Armen Hovanessian
Transportation Consulting
AHTC Inc.

QUICK QUACK CAR WASH
BRACE ROAD & SIERRA COLLEGE BLVD
LOOMIS CALIFORNIA
TRAFFIC ASSESSMENT REPORT
JUNE 16, 2025

Armen D. Hovanessian

AHTC, Inc.

6520 PLATT AVENE, #923

WEST HILLS, CA 91307

CONTACT@AHTRAFFIC.COM

(818) 438-2253

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INTRODUCTION

This traffic assessment study is prepared for the proposed Quick Quack car wash located on the parcel at the northwest corner of the intersection of Brace Road and Sierra College Boulevard in Loomis California. The methodology and base assumptions used in the analysis were established based on discussions with the Town of Loomis staff. This study evaluates the potential project-specific transportation effects of the proposed project. The analysis focuses on traditional mobility considerations as well as safety, sustainability, smart growth, and the reduction of greenhouse gas emissions.

PROJECT DESCRIPTION

Project Characteristics

The project proposes to construct a Quick Quack automated one tunnel car wash, with a building size of 3,596 square feet on an approximate 172,593 square foot vacant lot.

Project Location

As illustrated in the project area map in Figure 1, the project is located on the northwest corner of the intersection of Brace Road and Sierra College Boulevard, (APN Number 044-122-005-000), south of Taylor Road, and west of Highway 80 in the Town of Loomis. The immediate vicinity of the project location is mainly a low-density area.

Figure 1 – Project Area Map

Project Site Plan

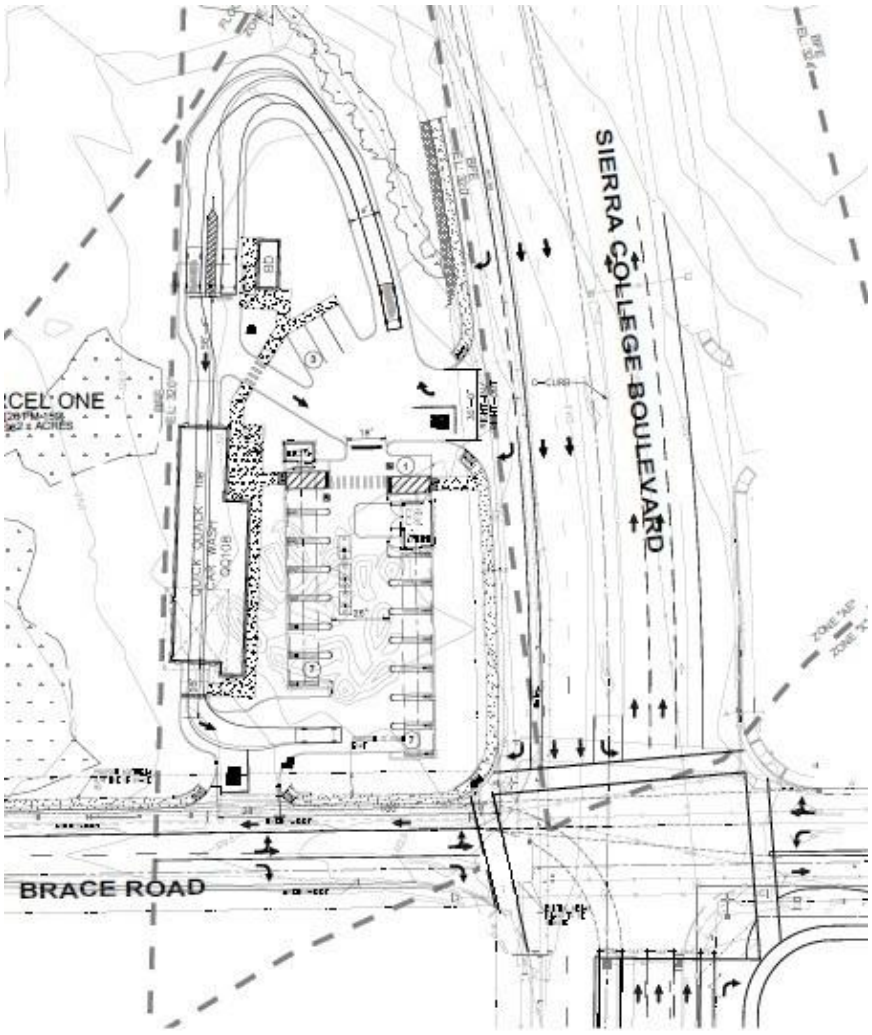
Figure 2 illustrates the project site plan showing the location of the proposed project driveways from the nearest intersection of Brace Road and Sierra College Boulevard.

Project Site Vehicle Access

As shown in Figure 2, the project proposes constructing two driveways, one on Brace Road west of Sierra College Boulevard and one on Sierra College Boulevard north of Brace Road to provide access to the project site. The project proposes the following roadway improvements at the intersection of Sierra College Boulevard and Brace Road:

- Improve the westside of Sierra College Boulevard north of Brace Road to add a southbound right-turn-only lane, sidewalk, and curb and gutter along the project frontage
- Improve Brace Road on the north- and south side of Brace Road west of the Sierra College Boulevard to provide one westbound through, one eastbound through-shared-left, and one right turn only lanes, sidewalk, and curb and gutter along the project frontage
- Upgrade the existing traffic signal operation at the intersection of Sierra College Boulevard and Brace Road to provide adequate traffic signal control to accommodate the roadway improvements on Sierra College Boulevard and of Brace Road

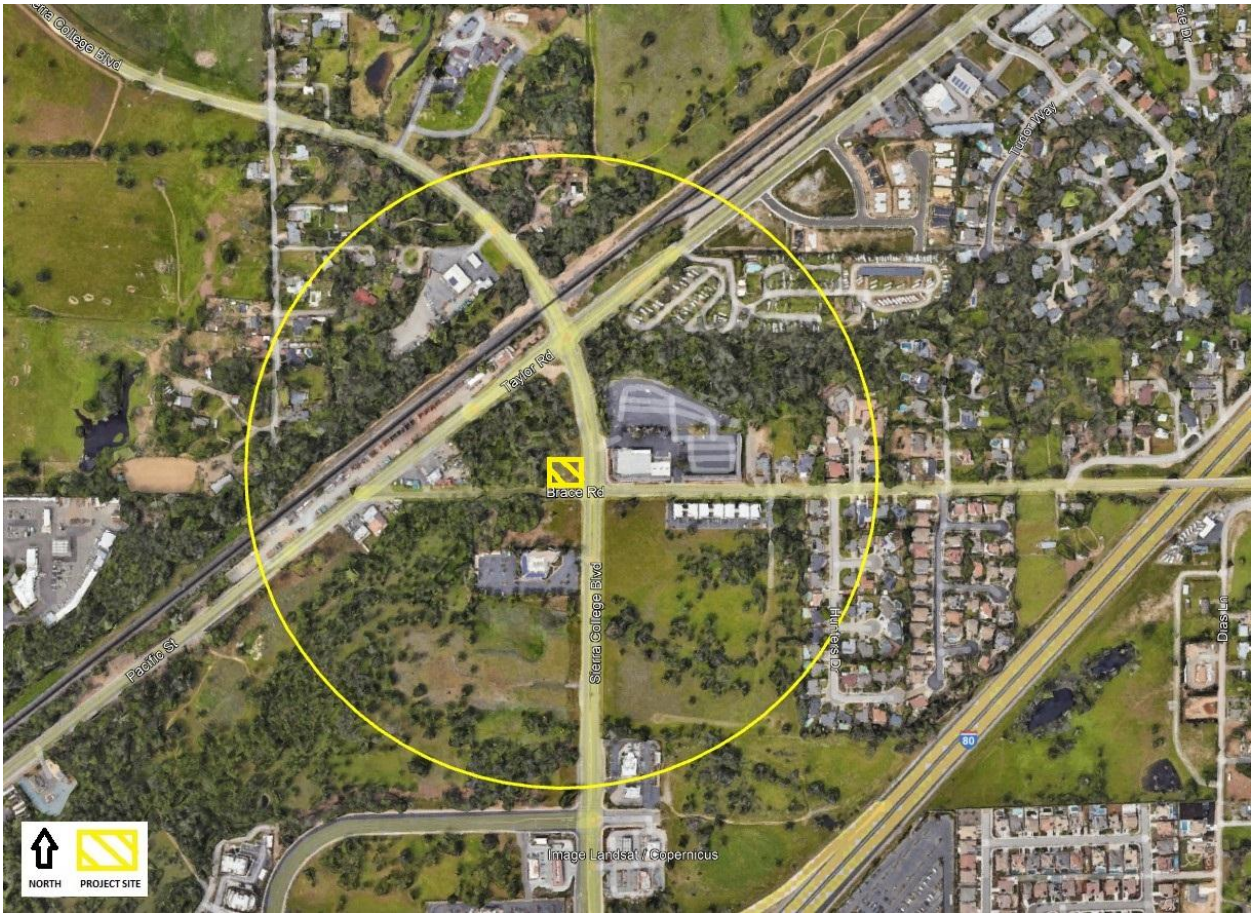
Figure 2 – Project Site Plan



PROJECT CONTEXT

A comprehensive analysis and an inventory of the existing transportation infrastructure and conditions within a ¼ mile radius of the project site, as shown in the aerial map in Figure 3, was collected. The collected data was analyzed to determine the roadway designations, classifications, and modal priorities.

Figure 3 – ¼ Mile Radius Area Map



The following describes the details of the transportation infrastructure in the vicinity of the project:

Non-Vehicular Transportation System

A review of the project area to evaluate the effects of the project on the non-vehicular transportation system for Pedestrian Facilities, Bicycle Facilities, and Transit Services was conducted.

Pedestrian Facilities

A review of the project area was conducted to evaluate the effects of the project on pedestrian activity within a ¼-mile radius of the project. As part of this analysis, we inventoried the existing sidewalks within 1,320 feet of the edge of the project site, as shown in Figure 3. Within the inventoried area discontinuous sidewalks are present on the northeast corner of Brace Road and Sierra College Boulevard and on the west side of Sierra College Boulevard approximately 200 feet south of Brace Road fronting the existing office building. There are crosswalks at the two

signalized intersections of Brace Road and Sierra College Boulevard and Taylor Road and Sierra College Boulevard.

Bicycle Facilities

Within a ¼-mile radius of the project site bicycle facilities are installed at the following locations, as shown in Table 1:

Table 1- Bicycle Facilities Inventory

Street Name	Bicycle Facility	Condition
Sierra College Boulevard	Class 2	Good
Taylor Road	Class 2	Good

There is also a paved multi-use path on the north side of Taylor Road east of Sierra College Boulevard.

Transit Services

Transit services in the area are provided by Placer County Transit. The nearest transit stop is located on Granite Drive southwest of Sierra College Boulevard approximately two thirds of a mile from the project site. This transit stop provides access to Placer County Transit line 20. The stop provides access to Route 50 (Taylor Road Shuttle) as well. Appendix 1 includes the Placer County Transit route maps.

Vehicular Transportation System

An assessment of the roadway system within ¼ mile radius of the project site was conducted. The assessment included the number of traffic lanes, direction of flow, and the presence of peak period travel lanes affecting roadway travel capacity, the presence of bicycle lanes, and any other significant street information.

Regional Freeway System

The project area is served by Dwight D. Eisenhower Interstate 80 (I-80). The project site is located west of I-80. The segment of I-80 near the project site generally consists of a divided highway with three mixed-flow travel lanes in each direction. The nearest intersection with I-80 is located on Sierra College Boulevard.

Area Roadway System

The project area is served by the following surrounding roadways:

- Brace Road
- Taylor Road
- Sierra College Boulevard

Brace Road is a paved roadway with one travel lane in each direction with some curb and gutters and sidewalks but is mostly a paved roadway without curb and gutters or sidewalks. It is classified as a 2-Lane Arterial (Low Access Control) per the Loomis General Plan Circulation Element.

Taylor Road is a paved roadway classified as a 2-Lane Arterial (Low Access Control) per the Loomis General Plan Circulation Element. Taylor Road becomes Pacific Street at the Boarder with

the City of Rocklin. It does not have curbs and gutters or sidewalks on either side of the roadway. One travel lane in each direction and a bike lane are provided in both directions with a painted median.

Sierra College Boulevard is a 4-Lane Arterial (Low Access Control) per the Loomis General Plan Circulation Element. It generally does not have curbs and gutters or sidewalks on either side of the roadway in the project area. There are two travel lanes, left turn channelization, and a bike lane in both directions with raised medians. Sierra College Boulevard northbound approach to Taylor Road has one through lane, a left turn pocket and a right turn only lane onto Taylor Road.

None of the above roadways provide continuous curb and gutter or sidewalk, but there are curb and gutter and discontinuous sidewalk on certain segments.

CEQA TRANSPORTATION IMPACT ANALYSIS

This analysis conforms to the requirements of Senate Bill 743 (SB 743) and is consistent with the California Environmental Quality Act (CEQA), requiring the use of Vehicle Miles Traveled (VMT) as the primary metric for evaluating a project's transportation impacts. Town of Loomis does not have standards of significance for evaluating VMT. Therefore, the analysis refers to the guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, 2018. OPR's guidance for retail land uses, which the proposed car wash would be classified as, was applied. According to OPR, for retail uses, an increase in total regional VMT is considered a significant impact. However, OPR indicates that local-serving retail may generally be presumed to have a less than significant VMT impact and can generally be screened from further VMT analysis. Based on substantial research OPR determined that adding local-serving retail uses typically improves destination accessibility to customers, often reducing trip distances resulting in reduced vehicle miles traveled. This is caused by customers traveling shorter distances than they previously did.

Based on OPR's analysis, a retail project of 50,000 square feet or more should be considered a regional serving retail. The proposed square footage of the project is less than 50,000 square feet. Additionally, the project is a local serving car wash operation providing service to the local community similar to a small retail operation which would be far below OPR's regional serving retail threshold. Therefore, the project will have less than significant VMT impact.

NON-CEQA CIRCULATION TRANSPORTATION ANALYSIS

Operational Evaluation

An operational evaluation of the project area was conducted to determine any project impact on access, safety, and circulation on the roadway network in the vicinity of the project.

Study Intersections

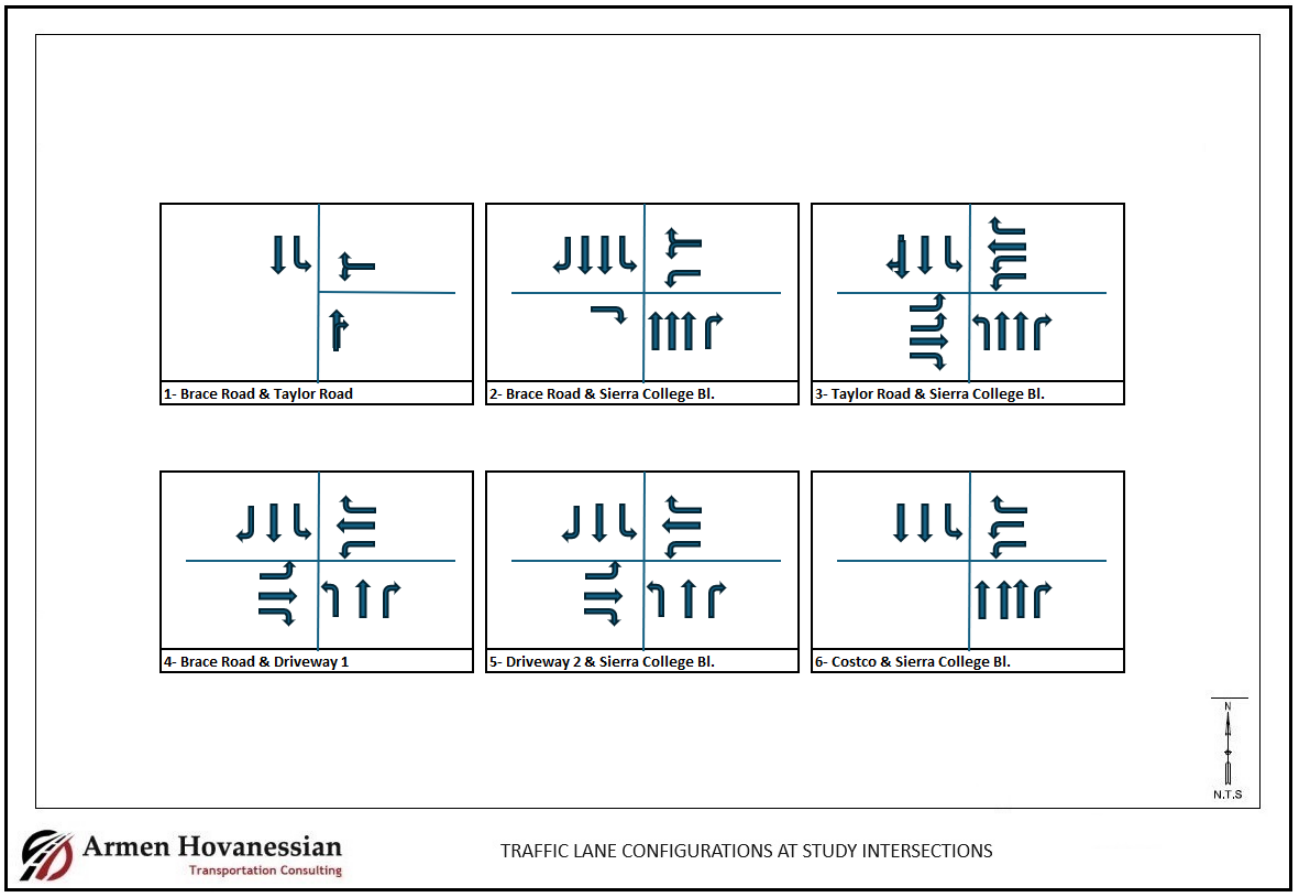
After consultation with the Town of Loomis, it was determined that the following intersections would be analyzed and evaluated for operational assessment, as shown in Table 2 below:

Table 2 – Study Intersections

Intersection(s)	Configuration	Existing Control
Taylor Road & Sierra College Boulevard	4-legged	Traffic Signal Control
Brace Road & Taylor Road	T-intersection	Stop Sign Control
Brace Road & Sierra College Boulevard	4-legged	Traffic Signal Control
Brace Road & Project Driveway	T-Intersection	Stop Sign Control
Sierra College Road & Project Driveway	T-Intersection	Stop Sign Control
Costco & Sierra College Boulevard	T-Intersection	Traffic Signal Control

Refer to Figure 4 below for a depiction of the configurations of traffic lanes at the approaches to the study intersections.

