0	3	34	2	299	1,632	1	1	1	1
7:15 AM	0	8	15	7	0	5	8	11	0	6	247	28	0	9	42	4	390	1,942	0	0	2	2
7:30 AM	0	8	19	7	0	9	7	13	0	13	242	33	0	4	62	1	418	2,083	1	0	2	5
7:45 AM	0	23	40	14	0	15	13	10	0	9	253	35	0	13	97	3	525	2,272	2	2	4	4
8:00 AM	0	16	33	7	0	14	23	13	0	11	313	27	0	16	126	10	609	2,329	0	3	2	1
8:15 AM	0	10	26	9	0	10	20	15	0	12	297	36	0	18	71	7	531		0	1	0	2
8:30 AM	0	16	34	14	0	16	18	28	2	8	315	31	0	18	103	4	607		0	2	2	7
8:45 AM	0	14	15	15	0	5	16	17	0	12	360	32	1	13	81	1	582		0	2	4	7

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	0	0	0	0	2	0	2
Bicycles on Road	0	1	1	0	0	0	2	0	0	0	9	0	0	0	8	0	21
Lights	0	55	107	44	0	42	75	72	2	42	1,264	126	1	63	368	22	2,283
Mediums	0	0	0	1	0	3	0	1	0	1	12	0	0	2	3	0	23
Total	0	56	108	45	0	45	77	73	2	43	1,285	126	1	65	381	22	2,329

All Traffic Data Services Inc.
(303) 216-2439
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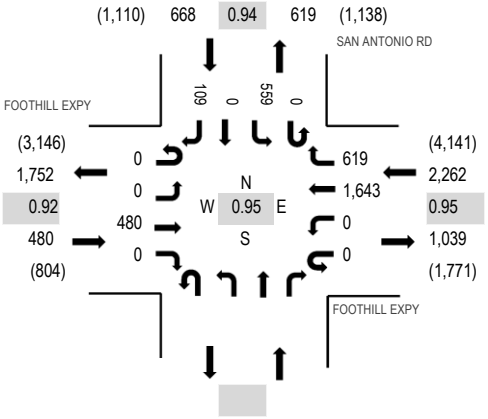
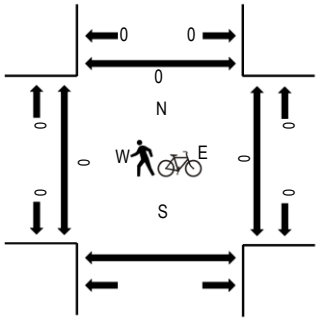
Location: 4 SAN ANTONIO RD & FOOTHILL EXPY AM
Date and Start Time: Tuesday, April 18, 2017
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	FOOTHILL EXPY Eastbound				FOOTHILL EXPY Westbound				Northbound				SAN ANTONIO RD Southbound				Total	Rolling Hour	Pedestrain 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	48	0	0	0	293	80					0	64	0	9	494	2,645	0	0		0
7:15 AM	0	0	60	0	0	0	325	107					0	77	0	5	574	2,978	0	0		0
7:30 AM	0	0	104	0	0	0	355	163					0	113	0	14	749	3,214	0	0		0
7:45 AM	0	0	112	0	0	0	387	169					0	154	0	6	828	3,359	0	0		0
8:00 AM	0	0	119	0	0	0	412	147					0	131	0	18	827	3,410	0	0		0
8:15 AM	0	0	117	0	0	0	371	144					0	148	0	30	810		0	0		0
8:30 AM	0	0	131	0	0	0	449	147					0	142	0	25	894		0	0		0
8:45 AM	0	0	113	0	0	0	411	181					0	138	0	36	879		0	0		0

Peak Rolling Hour Flow Rates

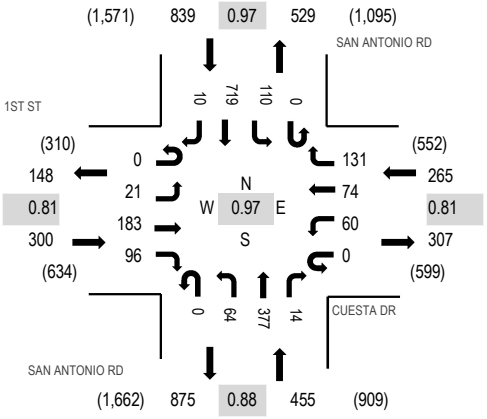
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	1					0	0	0	0	2
Lights	0	0	476	0	0	0	1,627	602					0	551	0	109	3,365
Mediums	0	0	4	0	0	0	15	16					0	8	0	0	43
Total	0	0	480	0	0	0	1,643	619					0	559	0	109	3,410

All Traffic Data Services Inc.

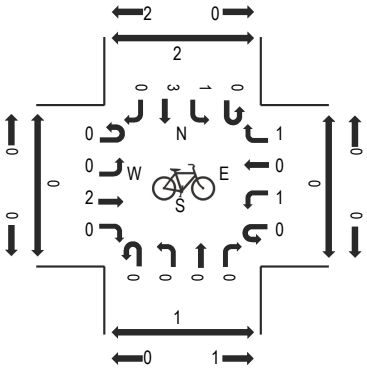
(303) 216-2439
www.alltrafficdata.net

Location: 3 SAN ANTONIO RD & CUESTA DR PM
Date: Tuesday, March 12, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

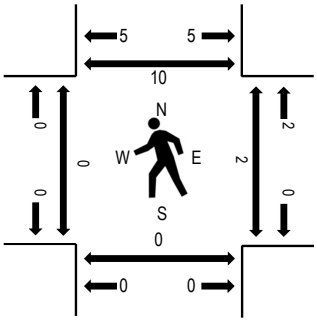
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	1ST ST Eastbound				CUESTA DR Westbound				SAN ANTONIO RD Northbound				SAN ANTONIO RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	46	33	0	4	24	34	0	12	99	1	0	16	178	0	454	1,815	0	0	0	1
4:15 PM	0	8	44	20	0	4	17	42	0	25	89	3	0	32	150	2	436	1,817	0	0	0	0
4:30 PM	0	8	45	29	0	6	12	29	0	19	110	3	0	31	181	1	474	1,859	0	0	0	3
4:45 PM	0	5	47	17	0	7	27	37	0	15	82	3	0	20	188	3	451	1,825	0	0	0	3
5:00 PM	0	3	51	25	0	20	12	33	0	16	92	5	0	34	163	2	456	1,851	0	0	0	1
5:15 PM	0	5	40	25	0	27	23	32	0	14	93	3	0	25	187	4	478		0	2	0	3
5:30 PM	0	8	42	26	0	26	29	42	0	10	90	2	0	14	149	2	440		0	1	0	2
5:45 PM	0	10	64	26	0	9	25	31	0	15	105	3	1	25	162	1	477		0	0	0	2

Peak Rolling Hour Flow Rates

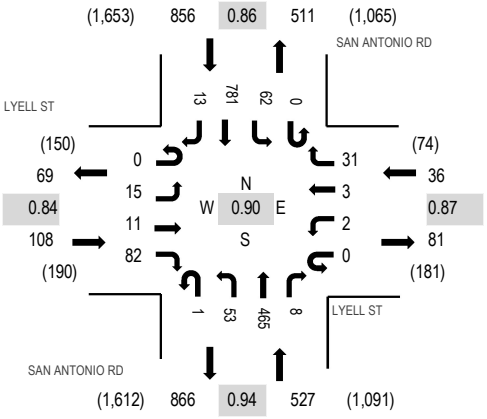
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	2	0	0	1	0	1	0	0	0	0	0	1	3	0	8
Lights	0	21	181	96	0	59	74	130	0	64	374	14	0	109	712	10	1,844
Mediums	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7
Total	0	21	183	96	0	60	74	131	0	64	377	14	0	110	719	10	1,859

All Traffic Data Services Inc.

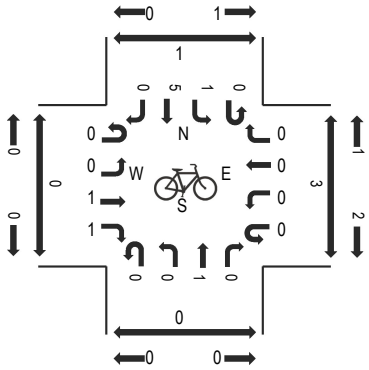
(303) 216-2439
www.alltrafficdata.net

Location: 2 SAN ANTONIO RD & LYELL ST PM
Date: Tuesday, March 12, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

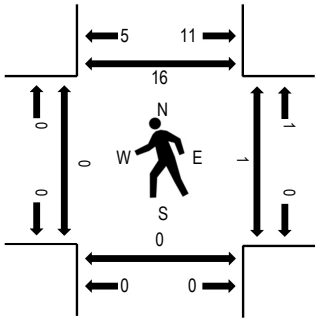
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	LYELL ST Eastbound				LYELL ST Westbound				SAN ANTONIO RD Northbound				SAN ANTONIO RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	1	3	13	0	2	2	9	0	16	120	1	1	18	173	8	367	1,504	2	1	0	4
4:15 PM	0	8	2	24	0	2	1	7	0	15	120	2	0	13	164	6	364	1,512	0	2	0	4
4:30 PM	0	2	0	16	0	1	1	10	0	19	124	2	0	18	229	2	424	1,527	0	1	0	4
4:45 PM	0	4	5	21	0	1	2	7	0	15	110	2	0	11	168	3	349	1,466	0	0	0	0
5:00 PM	0	5	4	23	0	0	0	11	0	7	113	2	0	16	192	2	375	1,504	0	0	0	7
5:15 PM	0	4	2	22	0	0	0	3	1	12	118	2	0	17	192	6	379		0	0	0	5
5:30 PM	0	2	3	6	0	0	2	4	0	9	129	1	0	26	175	6	363		0	5	0	5
5:45 PM	0	4	2	14	0	0	0	9	0	9	140	2	0	27	173	7	387		0	0	0	1

Peak Rolling Hour Flow Rates

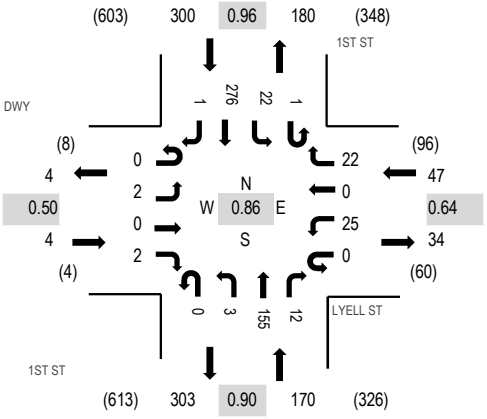
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Road	0	0	1	1	0	0	0	0	0	0	1	0	0	1	5	0	9
Lights	0	15	10	81	0	2	3	31	1	53	461	8	0	61	770	13	1,509
Mediums	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	9
Total	0	15	11	82	0	2	3	31	1	53	465	8	0	62	781	13	1,527

All Traffic Data Services Inc.

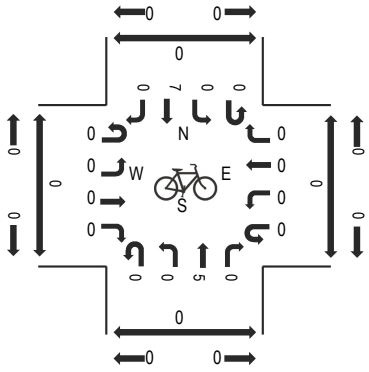
(303) 216-2439
www.alltrafficdata.net

Location: 1 1ST ST & LYELL ST PM
Date: Tuesday, March 12, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

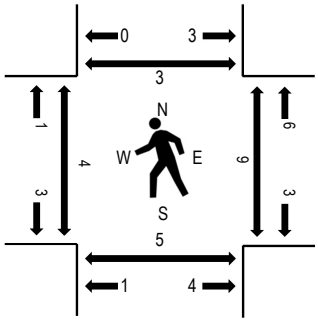
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	DWY Eastbound				LYELL ST Westbound				1ST ST Northbound				1ST ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	12	1	6	1	0	38	1	1	2	69	0	131	508	0	5	0	0
4:15 PM	0	0	0	0	0	6	1	5	0	0	38	3	0	8	71	0	132	493	0	1	2	0
4:30 PM	0	0	0	0	0	8	0	5	0	0	32	2	0	3	69	1	120	481	0	1	0	1
4:45 PM	0	0	0	0	0	2	0	3	0	0	40	1	0	6	72	1	125	495	1	3	0	0
5:00 PM	0	1	0	1	0	7	0	5	0	1	35	3	0	8	55	0	116	521	0	2	0	0
5:15 PM	0	0	0	1	0	4	0	4	0	0	40	4	1	2	64	0	120		2	2	1	1
5:30 PM	0	0	0	0	0	6	0	5	0	1	44	3	0	5	69	1	134		0	3	0	0
5:45 PM	0	1	0	0	0	8	0	8	0	1	36	2	0	7	88	0	151		2	2	4	2

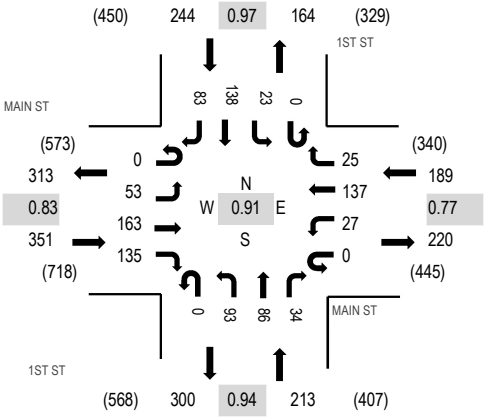
Peak Rolling Hour Flow Rates

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	0	0	0	0	1	0	1
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0	12
Lights	0	2	0	2	0	25	0	22	0	3	150	12	1	22	267	1	507
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	2	0	2	0	25	0	22	0	3	155	12	1	22	276	1	521

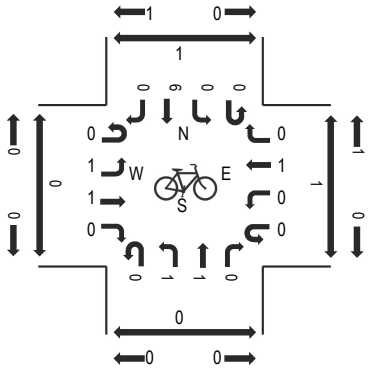
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 1ST ST & MAIN ST PM
Date: Tuesday, March 12, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

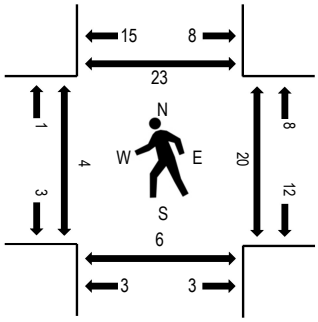
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				1ST ST Northbound				1ST ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	18	50	24	0	5	27	7	0	13	18	13	0	11	24	21	231	918	0	5	1	3
4:15 PM	0	16	27	48	0	2	27	6	0	14	21	8	0	9	19	22	219	917	1	4	5	2
4:30 PM	0	12	27	34	0	5	34	3	0	22	18	16	0	4	24	17	216	946	2	8	3	2
4:45 PM	0	22	41	48	0	6	24	5	0	19	19	13	0	6	29	20	252	976	0	8	4	4
5:00 PM	0	8	35	31	0	5	35	5	0	24	23	6	0	5	32	21	230	997	0	1	2	1
5:15 PM	0	15	46	26	0	3	30	6	0	22	26	11	0	3	43	17	248		3	5	3	5
5:30 PM	0	15	34	33	0	12	24	8	0	27	22	9	0	9	28	25	246		0	8	0	9
5:45 PM	0	15	48	45	0	7	48	6	0	20	15	8	0	6	35	20	273		1	6	1	8

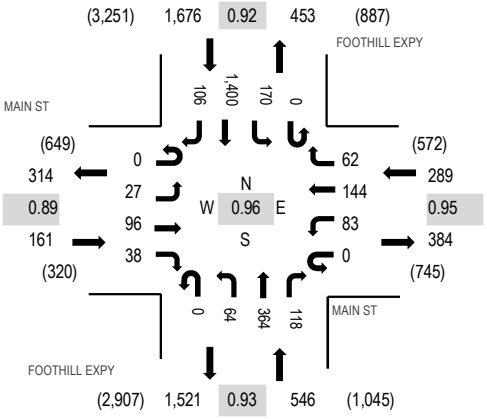
Peak Rolling Hour Flow Rates

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	0	0	0	0	1	0	1
Bicycles on Road	0	1	1	0	0	0	1	0	0	1	1	0	0	0	6	0	11
Lights	0	52	162	134	0	27	136	25	0	90	84	34	0	22	129	83	978
Mediums	0	0	0	1	0	0	0	0	0	2	1	0	0	1	2	0	7
Total	0	53	163	135	0	27	137	25	0	93	86	34	0	23	138	83	997

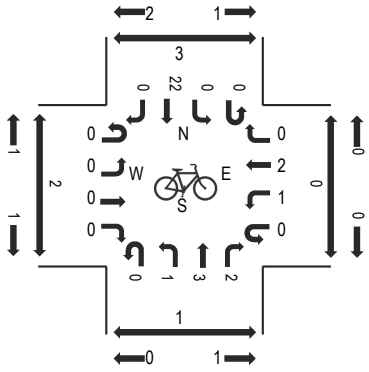
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 6 FOOTHILL EXPY & MAIN ST PM
Date: Tuesday, March 12, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

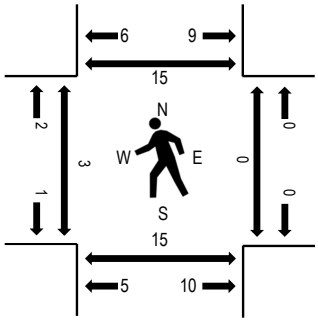
Peak Hour - All Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				FOOTHILL EXPY Northbound				FOOTHILL EXPY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	33	13	0	22	31	8	1	13	73	32	0	27	323	26	607	2,567	1	1	2	3
4:15 PM	0	3	26	5	0	18	34	13	2	14	91	21	0	48	309	39	623	2,596	0	0	5	6
4:30 PM	0	5	21	11	0	21	34	20	1	7	93	19	0	27	344	36	639	2,624	0	3	1	6
4:45 PM	0	7	23	7	0	19	31	9	0	18	92	36	0	54	372	30	698	2,672	2	0	6	3
5:00 PM	0	8	23	14	0	24	38	20	0	14	79	25	0	33	334	24	636	2,621	0	0	6	5
5:15 PM	0	6	27	7	0	20	37	14	0	16	92	32	0	38	335	27	651		0	0	2	3
5:30 PM	0	6	23	10	0	20	38	19	0	16	101	25	0	45	359	25	687		1	0	1	4
5:45 PM	0	7	26	4	0	24	39	19	0	11	97	24	0	57	288	51	647		5	0	1	6

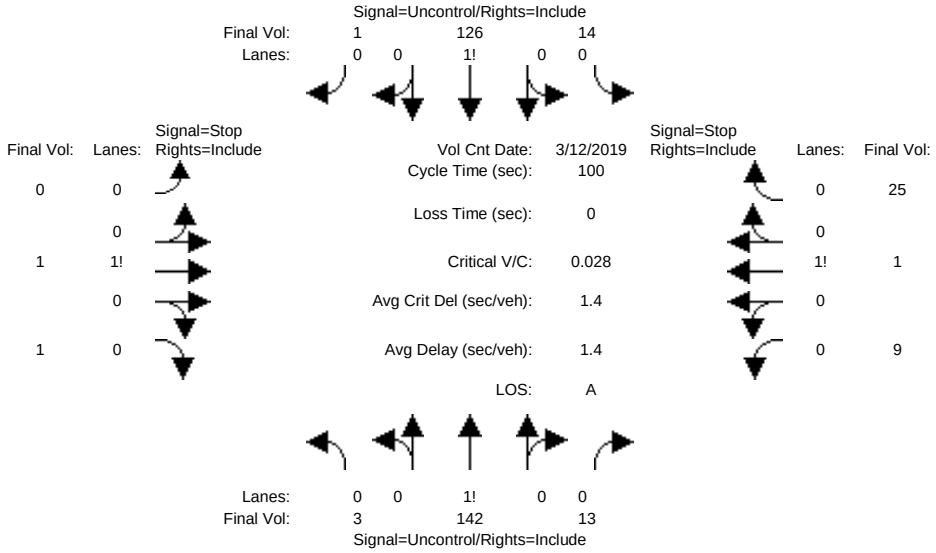
Peak Rolling Hour Flow Rates

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	0	0	0	0	0	0	0
Bicycles on Road	0	0	0	0	0	1	2	0	0	1	3	2	0	0	22	0	31
Lights	0	27	96	37	0	82	141	62	0	63	360	116	0	167	1,374	106	2,631
Mediums	0	0	0	1	0	0	1	0	0	0	1	0	0	3	4	0	10
Total	0	27	96	38	0	83	144	62	0	64	364	118	0	170	1,400	106	2,672

Appendix B
Intersection Level of Service Calculations

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	3	142	13	14	126	1	0	1	1	9	1	25
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:	3	142	13	14	126	1	0	1	1	9	1	25
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:	3	142	13	14	126	1	0	1	1	9	1	25
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:	3	142	13	14	126	1	0	1	1	9	1	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	142	13	14	126	1	0	1	1	9	1	25
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	127	xxxx	xxxxx	155	xxxx	xxxxx	xxxx	316	127	310	310	149
Potent Cap.:	1472	xxxx	xxxxx	1438	xxxx	xxxxx	xxxx	604	929	646	608	904
Move Cap.:	1472	xxxx	xxxxx	1438	xxxx	xxxxx	xxxx	596	929	639	601	904
Volume/Cap:	0.00	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.00	0.00	0.01	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	727	xxxx	806	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.0	xxxxx	9.7	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			10.0			9.7		
ApproachLOS:	*			*			A			A		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	142	13	14	126	1	0	1	1	9	1	25
ApproachDel:	xxxxxx			xxxxxx			10.0			9.7		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=336]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=35]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=336]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	142	13	14	126	1	0	1	1	9	1	25

Major Street Volume: 299
Minor Approach Volume: 35
Minor Approach Volume Threshold: 541

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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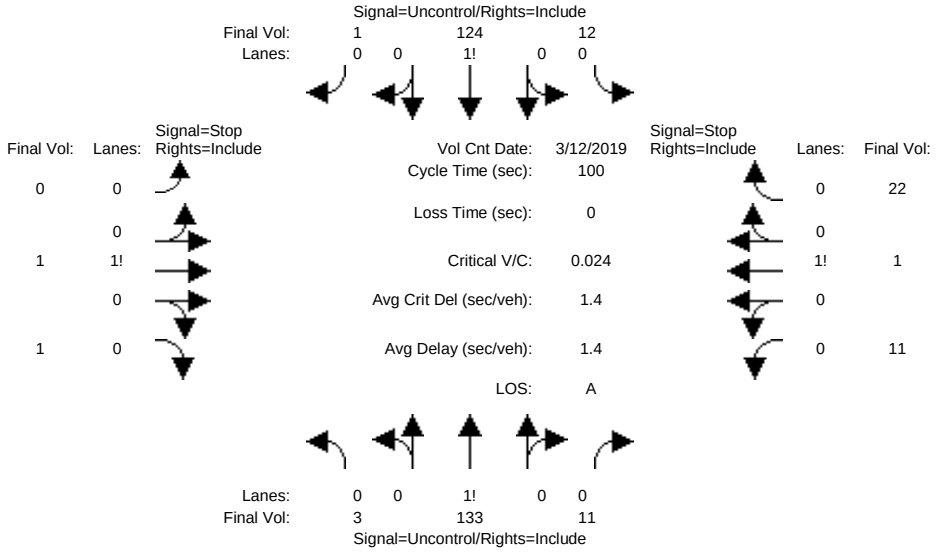
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background AM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	3	142	13	14	126	1	0	1	1	9	1	25
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:	3	142	13	14	126	1	0	1	1	9	1	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	-9	-2	-2	-2	0	0	0	0	2	0	-3
Initial Fut:	3	133	11	12	124	1	0	1	1	11	1	22
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:	3	133	11	12	124	1	0	1	1	11	1	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	133	11	12	124	1	0	1	1	11	1	22
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	125	xxxx	xxxxx	144	xxxx	xxxxx	xxxx	299	125	294	294	139
Potent Cap.:	1474	xxxx	xxxxx	1451	xxxx	xxxxx	xxxx	617	932	662	621	915
Move Cap.:	1474	xxxx	xxxxx	1451	xxxx	xxxxx	xxxx	611	932	655	614	915
Volume/Cap:	0.00	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.00	0.00	0.02	0.00	0.02
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	738	xxxx	801	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.9	xxxxx	9.7	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			9.9			9.7		
ApproachLOS:	*			*			A			A		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	133	11	12	124	1	0	1	1	11	1	22
ApproachDel:	xxxxxx			xxxxxx			9.9			9.7		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=320]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=34]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=320]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	133	11	12	124	1	0	1	1	11	1	22