Figure 4 – Study Intersections Existing Lane Configurations



Traffic Volume Counts

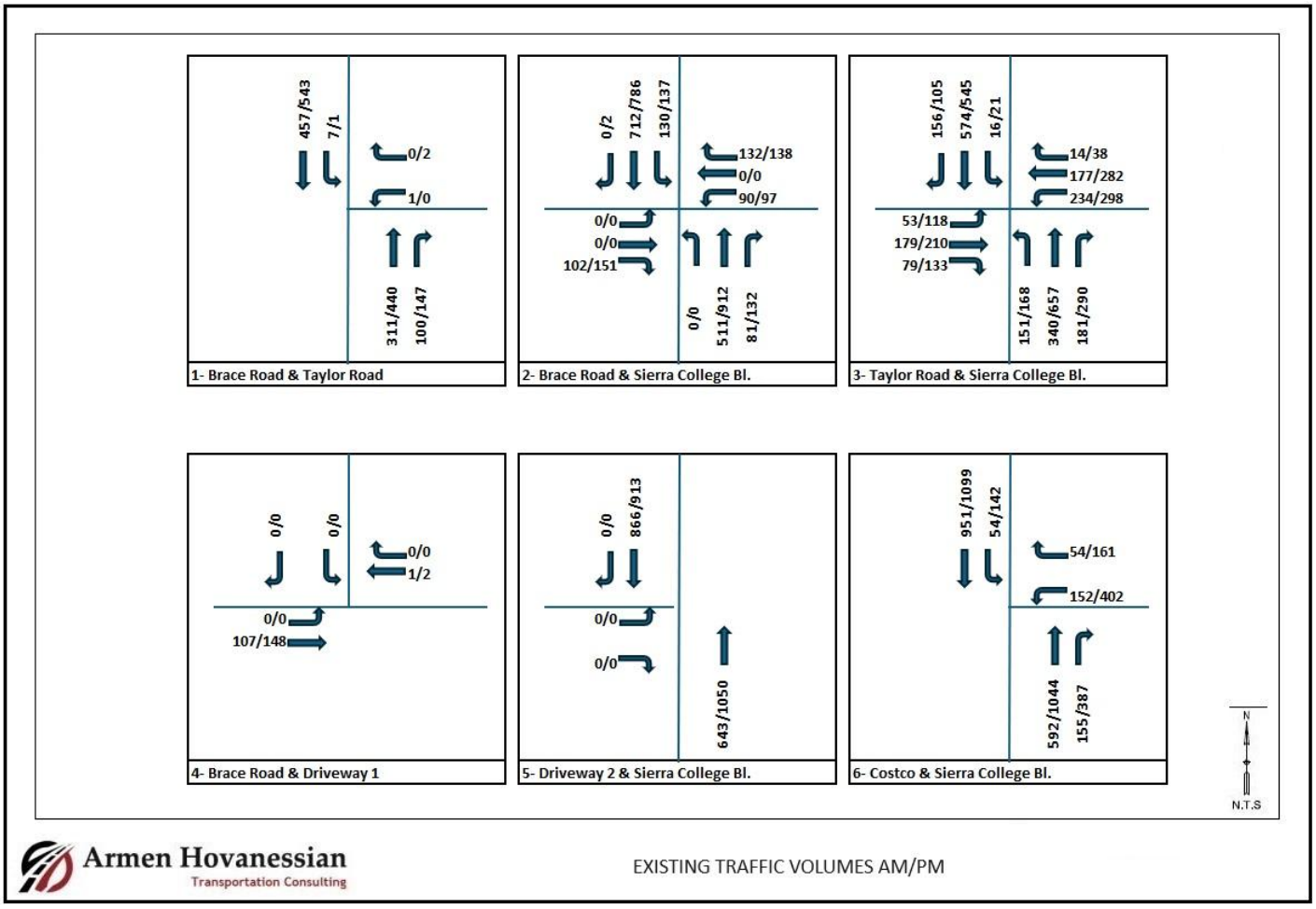
Traffic volume counts were obtained for vehicular turning movements at the following three (3) study intersections:

- Taylor Road and Sierra College Boulevard
- Brace Road and Taylor Road
- Brace Road and Sierra College Boulevard

Vehicular turning movement counts were conducted on Wednesday, May 10, 2023, during the typical commuter hours of 6:00 AM to 10:00 AM and 3:00 PM to 7:00 PM, to obtain existing traffic volumes for the AM and PM peak hours.

Please refer to Appendix 2 for the manual traffic counts, and Figure 5 below for Existing (AM/PM Peak) Traffic Volumes for an illustration of the AM and PM peak-hour turning movement counts used for the study intersections. Additionally, due to the anticipated opening of the proposed Costco at the southeast corner of Brace Road and Sierra College Boulevard by late 2023, the trips generated by Costco were added to the existing traffic volumes.

Figure 5 – Existing Traffic Volumes at Study Intersections



Project Trip Generation

As previously stated in the project description, the proposed project is a single tunnel automatic car wash with a 3,596 square foot building on an approximate 172,593 square foot vacant lot.

Trip rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition* were used in this analysis for an Automated Car Wash, ITE code 948 (please see Appendix 3). Automated Car Wash, ITE code 948 trip generation does not provide AM trip generation estimates. Therefore, trip rates for Car Wash and Detail Center, ITE code 949 AM and PM trip generation rate ratio were used to estimate the AM trip rate for the project.

As shown in the project trip generation Table 3 below, the project is forecasted to result in 27 net new AM peak hour trips and 34 net new PM peak hour trips after pass-by trips discounts. However, the calculations for the traffic analysis will not use the pass-by discounts. Therefore, the analysis will use 72 net new AM peak hour trips and 78 net new PM peak hour trips.

Table 3 - Project Trip Generation

	Land Use (ITE Code)	Size	Unit	AM Peak Hour Trips				PM Peak Hour Trips				Daily Trips	
				Rate*	Total	In	Out	Rate	Total	In	Out	Rate**	Total
Proposed	Automated Car Wash (Code 948)	1	Tunnel	71.83	*Split*	*54%*	*46%*	77.5	*Split*	*50%*	*50%*	156.2	156
					72	39	33		78	39	39		
	Pass-by Trips Discount 63% AM & 57% PM ***				-45	-24	-21		-44	-22	-22		
	Total New Trips				27	15	12		34	17	17		156
Existing					*Split*				*Split*				0
					0	0	0		0	0	0		
	Total Existing Trips				0	0	0		0	0	0		0
NET INCREASE/DECREASE TRIPS					27	15	12		34	17	17		156

Source: ITE Trip Generation Manual, 11th Edition
* Code 949 am and pm trip generation rate ratio was used to estimate the am trip rate
**Code 948 does not provider a daily rate, Code 949 daily rate was used to estimate daily rate
*** ITE trip Generation Manual, 11th Edition, Pass-by Discount for Gasoline station (Code 944) was used

Project Trip Distribution and Assignment

Trip distribution assumptions are used to determine the origin and destination of new vehicle trips associated with the Project. The geographic distribution of project trips is based on the functional classification of streets in the vicinity, the magnitude of traffic volumes, as well as local knowledge of the roadway network. Based on the project trip generation, shown in Table 3, and the regional trip distribution assumptions, a proposed study area for the traffic analysis was derived. The location and the number of the intersections to be analyzed were reviewed and approved by the town staff. Refer to Figures 6 and 7 below for illustrations showing the Project's Trip Distributions and Assignments at the study intersections.

Figure 6 – Project Trip Distribution Percentages

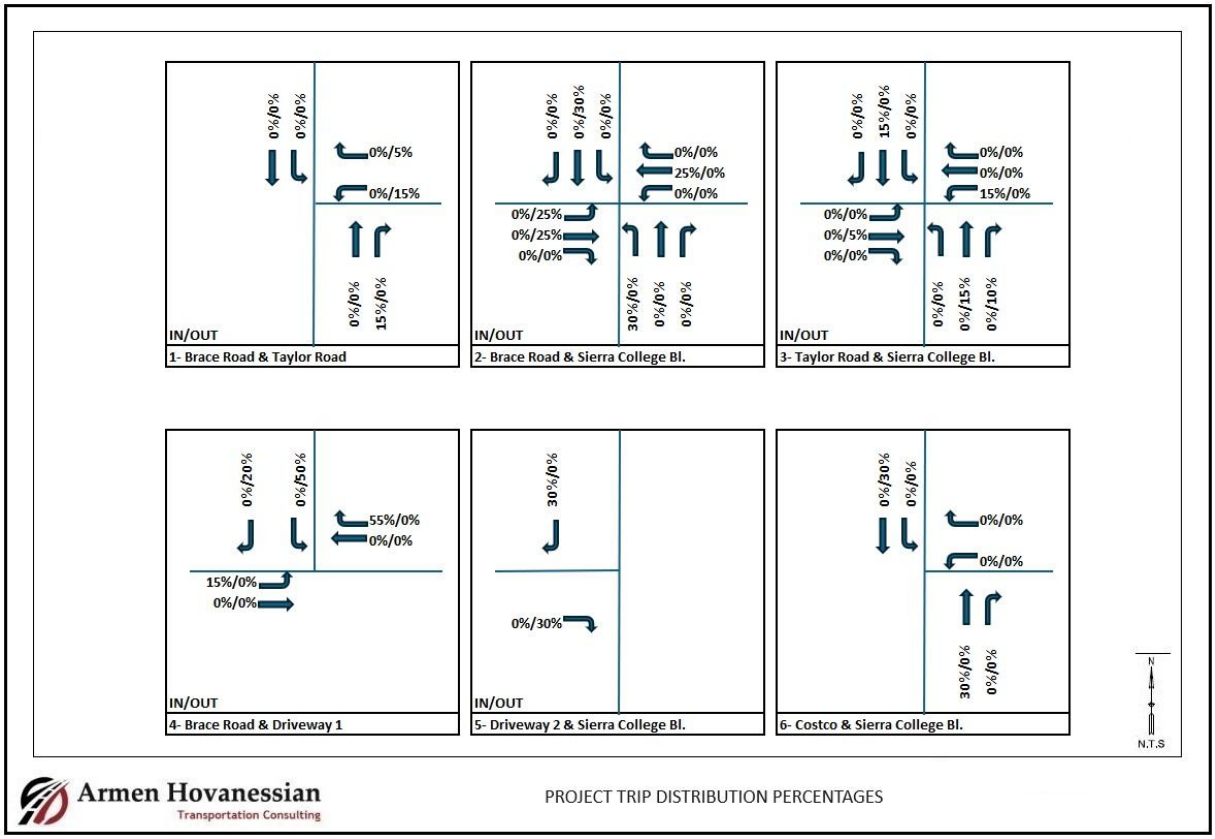


Figure 7 - Project Trip Assignments (Without Pass-by Discount) for AM/PM Peak Hours

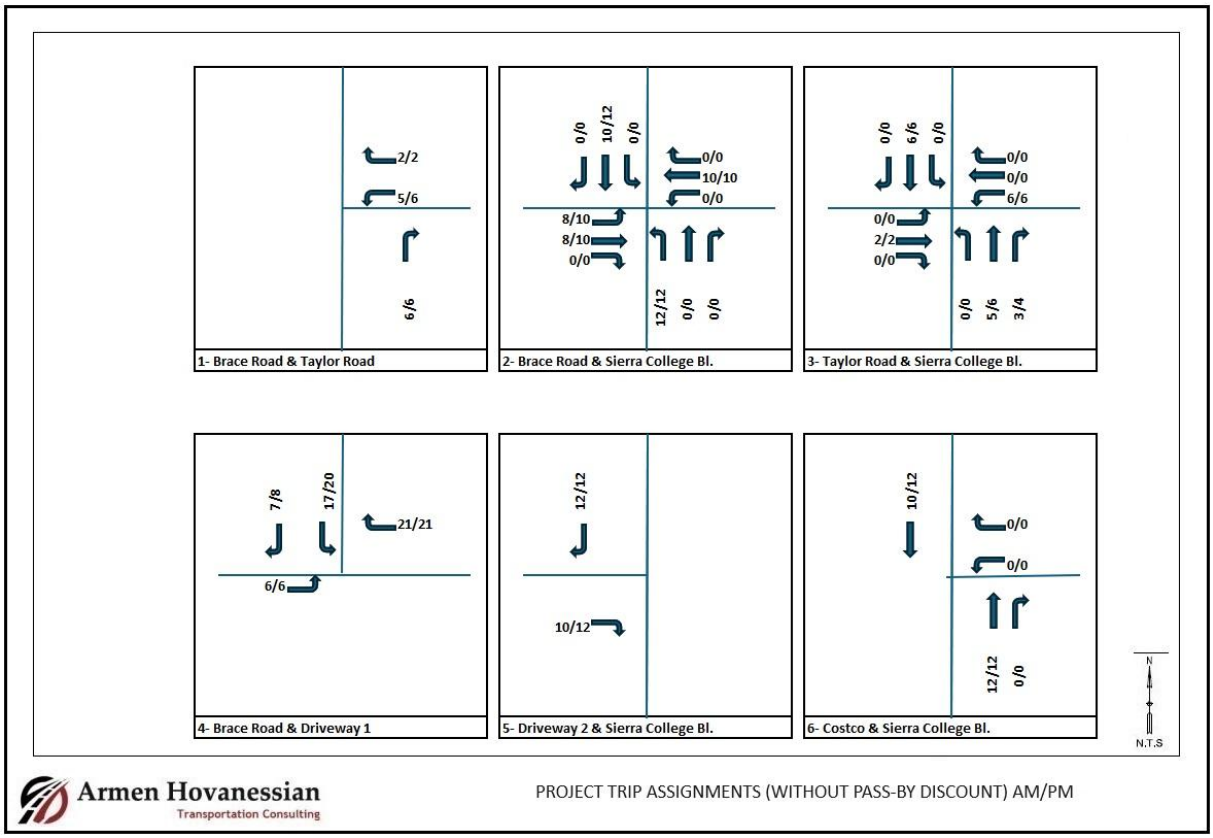
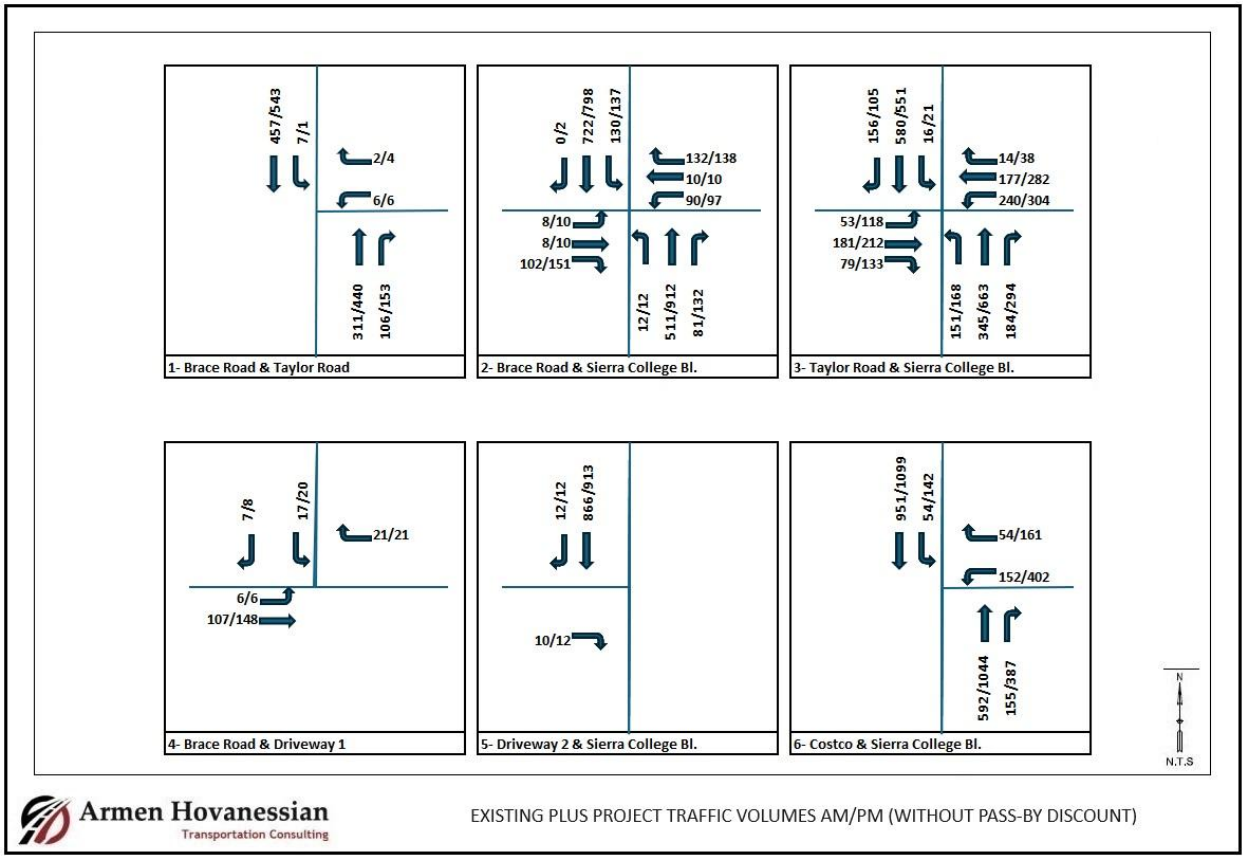


Figure 8 – Existing Plus Project Traffic Volumes (Without Pass-by Discount)



Traffic Forecasts

In general, future peak hour traffic projections for the study intersections are estimated to include future growth due to (1) related projects within ¼ to ½ mile of the project site and (2) ambient traffic growth. In this analysis the related projects within one (1) mile of the project site were included.

Related Projects

To understand the relative traffic impacts for the projected year of completion, this traffic study analyzed potential traffic trips due to the development of related projects in the area. One (1) such related project was identified by the Town staff. The Costco Wholesale warehouse was constructed on the southeast corner of the intersection of Brace Road and Sierra College Boulevard. The associated trip volumes were provided by the Town staff as provided, from the Costco traffic impact study. A map of the Costco location, with respect to the project site, is shown in Figure 9.

The Town's Sierra College Boulevard and Taylor Road Improvement Project as well as the Costco improvements to Sierra College Boulevard and Brace Road and the Town's improvements to Taylor Road and Sierra College Boulevard were included as existing conditions.

Figure 9 – Related Projects Map

Ambient Traffic Growth

To account for the future ambient traffic growth from intensification of existing developments, and other projects that are located further than a half mile from the project site, the existing traffic volumes were increased by an ambient growth rate of 1% per year to the anticipated year of completion 2025. These values were used in addition to the related project trip generation to forecast future traffic volumes without project traffic volumes as shown in Figure 10.

Figure 10 – Future (2025) Traffic Volumes Without Project

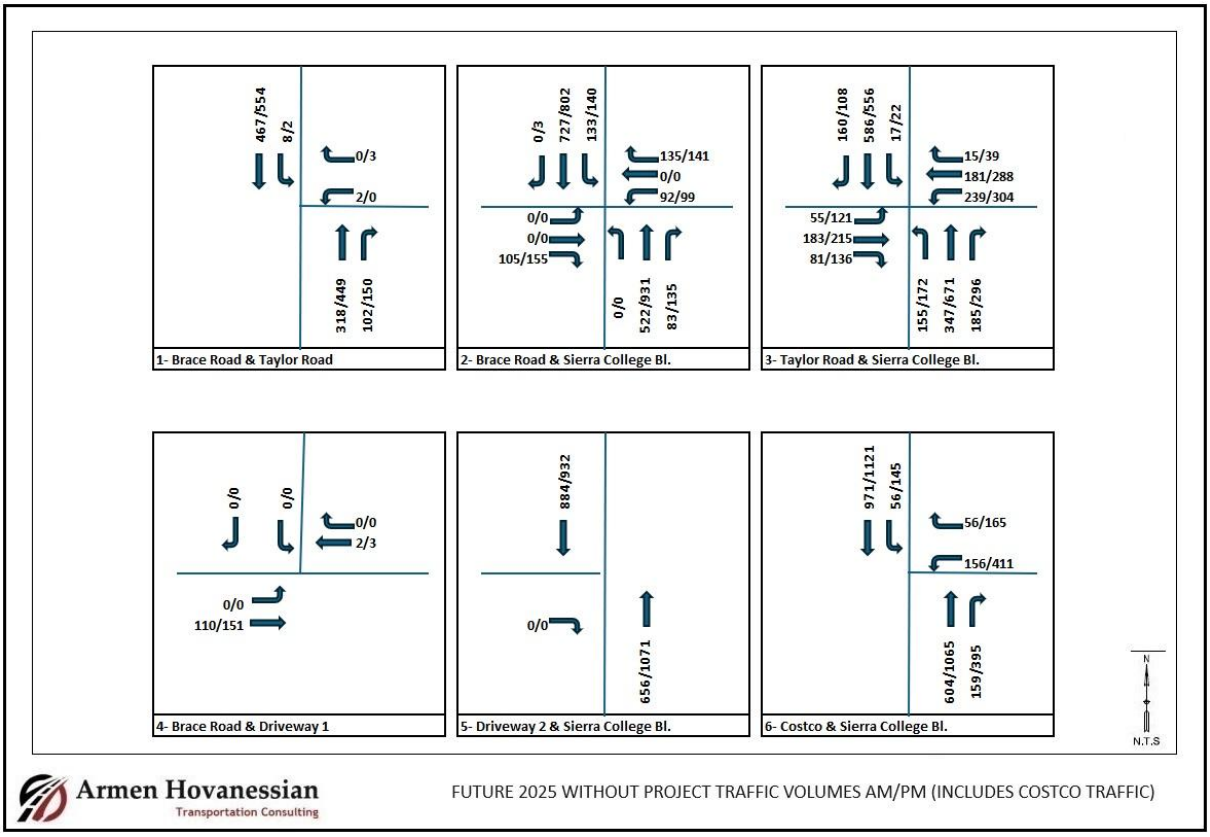


Figure 11 – Future (2025) Traffic Volumes with Project (Without Pass-by Discount)