Major Street Volume: 284
Minor Approach Volume: 34
Minor Approach Volume Threshold: 555

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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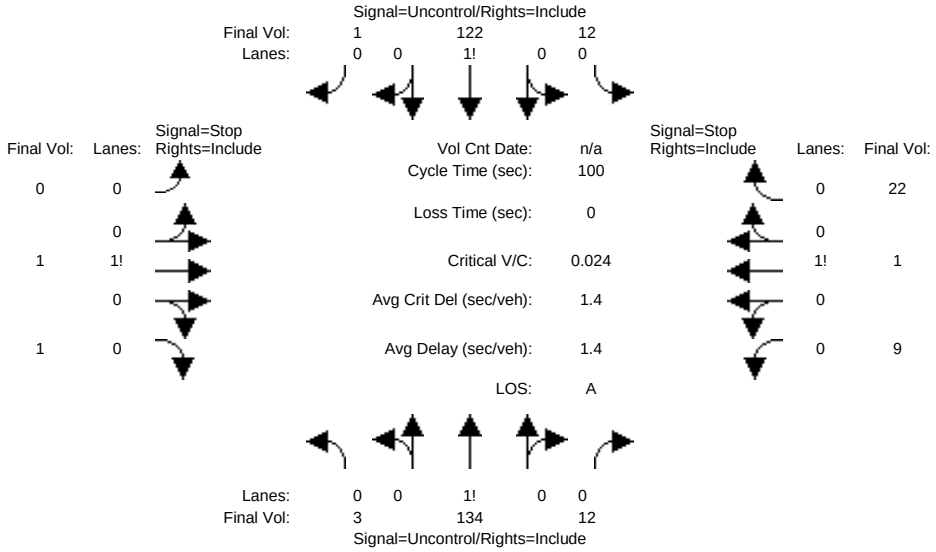
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Prj AM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
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:	3	133	11	12	124	1	0	1	1	11	1	22
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:	3	133	11	12	124	1	0	1	1	11	1	22
Added Vol:	0	1	1	0	-2	0	0	0	0	-2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	134	12	12	122	1	0	1	1	9	1	22
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:	3	134	12	12	122	1	0	1	1	9	1	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	134	12	12	122	1	0	1	1	9	1	22
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	123	xxxx	xxxxx	146	xxxx	xxxxx	xxxx	299	123	294	293	140
Potent Cap.:	1477	xxxx	xxxxx	1448	xxxx	xxxxx	xxxx	617	934	663	621	913
Move Cap.:	1477	xxxx	xxxxx	1448	xxxx	xxxxx	xxxx	610	934	656	615	913
Volume/Cap:	0.00	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.00	0.00	0.01	0.00	0.02
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	738	xxxx	811	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.9	xxxxx	9.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			9.9			9.6		
ApproachLOS:	*			*			A			A		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	134	12	12	122	1	0	1	1	9	1	22
ApproachDel:	xxxxxx			xxxxxx			9.9			9.6		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=318]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=32]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=318]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	134	12	12	122	1	0	1	1	9	1	22

Major Street Volume: 284
Minor Approach Volume: 32
Minor Approach Volume Threshold: 555

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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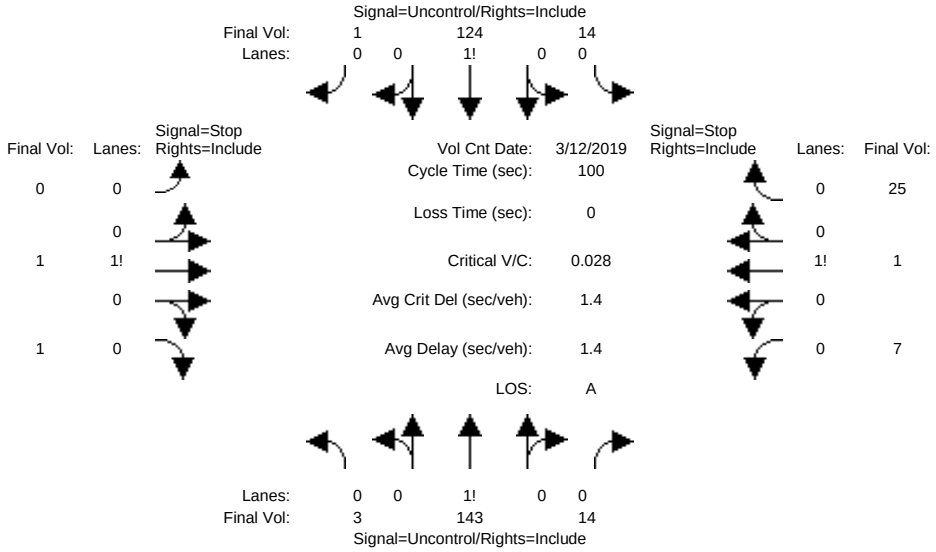
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing +Project AM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	3	142	13	14	126	1	0	1	1	9	1	25
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:	3	142	13	14	126	1	0	1	1	9	1	25
Added Vol:	0	1	1	0	-2	0	0	0	0	-2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	143	14	14	124	1	0	1	1	7	1	25
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:	3	143	14	14	124	1	0	1	1	7	1	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	143	14	14	124	1	0	1	1	7	1	25
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	125	xxxx	xxxxx	157	xxxx	xxxxx	xxxx	316	125	310	309	150
Potent Cap.:	1474	xxxx	xxxxx	1435	xxxx	xxxxx	xxxx	604	932	647	609	902
Move Cap.:	1474	xxxx	xxxxx	1435	xxxx	xxxxx	xxxx	596	932	640	601	902
Volume/Cap:	0.00	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.00	0.00	0.01	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	727	xxxx	818	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.0	xxxxx	9.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			10.0			9.6		
ApproachLOS:	*			*			A			A		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	143	14	14	124	1	0	1	1	7	1	25
ApproachDel:	xxxxxx			xxxxxx			10.0			9.6		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=2]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=334]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=33]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=334]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Initial Vol:	3	143	14	14	124	1	0	1	1	7	1	25

Major Street Volume: 299
Minor Approach Volume: 33
Minor Approach Volume Threshold: 541

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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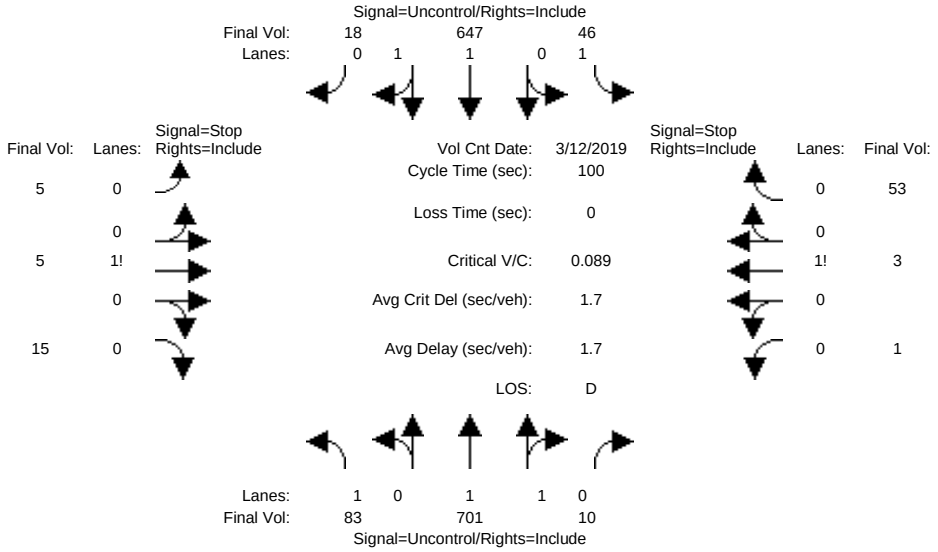
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing AM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	701	10	46	647	18	5	5	15	1	3	53
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	665	xxxx	xxxxx	711	xxxx	xxxxx	1266	1625	333	1290	1629	356
Potent Cap.:	934	xxxx	xxxxx	898	xxxx	xxxxx	128	103	669	123	103	647
Move Cap.:	934	xxxx	xxxxx	898	xxxx	xxxxx	103	89	669	103	89	647
Volume/Cap:	0.09	xxxx	xxxx	0.05	xxxx	xxxx	0.05	0.06	0.02	0.01	0.03	0.08
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	197	xxxxx	xxxx	455	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	25.9	xxxxx	xxxxx	14.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			25.9			14.1		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	18	5	5	15	1	3	53
ApproachDel:	xxxxxx			xxxxxx			25.9			14.1		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=25]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1587]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=57]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1587]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	18	5	5	15	1	3	53

Major Street Volume: 1505
Minor Approach Volume: 57
Minor Approach Volume Threshold: 144

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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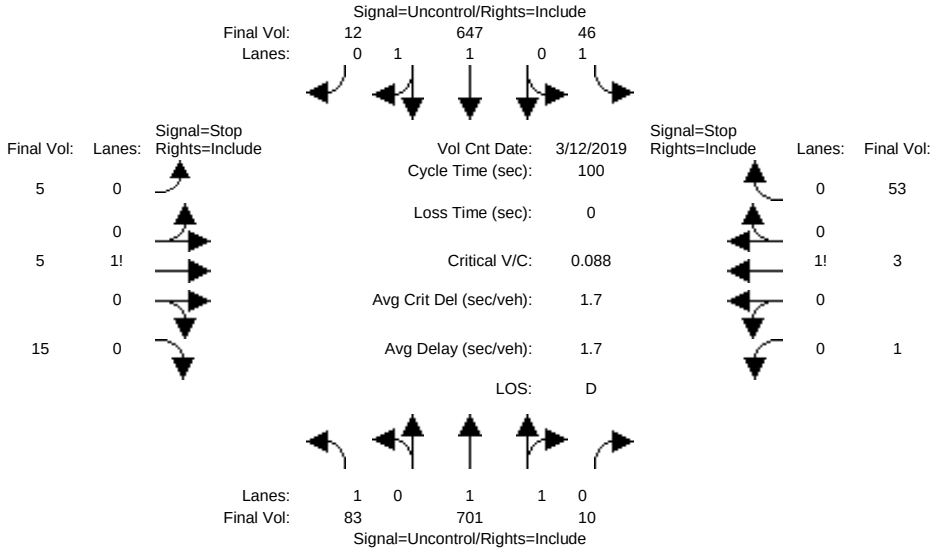
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background AM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	-6	0	0	0	0	0	0
Initial Fut:	83	701	10	46	647	12	5	5	15	1	3	53
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:	83	701	10	46	647	12	5	5	15	1	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	701	10	46	647	12	5	5	15	1	3	53
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	659	xxxx	xxxxx	711	xxxx	xxxxx	1263	1622	330	1290	1623	356
Potent Cap.:	939	xxxx	xxxxx	898	xxxx	xxxxx	129	104	672	123	104	647
Move Cap.:	939	xxxx	xxxxx	898	xxxx	xxxxx	103	90	672	103	90	647
Volume/Cap:	0.09	xxxx	xxxx	0.05	xxxx	xxxx	0.05	0.06	0.02	0.01	0.03	0.08
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	198	xxxxx	xxxx	456	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	25.8	xxxxx	xxxxx	14.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			25.8			14.0		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	12	5	5	15	1	3	53
ApproachDel:	xxxxxx			xxxxxx			25.8			14.0		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=25]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1581]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=57]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1581]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	12	5	5	15	1	3	53

Major Street Volume: 1499
Minor Approach Volume: 57
Minor Approach Volume Threshold: 145

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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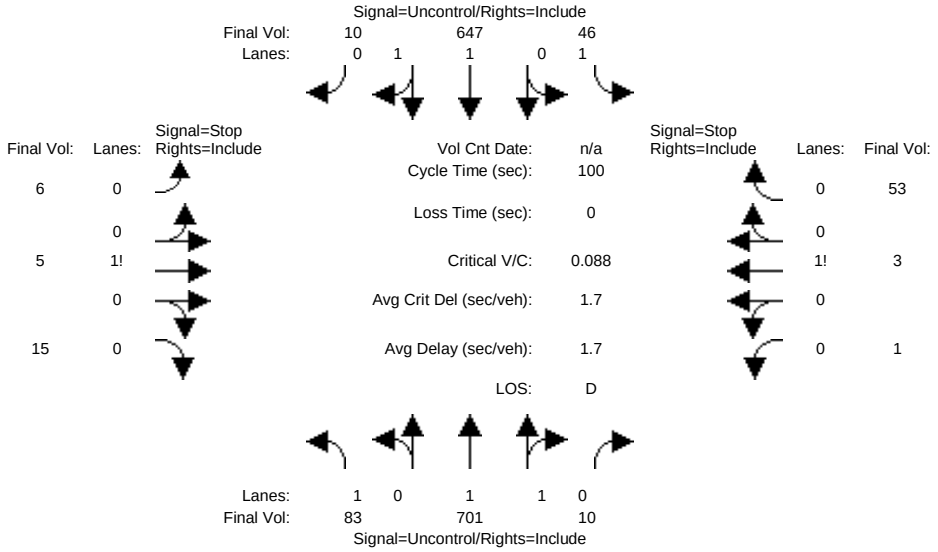
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Prj AM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
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:	83	701	10	46	647	12	5	5	15	1	3	53
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:	83	701	10	46	647	12	5	5	15	1	3	53
Added Vol:	0	0	0	0	0	-2	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	701	10	46	647	10	6	5	15	1	3	53
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:	83	701	10	46	647	10	6	5	15	1	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	701	10	46	647	10	6	5	15	1	3	53
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	657	xxxx	xxxxx	711	xxxx	xxxxx	1262	1621	329	1290	1621	356
Potent Cap.:	940	xxxx	xxxxx	898	xxxx	xxxxx	129	104	673	123	104	647
Move Cap.:	940	xxxx	xxxxx	898	xxxx	xxxxx	103	90	673	103	90	647
Volume/Cap:	0.09	xxxx	xxxx	0.05	xxxx	xxxx	0.06	0.06	0.02	0.01	0.03	0.08
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	191	xxxxx	xxxx	456	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	26.8	xxxxx	xxxxx	14.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			26.8			14.0		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	10	6	5	15	1	3	53
ApproachDel:	xxxxxx			xxxxxx			26.8			14.0		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1580]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=57]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1580]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	83	701	10	46	647	10	6	5	15	1	3	53

Major Street Volume: 1497
Minor Approach Volume: 57
Minor Approach Volume Threshold: 146

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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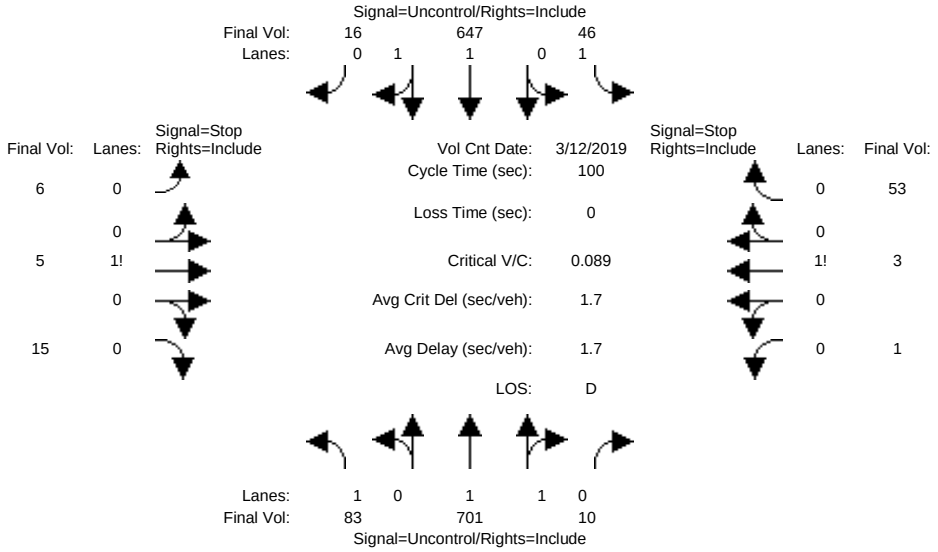
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing +Project AM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	83	701	10	46	647	18	5	5	15	1	3	53
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:	83	701	10	46	647	18	5	5	15	1	3	53
Added Vol:	0	0	0	0	0	-2	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	701	10	46	647	16	6	5	15	1	3	53
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:	83	701	10	46	647	16	6	5	15	1	3	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	701	10	46	647	16	6	5	15	1	3	53
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	663	xxxx	xxxxx	711	xxxx	xxxxx	1265	1624	332	1290	1627	356
Potent Cap.:	935	xxxx	xxxxx	898	xxxx	xxxxx	128	104	670	123	103	647
Move Cap.:	935	xxxx	xxxxx	898	xxxx	xxxxx	103	90	670	103	89	647
Volume/Cap:	0.09	xxxx	xxxx	0.05	xxxx	xxxx	0.06	0.06	0.02	0.01	0.03	0.08
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	190	xxxxx	xxxx	455	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	26.9	xxxxx	xxxxx	14.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			26.9			14.0		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	83	701	10	46	647	16	6	5	15	1	3	53
ApproachDel:	xxxxxx			xxxxxx			26.9			14.0		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=26]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1586]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=57]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1586]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Initial Vol:	83	701	10	46	647	16	6	5	15	1	3	53

Major Street Volume: 1503
Minor Approach Volume: 57
Minor Approach Volume Threshold: 144

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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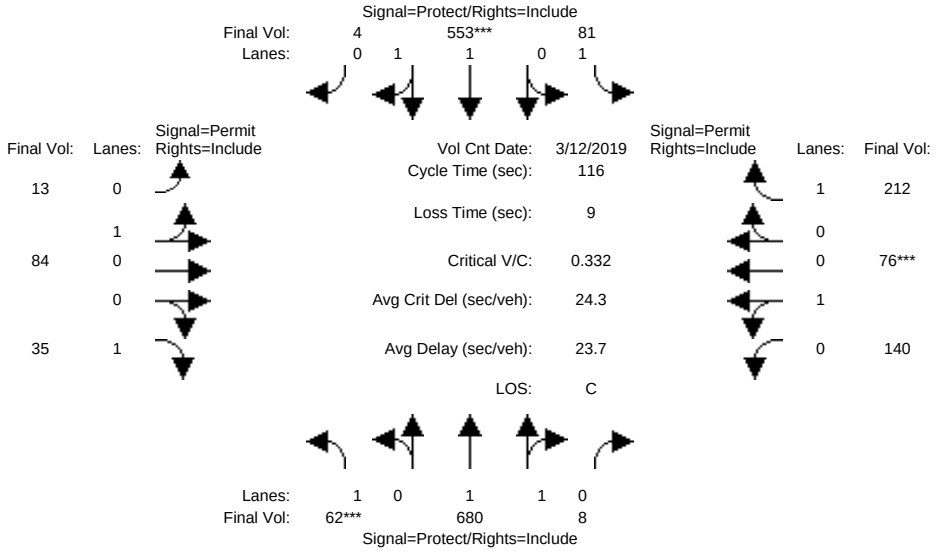
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	21	70	70	12	61	61	25	25	25	25	25	25
Y+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: >> Count Date: 12 Mar 2019 << 7:34 AM - 8:45 AM												
Base Vol:	62	680	8	81	553	4	13	84	35	140	76	212
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:	62	680	8	81	553	4	13	84	35	140	76	212
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:	62	680	8	81	553	4	13	84	35	140	76	212
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:	62	680	8	81	553	4	13	84	35	140	76	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	680	8	81	553	4	13	84	35	140	76	212
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
FinalVolume:	62	680	8	81	553	4	13	84	35	140	76	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	0.13	0.87	1.00	0.65	0.35	1.00
Final Sat.:	1750	3657	43	1750	3673	27	241	1559	1750	1167	633	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.19	0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12
Crit Moves:	****				****						****	
Green Time:	21.0	70.0	70.0	12.0	61.0	61.0	25.0	25.0	25.0	25.0	25.0	25.0
Volume/Cap:	0.20	0.31	0.31	0.45	0.29	0.29	0.25	0.25	0.09	0.56	0.56	0.56
Uniform Del:	40.3	11.2	11.2	48.9	15.3	15.3	37.7	37.7	36.4	40.6	40.6	40.6
IncremntDel:	0.3	0.1	0.1	1.8	0.1	0.1	0.3	0.3	0.1	1.8	1.8	1.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.6	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.5	42.4	42.4	42.6
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
AdjDel/Veh:	40.6	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.5	42.4	42.4	42.6
LOS by Move:	D	B+	B+	D	B	B	D+	D+	D+	D	D	D
HCM2kAvgQ:	2	6	6	3	6	6	3	3	1	8	8	8

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

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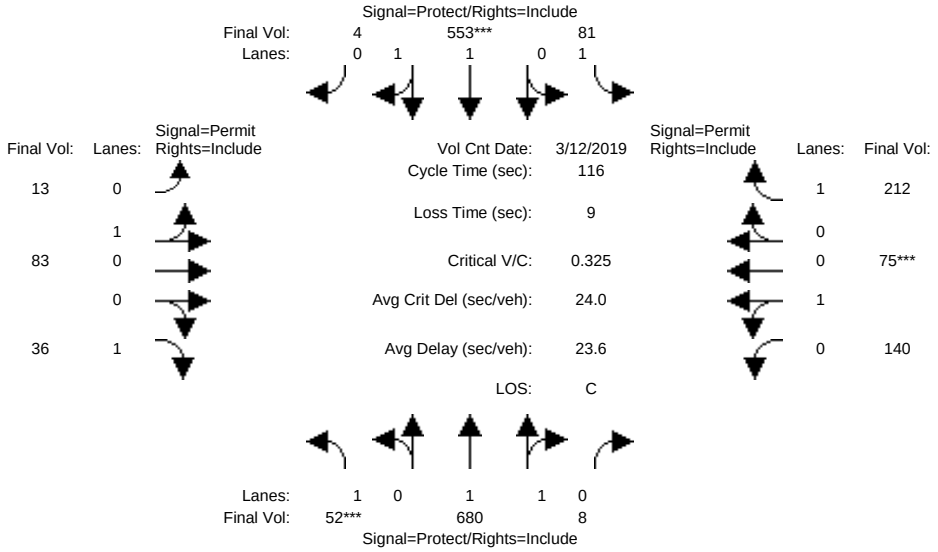
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	21	70	70	12	61	61	25	25	25	25	25	25
Y+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: >> Count Date: 12 Mar 2019 << 7:34 AM - 8:45 AM												
Base Vol:	62	680	8	81	553	4	13	84	35	140	76	212
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:	62	680	8	81	553	4	13	84	35	140	76	212
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	-10	0	0	0	0	0	0	-1	1	0	-1	0
Initial Fut:	52	680	8	81	553	4	13	83	36	140	75	212
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:	52	680	8	81	553	4	13	83	36	140	75	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	680	8	81	553	4	13	83	36	140	75	212
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
FinalVolume:	52	680	8	81	553	4	13	83	36	140	75	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	0.14	0.86	1.00	0.65	0.35	1.00
Final Sat.:	1750	3657	43	1750	3673	27	244	1556	1750	1172	628	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.19	0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12
Crit Moves:	****				****						****	
Green Time:	21.0	70.0	70.0	12.0	61.0	61.0	25.0	25.0	25.0	25.0	25.0	25.0
Volume/Cap:	0.16	0.31	0.31	0.45	0.29	0.29	0.25	0.25	0.10	0.55	0.55	0.56
Uniform Del:	40.1	11.2	11.2	48.9	15.3	15.3	37.7	37.7	36.4	40.5	40.5	40.6
IncremntDel:	0.2	0.1	0.1	1.8	0.1	0.1	0.3	0.3	0.1	1.8	1.8	1.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.3	11.3	11.3	50.6	15.4	15.4	38.0	38.0	36.6	42.3	42.3	42.6
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
AdjDel/Veh:	40.3	11.3	11.3	50.6	15.4	15.4	38.0	38.0	36.6	42.3	42.3	42.6
LOS by Move:	D	B+	B+	D	B	B	D+	D+	D+	D	D	D
HCM2kAvgQ:	2	6	6	3	6	6	3	3	1	8	8	8

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

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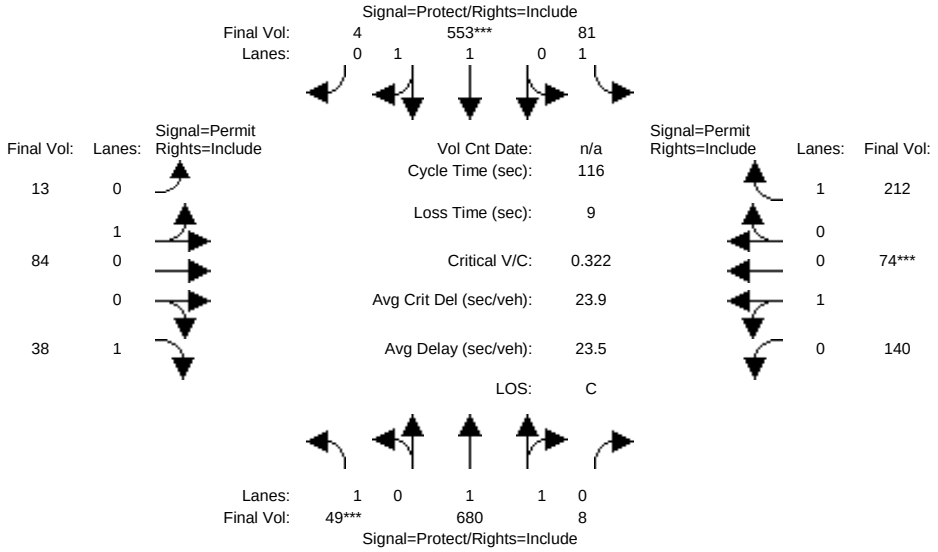
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj AM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	21	70	70	12	61	61	25	25	25	25	25	25
Y+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:	52	680	8	81	553	4	13	83	36	140	75	212
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:	52	680	8	81	553	4	13	83	36	140	75	212
Added Vol:	-3	0	0	0	0	0	0	1	2	0	-1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	49	680	8	81	553	4	13	84	38	140	74	212
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	680	8	81	553	4	13	84	38	140	74	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	680	8	81	553	4	13	84	38	140	74	212
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
FinalVolume:	49	680	8	81	553	4	13	84	38	140	74	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	0.13	0.87	1.00	0.65	0.35	1.00
Final Sat.:	1750	3657	43	1750	3673	27	241	1559	1750	1178	622	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.19	0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12
Crit Moves:	****				****						****	
Green Time:	21.0	70.0	70.0	12.0	61.0	61.0	25.0	25.0	25.0	25.0	25.0	25.0
Volume/Cap:	0.15	0.31	0.31	0.45	0.29	0.29	0.25	0.25	0.10	0.55	0.55	0.56
Uniform Del:	40.0	11.2	11.2	48.9	15.3	15.3	37.7	37.7	36.5	40.5	40.5	40.6
IncremntDel:	0.2	0.1	0.1	1.8	0.1	0.1	0.3	0.3	0.1	1.7	1.7	1.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.3	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.6	42.2	42.2	42.6
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
AdjDel/Veh:	40.3	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.6	42.2	42.2	42.6
LOS by Move:	D	B+	B+	D	B	B	D+	D+	D+	D	D	D
HCM2kAvgQ:	1	6	6	3	6	6	3	3	1	8	8	8

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

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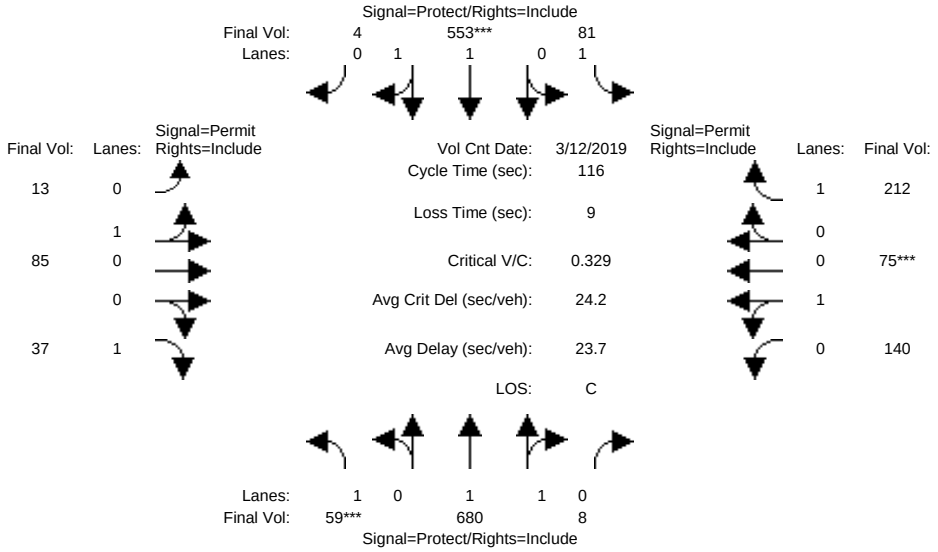
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project AM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	21	70	70	12	61	61	25	25	25	25	25	25
Y+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: >> Count Date: 12 Mar 2019 << 7:34 AM - 8:45 AM												
Base Vol:	62	680	8	81	553	4	13	84	35	140	76	212
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:	62	680	8	81	553	4	13	84	35	140	76	212
Added Vol:	-3	0	0	0	0	0	0	1	2	0	-1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	680	8	81	553	4	13	85	37	140	75	212
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:	59	680	8	81	553	4	13	85	37	140	75	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	680	8	81	553	4	13	85	37	140	75	212
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
FinalVolume:	59	680	8	81	553	4	13	85	37	140	75	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.99	0.01	0.13	0.87	1.00	0.65	0.35	1.00
Final Sat.:	1750	3657	43	1750	3673	27	239	1561	1750	1172	628	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.19	0.05	0.15	0.15	0.05	0.05	0.02	0.12	0.12	0.12
Crit Moves:	****				****						****	
Green Time:	21.0	70.0	70.0	12.0	61.0	61.0	25.0	25.0	25.0	25.0	25.0	25.0
Volume/Cap:	0.19	0.31	0.31	0.45	0.29	0.29	0.25	0.25	0.10	0.55	0.55	0.56
Uniform Del:	40.3	11.2	11.2	48.9	15.3	15.3	37.7	37.7	36.5	40.5	40.5	40.6
IncremntDel:	0.3	0.1	0.1	1.8	0.1	0.1	0.3	0.3	0.1	1.8	1.8	1.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.5	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.6	42.3	42.3	42.6
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
AdjDel/Veh:	40.5	11.3	11.3	50.6	15.4	15.4	38.1	38.1	36.6	42.3	42.3	42.6
LOS by Move:	D	B+	B+	D	B	B	D+	D+	D+	D	D	D
HCM2kAvgQ:	2	6	6	3	6	6	3	3	1	8	8	8

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

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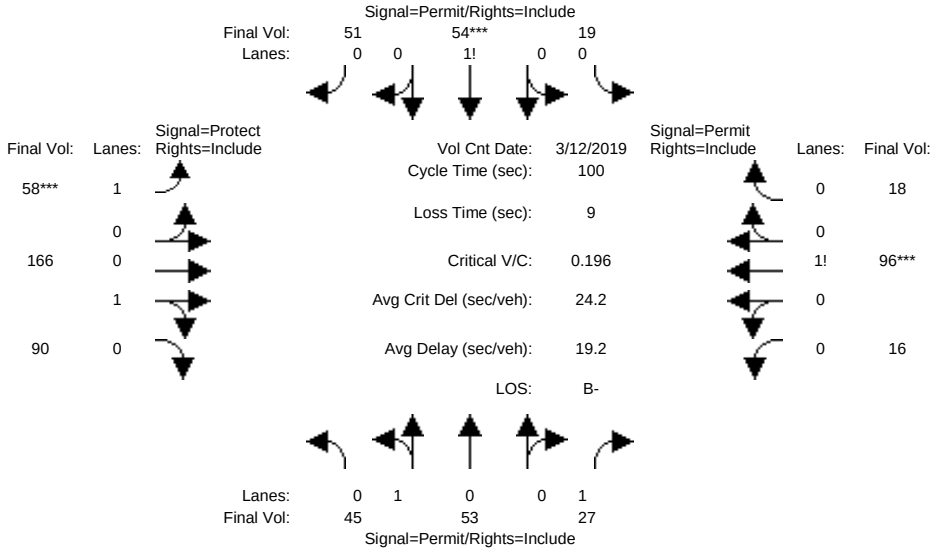
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	45	53	27	19	54	51	58	166	90	16	96	18
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:	45	53	27	19	54	51	58	166	90	16	96	18
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:	45	53	27	19	54	51	58	166	90	16	96	18
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:	45	53	27	19	54	51	58	166	90	16	96	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	53	27	19	54	51	58	166	90	16	96	18
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
FinalVolume:	45	53	27	19	54	51	58	166	90	16	96	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.46	0.54	1.00	0.15	0.44	0.41	1.00	0.65	0.35	0.12	0.74	0.14
Final Sat.:	827	973	1750	268	762	720	1750	1167	633	215	1292	242
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.02	0.07	0.07	0.07	0.03	0.14	0.14	0.07	0.07	0.07
Crit Moves:					****		****				****	
Green Time:	36.2	36.2	36.2	36.2	36.2	36.2	16.9	54.8	54.8	37.9	37.9	37.9
Volume/Cap:	0.15	0.15	0.04	0.20	0.20	0.20	0.20	0.26	0.26	0.20	0.20	0.20
Uniform Del:	21.5	21.5	20.7	21.9	21.9	21.9	35.7	11.9	11.9	20.8	20.8	20.8
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.7	21.7	20.7	22.1	22.1	22.1	36.0	12.0	12.0	21.0	21.0	21.0
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:	21.7	21.7	20.7	22.1	22.1	22.1	36.0	12.0	12.0	21.0	21.0	21.0
LOS by Move:	C+	C+	C+	C+	C+	C+	D+	B	B	C+	C+	C+
HCM2kAvgQ:	2	2	1	3	3	3	2	4	4	3	3	3

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

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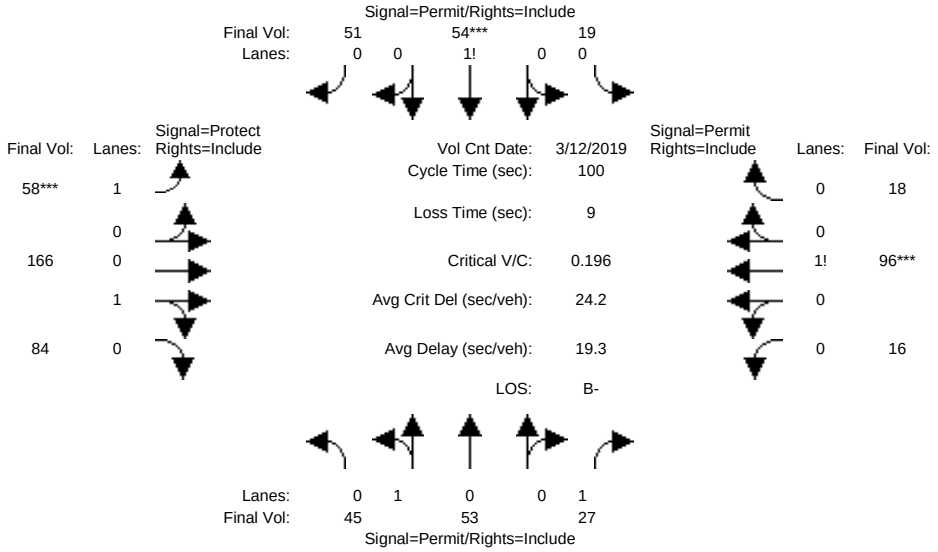
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	45	53	27	19	54	51	58	166	90	16	96	18
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:	45	53	27	19	54	51	58	166	90	16	96	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	-6	0	0	0
Initial Fut:	45	53	27	19	54	51	58	166	84	16	96	18
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:	45	53	27	19	54	51	58	166	84	16	96	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	53	27	19	54	51	58	166	84	16	96	18
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
FinalVolume:	45	53	27	19	54	51	58	166	84	16	96	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.46	0.54	1.00	0.15	0.44	0.41	1.00	0.66	0.34	0.12	0.74	0.14
Final Sat.:	827	973	1750	268	762	720	1750	1195	605	215	1292	242
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.02	0.07	0.07	0.07	0.03	0.14	0.14	0.07	0.07	0.07
Crit Moves:					****		****				****	
Green Time:	36.2	36.2	36.2	36.2	36.2	36.2	16.9	54.8	54.8	37.9	37.9	37.9
Volume/Cap:	0.15	0.15	0.04	0.20	0.20	0.20	0.20	0.25	0.25	0.20	0.20	0.20
Uniform Del:	21.5	21.5	20.7	21.9	21.9	21.9	35.7	11.8	11.8	20.8	20.8	20.8
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.7	21.7	20.7	22.1	22.1	22.1	36.0	12.0	12.0	21.0	21.0	21.0
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:	21.7	21.7	20.7	22.1	22.1	22.1	36.0	12.0	12.0	21.0	21.0	21.0
LOS by Move:	C+	C+	C+	C+	C+	C+	D+	B+	B+	C+	C+	C+
HCM2kAvgQ:	2	2	1	3	3	3	2	4	4	3	3	3

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

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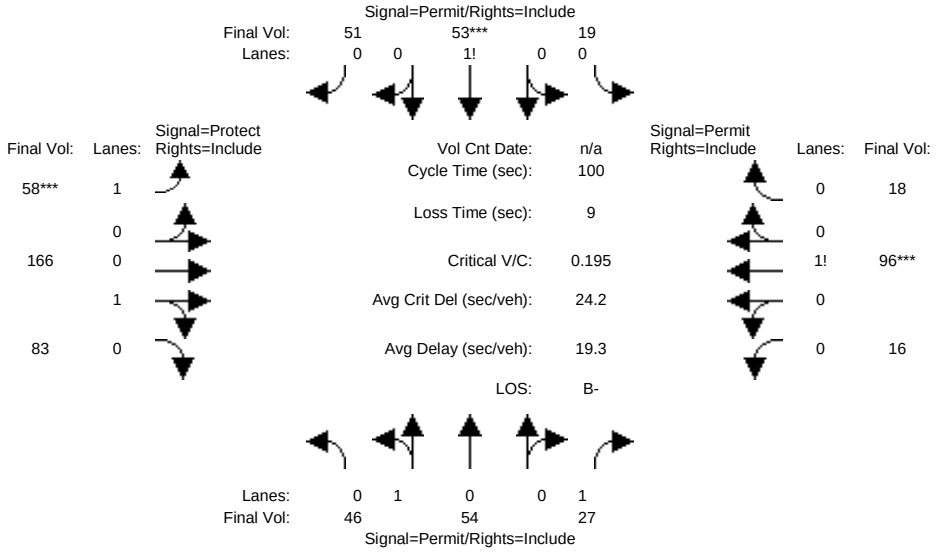
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj AM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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:	45	53	27	19	54	51	58	166	84	16	96	18
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:	45	53	27	19	54	51	58	166	84	16	96	18
Added Vol:	1	1	0	0	-1	0	0	0	-1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	54	27	19	53	51	58	166	83	16	96	18
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:	46	54	27	19	53	51	58	166	83	16	96	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	54	27	19	53	51	58	166	83	16	96	18
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
FinalVolume:	46	54	27	19	53	51	58	166	83	16	96	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.46	0.54	1.00	0.15	0.44	0.41	1.00	0.67	0.33	0.12	0.74	0.14
Final Sat.:	828	972	1750	270	754	726	1750	1200	600	215	1292	242
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.02	0.07	0.07	0.07	0.03	0.14	0.14	0.07	0.07	0.07
Crit Moves:					****		****				****	
Green Time:	36.0	36.0	36.0	36.0	36.0	36.0	17.0	55.0	55.0	38.0	38.0	38.0
Volume/Cap:	0.15	0.15	0.04	0.20	0.20	0.20	0.20	0.25	0.25	0.20	0.20	0.20
Uniform Del:	21.7	21.7	20.8	22.0	22.0	22.0	35.7	11.7	11.7	20.7	20.7	20.7
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.8	21.8	20.8	22.2	22.2	22.2	36.0	11.9	11.9	20.9	20.9	20.9
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:	21.8	21.8	20.8	22.2	22.2	22.2	36.0	11.9	11.9	20.9	20.9	20.9
LOS by Move:	C+	C+	C+	C+	C+	C+	D+	B+	B+	C+	C+	C+
HCM2kAvgQ:	2	2	1	3	3	3	2	4	4	3	3	3

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

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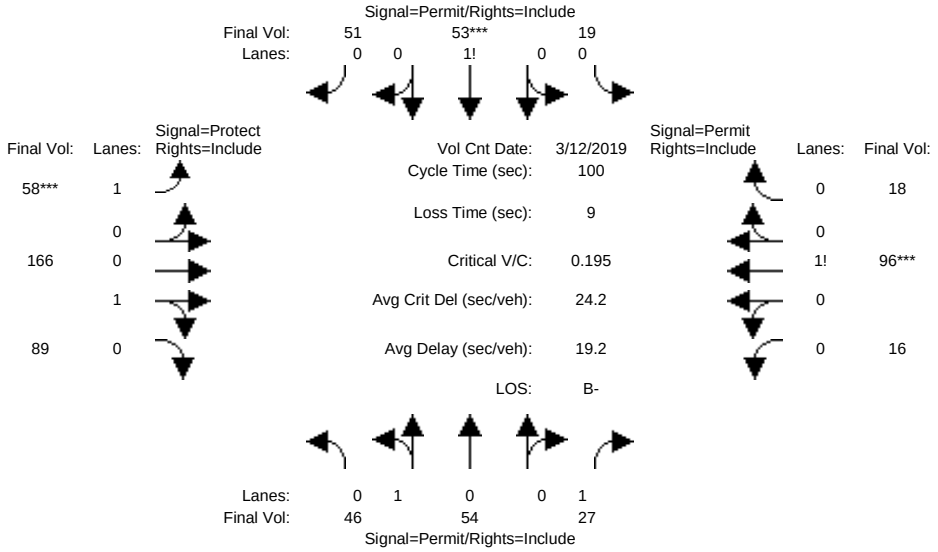
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project AM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 7:45 AM - 8:45 AM												
Base Vol:	45	53	27	19	54	51	58	166	90	16	96	18
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:	45	53	27	19	54	51	58	166	90	16	96	18
Added Vol:	1	1	0	0	-1	0	0	0	-1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	54	27	19	53	51	58	166	89	16	96	18
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:	46	54	27	19	53	51	58	166	89	16	96	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	54	27	19	53	51	58	166	89	16	96	18
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
FinalVolume:	46	54	27	19	53	51	58	166	89	16	96	18
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.46	0.54	1.00	0.15	0.44	0.41	1.00	0.65	0.35	0.12	0.74	0.14
Final Sat.:	828	972	1750	270	754	726	1750	1172	628	215	1292	242
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.02	0.07	0.07	0.07	0.03	0.14	0.14	0.07	0.07	0.07
Crit Moves:					****		****				****	
Green Time:	36.0	36.0	36.0	36.0	36.0	36.0	17.0	55.0	55.0	38.0	38.0	38.0
Volume/Cap:	0.15	0.15	0.04	0.20	0.20	0.20	0.20	0.26	0.26	0.20	0.20	0.20
Uniform Del:	21.7	21.7	20.8	22.0	22.0	22.0	35.7	11.8	11.8	20.7	20.7	20.7
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.8	21.8	20.8	22.2	22.2	22.2	36.0	11.9	11.9	20.9	20.9	20.9
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:	21.8	21.8	20.8	22.2	22.2	22.2	36.0	11.9	11.9	20.9	20.9	20.9
LOS by Move:	C+	C+	C+	C+	C+	C+	D+	B+	B+	C+	C+	C+
HCM2kAvgQ:	2	2	1	3	3	3	2	4	4	3	3	3

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

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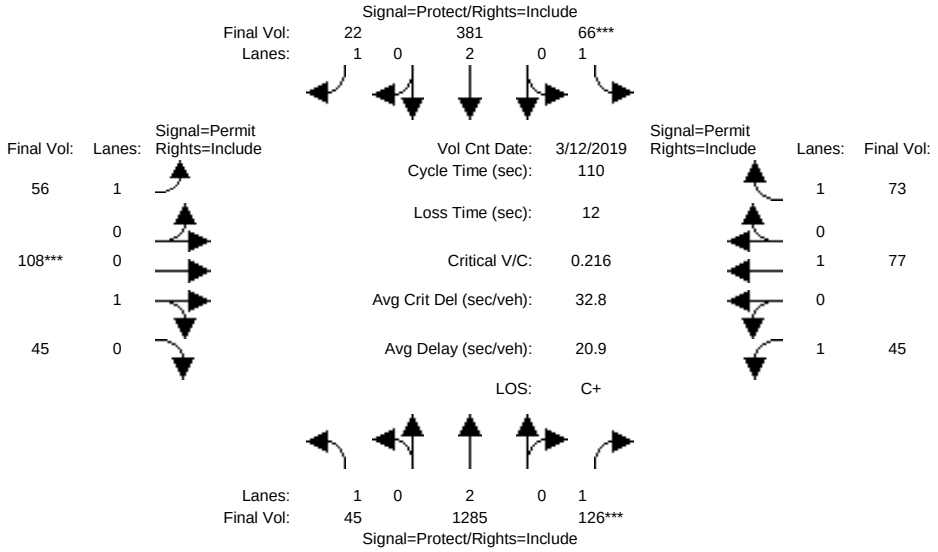
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	13	72	72	12	71	71	26	26	26	26	26	26
Y+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: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	45	1285	126	66	381	22	56	108	45	45	77	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 Bse:	45	1285	126	66	381	22	56	108	45	45	77	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:	45	1285	126	66	381	22	56	108	45	45	77	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:	45	1285	126	66	381	22	56	108	45	45	77	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1285	126	66	381	22	56	108	45	45	77	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
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
FinalVolume:	45	1285	126	66	381	22	56	108	45	45	77	73
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	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1271	529	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.07	0.04	0.10	0.01	0.03	0.09	0.09	0.03	0.04	0.04
Crit Moves:			****	****				****				
Green Time:	11.7	64.9	64.9	10.8	64.0	64.0	23.4	23.4	23.4	23.4	23.4	23.4
Volume/Cap:	0.24	0.57	0.12	0.38	0.17	0.02	0.15	0.40	0.40	0.12	0.19	0.20
Uniform Del:	50.0	15.5	11.0	51.5	11.8	10.8	39.0	41.3	41.3	38.8	39.4	39.4
IncremntDel:	0.7	0.4	0.1	1.4	0.0	0.0	0.2	0.7	0.7	0.1	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.7	15.8	11.1	53.0	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
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:	50.7	15.8	11.1	53.0	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
LOS by Move:	D	B	B+	D-	B+	B+	D	D	D	D+	D	D
HCM2kAvgQ:	2	14	2	3	3	0	2	5	5	1	2	2