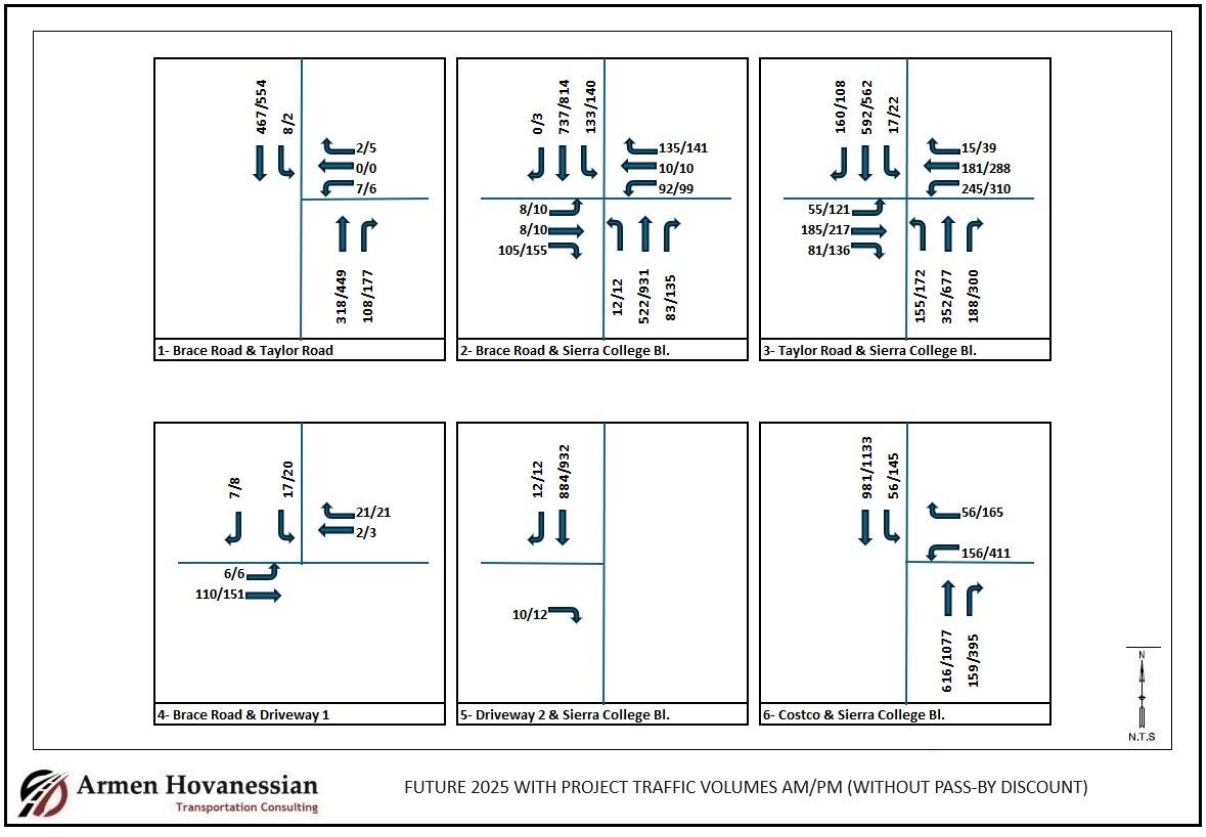


Figure 12 – Future (2040) Traffic Volumes without Project

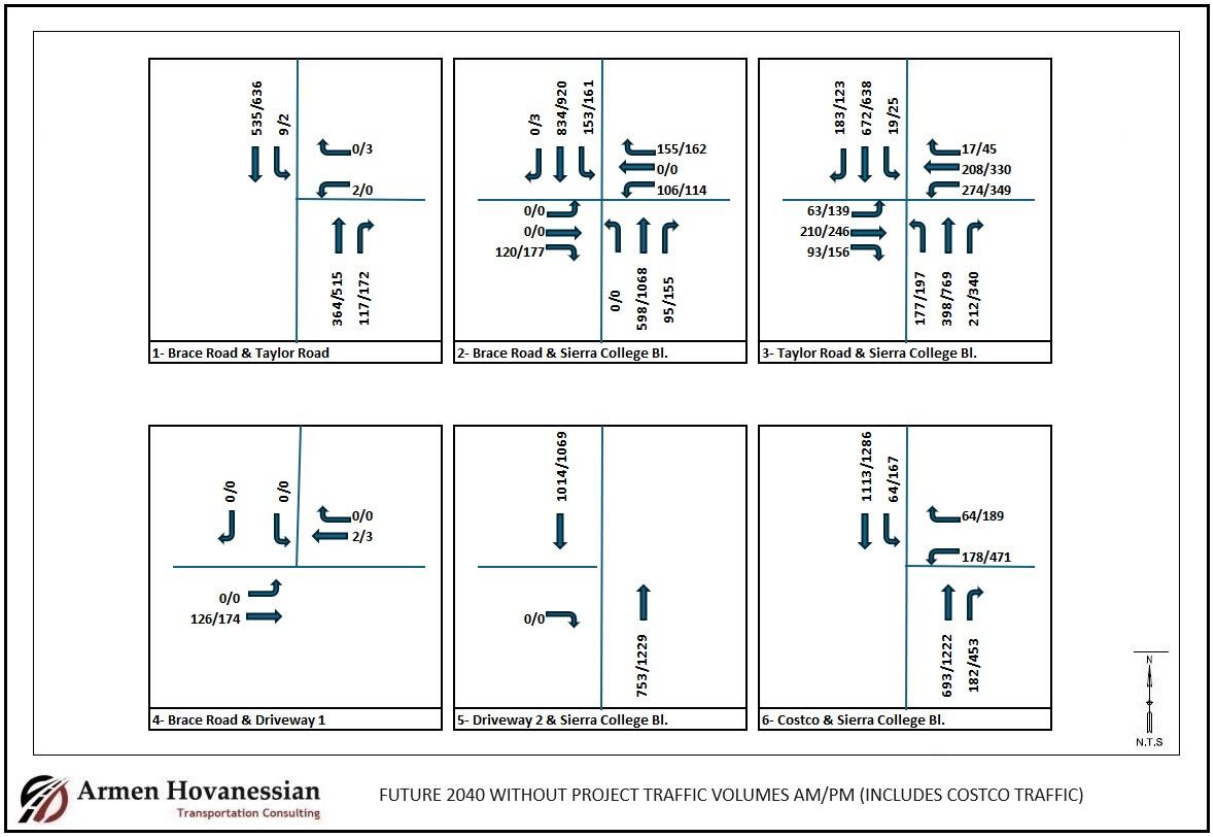
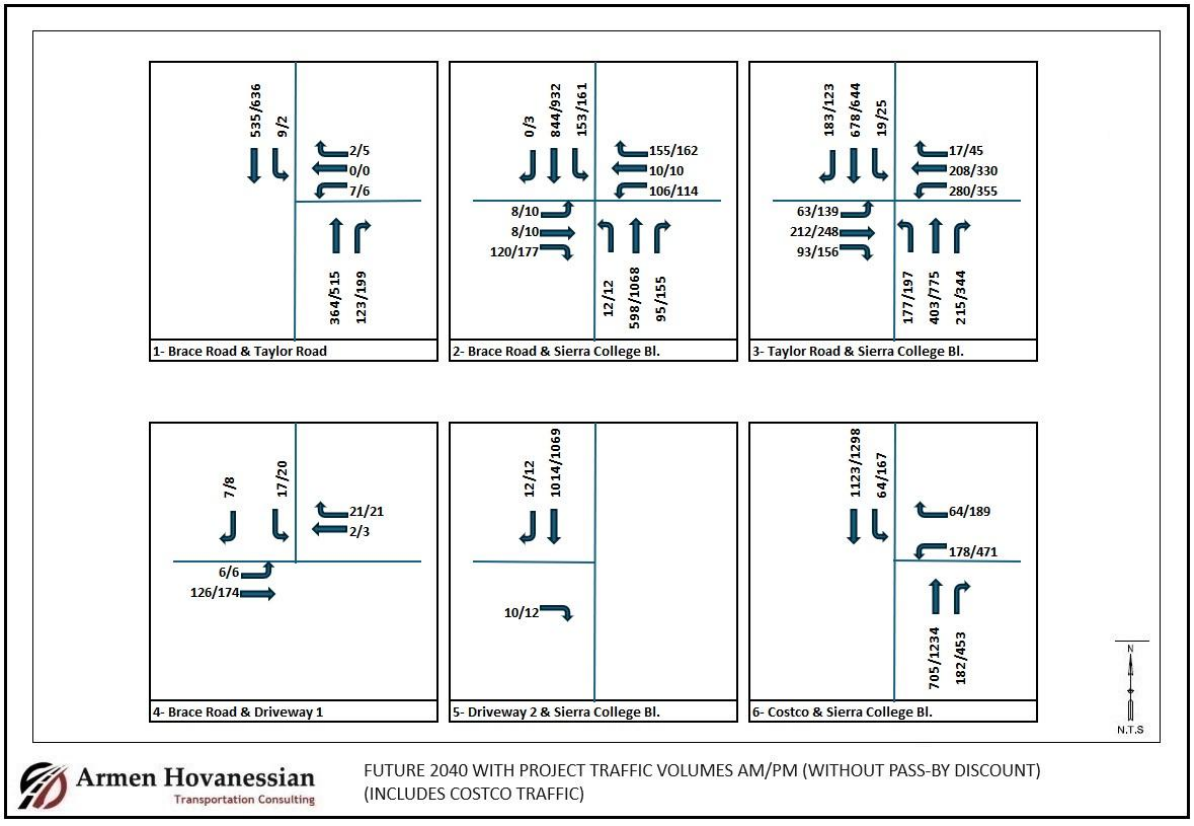


Figure 13 – Future (2040) Traffic Volumes with Project (Without Pass-by Discount)



Operational Analysis

Operational analyses of vehicle delays, levels of service, and queueing were conducted at the study intersections for the following conditions:

1) Existing Traffic Conditions
2) Existing Plus Project Traffic Conditions
3) Short Term Future (2025) Without Project Traffic Conditions
4) Short Term Future (2025) Plus Project Traffic Conditions
5) Long Term Future (2040) Without Project Traffic Conditions
6) Long Term Future (2040) Plus Project Traffic Conditions

Delay and Queueing Methodology

Signalized Intersections

The intersections of Taylor Road and Sierra College Boulevard and Brace Road and Sierra College Boulevard are signalized intersections. For signalized intersections, the Highway Capacity Manual (HCM) operations methodology for performing signalized intersection capacity analysis is used. This method relies on the determination of a delay or Level of Service (LOS) at each of the study intersections by first determining their corresponding average control delay per vehicle. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. It is a measure of driver discomfort, frustration, fuel consumption and lost travel time.

LOS varies from at best LOS A (free flow/excellent) to at worst LOS of F (stop-and-go/failure). Shown below, in Table 4, are the LOS categories and their corresponding HCM average control delay ranges for signalized intersections.

Table 4 - LOS at Signalized Intersection

Level of Service	Average Control Delay per Vehicle (Sec/Veh)	Definition
A	0 to 10.00	LOS A describes operations with a control delay of 10 s/veh or less. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	10.01 to 20.00	LOS B describes operations with control delay between 10 and 20 s/veh. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.
C	20.01 to 35.00	LOS C describes operations with control delay between 20 and 35 s/veh. This level is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	35.01 to 55.00	LOS D describes operations with control delay between 35 and 55 s/veh. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

E	55.01 to 80.00	LOS E describes operations with control delay between 55 and 80 s/veh. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	Over 80.00	LOS F describes operations with control delay exceeding 80 s/veh. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Unsignalized Intersections

The study intersection of Brace Road and Taylor Road is stop sign controlled on Brace Road. This analysis utilizes the Highway Capacity Manual (HCM) methodologies for performing one-way stop-controlled (OWSC) intersection capacity analyses. For TWSC intersection analysis, Level of Service (LOS) is calculated for each movement of the intersection and the most critical LOS (ie., the movement with highest delay) is the one that represents the effectiveness of that intersection. The LOS thresholds for OWSC intersections differ from those for signalized intersections to reflect different driver expectations. Table 5 below shows the LOS categories and their most common corresponding HCM average control delay ranges for OWSC intersections.

Table 5 - LOS at Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (Sec/Veh)
A	0 to 10.00
B	Over 10 to 15
C	Over 15 to 25
D	Over 25 to 35
E	Over 35 to 50
F	Over 50

Level of Service and Queueing Analysis

The results of the operational analyses for each study intersection are provided in tables Appendix 4 to summarize LOS, Delays and Queue Lengths for each traffic movement for the following traffic conditions:

- Existing
- Existing plus project
- Future 2025 without project
- Future 2025 with project
- Future 2040 without project
- Future 2040 with project

Please refer to Appendix 5 for the (HCM) analysis worksheets for the analyzed intersections.

Table 6 below provides a comparison of the intersectional LOS and Delay analysis for the aforementioned traffic conditions in addition to the Future (2025 & 2040) with project and project improvements to the intersection of Sierra College Boulevard and Brace Road.

Table 6 - Comparison of Intersectional LOS & Delay for Various Conditions

Summary of Delay and Level of Service																	
#	Intersection	Peak Hour	Existing		Existing + Project		Future 2025		Future 2025 + Project		Future 2025 + Project + Impr.		Future 2040		Future 2040 + Project		Future 2040 + Project + Impr.	
			Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS	Delay s/veh	LOS
1	Brace Road & Taylor Road	AM	0.1	A	0.2	A	0.1	A	0.5	A			0.1	A	0.5	A		
		PM	0	A	0.1	A	0	A	0.4	A			0.0	A	0.4	A		
2	Brace Road & Sierra College Bl.	AM	6.6	A	6.6	A	6.6	A	6.6	A	12.7**	B	7.0	A	7.0	A	13.9**	B
		PM	7.2	A	7.2	A	7.3	A	7.3	A	15.5**	B	8.0	A	8.2	A	19.7**	B
3	Taylor Road & Sierra College Bl.	AM	23.8	C	24	C	24.4	C	24.6	C			29.1	C	28.7*	C		
		PM	25.2	C	25.5	C	25.9	C	25.9	C			37.1	D	38.2	D		
4	Brace Road & Driveway 1	AM			1.7	A			1.7	A					1.6*	A		
		PM			1.5	A			1.5	A					1.3*	A		
5	Driveway 2 & Sierra College Bl.	AM			0.1	A			0.1	A					0.1	A		
		PM			0.2	A			0.2	A					0.1*	A		
6	Costco & Sierra College Bl.	AM	7.6	A	7.6	A	7.7	A	7.7	A			8.1	A	8.1	A		
		PM	20.3	C	20.3	C	21.6	C	21.6	C			31.8	C	31.8	C		

* Traffic pattern change due to improvements
** Traffic signal operation assumed protected movements. Overall operation can improve significantly at the time the traffic signal is designed and timed accordingly.

Project Driveway Analysis

The two project driveways were analyzed utilizing the HCM methodologies for performing OWSC intersection capacity analyses (Appendix 4). The driveway on Sierra College Boulevard north of Brace Road will operate with stop sign control for vehicles exiting the property and as a right-turn-in and right-turn-out driveway. The driveway on Brace Road west of Sierra College Boulevard will operate without turn restrictions and stop sign control for vehicles exiting the property.

Recommended Actions

The project does not have major adverse effects on access, safety, and circulation on the roadway system within the study area or at the analyzed intersections. However, the project proposes the following roadway improvements at the intersection of Sierra College Boulevard and Brace Road:

- Improve the westside of Sierra College Boulevard north of Brace Road to add a southbound right-turn-only lane, sidewalk, and curb and gutter along the project frontage
- Improve Brace Road on the north- and south side of Brace Road west of the Sierra College Boulevard to provide one westbound through, one eastbound through-shared-left, and one right turn only lanes, sidewalk, and curb and gutter along the project frontage
- Upgrade the existing traffic signal operation at the intersection of Sierra College Boulevard and Brace Road to provide adequate traffic signal control to accommodate the roadway improvements on Sierra College Boulevard and of Brace Road

Additionally, it is recommended to install a stop sign for the proposed driveway on Sierra College Boulevard north of Brace Road.

Project Queuing Analysis

In order to determine queueing of the car wash traffic, extensive surveys by observation of queue lengths were conducted at two similar Quick Quack Car Wash locations in the City of Rocklin; 1- 4830 Sierra College Boulevard and 2- 6071 Sanford Ranch Road. The data was collected between 7 AM to 7 PM on Friday August 30, 2024, in 5-minute intervals at both locations. Please refer to Appendix 6 for survey data sheets.

The surveyed car wash locations provided 2 queue lanes at the gates prior to entering the carwash tunnel. The observation of the queue lengths is as follows:

Location 1- 4830 Sierra College Boulevard: The maximum observed queue lengths were limited to 4 vehicles per queue line for a 5-minute interval. Only on 3 occasions 4-car queue lengths were observed during the 12-hour observation period. Table 7 provides the percentage frequency of the maximum queue length for the inner and the outer lanes.

Table 7 - Frequency of Maximum Queue Length Location 1

4830 Sierra College Boulevard		
Friday 8/30/2024		
Number of Vehicles in Queue	Occurrence Frequency	Inner Lane Percentage
0	41	28%
1	81	56%
2	20	14%
3	2	1%
4	0	0%
5	0	0%
Total	**144**	**100%**

4830 Sierra College Boulevard		
Friday 8/30/2024		
Number of Vehicles in Queue	Occurrence Frequency	Outer Lane Percentage
0	1	1%
1	86	60%
2	43	30%
3	11	8%
4	3	2%
5	0	0%
Total	**144**	**100%**

As shown in Table 7, the maximum queue lengths for the inner and the outer lanes are limited to 4 vehicles 100% and 98% of the time, respectively.

Location 2- 6071 Sanford Ranch Road: The maximum observed queue lengths were limited to 5 vehicles per queue line for a 5-minute interval. On one occasion 5-car queue lengths were observed during the 12-hour observation period. Table 8 provides the percentage frequency of the maximum queue length for the inner and the outer lanes.

Table 8 - Frequency of Maximum Queue Length Location 2

6071 Sanford Ranch Road		
Friday 8/30/2024		
Number of Vehicles in Queue	Occurrence Frequency	Inner Lane Percentage
0	60	42%
1	52	36%
2	26	18%
3	5	3%
4	1	1%
5	0	0%
Total	**144**	**100%**

6071 Sanford Ranch Road		
Friday 8/30/2024		
Number of Vehicles in Queue	Occurrence Frequency	Outer Lane Percentage
0	58	40%
1	24	17%
2	37	26%
3	16	11%
4	8	6%
5	1	1%
Total	**144**	**100%**

As shown in Table 8, the maximum queue lengths for the inner and the outer lanes are limited to 5 vehicles 100% and 99% of the time, respectively.

QUEUEING ANALYSIS CONCLUSION

As shown in the project site plan in Figure 2, the project is designed to provide capacity to accommodate 16 vehicles. Based on the field observation of similar operations, the proposed project queueing demand would not exceed the queueing capacity provided by the proposed project.