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

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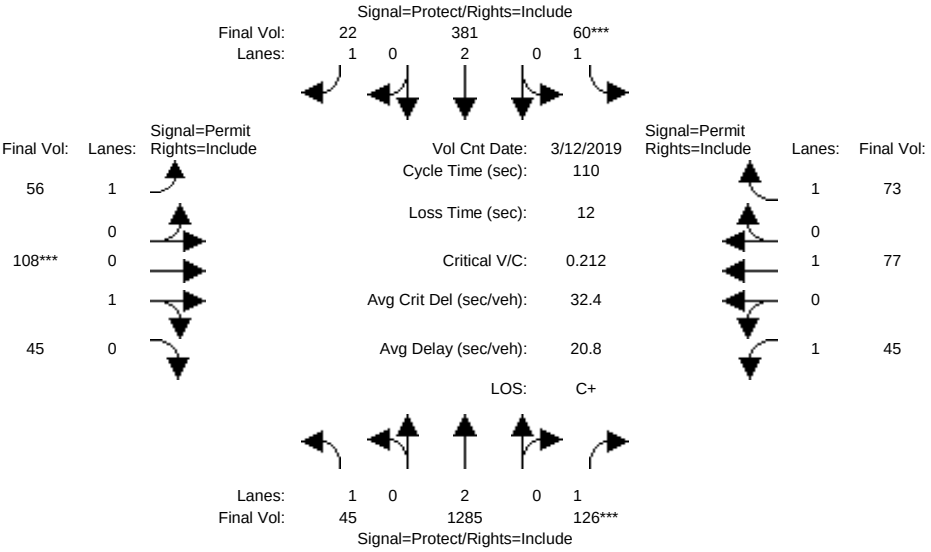
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	13	72	72	12	71	71	26	26	26	26	26	26
Y+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: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	45	1285	126	66	381	22	56	108	45	45	77	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 Bse:	45	1285	126	66	381	22	56	108	45	45	77	73
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	-6	0	0	0	0	0	0	0	0
Initial Fut:	45	1285	126	60	381	22	56	108	45	45	77	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:	45	1285	126	60	381	22	56	108	45	45	77	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1285	126	60	381	22	56	108	45	45	77	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
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
FinalVolume:	45	1285	126	60	381	22	56	108	45	45	77	73
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	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1271	529	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.07	0.03	0.10	0.01	0.03	0.09	0.09	0.03	0.04	0.04
Crit Moves:			****	****				****				
Green Time:	11.7	64.9	64.9	10.8	64.0	64.0	23.4	23.4	23.4	23.4	23.4	23.4
Volume/Cap:	0.24	0.57	0.12	0.35	0.17	0.02	0.15	0.40	0.40	0.12	0.19	0.20
Uniform Del:	50.0	15.5	11.0	51.4	11.8	10.8	39.0	41.3	41.3	38.8	39.4	39.4
IncremntDel:	0.7	0.4	0.1	1.2	0.0	0.0	0.2	0.7	0.7	0.1	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.7	15.8	11.1	52.6	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
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:	50.7	15.8	11.1	52.6	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
LOS by Move:	D	B	B+	D-	B+	B+	D	D	D	D+	D	D
HCM2kAvgQ:	2	14	2	3	3	0	2	5	5	1	2	2

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

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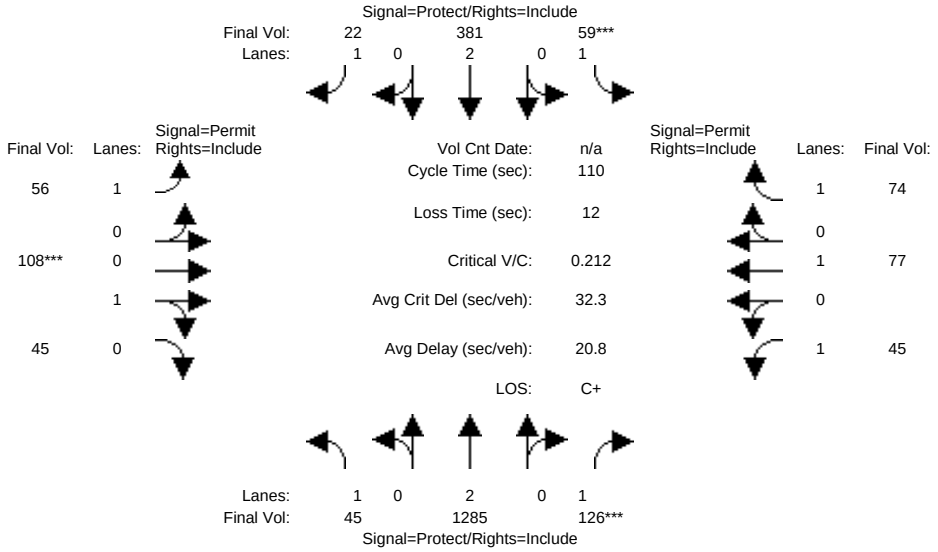
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj AM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	13	72	72	12	71	71	26	26	26	26	26	26
Y+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:	45	1285	126	60	381	22	56	108	45	45	77	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 Bse:	45	1285	126	60	381	22	56	108	45	45	77	73
Added Vol:	0	0	0	-1	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1285	126	59	381	22	56	108	45	45	77	74
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:	45	1285	126	59	381	22	56	108	45	45	77	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1285	126	59	381	22	56	108	45	45	77	74
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
FinalVolume:	45	1285	126	59	381	22	56	108	45	45	77	74
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	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1271	529	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.07	0.03	0.10	0.01	0.03	0.09	0.09	0.03	0.04	0.04
Crit Moves:			****	****				****				
Green Time:	11.7	64.9	64.9	10.8	64.0	64.0	23.4	23.4	23.4	23.4	23.4	23.4
Volume/Cap:	0.24	0.57	0.12	0.34	0.17	0.02	0.15	0.40	0.40	0.12	0.19	0.20
Uniform Del:	50.0	15.5	11.0	51.3	11.8	10.8	39.0	41.3	41.3	38.8	39.4	39.4
IncremntDel:	0.7	0.4	0.1	1.2	0.0	0.0	0.2	0.7	0.7	0.1	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.7	15.8	11.1	52.5	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
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:	50.7	15.8	11.1	52.5	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
LOS by Move:	D	B	B+	D-	B+	B+	D	D	D	D+	D	D
HCM2kAvgQ:	2	14	2	3	3	0	2	5	5	1	2	2

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

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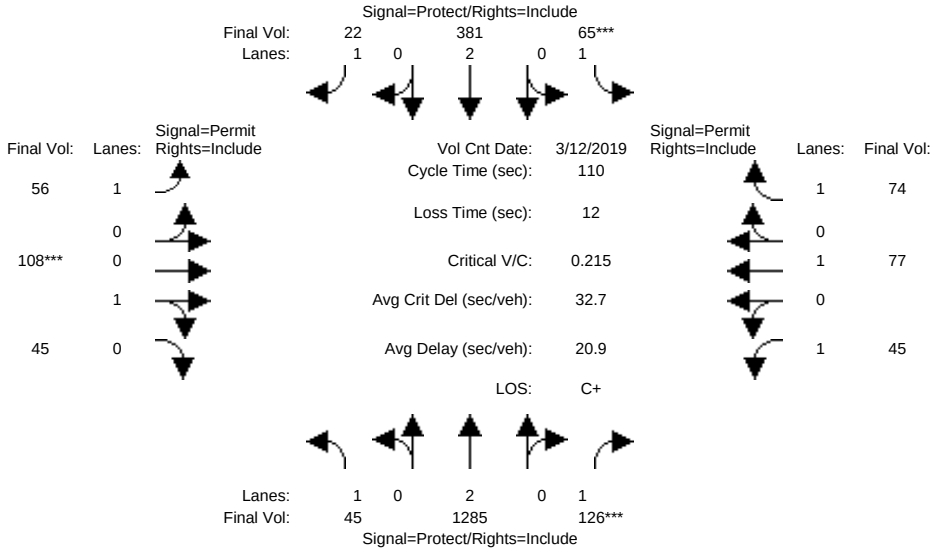
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project AM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	13	72	72	12	71	71	26	26	26	26	26	26
Y+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: >> Count Date: 12 Mar 2019 << 8:00 AM - 9:00 AM												
Base Vol:	45	1285	126	66	381	22	56	108	45	45	77	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 Bse:	45	1285	126	66	381	22	56	108	45	45	77	73
Added Vol:	0	0	0	-1	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1285	126	65	381	22	56	108	45	45	77	74
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:	45	1285	126	65	381	22	56	108	45	45	77	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1285	126	65	381	22	56	108	45	45	77	74
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
FinalVolume:	45	1285	126	65	381	22	56	108	45	45	77	74
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	0.92	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1271	529	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.34	0.07	0.04	0.10	0.01	0.03	0.09	0.09	0.03	0.04	0.04
Crit Moves:			****	****				****				
Green Time:	11.7	64.9	64.9	10.8	64.0	64.0	23.4	23.4	23.4	23.4	23.4	23.4
Volume/Cap:	0.24	0.57	0.12	0.38	0.17	0.02	0.15	0.40	0.40	0.12	0.19	0.20
Uniform Del:	50.0	15.5	11.0	51.5	11.8	10.8	39.0	41.3	41.3	38.8	39.4	39.4
IncremntDel:	0.7	0.4	0.1	1.4	0.0	0.0	0.2	0.7	0.7	0.1	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	50.7	15.8	11.1	52.9	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
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:	50.7	15.8	11.1	52.9	11.9	10.8	39.2	42.0	42.0	38.9	39.6	39.7
LOS by Move:	D	B	B+	D-	B+	B+	D	D	D	D+	D	D
HCM2kAvgQ:	2	14	2	3	3	0	2	5	5	1	2	2

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

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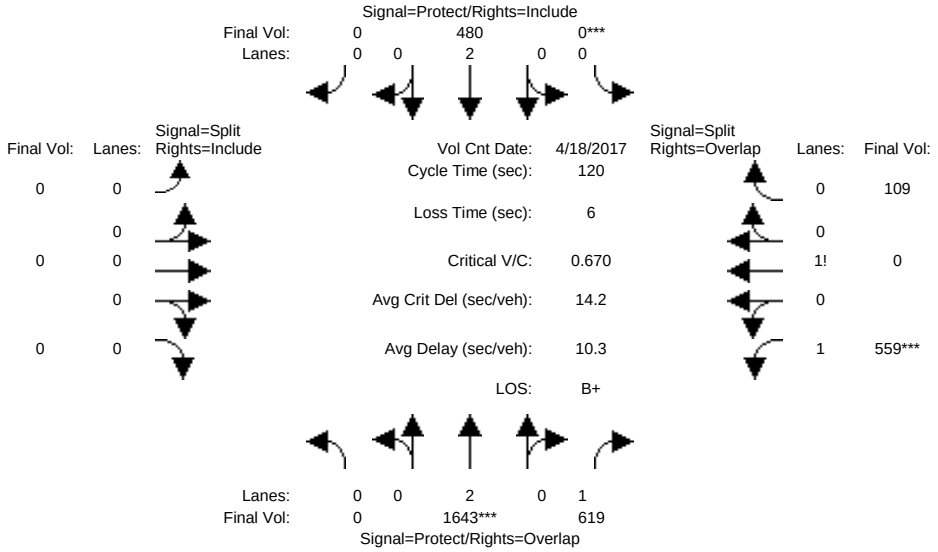
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	77	77	0	77	0	0	0	0	37	0	37
Y+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: >> Count Date: 18 Apr 2017 << 8:00 to 9:00 AM												
Base Vol:	0	1643	619	0	480	0	0	0	0	559	0	109
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:	0	1643	619	0	480	0	0	0	0	559	0	109
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	1643	619	0	480	0	0	0	0	559	0	109
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	1643	619	0	480	0	0	0	0	559	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1643	619	0	480	0	0	0	0	559	0	109
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
FinalVolume:	0	1643	619	0	480	0	0	0	0	559	0	109
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	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.74	0.00	0.26
Final Sat.:	0	3800	1750	0	3800	0	0	0	0	2738	0	454
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.00	0.24
Crit Moves:		****		****						****		
Green Time:	0.0	77.0	120.0	0.0	77.0	0.0	0.0	0.0	0.0	43.0	0.0	43.0
Volume/Cap:	0.00	0.67	0.35	0.00	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0.67
Uniform Del:	0.0	13.6	0.0	0.0	8.8	0.0	0.0	0.0	0.0	31.1	0.0	32.5
IncremntDel:	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
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:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C-
HCM2kAvgQ:	0	11	1	0	2	0	0	0	0	10	0	14

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

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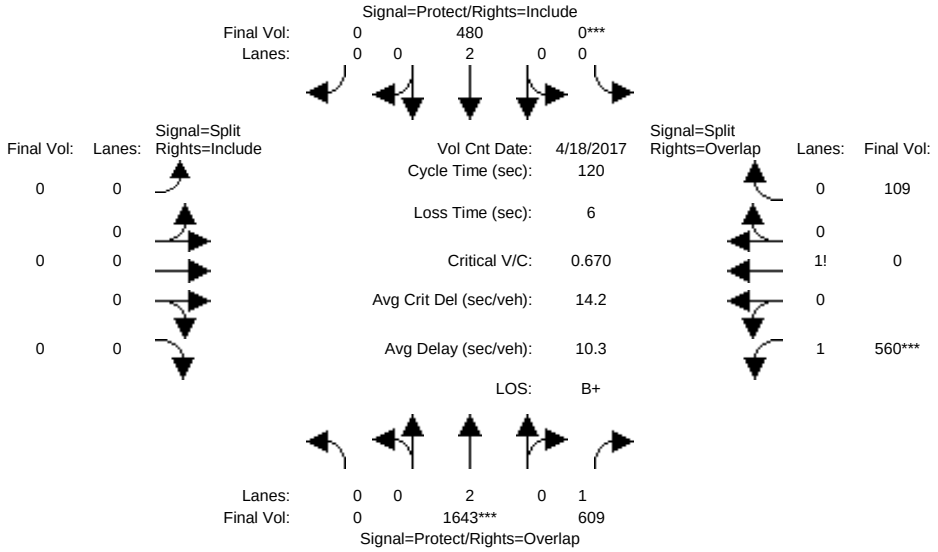
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	77	77	0	77	0	0	0	0	37	0	37
Y+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: >> Count Date: 18 Apr 2017 << 8:00 to 9:00 AM												
Base Vol:	0	1643	619	0	480	0	0	0	0	559	0	109
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:	0	1643	619	0	480	0	0	0	0	559	0	109
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	-10	0	0	0	0	0	0	1	0	0
Initial Fut:	0	1643	609	0	480	0	0	0	0	560	0	109
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	1643	609	0	480	0	0	0	0	560	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1643	609	0	480	0	0	0	0	560	0	109
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
FinalVolume:	0	1643	609	0	480	0	0	0	0	560	0	109
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	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.74	0.00	0.26
Final Sat.:	0	3800	1750	0	3800	0	0	0	0	2738	0	454
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.00	0.24
Crit Moves:		****		****						****		
Green Time:	0.0	77.0	120.0	0.0	77.0	0.0	0.0	0.0	0.0	43.0	0.0	43.0
Volume/Cap:	0.00	0.67	0.35	0.00	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0.67
Uniform Del:	0.0	13.6	0.0	0.0	8.8	0.0	0.0	0.0	0.0	31.0	0.0	32.5
IncremntDel:	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
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:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C-
HCM2kAvgQ:	0	11	1	0	2	0	0	0	0	10	0	14

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

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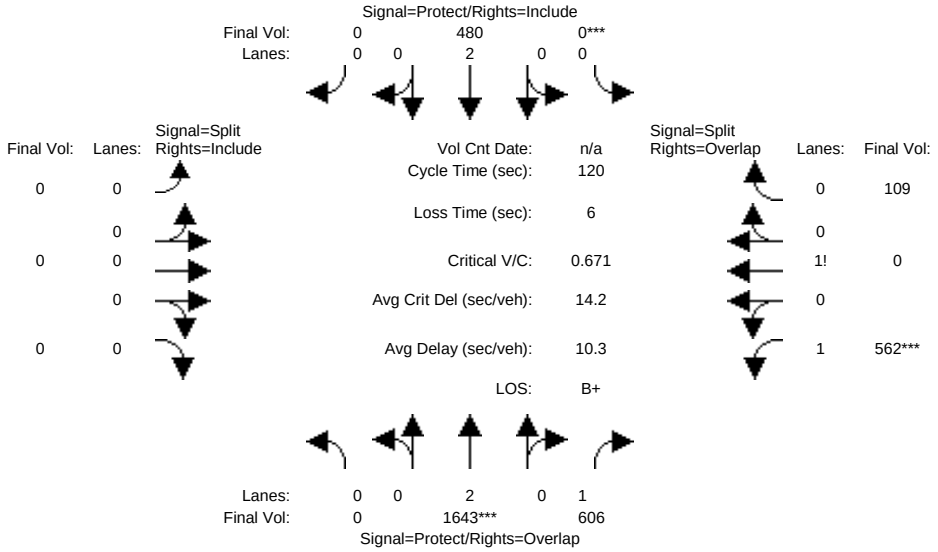
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj AM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	77	77	0	77	0	0	0	0	37	0	37
Y+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:	0	1643	609	0	480	0	0	0	0	560	0	109
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:	0	1643	609	0	480	0	0	0	0	560	0	109
Added Vol:	0	0	-3	0	0	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1643	606	0	480	0	0	0	0	562	0	109
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	1643	606	0	480	0	0	0	0	562	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1643	606	0	480	0	0	0	0	562	0	109
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
FinalVolume:	0	1643	606	0	480	0	0	0	0	562	0	109
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	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.74	0.00	0.26
Final Sat.:	0	3800	1750	0	3800	0	0	0	0	2739	0	452
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.21	0.00	0.24
Crit Moves:		****		****						****		
Green Time:	0.0	77.0	120.1	0.0	77.0	0.0	0.0	0.0	0.0	43.1	0.0	43.1
Volume/Cap:	0.00	0.67	0.35	0.00	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0.67
Uniform Del:	0.0	13.6	0.0	0.0	8.8	0.0	0.0	0.0	0.0	31.0	0.0	32.5
IncremntDel:	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
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:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C-
HCM2kAvgQ:	0	11	1	0	2	0	0	0	0	10	0	14

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

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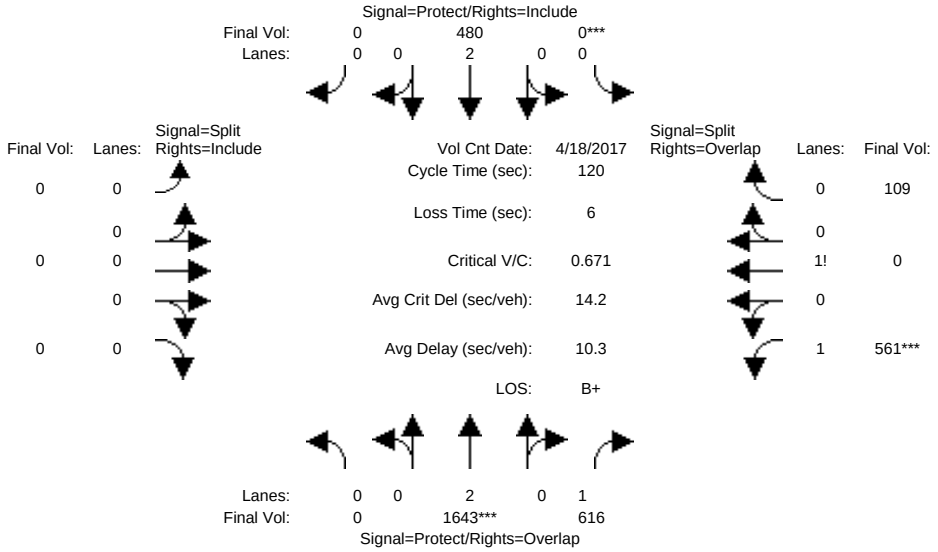
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project AM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	77	77	0	77	0	0	0	0	37	0	37
Y+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: >> Count Date: 18 Apr 2017 << 8:00 to 9:00 AM												
Base Vol:	0	1643	619	0	480	0	0	0	0	559	0	109
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:	0	1643	619	0	480	0	0	0	0	559	0	109
Added Vol:	0	0	-3	0	0	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1643	616	0	480	0	0	0	0	561	0	109
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	1643	616	0	480	0	0	0	0	561	0	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1643	616	0	480	0	0	0	0	561	0	109
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
FinalVolume:	0	1643	616	0	480	0	0	0	0	561	0	109
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	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.74	0.00	0.26
Final Sat.:	0	3800	1750	0	3800	0	0	0	0	2739	0	453
Capacity Analysis Module:												
Vol/Sat:	0.00	0.43	0.35	0.00	0.13	0.00	0.00	0.00	0.00	0.20	0.00	0.24
Crit Moves:		****		****						****		
Green Time:	0.0	77.0	120.0	0.0	77.0	0.0	0.0	0.0	0.0	43.0	0.0	43.0
Volume/Cap:	0.00	0.67	0.35	0.00	0.20	0.00	0.00	0.00	0.00	0.57	0.00	0.67
Uniform Del:	0.0	13.6	0.0	0.0	8.8	0.0	0.0	0.0	0.0	31.0	0.0	32.5
IncremntDel:	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
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:	0.0	7.0	0.1	0.0	4.1	0.0	0.0	0.0	0.0	31.7	0.0	34.3
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C-
HCM2kAvgQ:	0	11	1	0	2	0	0	0	0	10	0	14

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

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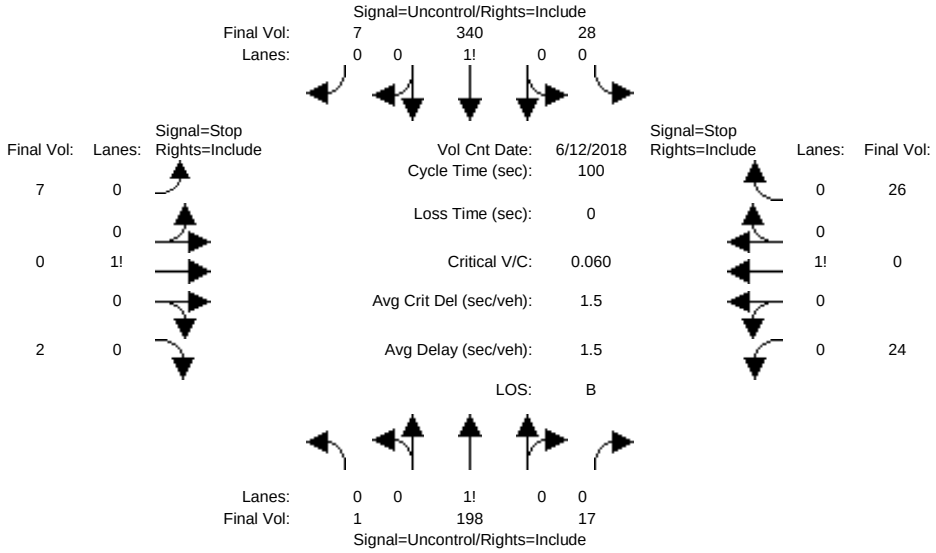
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Jun 2018 << 4:30 PM - 5:30 PM												
Base Vol:	1	198	17	28	340	7	7	0	2	24	0	26
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:	1	198	17	28	340	7	7	0	2	24	0	26
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:	1	198	17	28	340	7	7	0	2	24	0	26
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:	1	198	17	28	340	7	7	0	2	24	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	198	17	28	340	7	7	0	2	24	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	347	xxxx	xxxxx	215	xxxx	xxxxx	621	617	344	609	612	207
Potent Cap.:	1223	xxxx	xxxxx	1367	xxxx	xxxxx	403	408	704	410	411	839
Move Cap.:	1223	xxxx	xxxxx	1367	xxxx	xxxxx	384	400	704	402	402	839
Volume/Cap:	0.00	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.00	0.00	0.06	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	427	xxxxx	xxxx	551	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.6	xxxxx	xxxxx	12.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			13.6			12.2		
ApproachLOS:	*			*			B			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	1	198	17	28	340	7	7	0	2	24	0	26
ApproachDel:	xxxxxx			xxxxxx			13.6			12.2		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=650]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=50]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=650]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Initial Vol:	1	198	17	28	340	7	7	0	2	24	0	26