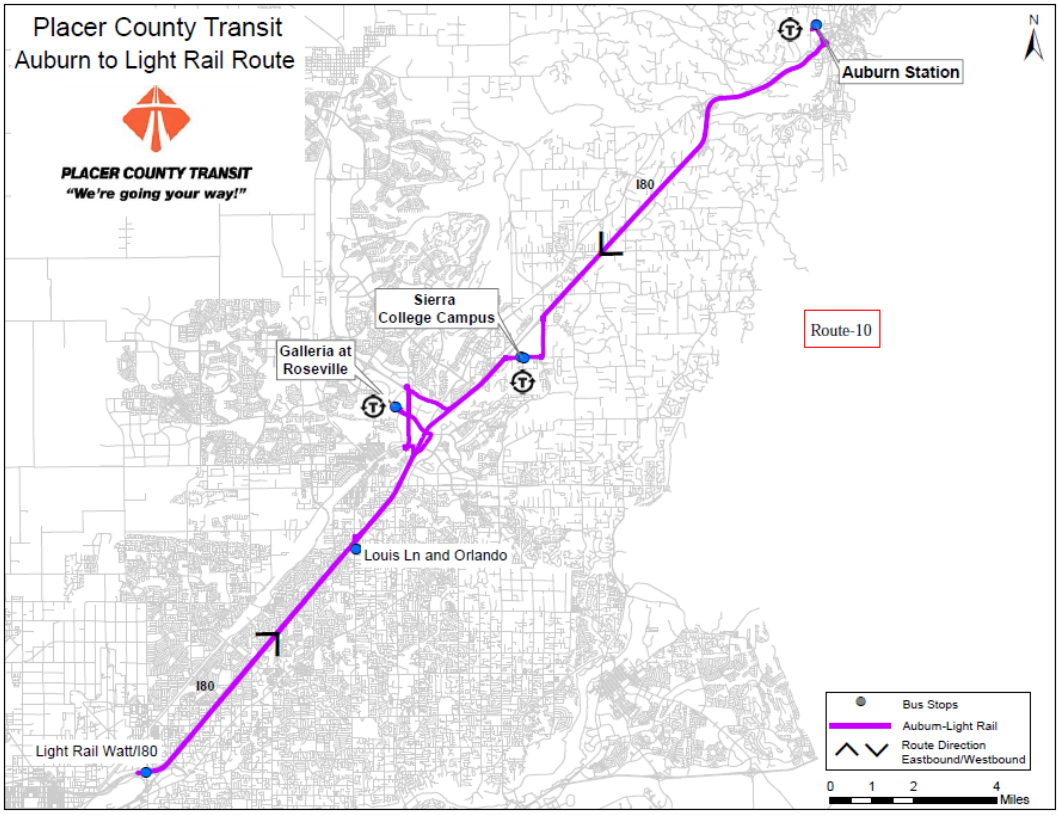
Traffic Signal Warrant Analysis

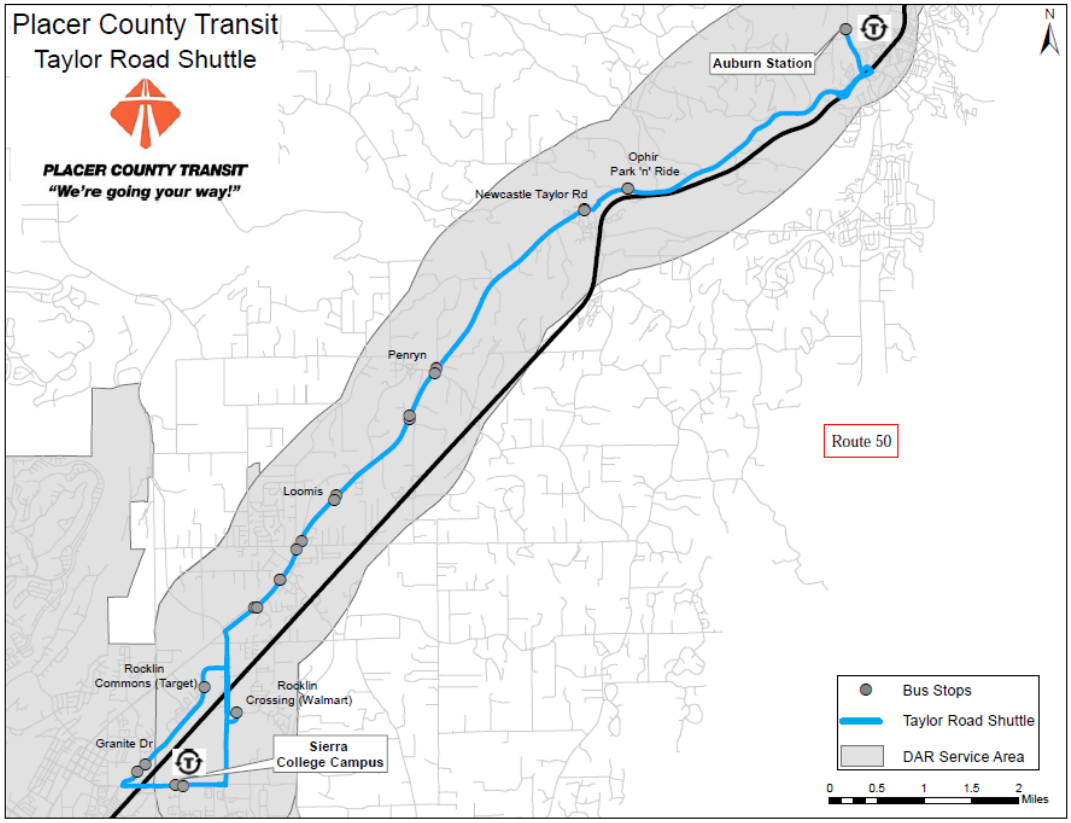
The California Manual of Uniform Traffic Control Devices, 2014 edition, traffic signal warrants worksheets were used to determine if the installation of a traffic signal would be warranted at the intersection of Brace Road and Taylor Road. The analysis revealed that the traffic signal warrants were not met. Please refer to Appendix 7 for a copy of the warrant sheet.

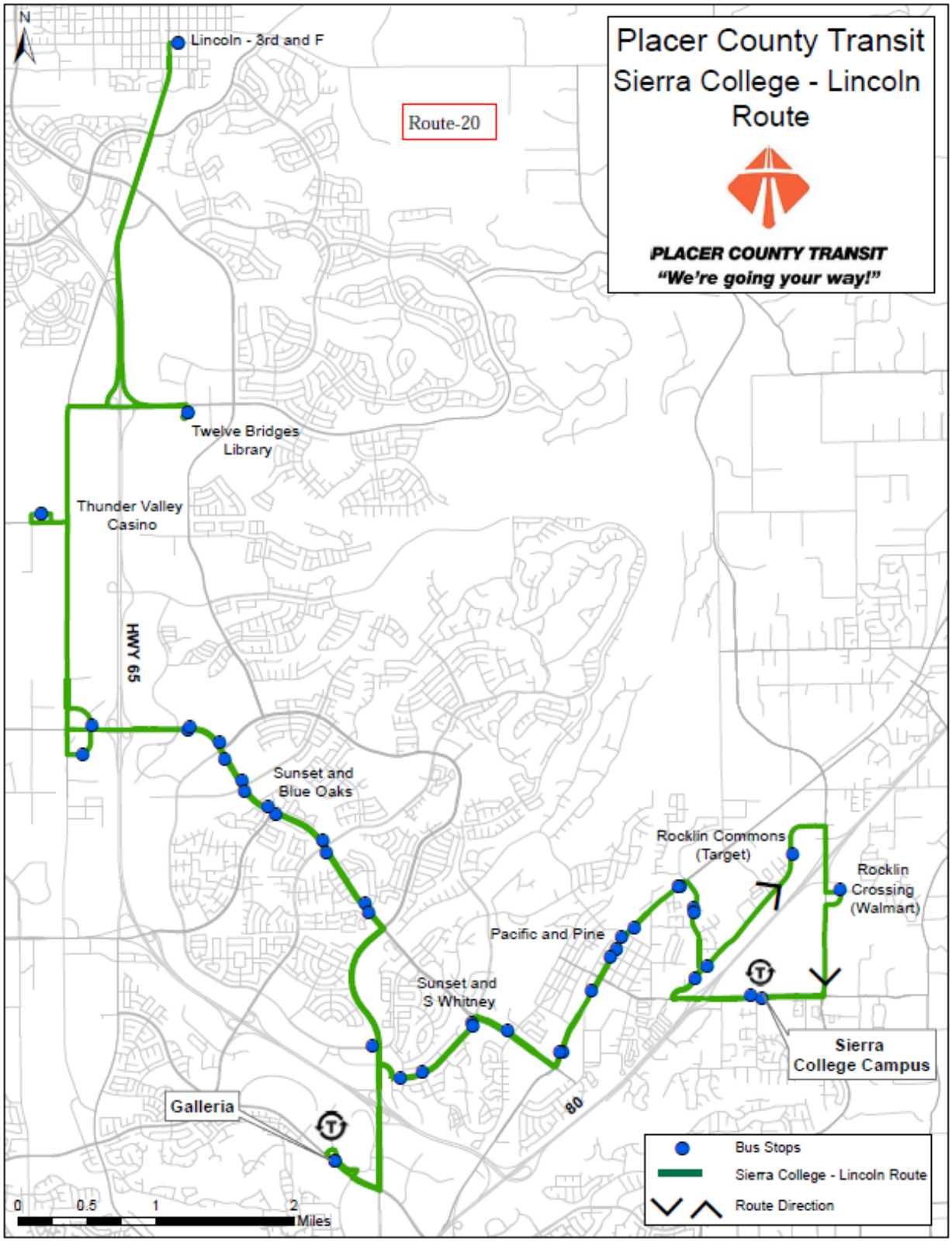
Stop Sign Analysis

An analysis for all-way stop sign control was conducted to determine if the installation of all-way stop sign control would meet the guidelines at the intersection of Brace Road and Taylor Road. The analysis revealed that the stop sign guidelines were not met. Please refer to Appendix 8 for a copy of the guidelines.

Appendix 1 – Transit Related Information


Placer County Transit
Auburn to Light Rail Route
PLACER COUNTY TRANSIT
"We're going your way!"
Auburn Station
I80
Sierra College Campus
Galleria at Roseville
Route-10
Louis Ln and Orlando
I80
Light Rail Watt/I80
Bus Stops
Auburn-Light Rail
Route Direction Eastbound/Westbound
0 1 2 4 Miles
N


Placer County Transit
Taylor Road Shuttle
PLACER COUNTY TRANSIT
"We're going your way!"
Auburn Station
Ophir Park 'n' Ride
Newcastle Taylor Rd
Penryn
Loomis
Route 50
Rocklin Commons (Target)
Rocklin Crossing (Walmart)
Granite Dr
Sierra College Campus
Bus Stops
Taylor Road Shuttle
DAR Service Area
0 0.5 1 1.5 2 Miles
N


Placer County Transit
Sierra College - Lincoln Route
PLACER COUNTY TRANSIT
"We're going your way!"
Route-20
N
Lincoln - 3rd and F
Twelve Bridges Library
Thunder Valley Casino
HWY 65
Sunset and Blue Oaks
Sunset and S Whitney
Pacific and Pine
Rocklin Commons (Target)
Rocklin Crossing (Walmart)
Sierra College Campus
Galleria
80
0
0.5
1
2
Miles
Bus Stops
Sierra College - Lincoln Route
Route Direction

Appendix 2 - Manual Traffic Counts

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : SierraCollegeBlvd_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 1

Groups Printed- Vehicles

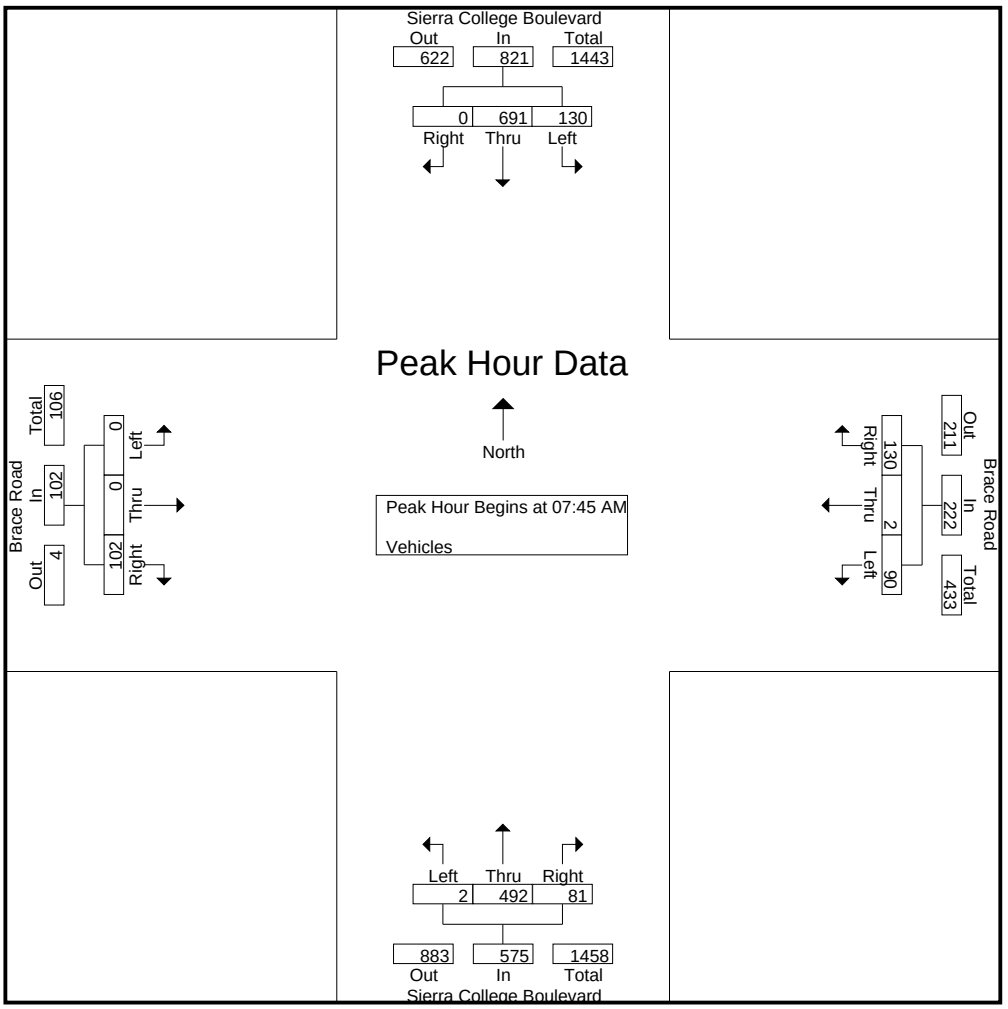
	Sierra College Boulevard Southbound			Brace Road Westbound			Sierra College Boulevard Northbound			Brace Road Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
06:00 AM	6	69	0	4	0	3	1	59	6	0	0	10	158
06:15 AM	9	65	0	3	1	11	0	62	4	0	0	13	168
06:30 AM	6	93	0	14	1	13	0	89	5	0	0	24	245
06:45 AM	20	90	0	8	0	18	0	122	5	0	0	19	282
Total	41	317	0	29	2	45	1	332	20	0	0	66	853
07:00 AM	19	108	0	13	0	13	0	71	5	0	0	19	248
07:15 AM	16	153	0	8	0	19	1	87	8	0	0	19	311
07:30 AM	33	158	2	31	0	27	0	117	11	0	0	24	403
07:45 AM	30	149	0	16	1	42	2	134	19	0	0	19	412
Total	98	568	2	68	1	101	3	409	43	0	0	81	1374
08:00 AM	35	187	0	24	0	42	0	129	20	0	0	28	465
08:15 AM	35	167	0	30	1	23	0	125	21	0	0	33	435
08:30 AM	30	188	0	20	0	23	0	104	21	0	0	22	408
08:45 AM	28	155	0	26	0	18	0	106	25	0	0	22	380
Total	128	697	0	100	1	106	0	464	87	0	0	105	1688
09:00 AM	18	177	1	19	0	22	0	126	14	0	0	18	395
09:15 AM	19	167	0	22	0	9	1	118	12	0	0	17	365
09:30 AM	8	173	0	18	0	14	0	115	15	0	0	16	359
09:45 AM	8	142	0	19	0	20	0	132	21	0	0	24	366
Total	53	659	1	78	0	65	1	491	62	0	0	75	1485
03:00 PM	32	171	2	34	0	32	0	191	18	0	0	33	513
03:15 PM	20	186	0	30	0	25	0	182	18	0	0	21	482
03:30 PM	31	174	0	19	0	24	0	206	23	0	0	35	512
03:45 PM	33	195	0	22	0	26	0	201	30	0	0	33	540
Total	116	726	2	105	0	107	0	780	89	0	0	122	2047
04:00 PM	34	196	0	24	0	29	0	224	21	0	0	42	570
04:15 PM	37	176	0	26	0	35	0	209	38	0	0	35	556
04:30 PM	26	163	2	25	0	45	0	216	43	0	0	41	561
04:45 PM	26	168	0	27	0	30	0	219	37	0	0	24	531
Total	123	703	2	102	0	139	0	868	139	0	0	142	2218
05:00 PM	29	175	0	39	0	33	0	199	26	0	0	44	545
05:15 PM	27	152	1	17	0	31	0	217	37	0	0	38	520
05:30 PM	43	151	0	24	0	33	0	213	24	0	0	19	507
05:45 PM	28	143	0	26	0	32	0	205	26	0	0	21	481
Total	127	621	1	106	0	129	0	834	113	0	0	122	2053
06:00 PM	29	138	0	15	0	21	0	189	19	0	0	24	435
06:15 PM	18	106	0	15	0	22	0	145	20	0	0	18	344
06:30 PM	15	112	0	27	1	23	0	156	26	0	0	12	372
06:45 PM	17	88	0	14	0	17	0	147	24	0	0	10	317
Total	79	444	0	71	1	83	0	637	89	0	0	64	1468
Grand Total	765	4735	8	659	5	775	5	4815	642	0	0	777	13186
Apprch %	13.9	86	0.1	45.8	0.3	53.9	0.1	88.2	11.8	0	0	100	
Total %	5.8	35.9	0.1	5	0	5.9	0	36.5	4.9	0	0	5.9	

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : SierraCollegeBlvd_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 2

	Sierra College Boulevard Southbound				Brace Road Westbound				Sierra College Boulevard Northbound				Brace Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	30	149	0	179	16	**1**	**42**	59	**2**	**134**	19	**155**	0	0	19	19	412
08:00 AM	**35**	187	0	**222**	24	0	42	**66**	0	129	20	149	0	0	28	28	**465**
08:15 AM	35	167	0	202	**30**	1	23	54	0	125	**21**	146	0	0	**33**	**33**	435
08:30 AM	30	**188**	0	218	20	0	23	43	0	104	21	125	0	0	22	22	408
Total Volume	130	691	0	821	90	2	130	222	2	492	81	575	0	0	102	102	1720
% App. Total	15.8	84.2	0		40.5	0.9	58.6		0.3	85.6	14.1		0	0	100		
PHF	.929	.919	.000	.925	.750	.500	.774	.841	.250	.918	.964	.927	.000	.000	.773	.773	.925

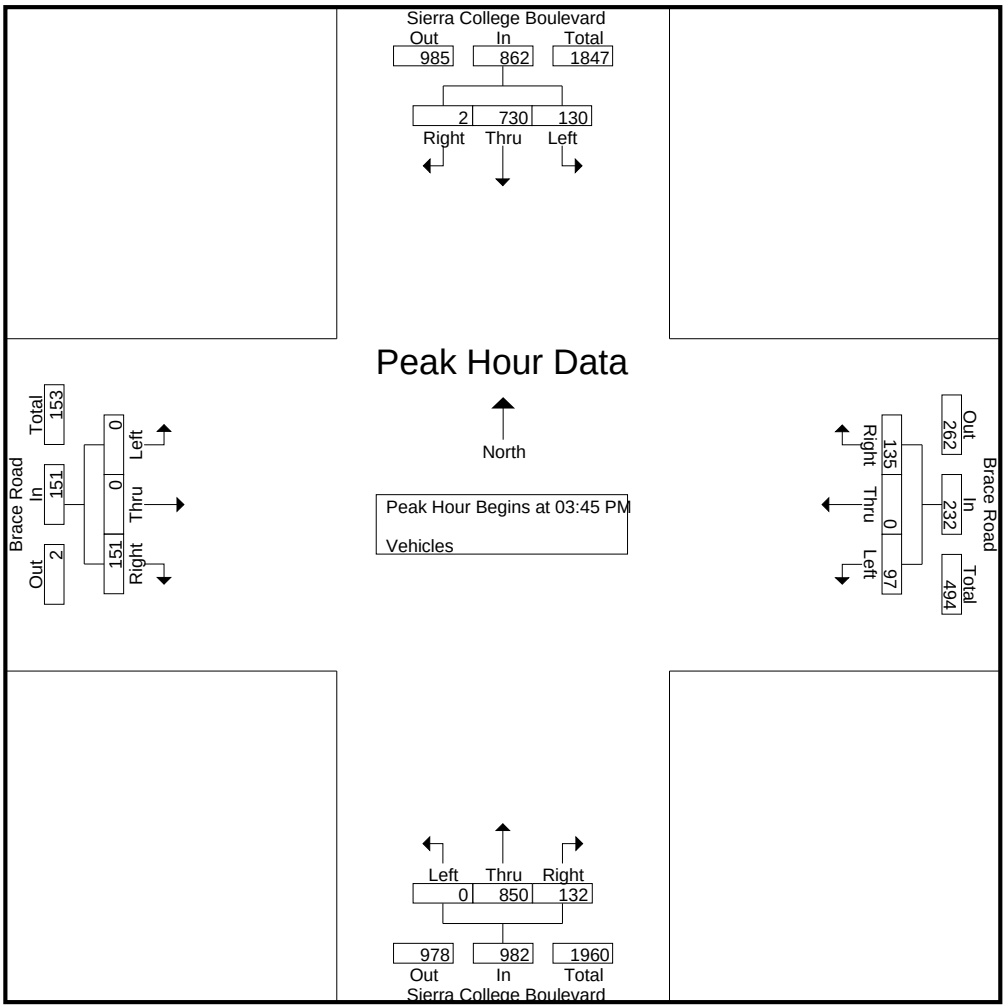


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : SierraCollegeBlvd_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 3