Major Street Volume: 591
Minor Approach Volume: 50
Minor Approach Volume Threshold: 360

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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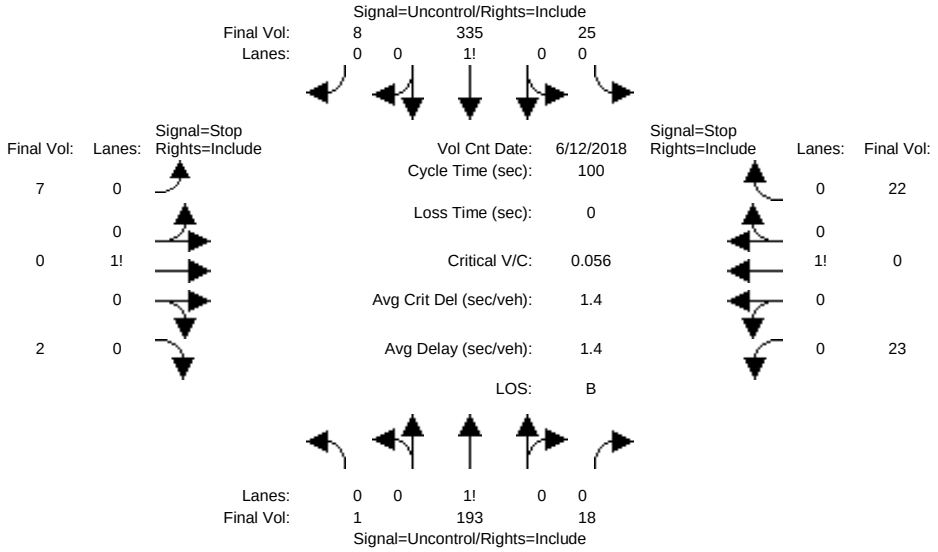
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Jun 2018 << 4:30 PM - 5:30 PM												
Base Vol:	1	198	17	28	340	7	7	0	2	24	0	26
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:	1	198	17	28	340	7	7	0	2	24	0	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	-5	1	-3	-5	1	0	0	0	-1	0	-4
Initial Fut:	1	193	18	25	335	8	7	0	2	23	0	22
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:	1	193	18	25	335	8	7	0	2	23	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	193	18	25	335	8	7	0	2	23	0	22
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	343	xxxx	xxxxx	211	xxxx	xxxxx	604	602	339	594	597	202
Potent Cap.:	1227	xxxx	xxxxx	1372	xxxx	xxxxx	413	416	708	420	419	844
Move Cap.:	1227	xxxx	xxxxx	1372	xxxx	xxxxx	397	408	708	412	411	844
Volume/Cap:	0.00	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.00	0.00	0.06	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	439	xxxxx	xxxx	550	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.4	xxxxx	xxxxx	12.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			13.4			12.1		
ApproachLOS:	*			*			B			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	193	18	25	335	8	7	0	2	23	0	22
ApproachDel:	xxxxxx			xxxxxx			13.4			12.1		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=634]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=45]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=634]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	193	18	25	335	8	7	0	2	23	0	22

Major Street Volume: 580
Minor Approach Volume: 45
Minor Approach Volume Threshold: 365

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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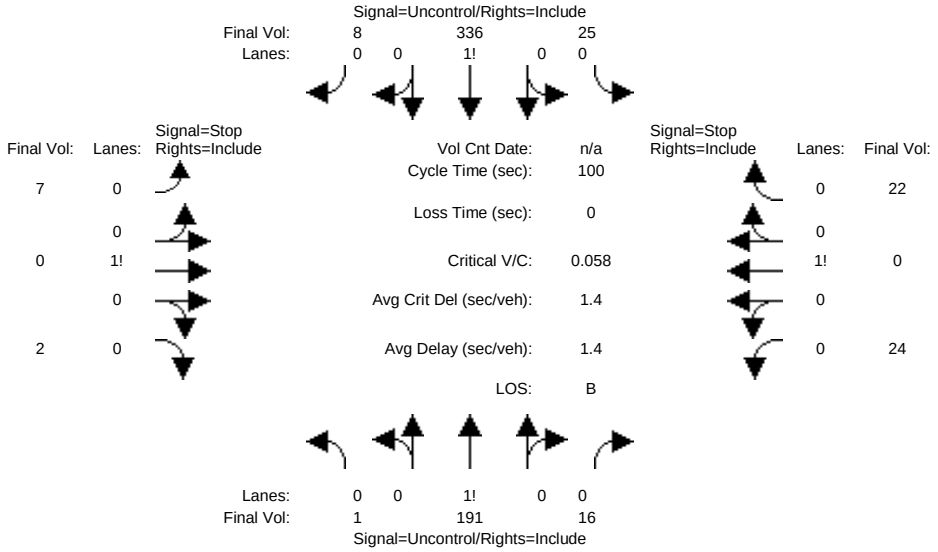
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Prj PM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
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:	1	193	18	25	335	8	7	0	2	23	0	22
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:	1	193	18	25	335	8	7	0	2	23	0	22
Added Vol:	0	-2	-2	0	1	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	191	16	25	336	8	7	0	2	24	0	22
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:	1	191	16	25	336	8	7	0	2	24	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	191	16	25	336	8	7	0	2	24	0	22
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	344	xxxx	xxxxx	207	xxxx	xxxxx	602	599	340	592	595	199
Potent Cap.:	1226	xxxx	xxxxx	1376	xxxx	xxxxx	414	418	707	421	420	847
Move Cap.:	1226	xxxx	xxxxx	1376	xxxx	xxxxx	398	410	707	414	412	847
Volume/Cap:	0.00	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.00	0.00	0.06	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	441	xxxxx	xxxx	548	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.3	xxxxx	xxxxx	12.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			13.3			12.2		
ApproachLOS:	*			*			B			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	191	16	25	336	8	7	0	2	24	0	22
ApproachDel:	xxxxxx			xxxxxx			13.3			12.2		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=632]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=46]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=632]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	191	16	25	336	8	7	0	2	24	0	22

Major Street Volume: 577
Minor Approach Volume: 46
Minor Approach Volume Threshold: 366

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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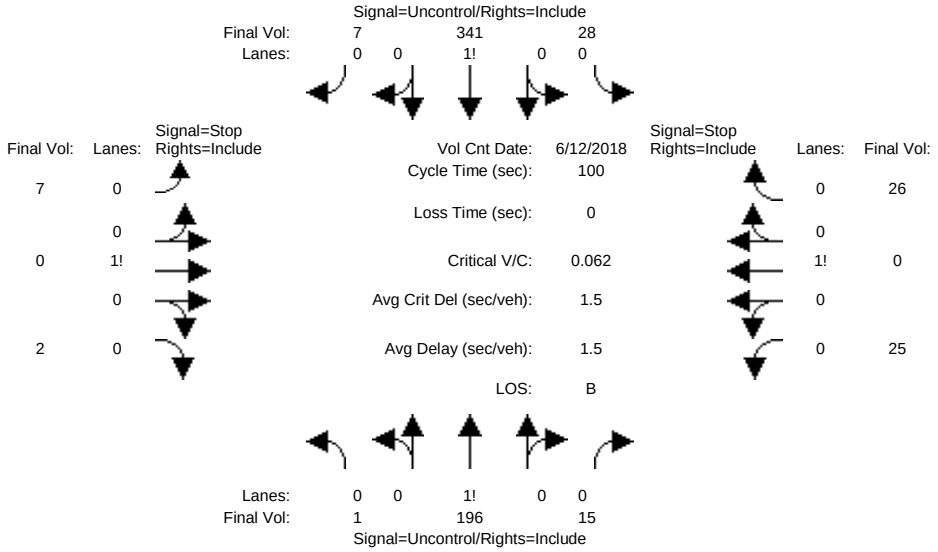
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing +Project PM

Intersection #1: First Street and Lyell Street



Street Name:	First Street						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Jun 2018 << 4:30 PM - 5:30 PM												
Base Vol:	1	198	17	28	340	7	7	0	2	24	0	26
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:	1	198	17	28	340	7	7	0	2	24	0	26
Added Vol:	0	-2	-2	0	1	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	196	15	28	341	7	7	0	2	25	0	26
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:	1	196	15	28	341	7	7	0	2	25	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	196	15	28	341	7	7	0	2	25	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	348	xxxx	xxxxx	211	xxxx	xxxxx	619	614	345	607	610	204
Potent Cap.:	1222	xxxx	xxxxx	1372	xxxx	xxxxx	404	410	703	411	412	842
Move Cap.:	1222	xxxx	xxxxx	1372	xxxx	xxxxx	385	401	703	403	403	842
Volume/Cap:	0.00	xxxx	xxxx	0.02	xxxx	xxxx	0.02	0.00	0.00	0.06	0.00	0.03
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	428	xxxxx	xxxx	549	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	13.6	xxxxx	xxxxx	12.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			13.6			12.2		
ApproachLOS:	*			*			B			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	196	15	28	341	7	7	0	2	25	0	26
ApproachDel:	xxxxxx			xxxxxx			13.6			12.2		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=9]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=648]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.2]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=51]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=648]
FAIL - Total volume less than 650 for intersection
with less than four approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #1 First Street and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Initial Vol:	1	196	15	28	341	7	7	0	2	25	0	26

Major Street Volume: 588
Minor Approach Volume: 51
Minor Approach Volume Threshold: 361

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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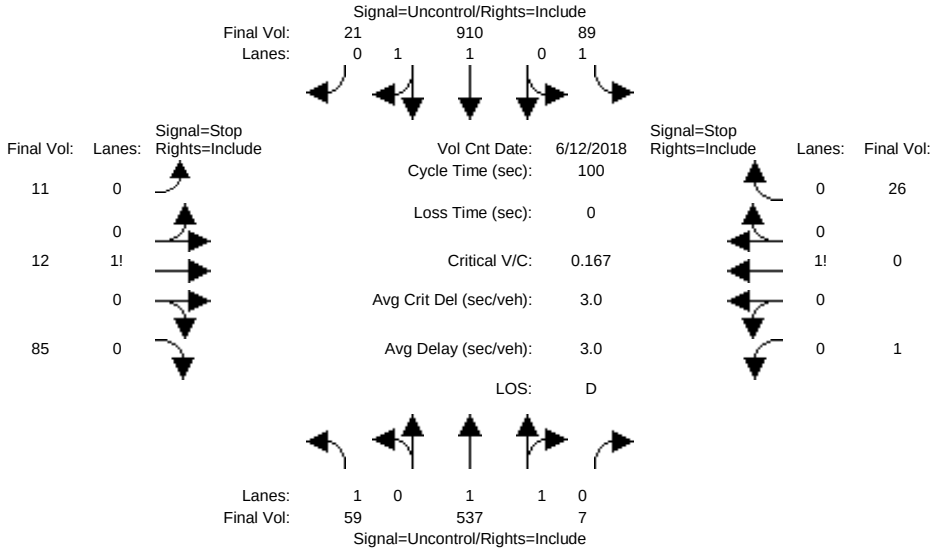
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing PM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	59	537	7	89	910	21	11	12	85	1	0	26
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:	59	537	7	89	910	21	11	12	85	1	0	26
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:	59	537	7	89	910	21	11	12	85	1	0	26
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:	59	537	7	89	910	21	11	12	85	1	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	537	7	89	910	21	11	12	85	1	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	931	xxxx	xxxxx	544	xxxx	xxxxx	1485	1761	466	1298	1768	272
Potent Cap.:	743	xxxx	xxxxx	1035	xxxx	xxxxx	88	85	549	121	85	732
Move Cap.:	743	xxxx	xxxxx	1035	xxxx	xxxxx	75	72	549	79	71	732
Volume/Cap:	0.08	xxxx	xxxx	0.09	xxxx	xxxx	0.15	0.17	0.15	0.01	0.00	0.04
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.3	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	230	xxxxx	xxxx	560	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.3	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	33.7	xxxxx	xxxxx	11.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			33.7			11.8		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	21	11	12	85	1	0	26
ApproachDel:	xxxxxx			xxxxxx			33.7			11.8		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=1.0]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=108]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1758]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1758]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	21	11	12	85	1	0	26

Major Street Volume: 1623
Minor Approach Volume: 108
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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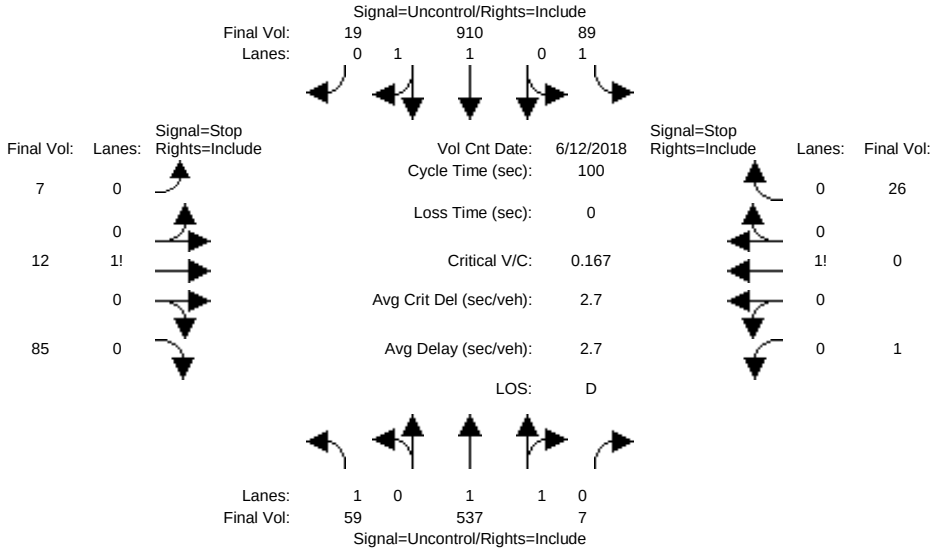
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background PM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	59	537	7	89	910	21	11	12	85	1	0	26
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:	59	537	7	89	910	21	11	12	85	1	0	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	-2	-4	0	0	0	0	0
Initial Fut:	59	537	7	89	910	19	7	12	85	1	0	26
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:	59	537	7	89	910	19	7	12	85	1	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	537	7	89	910	19	7	12	85	1	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	929	xxxx	xxxxx	544	xxxx	xxxxx	1484	1760	465	1298	1766	272
Potent Cap.:	744	xxxx	xxxxx	1035	xxxx	xxxxx	88	86	550	121	85	732
Move Cap.:	744	xxxx	xxxxx	1035	xxxx	xxxxx	75	72	550	79	71	732
Volume/Cap:	0.08	xxxx	xxxx	0.09	xxxx	xxxx	0.09	0.17	0.15	0.01	0.00	0.04
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.3	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	251	xxxxx	xxxx	560	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.9	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	29.2	xxxxx	xxxxx	11.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			29.2			11.8		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	19	7	12	85	1	0	26
ApproachDel:	xxxxxx			xxxxxx			29.2			11.8		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=104]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1752]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1752]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	19	7	12	85	1	0	26

Major Street Volume: 1621
Minor Approach Volume: 104
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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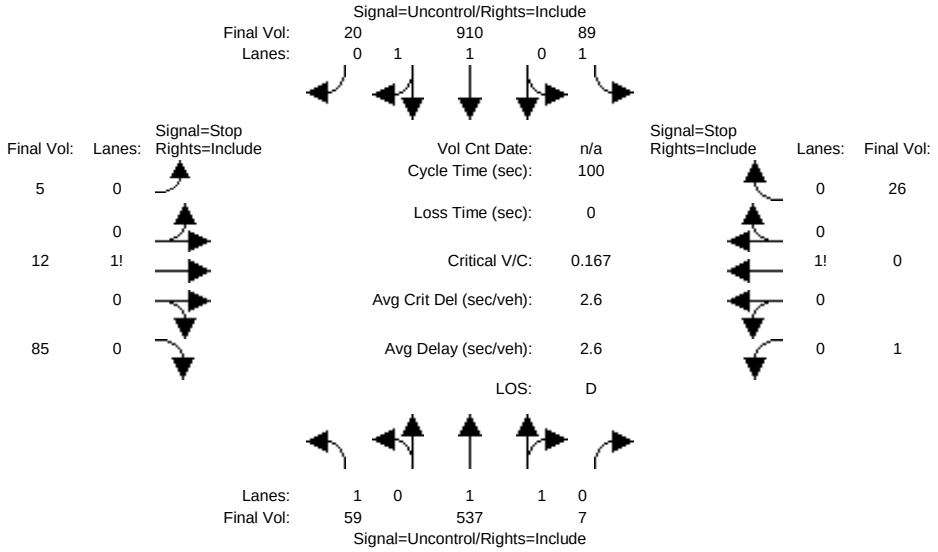
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background + Prj PM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
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:	59	537	7	89	910	19	7	12	85	1	0	26
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:	59	537	7	89	910	19	7	12	85	1	0	26
Added Vol:	0	0	0	0	0	1	-2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	537	7	89	910	20	5	12	85	1	0	26
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:	59	537	7	89	910	20	5	12	85	1	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	537	7	89	910	20	5	12	85	1	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	930	xxxx	xxxxx	544	xxxx	xxxxx	1485	1760	465	1298	1767	272
Potent Cap.:	744	xxxx	xxxxx	1035	xxxx	xxxxx	88	85	550	121	85	732
Move Cap.:	744	xxxx	xxxxx	1035	xxxx	xxxxx	75	72	550	79	71	732
Volume/Cap:	0.08	xxxx	xxxx	0.09	xxxx	xxxx	0.07	0.17	0.15	0.01	0.00	0.04
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.3	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	263	xxxxx	xxxx	560	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.8	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	27.2	xxxxx	xxxxx	11.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			27.2			11.8		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	20	5	12	85	1	0	26
ApproachDel:	xxxxxx			xxxxxx			27.2			11.8		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.8]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=102]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1751]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1751]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
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Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	20	5	12	85	1	0	26

Major Street Volume: 1622
Minor Approach Volume: 102
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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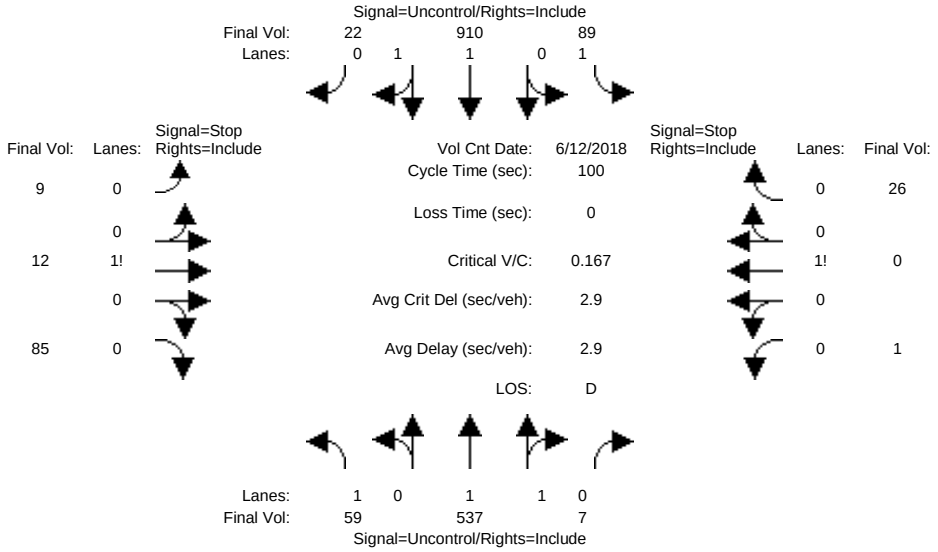
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing +Project PM

Intersection #2: San Antonio Road and Lyell Street



Street Name:	San Antonio Road						Lyell Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	59	537	7	89	910	21	11	12	85	1	0	26
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:	59	537	7	89	910	21	11	12	85	1	0	26
Added Vol:	0	0	0	0	0	1	-2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	537	7	89	910	22	9	12	85	1	0	26
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:	59	537	7	89	910	22	9	12	85	1	0	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	59	537	7	89	910	22	9	12	85	1	0	26
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	932	xxxx	xxxxx	544	xxxx	xxxxx	1486	1761	466	1298	1769	272
Potent Cap.:	743	xxxx	xxxxx	1035	xxxx	xxxxx	88	85	549	121	84	732
Move Cap.:	743	xxxx	xxxxx	1035	xxxx	xxxxx	75	72	549	79	71	732
Volume/Cap:	0.08	xxxx	xxxx	0.09	xxxx	xxxx	0.12	0.17	0.15	0.01	0.00	0.04
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.3	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	239	xxxxx	xxxx	560	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.1	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	31.5	xxxxx	xxxxx	11.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			31.5			11.8		
ApproachLOS:	*			*			D			B		

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

Peak Hour Delay Signal Warrant Report

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	22	9	12	85	1	0	26
ApproachDel:	xxxxxx			xxxxxx			31.5			11.8		

Approach[eastbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.9]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=106]
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1757]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

Approach[westbound][lanes=1][control=Stop Sign]
Signal Warrant Rule #1: [vehicle-hours=0.1]
FAIL - Vehicle-hours less than 4 for one lane approach.
Signal Warrant Rule #2: [approach volume=27]
FAIL - Approach volume less than 100 for one lane approach.
Signal Warrant Rule #3: [approach count=4][total volume=1757]
SUCCEED - Total volume greater than or equal to 800 for intersection with four or more approaches.