	Sierra College Boulevard Southbound				Brace Road Westbound				Sierra College Boulevard Northbound				Brace Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:45 PM																	
03:45 PM	33	195	0	228	22	0	26	48	0	201	30	231	0	0	33	33	540
04:00 PM	34	**196**	0	**230**	24	0	29	53	0	**224**	21	245	0	0	**42**	**42**	**570**
04:15 PM	**37**	176	0	213	**26**	0	35	61	0	209	38	247	0	0	35	35	556
04:30 PM	26	163	**2**	191	25	0	**45**	**70**	0	216	**43**	**259**	0	0	41	41	561
Total Volume	130	730	2	862	97	0	135	232	0	850	132	982	0	0	151	151	2227
% App. Total	15.1	84.7	0.2		41.8	0	58.2		0	86.6	13.4		0	0	100		
PHF	.878	.931	.250	.937	.933	.000	.750	.829	.000	.949	.767	.948	.000	.000	.899	.899	.977



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

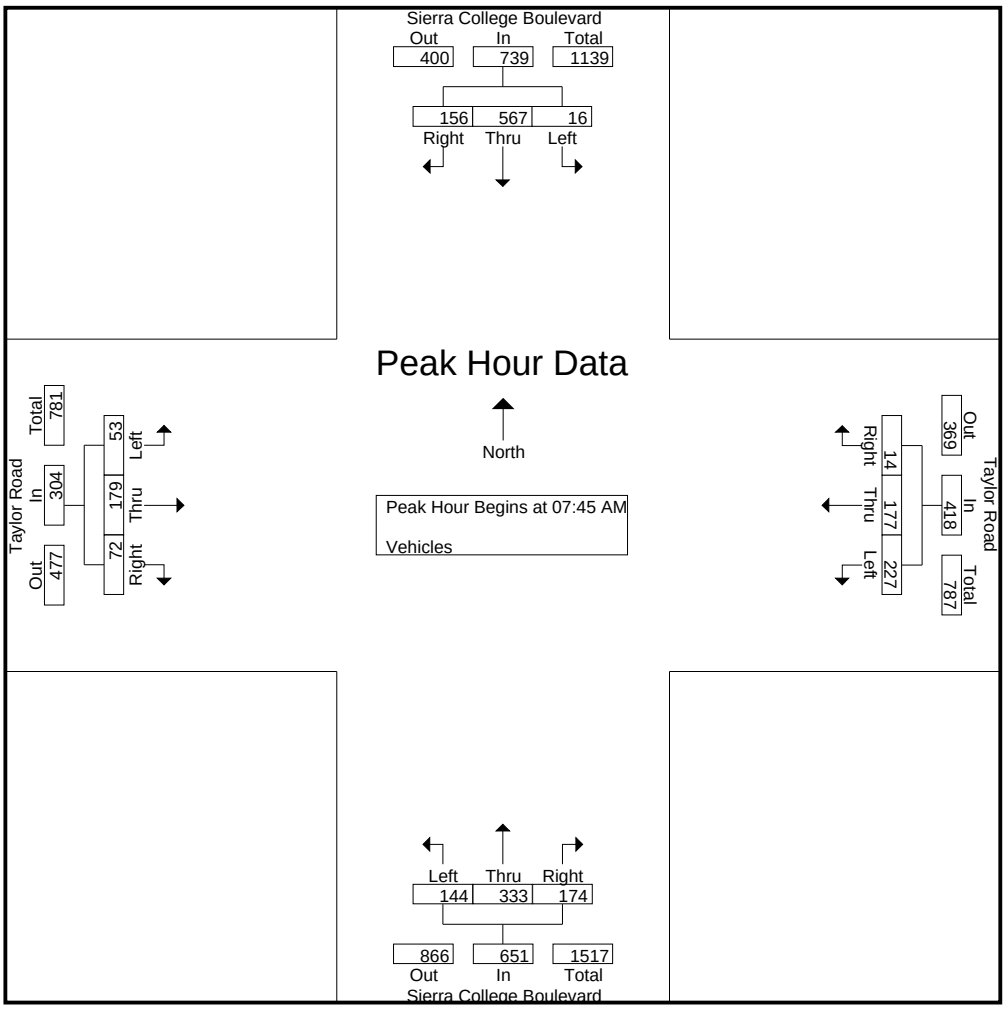
File Name : SierraCollegeBlvd_TaylorRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 1

Groups Printed- Vehicles

	Sierra College Boulevard Southbound			Taylor Road Westbound			Sierra College Boulevard Northbound			Taylor Road Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
06:00 AM	0	56	2	14	10	0	20	35	9	6	6	9	167
06:15 AM	0	59	12	12	13	0	25	36	11	2	11	7	188
06:30 AM	1	72	9	21	12	1	20	64	19	6	18	9	252
06:45 AM	8	85	24	17	23	3	35	65	29	7	33	8	337
Total	9	272	47	64	58	4	100	200	68	21	68	33	944
07:00 AM	3	100	12	29	27	0	29	70	23	9	24	5	331
07:15 AM	4	115	20	53	23	1	18	67	25	6	32	10	374
07:30 AM	1	136	22	43	40	4	29	75	49	21	32	22	474
07:45 AM	4	146	33	25	41	2	45	97	46	11	49	16	515
Total	12	497	87	150	131	7	121	309	143	47	137	53	1694
08:00 AM	3	145	34	59	40	5	34	99	47	16	52	23	557
08:15 AM	6	141	41	73	52	3	34	71	44	14	40	13	532
08:30 AM	3	135	48	70	44	4	31	66	37	12	38	20	508
08:45 AM	4	105	19	46	39	7	34	69	34	23	51	15	446
Total	16	526	142	248	175	19	133	305	162	65	181	71	2043
09:00 AM	6	113	19	51	43	3	40	65	39	11	30	28	448
09:15 AM	5	130	25	42	41	2	37	67	30	11	27	28	445
09:30 AM	3	121	17	48	40	7	33	62	51	17	40	24	463
09:45 AM	3	90	15	44	36	6	34	67	71	18	41	16	441
Total	17	454	76	185	160	18	144	261	191	57	138	96	1797
03:00 PM	6	130	24	55	39	13	39	129	62	19	52	21	589
03:15 PM	7	132	23	58	52	11	40	113	69	24	72	18	619
03:30 PM	6	125	24	44	54	12	49	134	66	21	66	23	624
03:45 PM	6	145	30	65	57	4	46	120	74	31	59	28	665
Total	25	532	101	222	202	40	174	496	271	95	249	90	2497
04:00 PM	3	134	23	77	84	10	42	168	60	27	47	36	711
04:15 PM	9	144	24	61	73	10	31	169	68	25	45	22	681
04:30 PM	3	103	28	71	68	14	28	180	64	35	59	27	680
04:45 PM	7	121	31	49	54	5	34	206	42	28	60	24	661
Total	22	502	106	258	279	39	135	723	234	115	211	109	2733
05:00 PM	3	122	28	67	76	10	31	180	54	35	49	23	678
05:15 PM	9	92	20	55	60	11	21	234	48	32	52	20	654
05:30 PM	7	117	21	51	57	3	34	206	37	22	55	15	625
05:45 PM	5	106	19	51	60	7	27	179	40	28	50	16	588
Total	24	437	88	224	253	31	113	799	179	117	206	74	2545
06:00 PM	3	75	35	58	44	5	17	125	52	31	37	14	496
06:15 PM	2	68	14	63	41	4	23	97	35	16	37	8	408
06:30 PM	1	63	20	37	40	9	23	123	45	16	34	11	422
06:45 PM	4	58	14	29	33	5	18	96	33	9	36	12	347
Total	10	264	83	187	158	23	81	441	165	72	144	45	1673
Grand Total	135	3484	730	1538	1416	181	1001	3534	1413	589	1334	571	15926
Apprch %	3.1	80.1	16.8	49.1	45.2	5.8	16.8	59.4	23.8	23.6	53.5	22.9	
Total %	0.8	21.9	4.6	9.7	8.9	1.1	6.3	22.2	8.9	3.7	8.4	3.6	

File Name : SierraCollegeBlvd_TaylorRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 2

	Sierra College Boulevard Southbound				Taylor Road Westbound				Sierra College Boulevard Northbound				Taylor Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	4	**146**	33	183	25	41	2	68	**45**	97	46	**188**	11	49	16	76	515
08:00 AM	3	145	34	182	59	40	**5**	104	34	**99**	**47**	180	**16**	**52**	**23**	**91**	**557**
08:15 AM	**6**	141	41	**188**	**73**	**52**	3	**128**	34	71	44	149	14	40	13	67	532
08:30 AM	3	135	**48**	186	70	44	4	118	31	66	37	134	12	38	20	70	508
Total Volume	16	567	156	739	227	177	14	418	144	333	174	651	53	179	72	304	2112
% App. Total	2.2	76.7	21.1		54.3	42.3	3.3		22.1	51.2	26.7		17.4	58.9	23.7		
PHF	.667	.971	.813	.983	.777	.851	.700	.816	.800	.841	.926	.866	.828	.861	.783	.835	.948

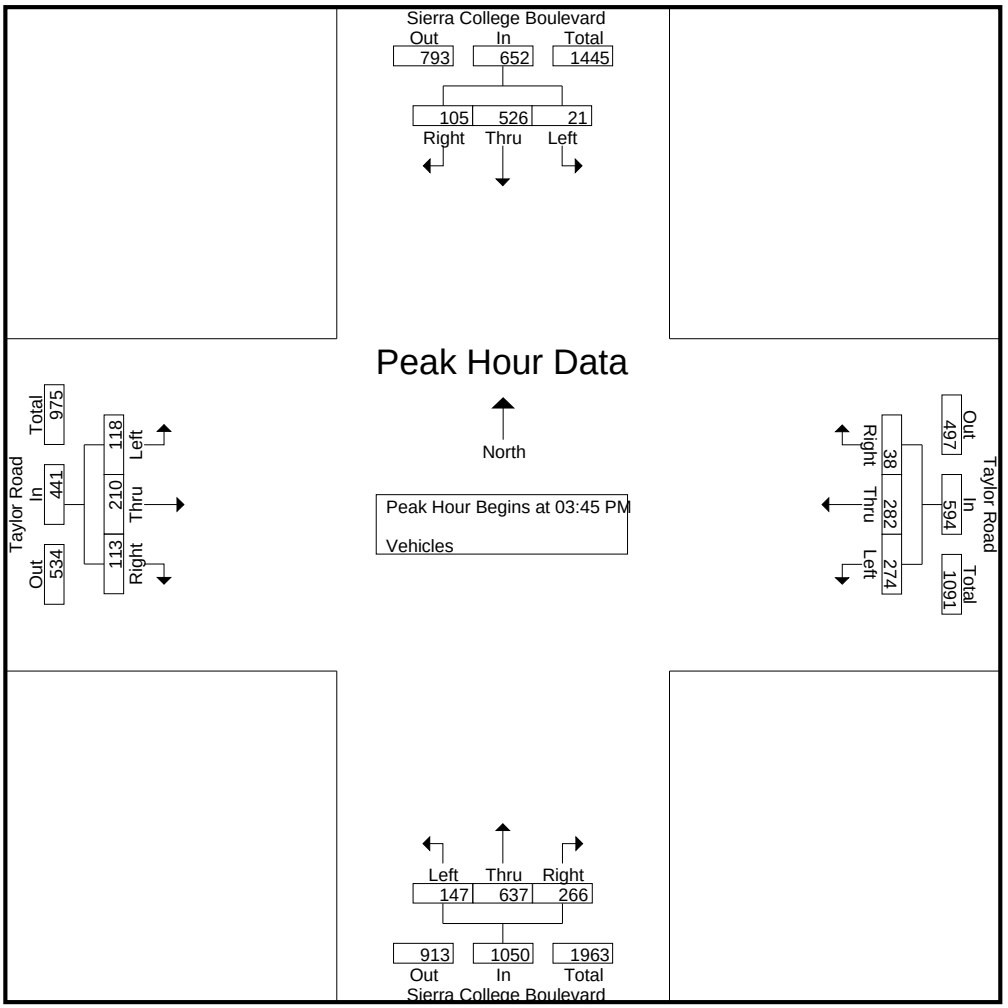


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : SierraCollegeBlvd_TaylorRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 3

	Sierra College Boulevard Southbound				Taylor Road Westbound				Sierra College Boulevard Northbound				Taylor Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:45 PM																	
03:45 PM	6	**145**	**30**	**181**	65	57	4	126	**46**	120	**74**	240	31	**59**	28	118	665
04:00 PM	3	134	23	160	**77**	**84**	10	**171**	42	168	60	270	27	47	**36**	110	**711**
04:15 PM	**9**	144	24	177	61	73	10	144	31	169	68	268	25	45	22	92	681
04:30 PM	3	103	28	134	71	68	**14**	153	28	**180**	64	**272**	**35**	59	27	**121**	680
Total Volume	21	526	105	652	274	282	38	594	147	637	266	1050	118	210	113	441	2737
% App. Total	3.2	80.7	16.1		46.1	47.5	6.4		14	60.7	25.3		26.8	47.6	25.6		
PHF	.583	.907	.875	.901	.890	.839	.679	.868	.799	.885	.899	.965	.843	.890	.785	.911	.962



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : TaylorRd-PacificSt_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 1

Groups Printed- Vehicles

	Taylor Road Southbound			Brace Road Westbound			Pacific Street Northbound			Eastbound			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
06:00 AM	0	33	0	0	0	0	0	21	10	0	0	0	64
06:15 AM	0	43	0	1	0	0	0	22	12	0	0	0	78
06:30 AM	1	51	0	1	0	0	0	28	23	0	0	0	104
06:45 AM	0	91	0	0	0	0	0	47	18	0	0	0	156
Total	1	218	0	2	0	0	0	118	63	0	0	0	402
07:00 AM	0	61	0	0	0	0	0	40	18	0	0	0	119
07:15 AM	0	56	0	1	0	0	0	51	21	0	0	0	129
07:30 AM	2	90	0	2	0	0	0	71	23	0	0	0	188
07:45 AM	6	97	0	3	0	0	0	79	14	0	0	0	199
Total	8	304	0	6	0	0	0	241	76	0	0	0	635
08:00 AM	3	108	0	0	0	0	0	90	26	0	0	0	227
08:15 AM	0	128	0	1	0	0	0	74	33	0	0	0	236
08:30 AM	1	124	0	0	0	0	0	61	23	0	0	0	209
08:45 AM	3	97	0	0	0	0	0	86	18	0	0	0	204
Total	7	457	0	1	0	0	0	311	100	0	0	0	876
09:00 AM	2	98	0	0	0	2	0	73	17	0	0	0	192
09:15 AM	0	96	0	0	0	0	0	54	18	0	0	0	168
09:30 AM	1	89	0	0	0	0	0	79	17	0	0	0	186
09:45 AM	2	85	0	0	0	0	0	79	20	0	0	0	186
Total	5	368	0	0	0	2	0	285	72	0	0	0	732
03:00 PM	1	100	0	0	0	2	0	96	32	0	0	0	231
03:15 PM	0	116	0	0	0	0	0	112	22	0	0	0	250
03:30 PM	0	140	0	0	0	0	0	110	37	0	0	0	287
03:45 PM	0	134	0	0	0	0	0	121	32	0	0	0	287
Total	1	490	0	0	0	2	0	439	123	0	0	0	1055
04:00 PM	1	144	0	0	0	0	0	106	40	0	0	0	291
04:15 PM	0	131	0	0	0	0	0	96	36	0	0	0	263
04:30 PM	0	134	0	0	0	2	0	117	39	0	0	0	292
04:45 PM	0	118	0	0	0	0	0	112	23	0	0	0	253
Total	1	527	0	0	0	2	0	431	138	0	0	0	1099
05:00 PM	1	131	0	0	0	0	0	110	44	0	0	0	286
05:15 PM	0	105	0	1	0	0	0	106	38	0	0	0	250
05:30 PM	0	116	0	0	0	0	0	95	21	0	0	0	232
05:45 PM	1	108	0	0	0	0	0	96	19	0	0	0	224
Total	2	460	0	1	0	0	0	407	122	0	0	0	992
06:00 PM	1	89	0	0	0	0	0	85	24	0	0	0	199
06:15 PM	0	71	0	0	0	0	0	58	18	0	0	0	147
06:30 PM	0	90	0	1	0	0	0	62	12	0	0	0	165
06:45 PM	0	63	0	0	0	0	0	61	10	0	0	0	134
Total	1	313	0	1	0	0	0	266	64	0	0	0	645
Grand Total	26	3137	0	11	0	6	0	2498	758	0	0	0	6436
Apprch %	0.8	99.2	0	64.7	0	35.3	0	76.7	23.3	0	0	0	
Total %	0.4	48.7	0	0.2	0	0.1	0	38.8	11.8	0	0	0	

CITY TRAFFIC COUNTERS

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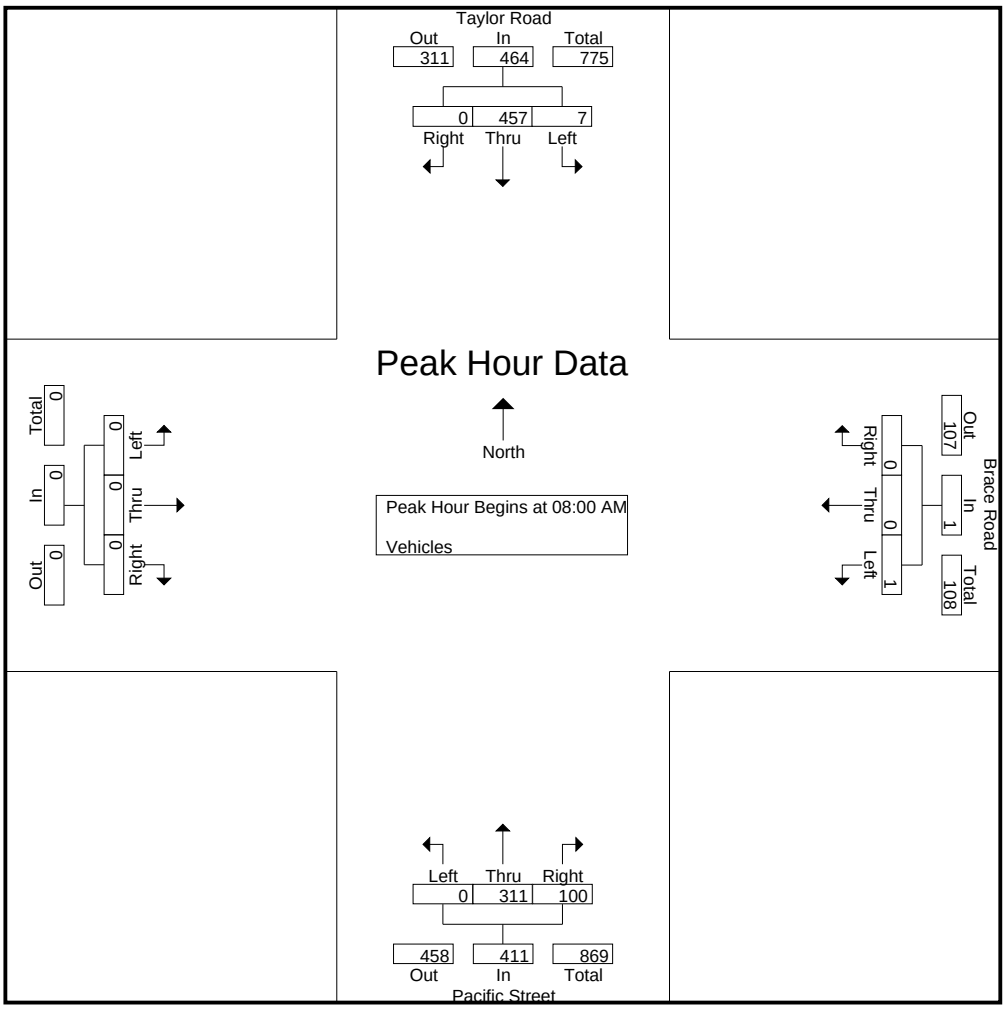
File Name : TaylorRd-PacificSt_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 2