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

****

Intersection #2 San Antonio Road and Lyell Street

****

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	1 0 1	1 0		1 0 1	1 0		0 0 1!	0 0		0 0 1!	0 0	
Initial Vol:	59	537	7	89	910	22	9	12	85	1	0	26

Major Street Volume: 1624
Minor Approach Volume: 106
Minor Approach Volume Threshold: 118

SIGNAL WARRANT DISCLAIMER
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

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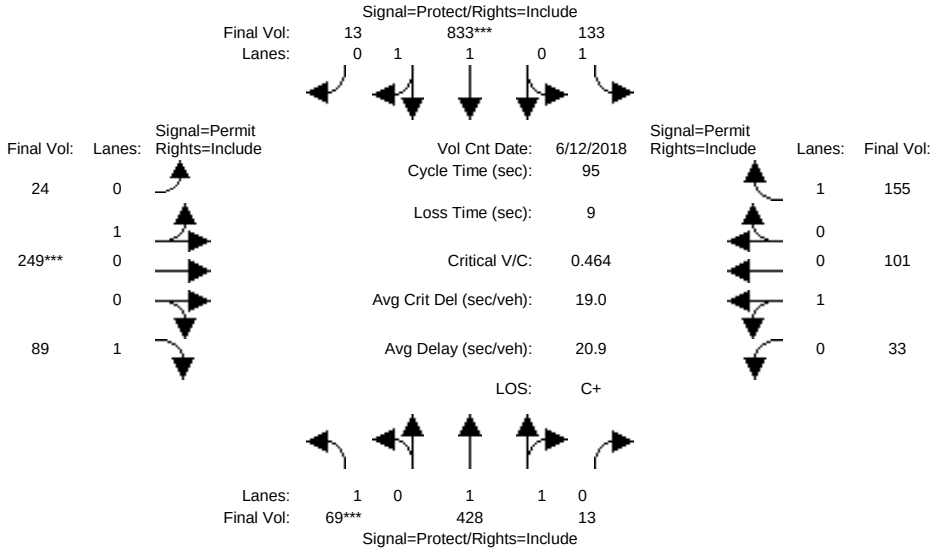
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
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	41	41	16	50	50	29	29	29	29	29	29
Y+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: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	69	428	13	133	833	13	24	249	89	33	101	155
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:	69	428	13	133	833	13	24	249	89	33	101	155
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:	69	428	13	133	833	13	24	249	89	33	101	155
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:	69	428	13	133	833	13	24	249	89	33	101	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	428	13	133	833	13	24	249	89	33	101	155
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
FinalVolume:	69	428	13	133	833	13	24	249	89	33	101	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.97	0.03	0.09	0.91	1.00	0.25	0.75	1.00
Final Sat.:	1750	3591	109	1750	3643	57	158	1642	1750	443	1357	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.12	0.08	0.23	0.23	0.15	0.15	0.05	0.07	0.07	0.09
Crit Moves:	****				****			****				
Green Time:	7.0	41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.54	0.28	0.28	0.45	0.43	0.43	0.50	0.50	0.17	0.24	0.24	0.29
Uniform Del:	42.4	17.4	17.4	35.5	13.8	13.8	27.0	27.0	24.2	24.8	24.8	25.2
IncremntDel:	4.3	0.1	0.1	1.1	0.2	0.2	0.7	0.7	0.1	0.2	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.8	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.3	25.0	25.0	25.5
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:	46.8	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.3	25.0	25.0	25.5
LOS by Move:	D	B	B	D+	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	4	4	4	8	8	7	7	2	3	3	4

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

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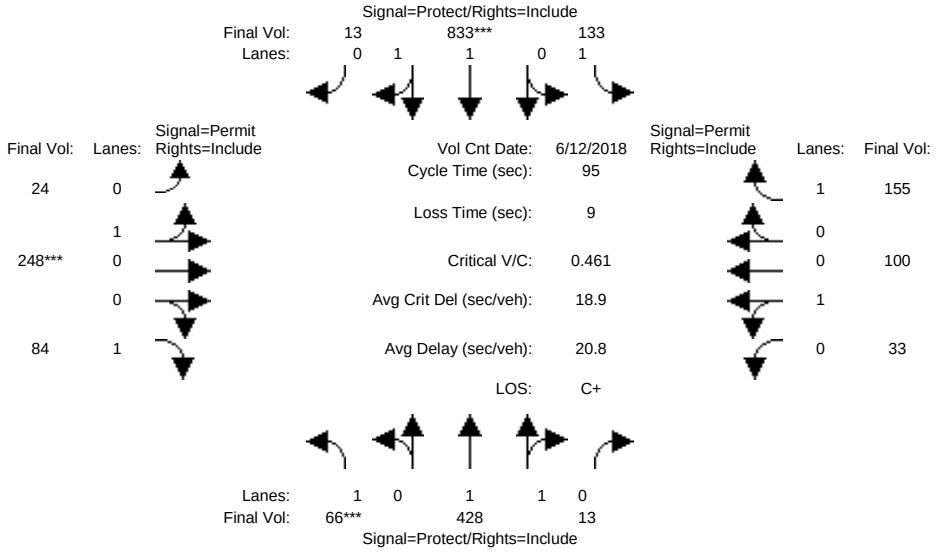
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
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	41	41	16	50	50	29	29	29	29	29	29
Y+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: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	69	428	13	133	833	13	24	249	89	33	101	155
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:	69	428	13	133	833	13	24	249	89	33	101	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	-3	0	0	0	0	0	0	-1	-5	0	-1	0
Initial Fut:	66	428	13	133	833	13	24	248	84	33	100	155
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:	66	428	13	133	833	13	24	248	84	33	100	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	428	13	133	833	13	24	248	84	33	100	155
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
FinalVolume:	66	428	13	133	833	13	24	248	84	33	100	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.97	0.03	0.09	0.91	1.00	0.25	0.75	1.00
Final Sat.:	1750	3591	109	1750	3643	57	159	1641	1750	447	1353	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.12	0.08	0.23	0.23	0.15	0.15	0.05	0.07	0.07	0.09
Crit Moves:	****				****			****				
Green Time:	7.0	41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.51	0.28	0.28	0.45	0.43	0.43	0.50	0.50	0.16	0.24	0.24	0.29
Uniform Del:	42.4	17.4	17.4	35.5	13.8	13.8	27.0	27.0	24.1	24.8	24.8	25.2
IncremntDel:	3.4	0.1	0.1	1.1	0.2	0.2	0.7	0.7	0.1	0.2	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.8	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.2	25.0	25.0	25.5
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:	45.8	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.2	25.0	25.0	25.5
LOS by Move:	D	B	B	D+	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	4	4	4	8	8	7	7	2	3	3	4

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

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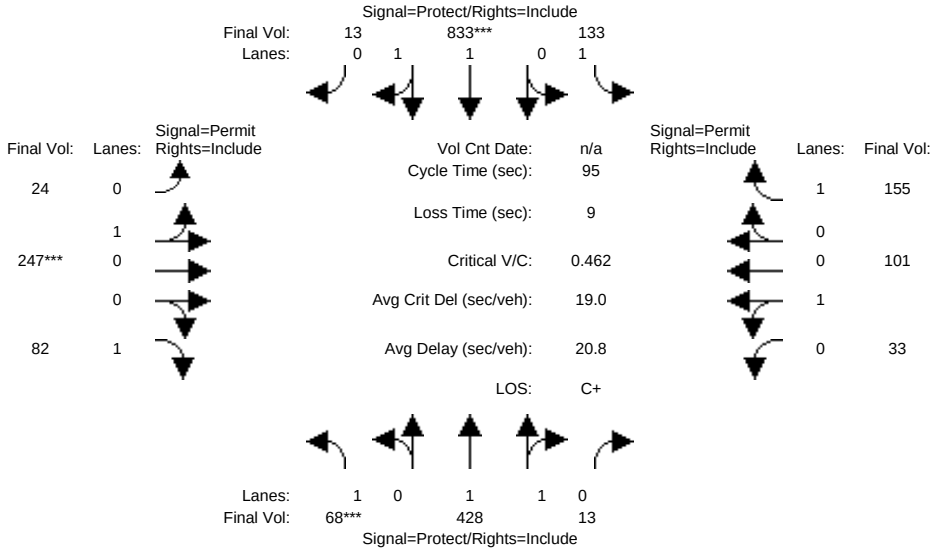
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj PM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
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	41	41	16	50	50	29	29	29	29	29	29
Y+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:	66	428	13	133	833	13	24	248	84	33	100	155
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:	66	428	13	133	833	13	24	248	84	33	100	155
Added Vol:	2	0	0	0	0	0	0	-1	-2	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	428	13	133	833	13	24	247	82	33	101	155
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	428	13	133	833	13	24	247	82	33	101	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	428	13	133	833	13	24	247	82	33	101	155
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
FinalVolume:	68	428	13	133	833	13	24	247	82	33	101	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.97	0.03	0.09	0.91	1.00	0.25	0.75	1.00
Final Sat.:	1750	3591	109	1750	3643	57	159	1641	1750	443	1357	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.12	0.08	0.23	0.23	0.15	0.15	0.05	0.07	0.07	0.09
Crit Moves:	****				****			****				
Green Time:	7.0	41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.53	0.28	0.28	0.45	0.43	0.43	0.49	0.49	0.15	0.24	0.24	0.29
Uniform Del:	42.4	17.4	17.4	35.5	13.8	13.8	27.0	27.0	24.1	24.8	24.8	25.2
IncremntDel:	4.0	0.1	0.1	1.1	0.2	0.2	0.7	0.7	0.1	0.2	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	46.4	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.2	25.0	25.0	25.5
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:	46.4	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.2	25.0	25.0	25.5
LOS by Move:	D	B	B	D+	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	4	4	4	8	8	7	7	2	3	3	4

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

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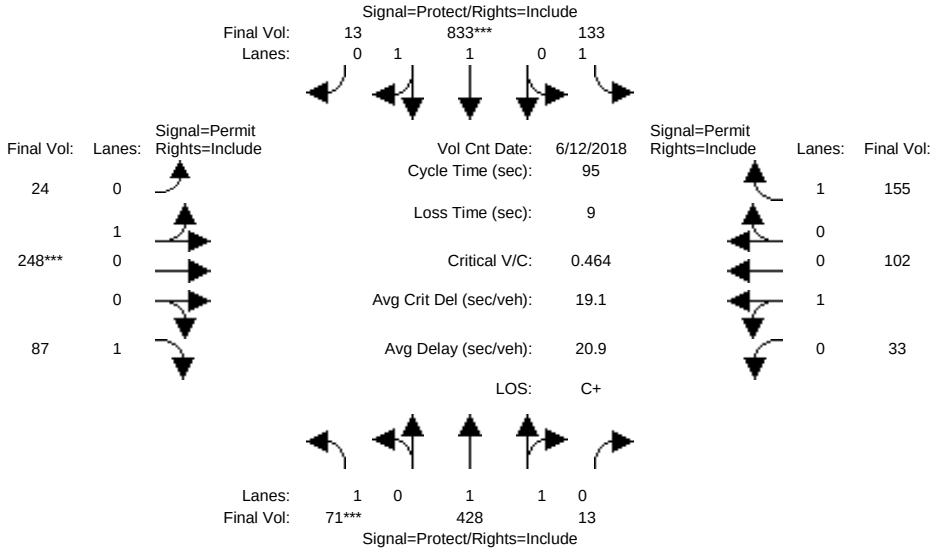
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project PM

Intersection #3: San Antonio Road and First Street/Cuesta Drive



Street Name:	San Antonio Road						First Street/Cuesta Drive					
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	41	41	16	50	50	29	29	29	29	29	29
Y+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: >> Count Date: 12 Jun 2018 << 5:00 PM - 6:00 PM												
Base Vol:	69	428	13	133	833	13	24	249	89	33	101	155
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:	69	428	13	133	833	13	24	249	89	33	101	155
Added Vol:	2	0	0	0	0	0	0	-1	-2	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	71	428	13	133	833	13	24	248	87	33	102	155
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	428	13	133	833	13	24	248	87	33	102	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	428	13	133	833	13	24	248	87	33	102	155
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
FinalVolume:	71	428	13	133	833	13	24	248	87	33	102	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.97	0.03	0.09	0.91	1.00	0.24	0.76	1.00
Final Sat.:	1750	3591	109	1750	3643	57	159	1641	1750	440	1360	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.12	0.08	0.23	0.23	0.15	0.15	0.05	0.08	0.08	0.09
Crit Moves:	****				****			****				
Green Time:	7.0	41.0	41.0	16.0	50.0	50.0	29.0	29.0	29.0	29.0	29.0	29.0
Volume/Cap:	0.55	0.28	0.28	0.45	0.43	0.43	0.50	0.50	0.16	0.25	0.25	0.29
Uniform Del:	42.5	17.4	17.4	35.5	13.8	13.8	27.0	27.0	24.1	24.8	24.8	25.2
IncremntDel:	5.0	0.1	0.1	1.1	0.2	0.2	0.7	0.7	0.1	0.2	0.2	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	47.5	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.3	25.0	25.0	25.5
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:	47.5	17.5	17.5	36.6	14.0	14.0	27.7	27.7	24.3	25.0	25.0	25.5
LOS by Move:	D	B	B	D+	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	4	4	4	8	8	7	7	2	3	3	4

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

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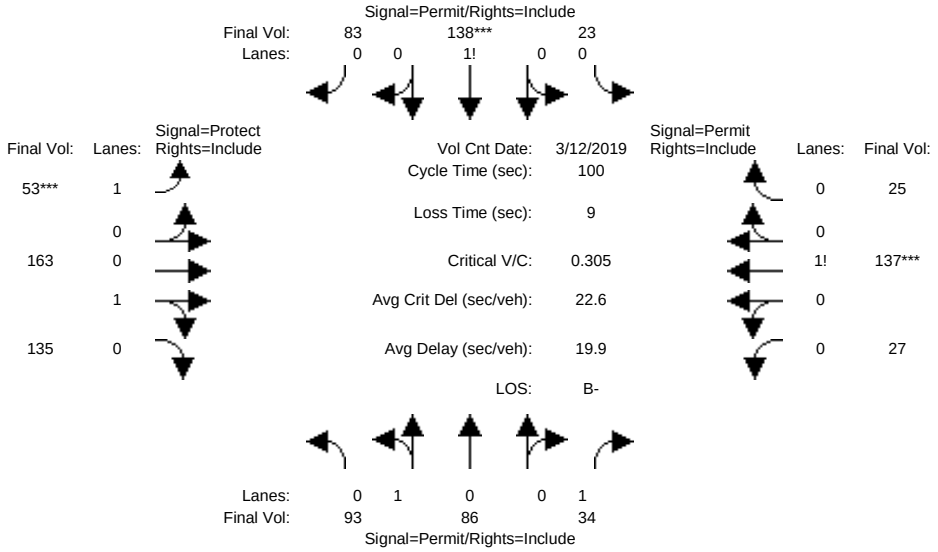
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 5:00 PM - 6:00 PM												
Base Vol:	93	86	34	23	138	83	53	163	135	27	137	25
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:	93	86	34	23	138	83	53	163	135	27	137	25
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:	93	86	34	23	138	83	53	163	135	27	137	25
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:	93	86	34	23	138	83	53	163	135	27	137	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	86	34	23	138	83	53	163	135	27	137	25
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
FinalVolume:	93	86	34	23	138	83	53	163	135	27	137	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.52	0.48	1.00	0.09	0.57	0.34	1.00	0.55	0.45	0.14	0.73	0.13
Final Sat.:	935	865	1750	165	990	595	1750	985	815	250	1269	231
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.02	0.14	0.14	0.14	0.03	0.17	0.17	0.11	0.11	0.11
Crit Moves:					****		****				****	
Green Time:	45.7	45.7	45.7	45.7	45.7	45.7	9.9	45.3	45.3	35.4	35.4	35.4
Volume/Cap:	0.22	0.22	0.04	0.31	0.31	0.31	0.31	0.37	0.37	0.31	0.31	0.31
Uniform Del:	16.4	16.4	15.0	17.1	17.1	17.1	41.8	17.9	17.9	23.4	23.4	23.4
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	1.0	0.3	0.3	0.3	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	16.5	16.5	15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
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:	16.5	16.5	15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
LOS by Move:	B	B	B	B	B	B	D	B-	B-	C	C	C
HCM2kAvgQ:	3	3	1	5	5	5	2	6	6	5	5	5

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

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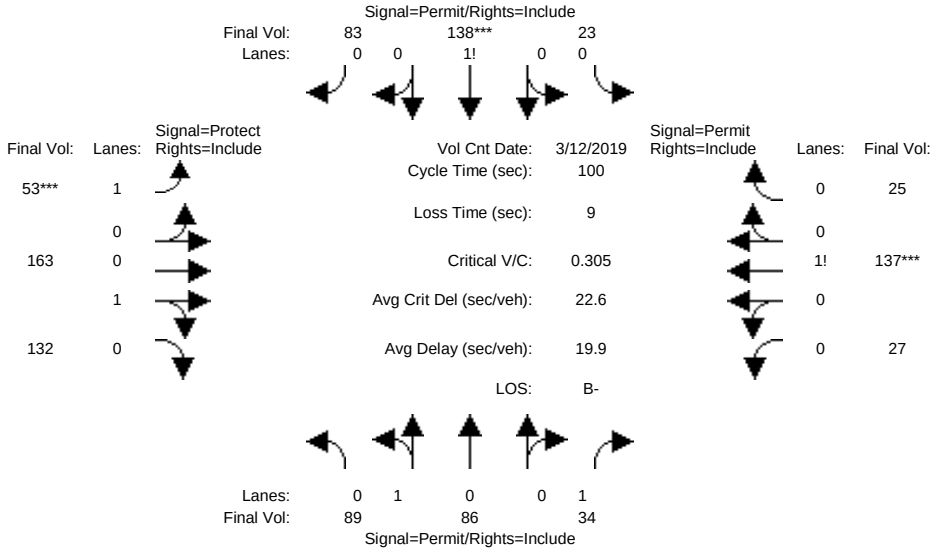
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 5:00 PM - 6:00 PM												
Base Vol:	93	86	34	23	138	83	53	163	135	27	137	25
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:	93	86	34	23	138	83	53	163	135	27	137	25
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	-4	0	0	0	0	0	0	0	-3	0	0	0
Initial Fut:	89	86	34	23	138	83	53	163	132	27	137	25
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:	89	86	34	23	138	83	53	163	132	27	137	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	86	34	23	138	83	53	163	132	27	137	25
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
FinalVolume:	89	86	34	23	138	83	53	163	132	27	137	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.51	0.49	1.00	0.09	0.57	0.34	1.00	0.55	0.45	0.14	0.73	0.13
Final Sat.:	915	885	1750	165	990	595	1750	995	805	250	1269	231
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.02	0.14	0.14	0.14	0.03	0.16	0.16	0.11	0.11	0.11
Crit Moves:					****		****				****	
Green Time:	45.7	45.7	45.7	45.7	45.7	45.7	9.9	45.3	45.3	35.4	35.4	35.4
Volume/Cap:	0.21	0.21	0.04	0.31	0.31	0.31	0.31	0.36	0.36	0.31	0.31	0.31
Uniform Del:	16.3	16.3	15.0	17.1	17.1	17.1	41.8	17.9	17.9	23.4	23.4	23.4
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	1.0	0.3	0.3	0.3	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	16.5	16.5	15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
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:	16.5	16.5	15.1	17.4	17.4	17.4	42.8	18.2	18.2	23.7	23.7	23.7
LOS by Move:	B	B	B	B	B	B	D	B-	B-	C	C	C
HCM2kAvgQ:	3	3	1	5	5	5	2	6	6	5	5	5

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

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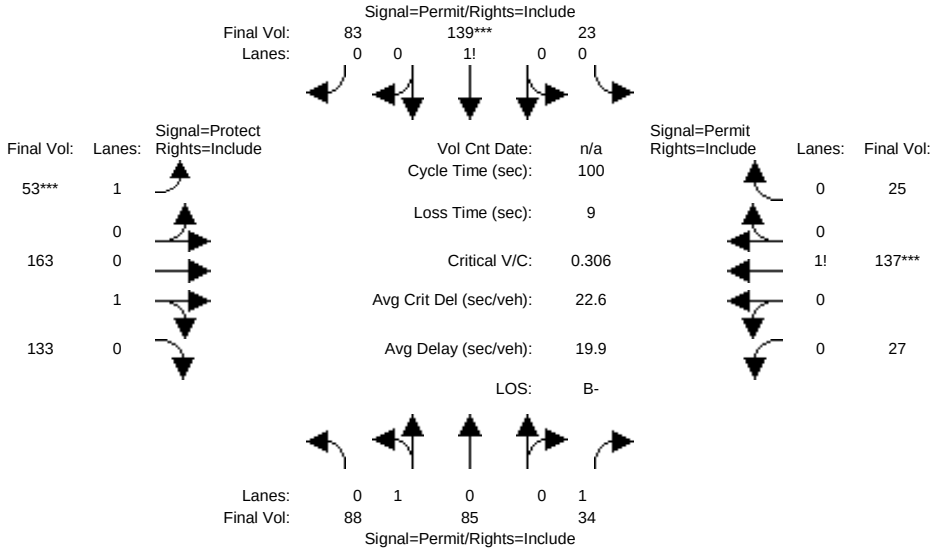
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj PM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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:	89	86	34	23	138	83	53	163	132	27	137	25
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:	89	86	34	23	138	83	53	163	132	27	137	25
Added Vol:	-1	-1	0	0	1	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	85	34	23	139	83	53	163	133	27	137	25
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:	88	85	34	23	139	83	53	163	133	27	137	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	85	34	23	139	83	53	163	133	27	137	25
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
FinalVolume:	88	85	34	23	139	83	53	163	133	27	137	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.51	0.49	1.00	0.09	0.57	0.34	1.00	0.55	0.45	0.14	0.73	0.13
Final Sat.:	916	884	1750	164	993	593	1750	991	809	250	1269	231
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.02	0.14	0.14	0.14	0.03	0.16	0.16	0.11	0.11	0.11
Crit Moves:					****		****				****	
Green Time:	45.8	45.8	45.8	45.8	45.8	45.8	9.9	45.2	45.2	35.3	35.3	35.3
Volume/Cap:	0.21	0.21	0.04	0.31	0.31	0.31	0.31	0.36	0.36	0.31	0.31	0.31
Uniform Del:	16.3	16.3	15.0	17.1	17.1	17.1	41.9	18.0	18.0	23.5	23.5	23.5
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	1.0	0.3	0.3	0.3	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	16.4	16.4	15.0	17.3	17.3	17.3	42.9	18.2	18.2	23.7	23.7	23.7
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:	16.4	16.4	15.0	17.3	17.3	17.3	42.9	18.2	18.2	23.7	23.7	23.7
LOS by Move:	B	B	B	B	B	B	D	B-	B-	C	C	C
HCM2kAvgQ:	3	3	1	5	5	5	2	6	6	5	5	5

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

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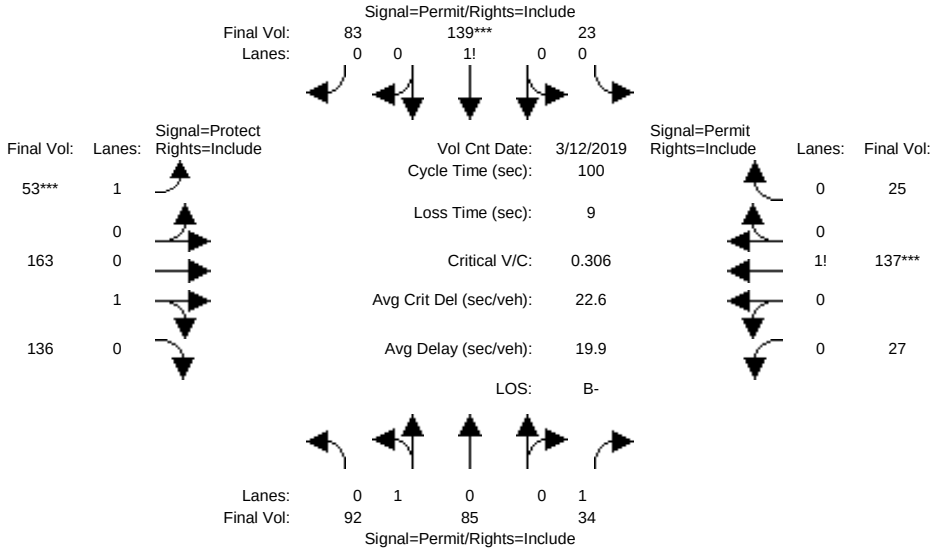
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project PM

Intersection #5: 1st St & Main Ave



Street Name:	1st St						Main 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:	10	10	10	10	10	10	7	10	10	10	10	10
Y+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: >> Count Date: 12 Mar 2019 << 5:00 PM - 6:00 PM												
Base Vol:	93	86	34	23	138	83	53	163	135	27	137	25
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:	93	86	34	23	138	83	53	163	135	27	137	25
Added Vol:	-1	-1	0	0	1	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	85	34	23	139	83	53	163	136	27	137	25
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:	92	85	34	23	139	83	53	163	136	27	137	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	85	34	23	139	83	53	163	136	27	137	25
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
FinalVolume:	92	85	34	23	139	83	53	163	136	27	137	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.92
Lanes:	0.52	0.48	1.00	0.09	0.57	0.34	1.00	0.55	0.45	0.14	0.73	0.13
Final Sat.:	936	864	1750	164	993	593	1750	981	819	250	1269	231
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.02	0.14	0.14	0.14	0.03	0.17	0.17	0.11	0.11	0.11
Crit Moves:					****		****				****	
Green Time:	45.8	45.8	45.8	45.8	45.8	45.8	9.9	45.2	45.2	35.3	35.3	35.3
Volume/Cap:	0.21	0.21	0.04	0.31	0.31	0.31	0.31	0.37	0.37	0.31	0.31	0.31
Uniform Del:	16.3	16.3	15.0	17.1	17.1	17.1	41.9	18.0	18.0	23.5	23.5	23.5
IncremntDel:	0.1	0.1	0.0	0.2	0.2	0.2	1.0	0.3	0.3	0.3	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	16.4	16.4	15.0	17.3	17.3	17.3	42.9	18.3	18.3	23.7	23.7	23.7
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:	16.4	16.4	15.0	17.3	17.3	17.3	42.9	18.3	18.3	23.7	23.7	23.7
LOS by Move:	B	B	B	B	B	B	D	B-	B-	C	C	C
HCM2kAvgQ:	3	3	1	5	5	5	2	6	6	5	5	5

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

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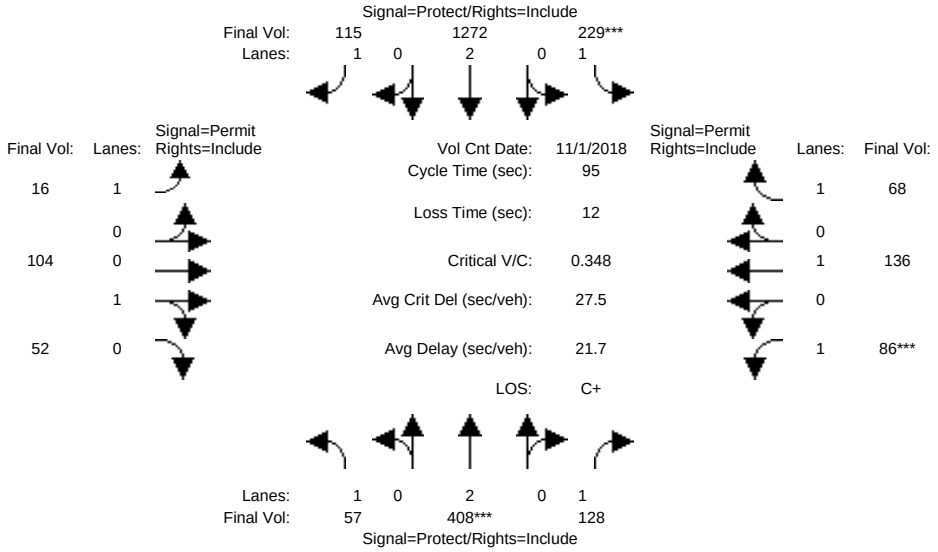
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	9	36	36	18	45	45	30	25	25	30	25	25
Y+R:	4.7	5.8	5.8	4.6	5.8	5.8	4.0	5.1	5.1	4.0	5.1	5.1
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	57	408	128	229	1272	115	16	104	52	86	136	68
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:	57	408	128	229	1272	115	16	104	52	86	136	68
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:	57	408	128	229	1272	115	16	104	52	86	136	68
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	408	128	229	1272	115	16	104	52	86	136	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	408	128	229	1272	115	16	104	52	86	136	68
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
FinalVolume:	57	408	128	229	1272	115	16	104	52	86	136	68
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	0.58	0.95	0.95	0.68	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1100	1200	600	1300	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.07	0.13	0.33	0.07	0.01	0.09	0.09	0.07	0.07	0.04
Crit Moves:		****		****						****		
Green Time:	8.9	35.6	35.6	17.8	44.5	44.5	29.7	29.7	29.7	29.7	29.7	29.7
Volume/Cap:	0.35	0.29	0.20	0.70	0.71	0.14	0.05	0.28	0.28	0.21	0.23	0.12
Uniform Del:	40.7	21.0	20.2	36.5	20.4	14.5	23.0	24.8	24.8	24.3	24.4	23.6
IncremntDel:	1.3	0.1	0.1	6.5	1.4	0.1	0.1	0.3	0.3	0.3	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.92	0.92	1.00	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.0	19.4	18.8	42.9	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.7
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:	42.0	19.4	18.8	42.9	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.7
LOS by Move:	D	B-	B-	D	B	B+	C	C	C	C	C	C
HCM2kAvgQ:	2	3	2	8	14	2	0	4	4	2	3	1

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

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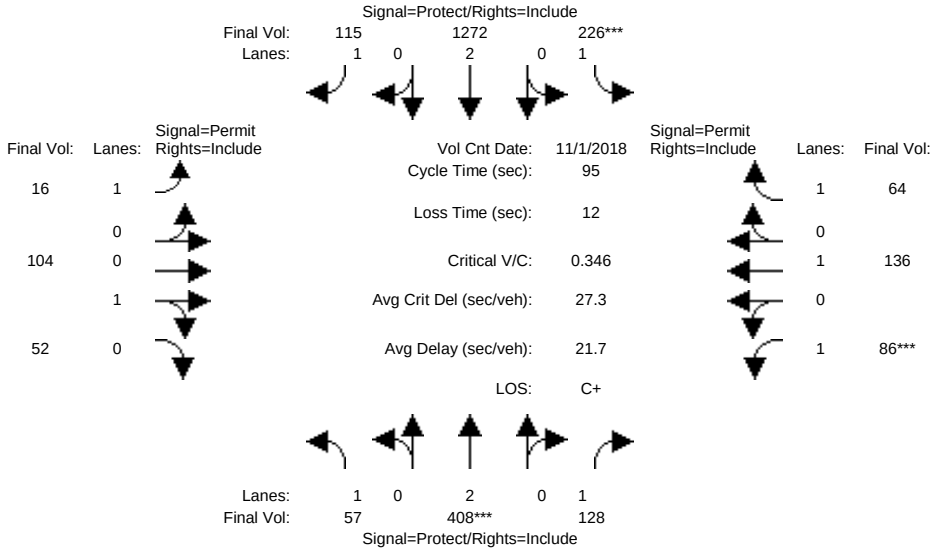
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	9	36	36	18	45	45	30	25	25	30	25	25
Y+R:	4.7	5.8	5.8	4.6	5.8	5.8	4.0	5.1	5.1	4.0	5.1	5.1
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	57	408	128	229	1272	115	16	104	52	86	136	68
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:	57	408	128	229	1272	115	16	104	52	86	136	68
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	-3	0	0	0	0	0	0	0	-4
Initial Fut:	57	408	128	226	1272	115	16	104	52	86	136	64
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	408	128	226	1272	115	16	104	52	86	136	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	408	128	226	1272	115	16	104	52	86	136	64
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
FinalVolume:	57	408	128	226	1272	115	16	104	52	86	136	64
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	0.58	0.95	0.95	0.68	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1100	1200	600	1300	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.07	0.13	0.33	0.07	0.01	0.09	0.09	0.07	0.07	0.04
Crit Moves:		****		****						****		
Green Time:	8.9	35.6	35.6	17.8	44.5	44.5	29.7	29.7	29.7	29.7	29.7	29.7
Volume/Cap:	0.35	0.29	0.20	0.69	0.71	0.14	0.05	0.28	0.28	0.21	0.23	0.12
Uniform Del:	40.7	21.0	20.2	36.4	20.4	14.5	23.0	24.8	24.8	24.3	24.4	23.5
IncremntDel:	1.3	0.1	0.1	6.1	1.4	0.1	0.1	0.3	0.3	0.3	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.92	0.92	1.00	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.0	19.4	18.8	42.5	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.6
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
AdjDel/Veh:	42.0	19.4	18.8	42.5	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.6
LOS by Move:	D	B-	B-	D	B	B+	C	C	C	C	C	C
HCM2kAvgQ:	2	3	2	8	14	2	0	4	4	2	3	1

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

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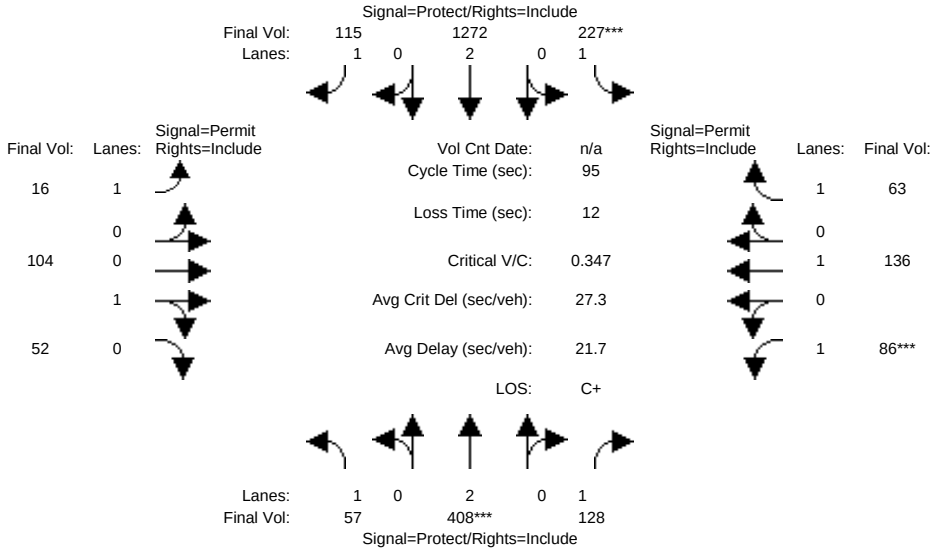
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj PM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	9	36	36	18	45	45	30	25	25	30	25	25
Y+R:	4.7	5.8	5.8	4.6	5.8	5.8	4.0	5.1	5.1	4.0	5.1	5.1
Volume Module:												
Base Vol:	57	408	128	226	1272	115	16	104	52	86	136	64
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:	57	408	128	226	1272	115	16	104	52	86	136	64
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	-1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	408	128	227	1272	115	16	104	52	86	136	63
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	408	128	227	1272	115	16	104	52	86	136	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	408	128	227	1272	115	16	104	52	86	136	63
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
FinalVolume:	57	408	128	227	1272	115	16	104	52	86	136	63
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	0.58	0.95	0.95	0.68	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1100	1200	600	1300	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.07	0.13	0.33	0.07	0.01	0.09	0.09	0.07	0.07	0.04
Crit Moves:		****		****						****		
Green Time:	8.9	35.6	35.6	17.8	44.5	44.5	29.7	29.7	29.7	29.7	29.7	29.7
Volume/Cap:	0.35	0.29	0.20	0.69	0.71	0.14	0.05	0.28	0.28	0.21	0.23	0.12
Uniform Del:	40.7	21.0	20.2	36.4	20.4	14.5	23.0	24.8	24.8	24.3	24.4	23.5
IncremntDel:	1.3	0.1	0.1	6.2	1.4	0.1	0.1	0.3	0.3	0.3	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.92	0.92	1.00	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.0	19.4	18.8	42.6	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.6
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
AdjDel/Veh:	42.0	19.4	18.8	42.6	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.6
LOS by Move:	D	B-	B-	D	B	B+	C	C	C	C	C	C
HCM2kAvgQ:	2	3	2	8	14	2	0	4	4	2	3	1

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

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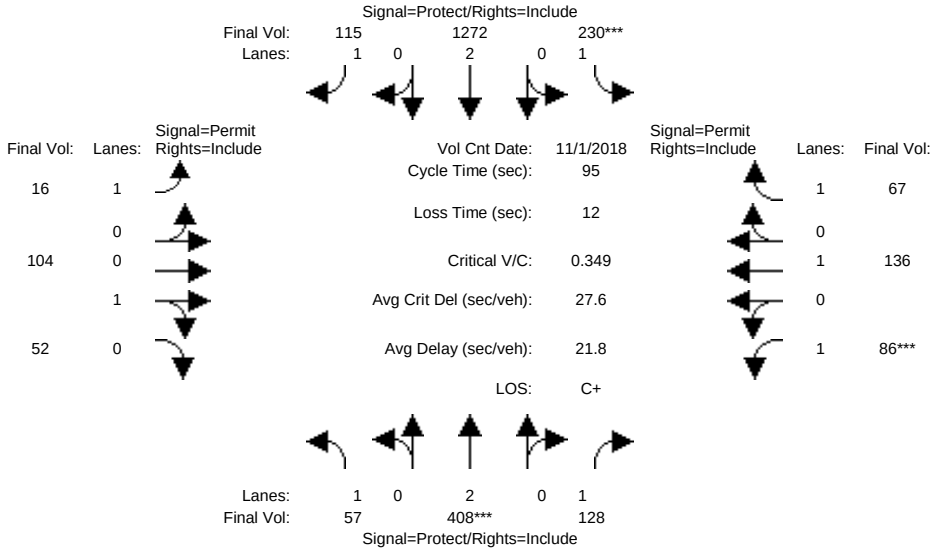
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project PM

Intersection #5213: FOOTHILL EXPWY/MAIN ST-BURKE RD



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	9	36	36	18	45	45	30	25	25	30	25	25
Y+R:	4.7	5.8	5.8	4.6	5.8	5.8	4.0	5.1	5.1	4.0	5.1	5.1
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	57	408	128	229	1272	115	16	104	52	86	136	68
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:	57	408	128	229	1272	115	16	104	52	86	136	68
Added Vol:	0	0	0	1	0	0	0	0	0	0	0	-1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	408	128	230	1272	115	16	104	52	86	136	67
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	408	128	230	1272	115	16	104	52	86	136	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	408	128	230	1272	115	16	104	52	86	136	67
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
FinalVolume:	57	408	128	230	1272	115	16	104	52	86	136	67
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	0.58	0.95	0.95	0.68	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.67	0.33	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1100	1200	600	1300	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.07	0.13	0.33	0.07	0.01	0.09	0.09	0.07	0.07	0.04
Crit Moves:		****		****						****		
Green Time:	8.9	35.6	35.6	17.8	44.5	44.5	29.7	29.7	29.7	29.7	29.7	29.7
Volume/Cap:	0.35	0.29	0.20	0.70	0.71	0.14	0.05	0.28	0.28	0.21	0.23	0.12
Uniform Del:	40.7	21.0	20.2	36.5	20.4	14.5	23.0	24.8	24.8	24.3	24.4	23.6
IncremntDel:	1.3	0.1	0.1	6.6	1.4	0.1	0.1	0.3	0.3	0.3	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.92	0.92	1.00	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.0	19.4	18.8	43.1	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.7
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:	42.0	19.4	18.8	43.1	17.9	11.8	23.1	25.1	25.1	24.6	24.6	23.7
LOS by Move:	D	B-	B-	D	B	B+	C	C	C	C	C	C
HCM2kAvgQ:	2	3	2	8	14	2	0	4	4	2	3	1

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

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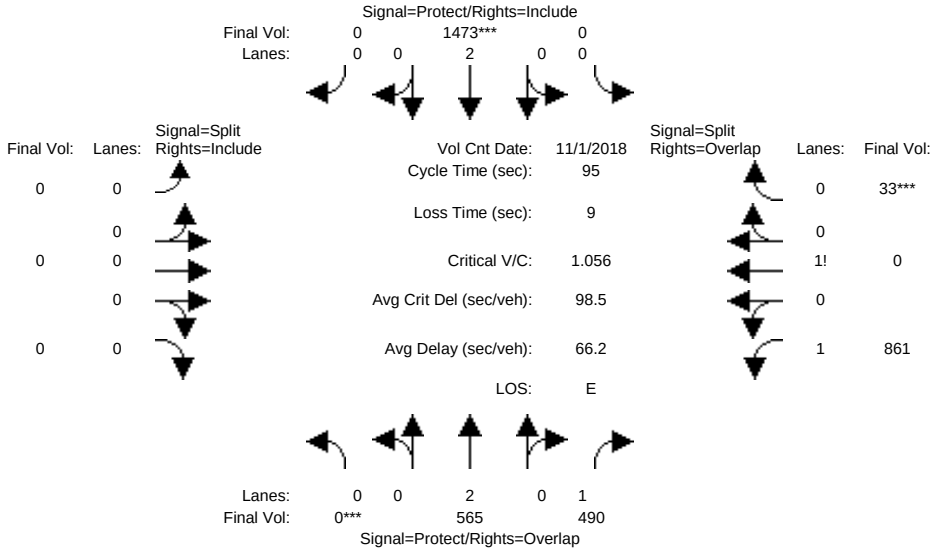
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	58	58	0	64	64	0	0	0	31	25	25
Y+R:	4.0	5.8	5.8	4.0	5.8	5.8	0.0	0.0	0.0	4.0	5.9	5.9
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	0	565	490	0	1473	0	0	0	0	861	0	33
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:	0	565	490	0	1473	0	0	0	0	861	0	33
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	565	490	0	1473	0	0	0	0	861	0	33
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	565	490	0	1473	0	0	0	0	861	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	565	490	0	1473	0	0	0	0	861	0	33
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
FinalVolume:	0	565	490	0	1473	0	0	0	0	861	0	33
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	0.67	0.92	0.92	1.00	0.92	0.62	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3800	1750	0	2546	0	0	0	0	2288	0	85
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.28	0.00	0.58	0.00	0.00	0.00	0.00	0.38	0.00	0.39
Crit Moves:	****				****							****
Green Time:	0.0	58.5	86.8	0.0	58.5	0.0	0.0	0.0	0.0	28.3	0.0	28.3
Volume/Cap:	0.00	0.24	0.31	0.00	0.94	0.00	0.00	0.00	0.00	1.26	0.00	1.30
Uniform Del:	0.0	9.0	0.5	0.0	18.3	0.0	0.0	0.0	0.0	36.5	0.0	36.5
IncremntDel:	0.0	0.1	0.1	0.0	11.5	0.0	0.0	0.0	0.0	129.3	0.0	143.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	2.07	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.1	0.7	0.0	49.2	0.0	0.0	0.0	0.0	165.8	0.0	179.9
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:	0.0	9.1	0.7	0.0	49.2	0.0	0.0	0.0	0.0	165.8	0.0	179.9
LOS by Move:	A	A	A	A	D	A	A	A	A	F	A	F
HCM2kAvgQ:	0	4	2	0	25	0	0	0	0	28	0	44

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

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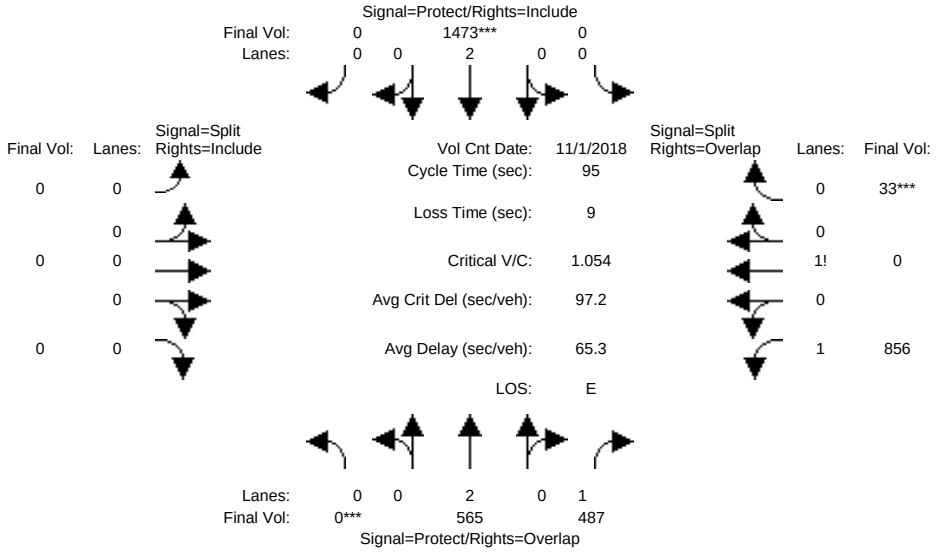
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	58	58	0	64	64	0	0	0	31	25	25
Y+R:	4.0	5.8	5.8	4.0	5.8	5.8	0.0	0.0	0.0	4.0	5.9	5.9
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	0	565	490	0	1473	0	0	0	0	861	0	33
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:	0	565	490	0	1473	0	0	0	0	861	0	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	-3	0	0	0	0	0	0	-5	0	0
Initial Fut:	0	565	487	0	1473	0	0	0	0	856	0	33
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	565	487	0	1473	0	0	0	0	856	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	565	487	0	1473	0	0	0	0	856	0	33
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
FinalVolume:	0	565	487	0	1473	0	0	0	0	856	0	33
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	0.67	0.92	0.92	1.00	0.92	0.62	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3800	1750	0	2546	0	0	0	0	2287	0	86
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.28	0.00	0.58	0.00	0.00	0.00	0.00	0.37	0.00	0.38
Crit Moves:	****				****							****
Green Time:	0.0	58.5	86.8	0.0	58.5	0.0	0.0	0.0	0.0	28.3	0.0	28.3
Volume/Cap:	0.00	0.24	0.30	0.00	0.94	0.00	0.00	0.00	0.00	1.26	0.00	1.29
Uniform Del:	0.0	9.0	0.5	0.0	18.3	0.0	0.0	0.0	0.0	36.5	0.0	36.5
IncremntDel:	0.0	0.1	0.1	0.0	11.5	0.0	0.0	0.0	0.0	126.3	0.0	140.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	2.07	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.1	0.6	0.0	49.2	0.0	0.0	0.0	0.0	162.8	0.0	176.8
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:	0.0	9.1	0.6	0.0	49.2	0.0	0.0	0.0	0.0	162.8	0.0	176.8
LOS by Move:	A	A	A	A	D	A	A	A	A	F	A	F
HCM2kAvgQ:	0	4	2	0	25	0	0	0	0	28	0	44

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

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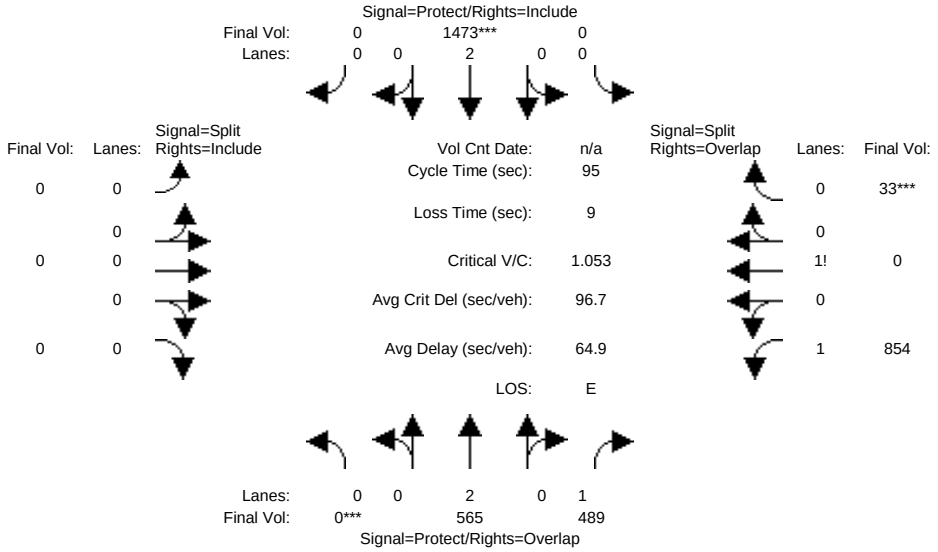
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Prj PM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	58	58	0	64	64	0	0	0	31	25	25
Y+R:	4.0	5.8	5.8	4.0	5.8	5.8	0.0	0.0	0.0	4.0	5.9	5.9
Volume Module:												
Base Vol:	0	565	487	0	1473	0	0	0	0	856	0	33
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:	0	565	487	0	1473	0	0	0	0	856	0	33
Added Vol:	0	0	2	0	0	0	0	0	0	-2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	565	489	0	1473	0	0	0	0	854	0	33
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	565	489	0	1473	0	0	0	0	854	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	565	489	0	1473	0	0	0	0	854	0	33
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
FinalVolume:	0	565	489	0	1473	0	0	0	0	854	0	33
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	0.67	0.92	0.92	1.00	0.92	0.62	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3800	1750	0	2546	0	0	0	0	2287	0	86
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.28	0.00	0.58	0.00	0.00	0.00	0.00	0.37	0.00	0.38
Crit Moves:	****				****							****
Green Time:	0.0	58.5	86.8	0.0	58.5	0.0	0.0	0.0	0.0	28.3	0.0	28.3
Volume/Cap:	0.00	0.24	0.31	0.00	0.94	0.00	0.00	0.00	0.00	1.25	0.00	1.29
Uniform Del:	0.0	9.0	0.5	0.0	18.3	0.0	0.0	0.0	0.0	36.5	0.0	36.5
IncremntDel:	0.0	0.1	0.1	0.0	11.5	0.0	0.0	0.0	0.0	125.1	0.0	139.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	2.07	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.1	0.6	0.0	49.2	0.0	0.0	0.0	0.0	161.6	0.0	175.6
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
AdjDel/Veh:	0.0	9.1	0.6	0.0	49.2	0.0	0.0	0.0	0.0	161.6	0.0	175.6
LOS by Move:	A	A	A	A	D	A	A	A	A	F	A	F
HCM2kAvgQ:	0	4	2	0	25	0	0	0	0	27	0	43