	Taylor Road Southbound				Brace Road Westbound				Pacific Street Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	**3**	108	0	111	0	0	0	0	0	**90**	26	**116**	0	0	0	0	227
08:15 AM	0	**128**	0	**128**	**1**	0	0	**1**	0	74	**33**	107	0	0	0	0	**236**
08:30 AM	1	124	0	125	0	0	0	0	0	61	23	84	0	0	0	0	209
08:45 AM	3	97	0	100	0	0	0	0	0	86	18	104	0	0	0	0	204
Total Volume	7	457	0	464	1	0	0	1	0	311	100	411	0	0	0	0	876
% App. Total	1.5	98.5	0		100	0	0		0	75.7	24.3		0	0	0		
PHF	.583	.893	.000	.906	.250	.000	.000	.250	.000	.864	.758	.886	.000	.000	.000	.000	.928

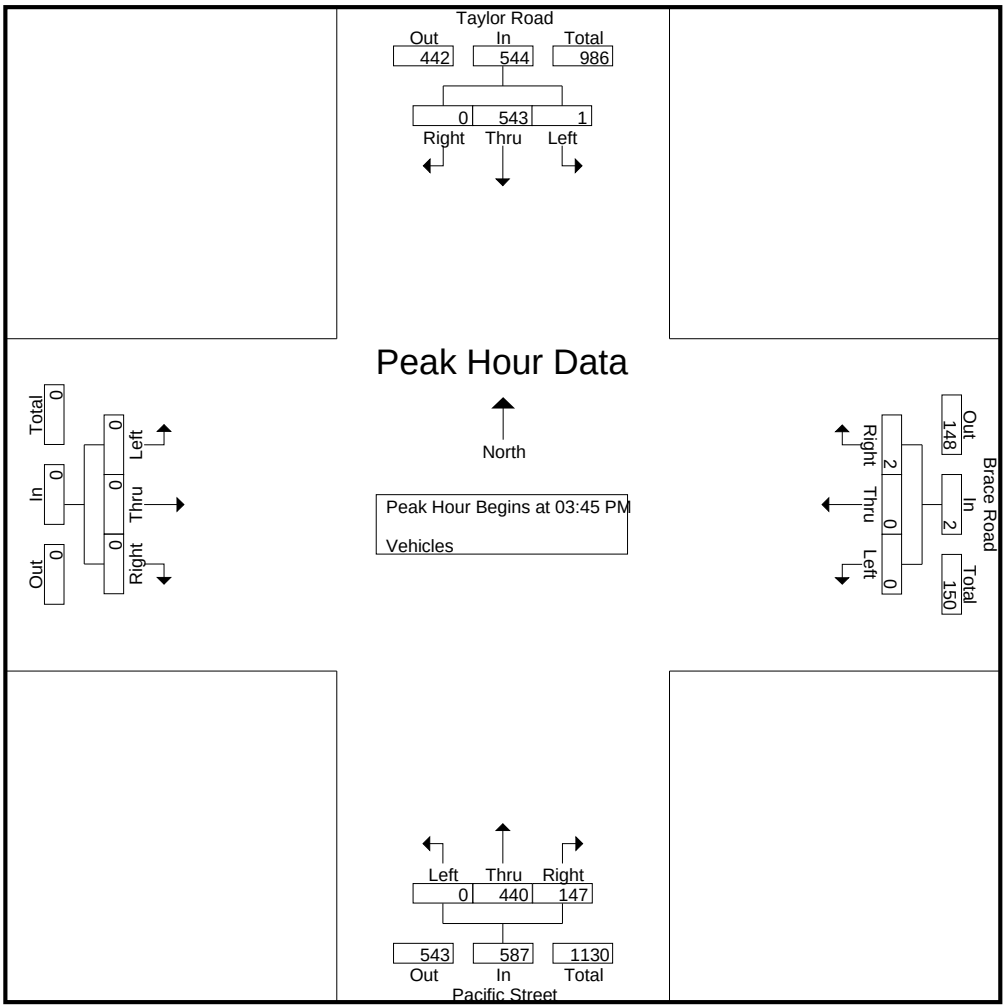


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : TaylorRd-PacificSt_BraceRd
Site Code : 00000000
Start Date : 5/10/2023
Page No : 3

	Taylor Road Southbound				Brace Road Westbound				Pacific Street Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:45 PM																	
03:45 PM	0	134	0	134	0	0	0	0	0	**121**	32	153	0	0	0	0	287
04:00 PM	**1**	**144**	0	**145**	0	0	0	0	0	106	**40**	146	0	0	0	0	291
04:15 PM	0	131	0	131	0	0	0	0	0	96	36	132	0	0	0	0	263
04:30 PM	0	134	0	134	0	0	**2**	**2**	0	117	39	**156**	0	0	0	0	**292**
Total Volume	1	543	0	544	0	0	2	2	0	440	147	587	0	0	0	0	1133
% App. Total	0.2	99.8	0		0	0	100		0	75	25		0	0	0		
PHF	.250	.943	.000	.938	.000	.000	.250	.250	.000	.909	.919	.941	.000	.000	.000	.000	.970



Appendix 3 - Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition

Land Use: 948
Automated Car Wash

Description

An automated car wash is a facility that allows for the mechanical cleaning of the exterior of vehicles. Manual cleaning service may also be available at the facility. Self-service car wash (Land Use 947) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in New Jersey, New York, and Washington.

Source Numbers

552, 555, 585, 599, 954

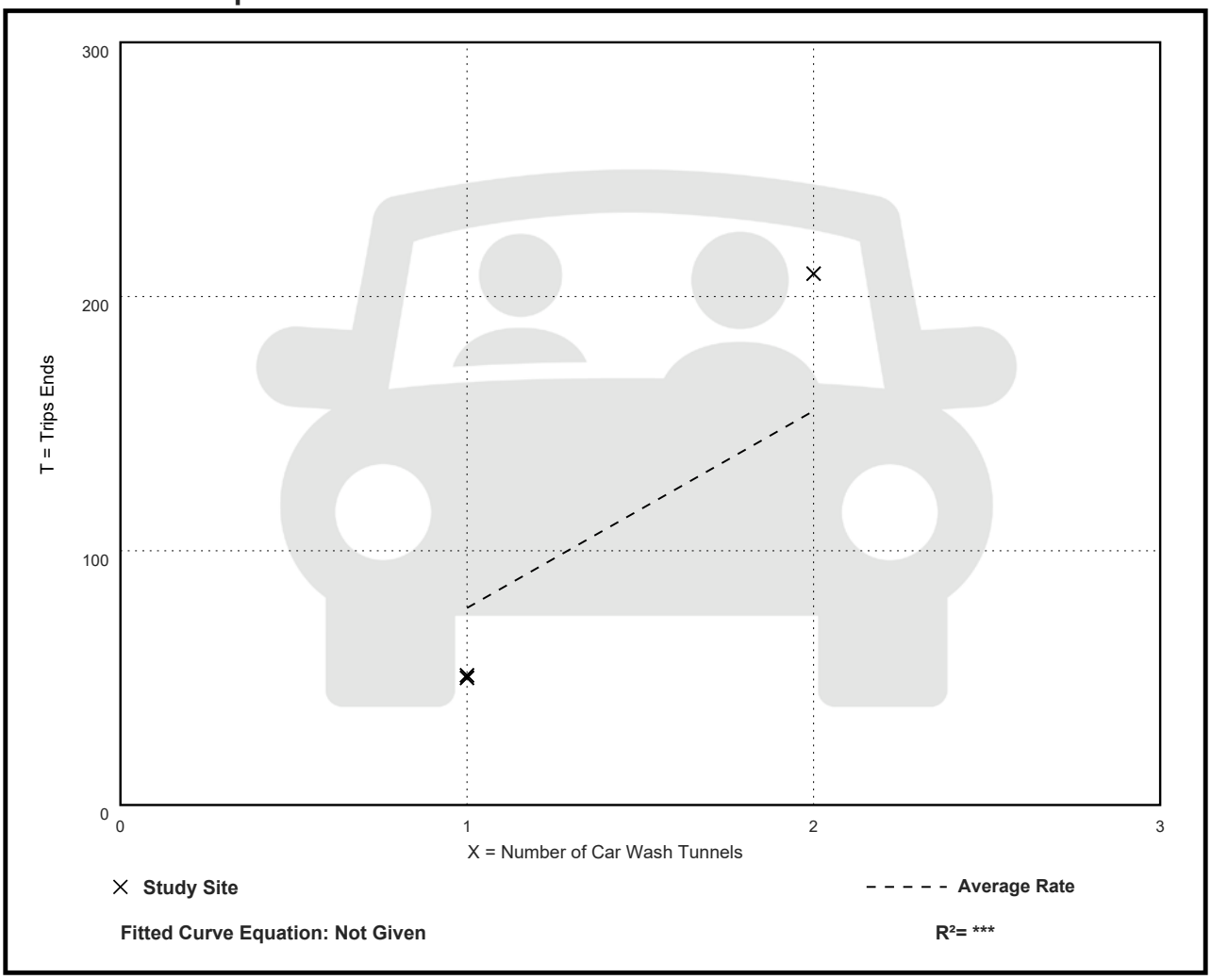
Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

Data Plot and Equation



Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Saturday, Peak Hour of Generator

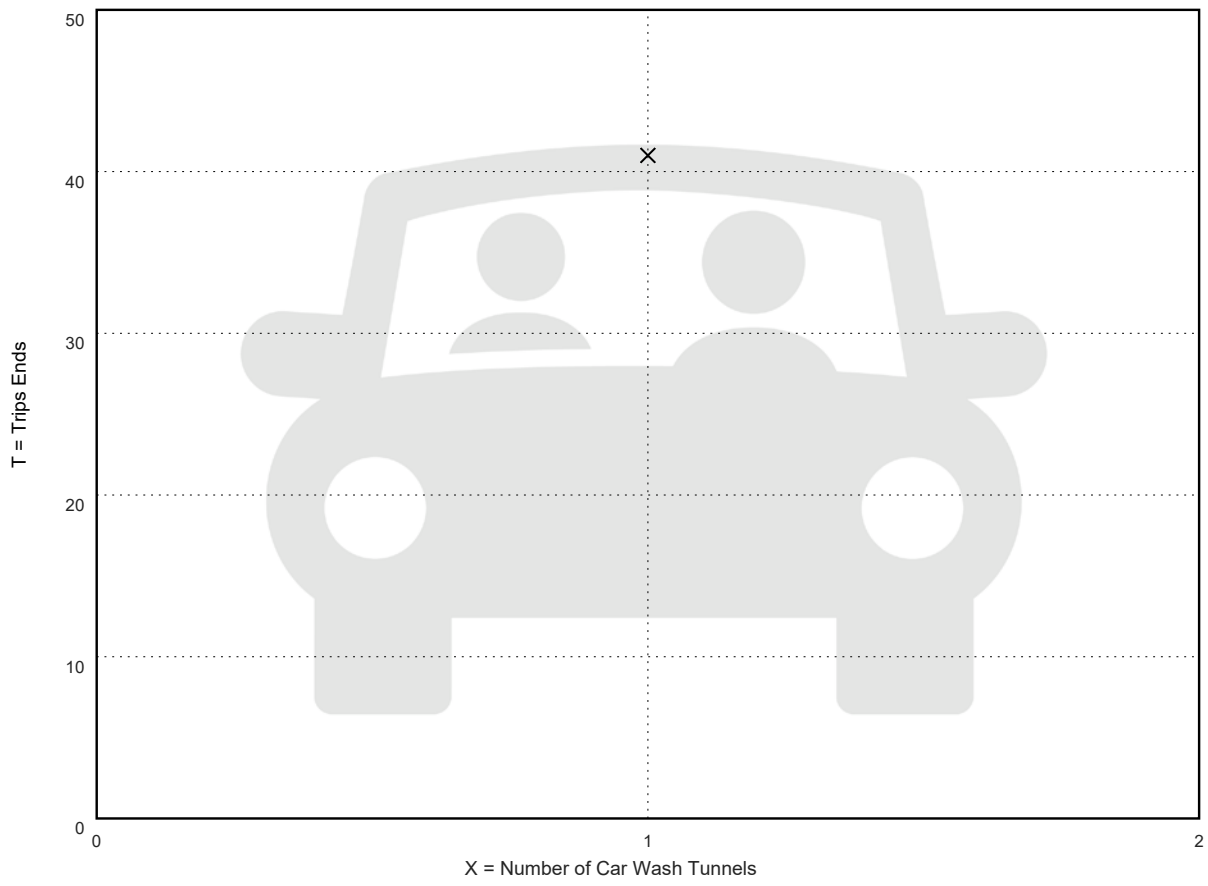
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
41.00	41.00 - 41.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automated Car Wash
(948)

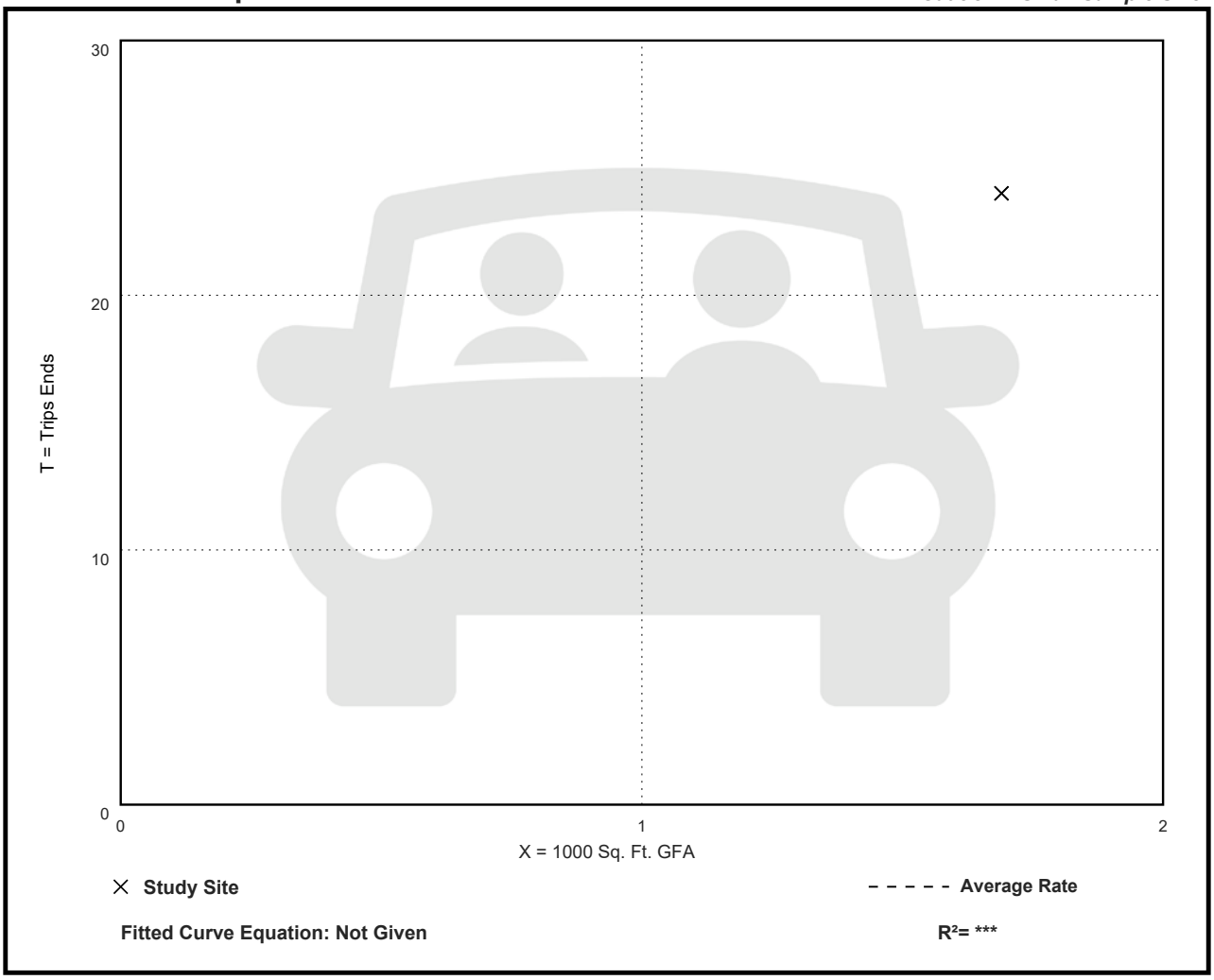
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.20	14.20 - 14.20	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Automated Car Wash
(948)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

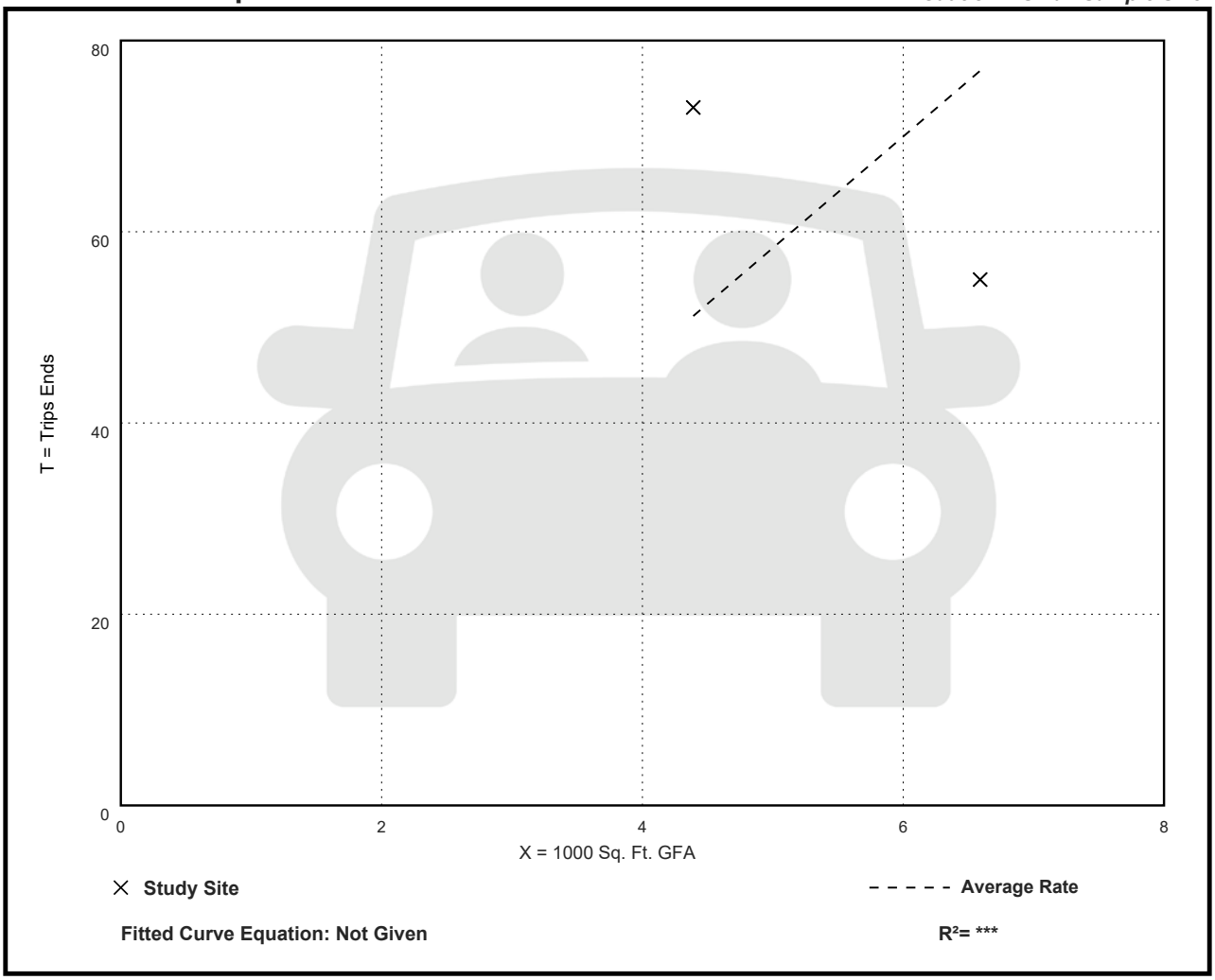
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.66	8.35 - 16.63	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Automated Car Wash
(948)

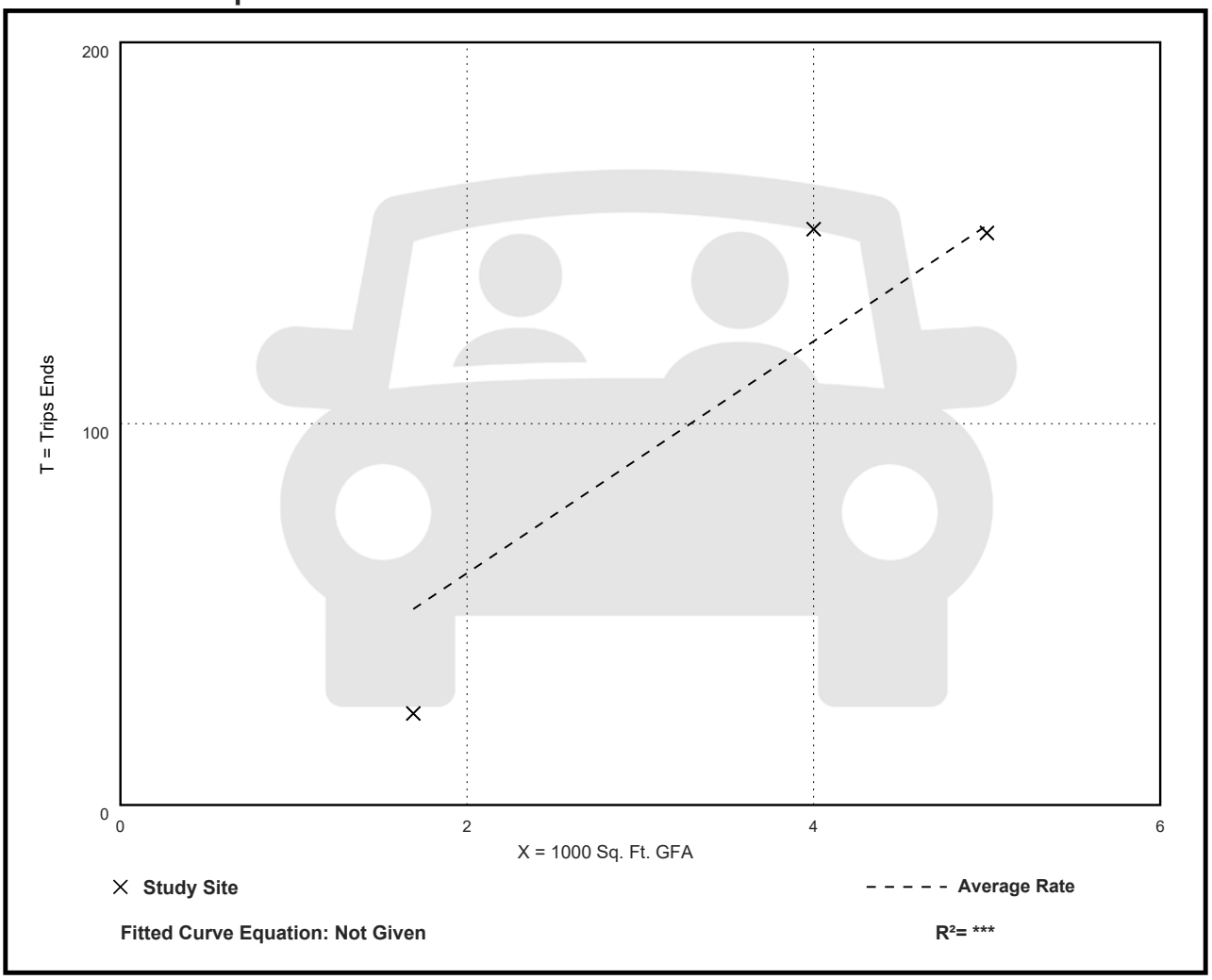
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
30.40	14.20 - 37.75	9.63

Data Plot and Equation



Land Use: 948
Automated Car Wash

Description

An automated car wash is a facility that allows for the mechanical cleaning of the exterior of vehicles. Manual cleaning service may also be available at the facility. Self-service car wash (Land Use 947) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in New Jersey, New York, and Washington.

Source Numbers

552, 555, 585, 599, 954

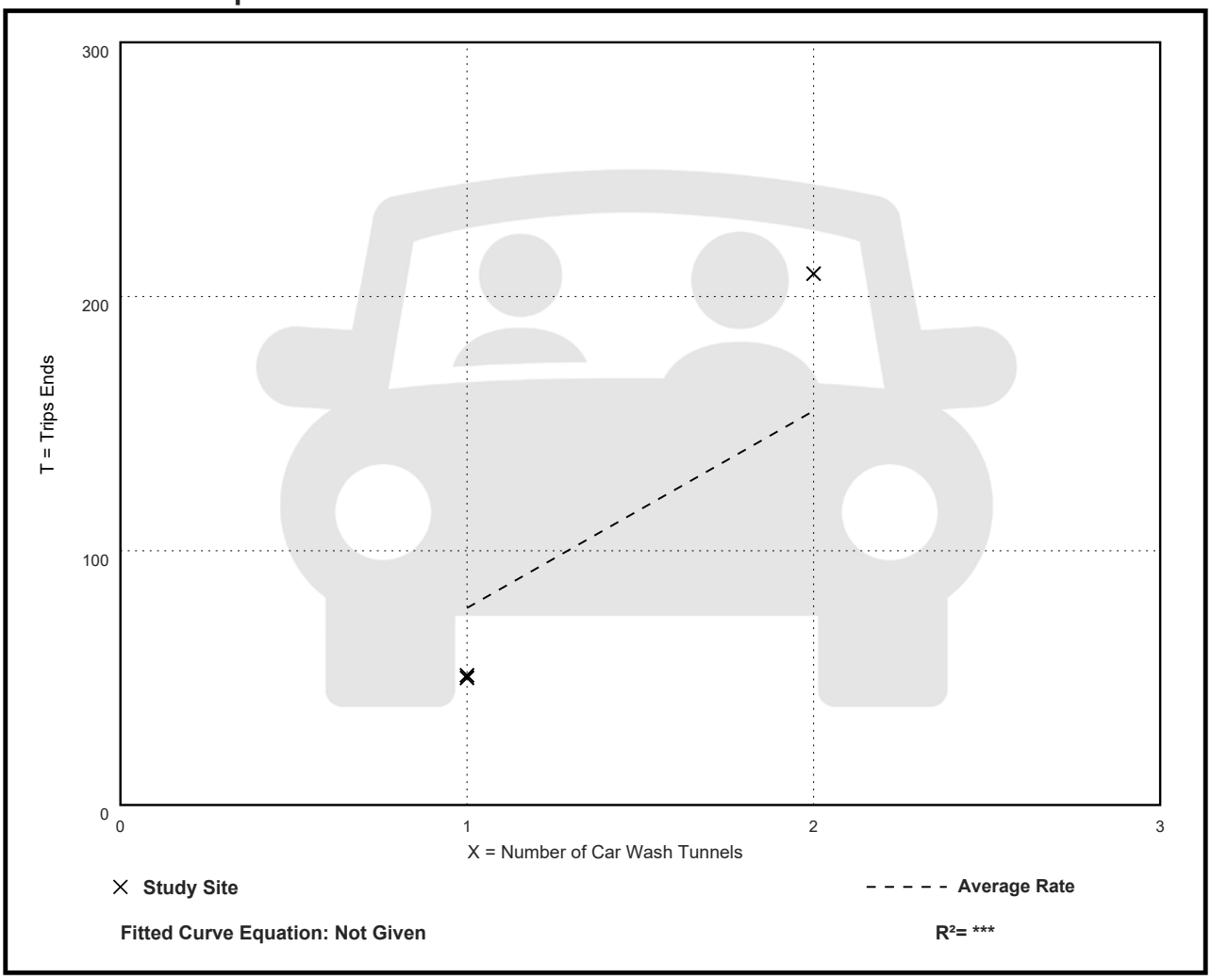
Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

Data Plot and Equation



Automated Car Wash
(948)

Vehicle Trip Ends vs: Car Wash Tunnels
On a: Saturday, Peak Hour of Generator

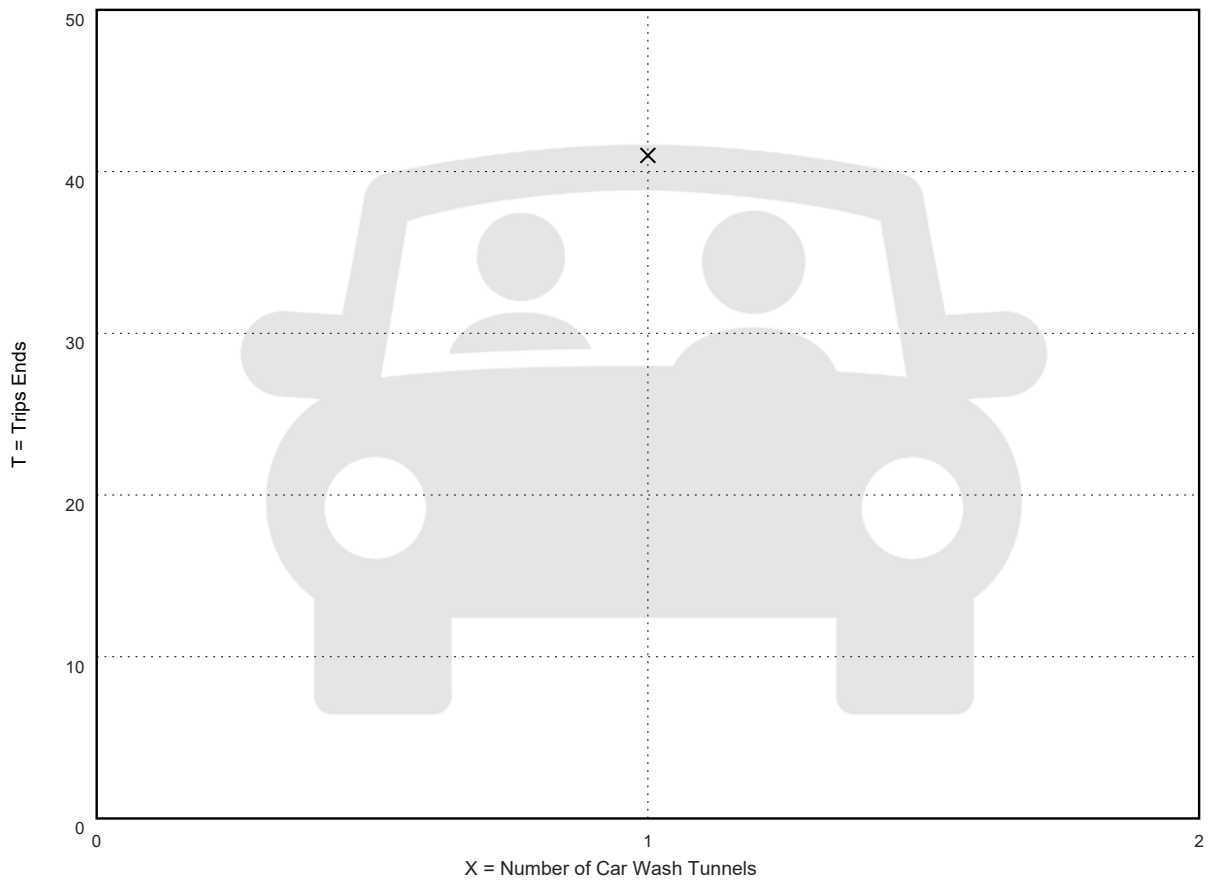
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Car Wash Tunnels: 1
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
41.00	41.00 - 41.00	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automated Car Wash
(948)

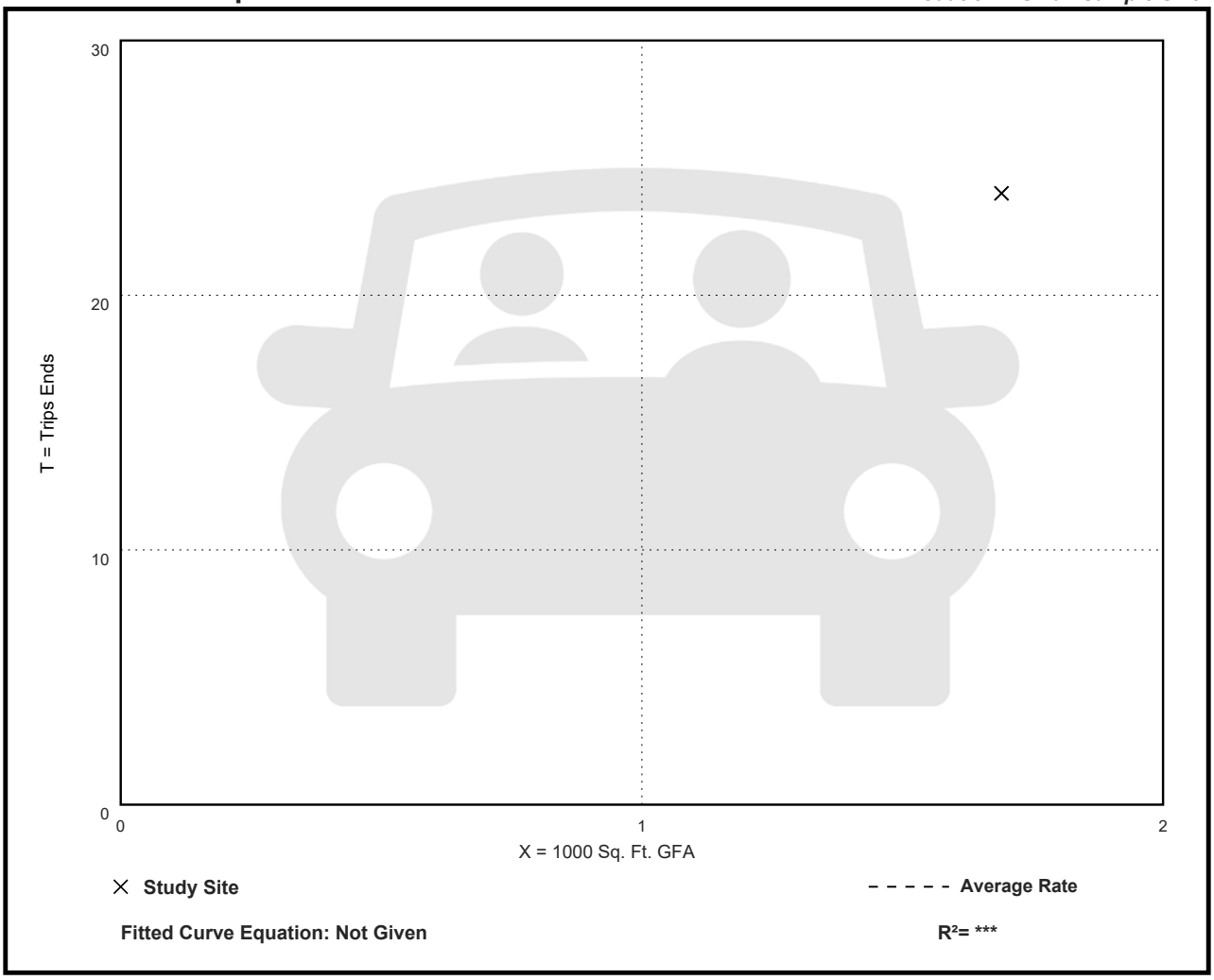
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.20	14.20 - 14.20	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Automated Car Wash
(948)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

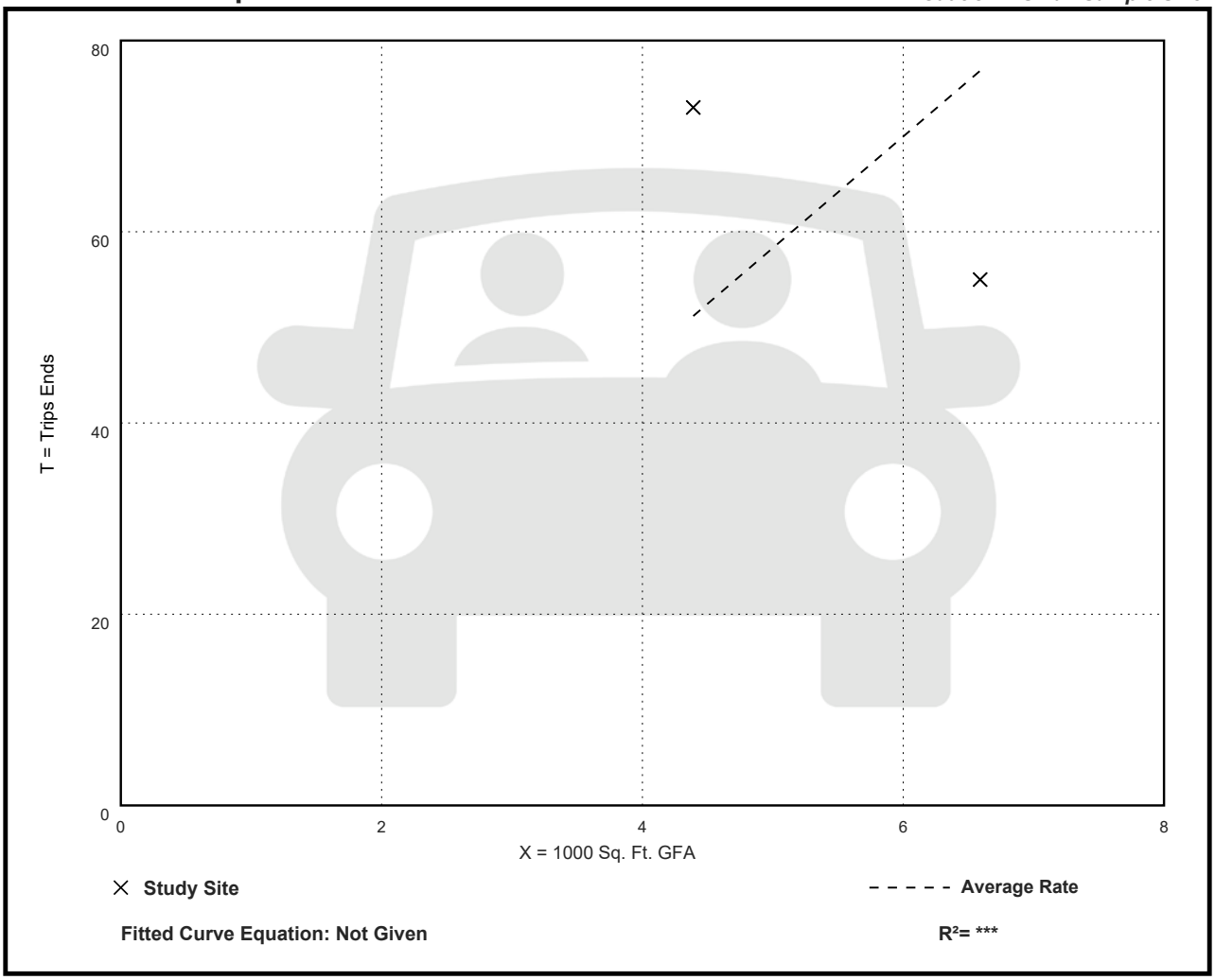
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.66	8.35 - 16.63	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Automated Car Wash
(948)