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

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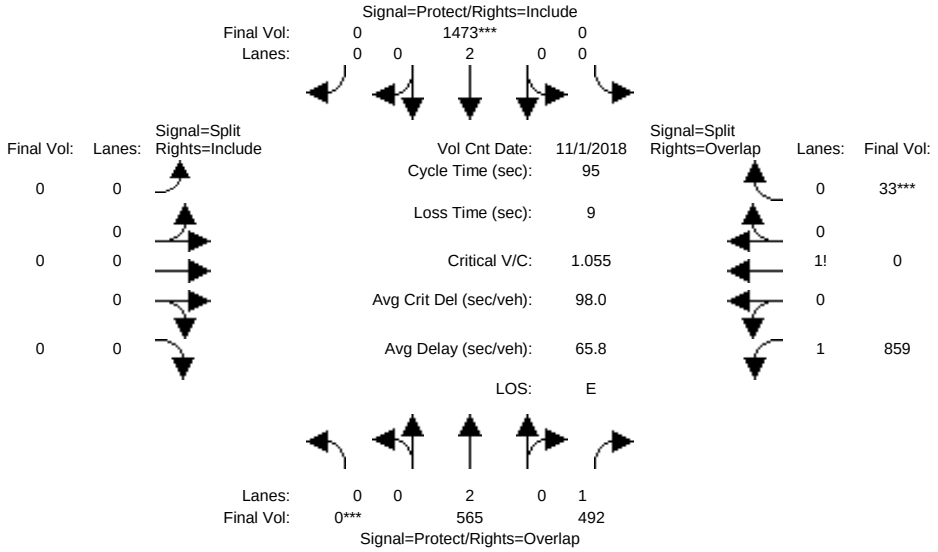
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing +Project PM

Intersection #5214: FOOTHILL EXPWY/SAN ANTONIO RD



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	58	58	0	64	64	0	0	0	31	25	25
Y+R:	4.0	5.8	5.8	4.0	5.8	5.8	0.0	0.0	0.0	4.0	5.9	5.9
Volume Module: >> Count Date: 1 Nov 2018 << 5:30 - 6:30 PM												
Base Vol:	0	565	490	0	1473	0	0	0	0	861	0	33
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:	0	565	490	0	1473	0	0	0	0	861	0	33
Added Vol:	0	0	2	0	0	0	0	0	0	-2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	565	492	0	1473	0	0	0	0	859	0	33
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	565	492	0	1473	0	0	0	0	859	0	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	565	492	0	1473	0	0	0	0	859	0	33
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
FinalVolume:	0	565	492	0	1473	0	0	0	0	859	0	33
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	0.67	0.92	0.92	1.00	0.92	0.62	1.00	0.92
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.95	0.00	0.05
Final Sat.:	0	3800	1750	0	2546	0	0	0	0	2288	0	86
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.28	0.00	0.58	0.00	0.00	0.00	0.00	0.38	0.00	0.39
Crit Moves:	****				****							****
Green Time:	0.0	58.5	86.8	0.0	58.5	0.0	0.0	0.0	0.0	28.3	0.0	28.3
Volume/Cap:	0.00	0.24	0.31	0.00	0.94	0.00	0.00	0.00	0.00	1.26	0.00	1.29
Uniform Del:	0.0	9.0	0.5	0.0	18.3	0.0	0.0	0.0	0.0	36.5	0.0	36.5
IncremntDel:	0.0	0.1	0.1	0.0	11.5	0.0	0.0	0.0	0.0	128.1	0.0	142.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	2.07	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	9.1	0.7	0.0	49.2	0.0	0.0	0.0	0.0	164.6	0.0	178.6
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
AdjDel/Veh:	0.0	9.1	0.7	0.0	49.2	0.0	0.0	0.0	0.0	164.6	0.0	178.6
LOS by Move:	A	A	A	A	D	A	A	A	A	F	A	F
HCM2kAvgQ:	0	4	2	0	25	0	0	0	0	28	0	44

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

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Appendix C
Volume Summary Tables

Intersection Number: 1
Traffix Node Number: 1
Intersection Name: First Street and Lyell Street
Peak Hour: AM
Count Date: 3/12/2019 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**1**	**126**	**14**	**25**	**1**	**9**	**13**	**142**	**3**	**1**	**1**	**0**	**336**
Approved Project Trips													
425 First Street	0	0	-1	1	0	2	-2	0	0	0	0	0	**0**
440 First Street	0	0	0	-1	0	0	0	-2	0	0	0	0	**-3**
389 First Street	0	3	2	1	0	0	0	1	0	0	0	0	**7**
376 First Street	0	-5	-3	-4	0	0	0	-8	0	0	0	0	**-20**
Total Approved Trips	**0**	**-2**	**-2**	**-3**	**0**	**2**	**-2**	**-9**	**0**	**0**	**0**	**0**	**-16**
Background Conditions	**1**	**124**	**12**	**22**	**1**	**11**	**11**	**133**	**3**	**1**	**1**	**0**	**320**
Project Trips	0	-2	0	0	0	-2	1	1	0	0	0	0	-2
Existing Plus Project Conditions	**1**	**124**	**14**	**25**	**1**	**7**	**14**	**143**	**3**	**1**	**1**	**0**	334
Background Plus Project Conditions	**1**	**122**	**12**	**22**	**1**	**9**	**12**	**134**	**3**	**1**	**1**	**0**	**318**

Intersection Number: 2
Traffix Node Number: 2
Intersection Name: San Antonio Road and Lyell Street
Peak Hour: AM
Count Date: 3/12/2019 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**18**	**647**	**46**	**53**	**3**	**1**	**10**	**701**	**83**	**15**	**5**	**5**	**1587**
Approved Project Trips													
425 First Street	-2	0	0	0	0	0	0	0	0	0	0	1	**-1**
440 First Street	-1	0	0	0	0	0	0	0	0	0	0	0	**-1**
389 First Street	1	0	0	0	0	0	0	0	0	0	0	2	**3**
376 First Street	-4	0	0	0	0	0	0	0	0	0	0	-3	**-7**
Total Approved Trips	**-6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-6**
Background Conditions	**12**	**647**	**46**	**53**	**3**	**1**	**10**	**701**	**83**	**15**	**5**	**5**	**1581**
Project Trips	-2	0	0	0	0	0	0	0	0	0	0	1	-1
Existing Plus Project Conditions	**16**	**647**	**46**	**53**	**3**	**1**	**10**	**701**	**83**	**15**	**5**	**6**	1586
Background Plus Project Conditions	**10**	**647**	**46**	**53**	**3**	**1**	**10**	**701**	**83**	**15**	**5**	**6**	**1580**

Intersection Number: 3
Traffix Node Number: 3
Intersection Name: San Antonio Road and First Street/Cuesta Drive
Peak Hour: AM
Count Date: 3/12/2019 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**4**	**553**	**81**	**212**	**76**	**140**	**8**	**680**	**62**	**35**	**84**	**13**	**1948**
Approved Project Trips													
425 First Street	0	0	0	0	0	0	0	0	-2	2	0	0	**0**
440 First Street	0	0	0	0	0	0	0	0	-2	0	0	0	**-2**
389 First Street	0	0	0	0	0	0	0	0	1	3	0	0	**4**
376 First Street	0	0	0	0	-1	0	0	0	-7	-4	-1	0	**-13**
Total Approved Trips	**0**	**0**	**0**	**0**	**-1**	**0**	**0**	**0**	**-10**	**1**	**-1**	**0**	**-11**
Background Conditions	**4**	**553**	**81**	**212**	**75**	**140**	**8**	**680**	**52**	**36**	**83**	**13**	**1937**
Project Trips	0	0	0	0	-1	0	0	0	-3	2	1	0	-1
Existing Plus Project Conditions	**4**	**553**	**81**	**212**	**75**	**140**	**8**	**680**	**59**	**37**	**85**	**13**	1947
Background Plus Project Conditions	**4**	**553**	**81**	**212**	**74**	**140**	**8**	**680**	**49**	**38**	**84**	**13**	**1936**

Intersection Number: 4
Traffix Node Number: 5214
Intersection Name: San Antonio Road and Foothill Expressway
Peak Hour: AM
Count Date: 4/18/2017 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**480**	**0**	**109**	**0**	**559**	**619**	**1643**	**0**	**0**	**0**	**0**	**3410**
Approved Project Trips													
425 First Street	0	0	0	0	0	2	-2	0	0	0	0	0	**0**
440 First Street	0	0	0	0	0	0	-2	0	0	0	0	0	**-2**
389 First Street	0	0	0	0	0	3	1	0	0	0	0	0	**4**
376 First Street	0	0	0	0	0	-4	-7	0	0	0	0	0	**-11**
Total Approved Trips	**0**	**0**	**0**	**0**	**0**	**1**	**-10**	**0**	**0**	**0**	**0**	**0**	**-9**
Background Conditions	**0**	**480**	**0**	**109**	**0**	**560**	**609**	**1643**	**0**	**0**	**0**	**0**	**3401**
Project Trips	0	0	0	0	0	2	-3	0	0	0	0	0	-1
Existing Plus Project Conditions	**0**	**480**	**0**	**109**	**0**	**561**	**616**	**1643**	**0**	**0**	**0**	**0**	3409
Background Plus Project Conditions	**0**	**480**	**0**	**109**	**0**	**562**	**606**	**1643**	**0**	**0**	**0**	**0**	**3400**

Intersection Number: 5
Traffix Node Number: 5
Intersection Name: First Street and Main Street
Peak Hour: AM
Count Date: 3/12/2019 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**51**	**54**	**19**	**18**	**96**	**16**	**27**	**53**	**45**	**90**	**166**	**58**	**693**
Approved Project Trips													
425 First Street	0	0	0	0	0	0	0	0	1	-1	0	0	**0**
440 First Street	0	0	0	0	0	0	0	0	0	-1	0	0	**-1**
389 First Street	0	0	0	0	0	0	0	0	2	1	0	0	**3**
376 First Street	0	0	0	0	0	0	0	0	-3	-5	0	0	**-8**
Total Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-6**	**0**	**0**	**-6**
Background Conditions	**51**	**54**	**19**	**18**	**96**	**16**	**27**	**53**	**45**	**84**	**166**	**58**	**687**
Project Trips	0	-1	0	0	0	0	0	1	1	-1	0	0	0
Existing Plus Project Conditions	**51**	**53**	**19**	**18**	**96**	**16**	**27**	**54**	**46**	**89**	**166**	**58**	693
Background Plus Project Conditions	**51**	**53**	**19**	**18**	**96**	**16**	**27**	**54**	**46**	**83**	**166**	**58**	**687**

Intersection Number: 6
Traffix Node Number: 5213
Intersection Name: Foothill Expressway and Main Street
Peak Hour: AM
Count Date: 3/12/2019 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**22**	**381**	**66**	**73**	**77**	**45**	**126**	**1285**	**45**	**45**	**108**	**56**	**2329**
Approved Project Trips													
425 First Street	0	0	-1	1	0	0	0	0	0	0	0	0	**0**
440 First Street	0	0	-1	0	0	0	0	0	0	0	0	0	**-1**
389 First Street	0	0	1	2	0	0	0	0	0	0	0	0	**3**
376 First Street	0	0	-5	-3	0	0	0	0	0	0	0	0	**-8**
Total Approved Trips	**0**	**0**	**-6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-6**
Background Conditions	**22**	**381**	**60**	**73**	**77**	**45**	**126**	**1285**	**45**	**45**	**108**	**56**	**2323**
Project Trips	0	0	-1	1	0	0	0	0	0	0	0	0	0
Existing Plus Project Conditions	**22**	**381**	**65**	**74**	**77**	**45**	**126**	**1285**	**45**	**45**	**108**	**56**	2329
Background Plus Project Conditions	**22**	**381**	**59**	**74**	**77**	**45**	**126**	**1285**	**45**	**45**	**108**	**56**	**2323**

Intersection Number: 1
Traffix Node Number: 1
Intersection NPMe: First Street and Lyell Street
Peak Hour: PM
Count Date: 6/12/2018 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**6**	**309**	**25**	**24**	**0**	**22**	**15**	**180**	**1**	**2**	**0**	**6**	**590**
Existing Conditions for School Yr 201	**7**	**340**	**28**	**26**	**0**	**24**	**17**	**198**	**1**	**2**	**0**	**7**	**650**
Approved Project Trips													
425 First Street	1	0	0	-1	0	-1	1	0	0	0	0	0	**0**
440 First Street	0	-1	-1	0	0	0	0	0	0	0	0	0	**-2**
389 First Street	0	1	1	1	0	0	0	2	0	0	0	0	**5**
376 First Street	0	-5	-3	-4	0	0	0	-7	0	0	0	0	**-19**
Total Approved Trips	**1**	**-5**	**-3**	**-4**	**0**	**-1**	**1**	**-5**	**0**	**0**	**0**	**0**	**-16**
Background Conditions	**8**	**335**	**25**	**22**	**0**	**23**	**18**	**193**	**1**	**2**	**0**	**7**	**634**
Project Trips	0	1	0	0	0	1	-2	-2	0	0	0	0	-2
Existing Plus Project Conditions	**7**	**341**	**28**	**26**	**0**	**25**	**15**	**196**	**1**	**2**	**0**	**7**	**648**
Background Plus Project Conditions	**8**	**336**	**25**	**22**	**0**	**24**	**16**	**191**	**1**	**2**	**0**	**7**	**632**

Intersection Number: 2
Traffix Node Number: 2
Intersection NPMe: San Antonio Road and Lyell Street
Peak Hour: PM
Count Date: 6/12/2018 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**19**	**827**	**81**	**24**	**0**	**1**	**6**	**488**	**54**	**77**	**11**	**10**	**1598**
Existing Conditions for School Yr 201	**21**	**910**	**89**	**26**	**0**	**1**	**7**	**537**	**59**	**85**	**12**	**11**	**1758**
Approved Project Trips													
425 First Street	1	0	0	0	0	0	0	0	0	0	0	-1	**0**
440 First Street	0	0	0	0	0	0	0	0	0	0	0	-1	**-1**
389 First Street	1	0	0	0	0	0	0	0	0	0	0	1	**2**
376 First Street	-4	0	0	0	0	0	0	0	0	0	0	-3	**-7**
Total Approved Trips	**-2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-4**	**-6**
Background Conditions	**19**	**910**	**89**	**26**	**0**	**1**	**7**	**537**	**59**	**85**	**12**	**7**	**1752**
Project Trips	1	0	0	0	0	0	0	0	0	0	0	-2	-1
Existing Plus Project Conditions	**22**	**910**	**89**	**26**	**0**	**1**	**7**	**537**	**59**	**85**	**12**	**9**	**1757**
Background Plus Project Conditions	**20**	**910**	**89**	**26**	**0**	**1**	**7**	**537**	**59**	**85**	**12**	**5**	**1751**

Intersection Number: 3
Traffix Node Number: 3
Intersection NPMe: San Antonio Road and First Street/Cuesta Drive
Peak Hour: PM
Count Date: 6/12/2018 2018 School Year Adjustment 1.1

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**12**	**757**	**121**	**141**	**92**	**30**	**12**	**389**	**63**	**81**	**226**	**22**	**1946**
Existing Conditions for School Yr 201	**13**	**833**	**133**	**155**	**101**	**33**	**13**	**428**	**69**	**89**	**249**	**24**	**2140**
Approved Project Trips													
425 First Street	0	0	0	0	0	0	0	0	1	-1	0	0	**0**
440 First Street	0	0	0	0	0	0	0	0	0	-1	0	0	**-1**
389 First Street	0	0	0	0	0	0	0	0	2	1	0	0	**3**
376 First Street	0	0	0	0	-1	0	0	0	-6	-4	-1	0	**-12**
Total Approved Trips	**0**	**0**	**0**	**0**	**-1**	**0**	**0**	**0**	**-3**	**-5**	**-1**	**0**	**-10**
Background Conditions	**13**	**833**	**133**	**155**	**100**	**33**	**13**	**428**	**66**	**84**	**248**	**24**	**2130**
Project Trips	0	0	0	0	1	0	0	0	2	-2	-1	0	0
Existing Plus Project Conditions	**13**	**833**	**133**	**155**	**102**	**33**	**13**	**428**	**71**	**87**	**248**	**24**	**2140**
Background Plus Project Conditions	**13**	**833**	**133**	**155**	**101**	**33**	**13**	**428**	**68**	**82**	**247**	**24**	**2130**

Intersection Number: 4
Traffix Node Number: 5214
Intersection NPMe: San Antonio Road and Foothill Expressway
Peak Hour: PM
Count Date: 11/1/2018

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**0**	**1473**	**0**	**33**	**0**	**861**	**490**	**565**	**0**	**0**	**0**	**0**	**3422**
Approved Project Trips													
425 First Street	0	0	0	0	0	-1	1	0	0	0	0	0	**0**
440 First Street	0	0	0	0	0	-1	0	0	0	0	0	0	**-1**
389 First Street	0	0	0	0	0	1	2	0	0	0	0	0	**3**
376 First Street	0	0	0	0	0	-4	-6	0	0	0	0	0	**-10**
Total Approved Trips	**0**	**0**	**0**	**0**	**0**	**-5**	**-3**	**0**	**0**	**0**	**0**	**0**	**-8**
Background Conditions	**0**	**1473**	**0**	**33**	**0**	**856**	**487**	**565**	**0**	**0**	**0**	**0**	**3414**
Project Trips	0	0	0	0	0	-2	2	0	0	0	0	0	0
Existing Plus Project Conditions	**0**	**1473**	**0**	**33**	**0**	**859**	**492**	**565**	**0**	**0**	**0**	**0**	**3422**
Background Plus Project Conditions	**0**	**1473**	**0**	**33**	**0**	**854**	**489**	**565**	**0**	**0**	**0**	**0**	**3414**

Intersection Number: 5
Traffix Node Number: 5
Intersection NPMe: First Street and Main Street
Peak Hour: PM
Count Date: 3/12/2019

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**83**	**138**	**23**	**25**	**137**	**27**	**34**	**86**	**93**	**135**	**163**	**53**	**997**
Approved Project Trips													
425 First Street	0	0	0	0	0	0	0	0	-1	1	0	0	**0**
440 First Street	0	0	0	0	0	0	0	0	-1	0	0	0	**-1**
389 First Street	0	0	0	0	0	0	0	0	1	1	0	0	**2**
376 First Street	0	0	0	0	0	0	0	0	-3	-5	0	0	**-8**
Total Approved Trips	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-4**	**-3**	**0**	**0**	**-7**
Background Conditions	**83**	**138**	**23**	**25**	**137**	**27**	**34**	**86**	**89**	**132**	**163**	**53**	**990**
Project Trips	0	1	0	0	0	0	0	-1	-1	1	0	0	0
Existing Plus Project Conditions	**83**	**139**	**23**	**25**	**137**	**27**	**34**	**85**	**92**	**136**	**163**	**53**	**997**
Background Plus Project Conditions	**83**	**139**	**23**	**25**	**137**	**27**	**34**	**85**	**88**	**133**	**163**	**53**	**990**

Intersection Number: 6
Traffix Node Number: 5213
Intersection NPMe: Foothill Expressway and Main Street
Peak Hour: PM
Count Date: 11/1/2018

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	**115**	**1272**	**229**	**68**	**136**	**86**	**128**	**408**	**57**	**52**	**104**	**16**	**2671**
Approved Project Trips													
425 First Street	0	0	1	-1	0	0	0	0	0	0	0	0	**0**
440 First Street	0	0	0	-1	0	0	0	0	0	0	0	0	**-1**
389 First Street	0	0	1	1	0	0	0	0	0	0	0	0	**2**
376 First Street	0	0	-5	-3	0	0	0	0	0	0	0	0	**-8**
Total Approved Trips	**0**	**0**	**-3**	**-4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-7**
Background Conditions	**115**	**1272**	**226**	**64**	**136**	**86**	**128**	**408**	**57**	**52**	**104**	**16**	**2664**
Project Trips	0	0	1	-1	0	0	0	0	0	0	0	0	0
Existing Plus Project Conditions	**115**	**1272**	**230**	**67**	**136**	**86**	**128**	**408**	**57**	**52**	**104**	**16**	**2671**
Background Plus Project Conditions	**115**	**1272**	**227**	**63**	**136**	**86**	**128**	**408**	**57**	**52**	**104**	**16**	**2664**

Appendix D
Multi-Way STOP Analysis

City: **Los Altos, CA**
Intersection: **1st Street and Lyell Street**
Study Date: **6/19/2019**

Multi-Way STOP Installation Criteria based on California MUTCD 2014 Edition - Rev 1

A. Interim Measure prior to Traffic Signal Installation

Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the isntallation of the traffic control signal.

Has a traffic signal warrant study been conducted for this intersection that: recommends installation of a traffic control signal?	____ Yes	✓ No
Temporary Multi-Way STOP Installation criteria satisified?	____ Yes	✓ No

B. Minimum Volumes

B1 The vehicle volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of the day; and

B2 The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the higher hours; but

B3 If the 85-th percential appraoch speed of the major-street traffic exceeds 40 MPH, the minimum vehicular volume warrants are 70 percent of the values provided in Items C1 and C2.

B1	8 Hour minimum volume on Major Street satisified?	____ Yes	✓ No
B2	8 Hour minimum volume on Minor Street satisified?	____ Yes	✓ No
B3	85-th percential approach speed on Major Street exceeds 40-MPH?	____ Yes	✓ No
	70 Percent Values in C1 and C2 Satisified?	- Yes	- No

C. Other Engineering Study Factor for Multi-Way STOP Installation

Other criteria that may be considered in an engineering study for a Multi-Way STOP Installation include:

A. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes

B. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop

C. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where Multi-Way STOP control would improve traffic operational characteristics of the intersection.

A. Identify the potential pedestrian generators near or adjacent to the study intersection: - Downtown Core Area

Can installation of a Multi-Way STOP better control vehicle/pedestrian conflicts at the study intersection:	✓ Yes	____ No
B. Are there sight distance or other geoemtric considerations that can be improved through installation of a Multi-Way STOP at the study intersection? Attach any additional study documentation.	____ Yes	✓ No
C. - Are the two streets of the study intersection predominently residential land use?	____ Yes	✓ No
- Are one or both of the streets classified as a Collector street?	✓ Yes	____ No
- Would installation of a Multi-Way STOP improve traffic operational characteristics of the intersection or the Collector street?	✓ Yes	____ No

MULTI-WAY STOP installation recommended at 1st Street and Lyell Street

✓ **Yes** ____ **No**