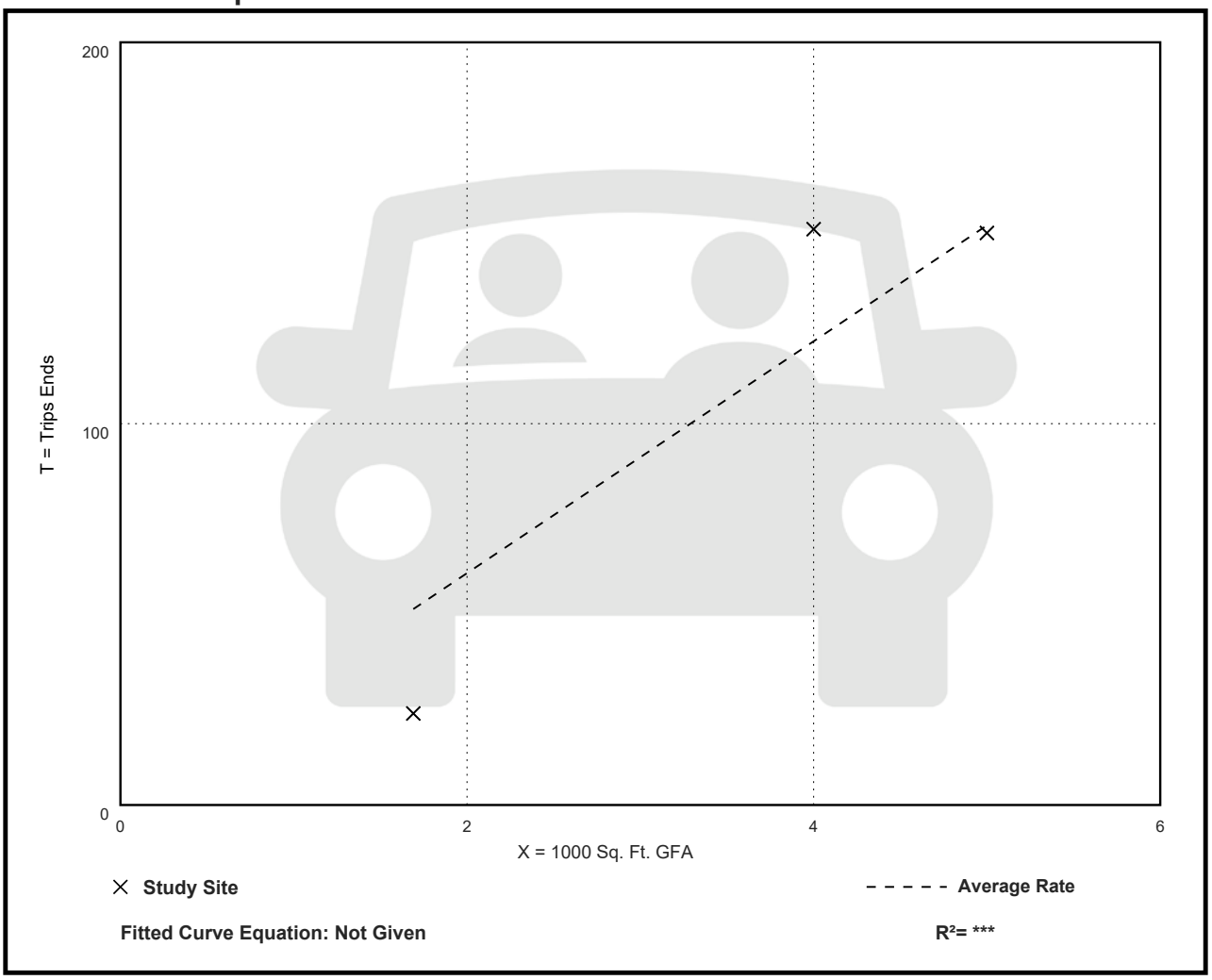
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
30.40	14.20 - 37.75	9.63

Data Plot and Equation



Land Use: 949
Car Wash and Detail Center

Description

A car wash and detail center is a facility that provides for the manual cleaning of the exterior of vehicles as well as interior car-detailing services. Self-service car wash (Land Use 947) and automated car wash (Land Use 948) are related uses.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The site was surveyed in the 2010s in Minnesota.

Source Number

866

Car Wash and Detail Center
(949)

Vehicle Trip Ends vs: Wash Stalls
On a: Weekday

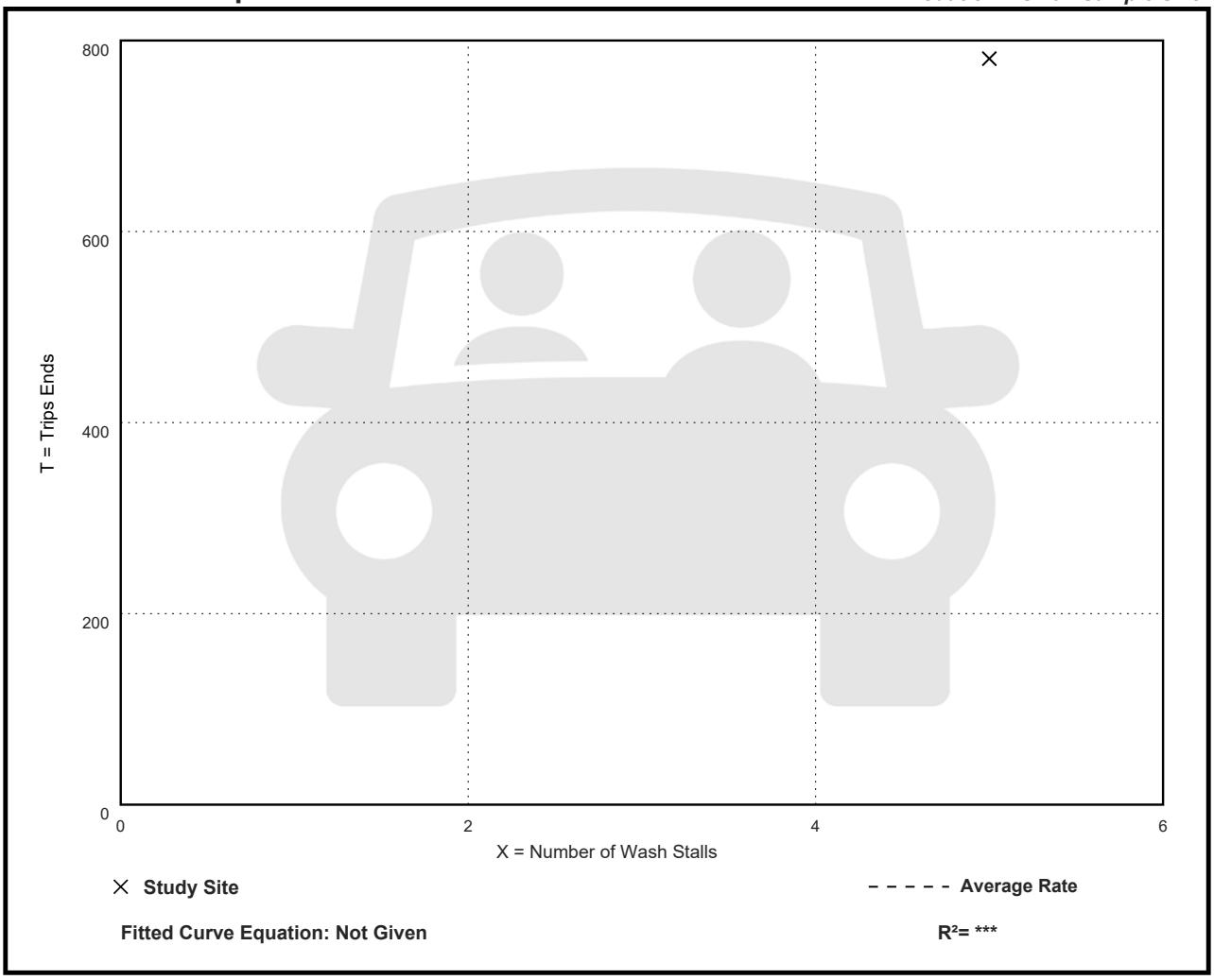
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
156.20	156.20 - 156.20	***

Data Plot and Equation

Caution – Small Sample Size



Car Wash and Detail Center
(949)

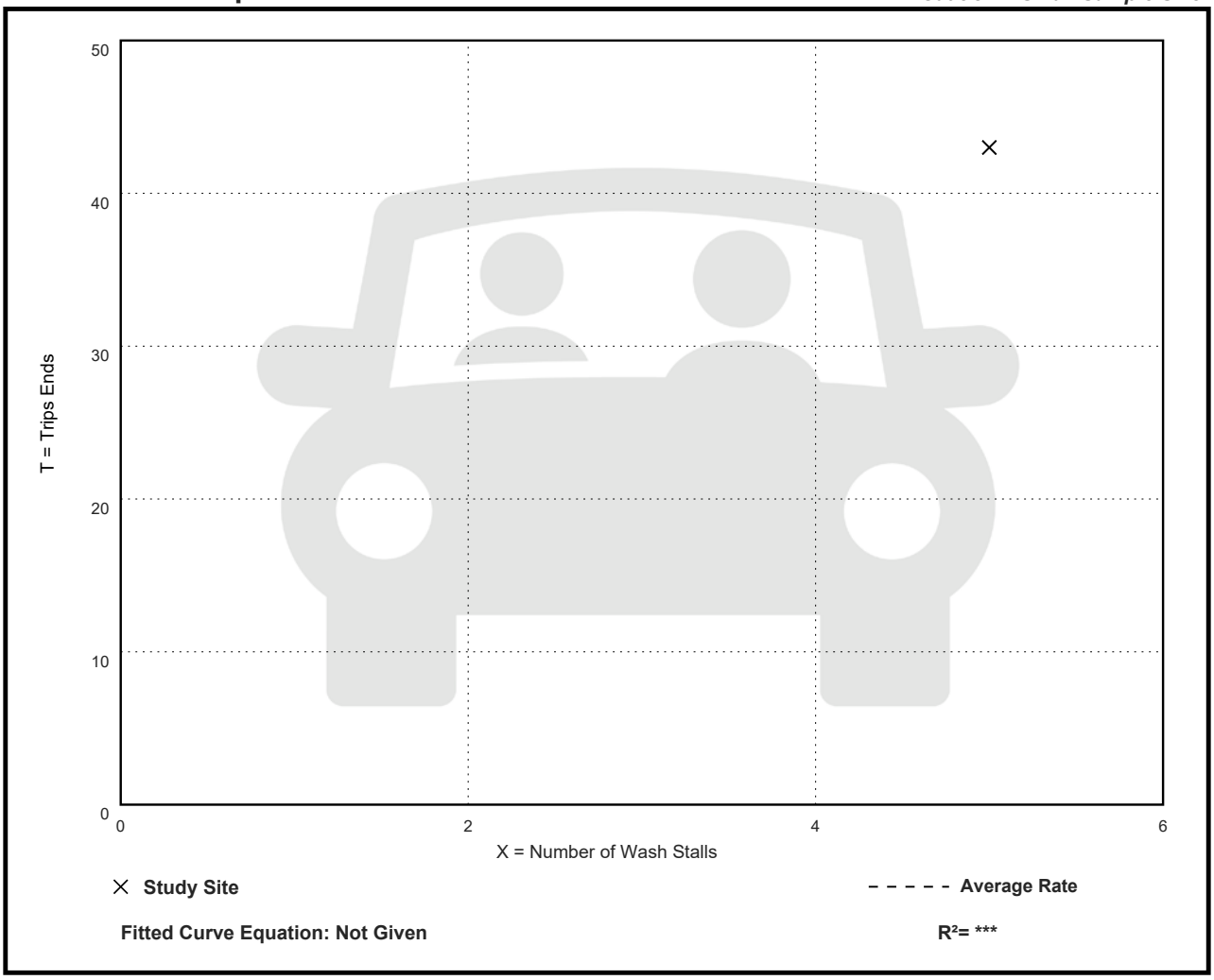
Vehicle Trip Ends vs: Wash Stalls
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
8.60	8.60 - 8.60	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Car Wash and Detail Center
(949)

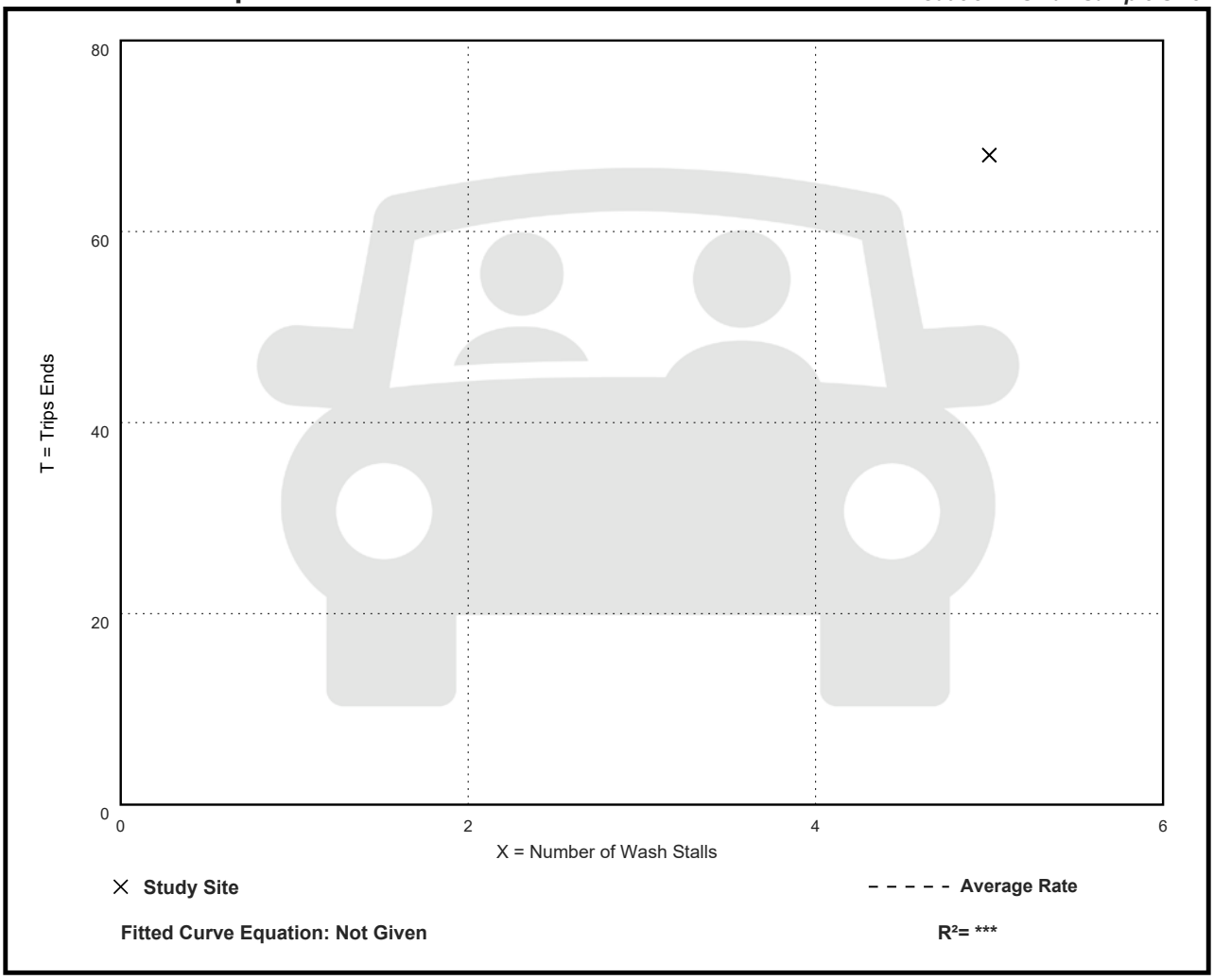
Vehicle Trip Ends vs: Wash Stalls
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
13.60	13.60 - 13.60	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Car Wash and Detail Center
(949)

Vehicle Trip Ends vs: Wash Stalls
On a: Weekday,
AM Peak Hour of Generator

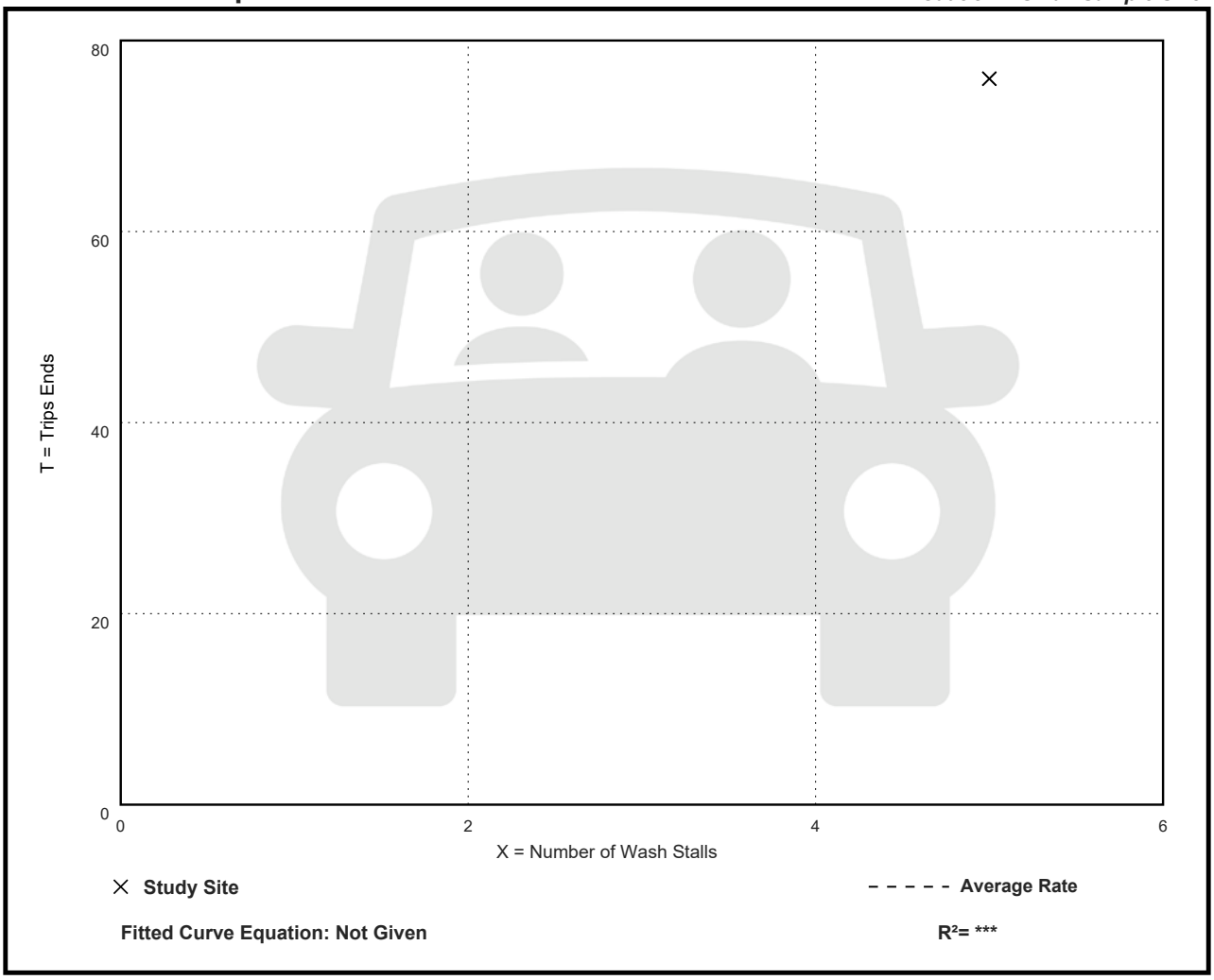
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
15.20	15.20 - 15.20	***

Data Plot and Equation

Caution – Small Sample Size



Car Wash and Detail Center
(949)

Vehicle Trip Ends vs: Wash Stalls
On a: Weekday,
PM Peak Hour of Generator

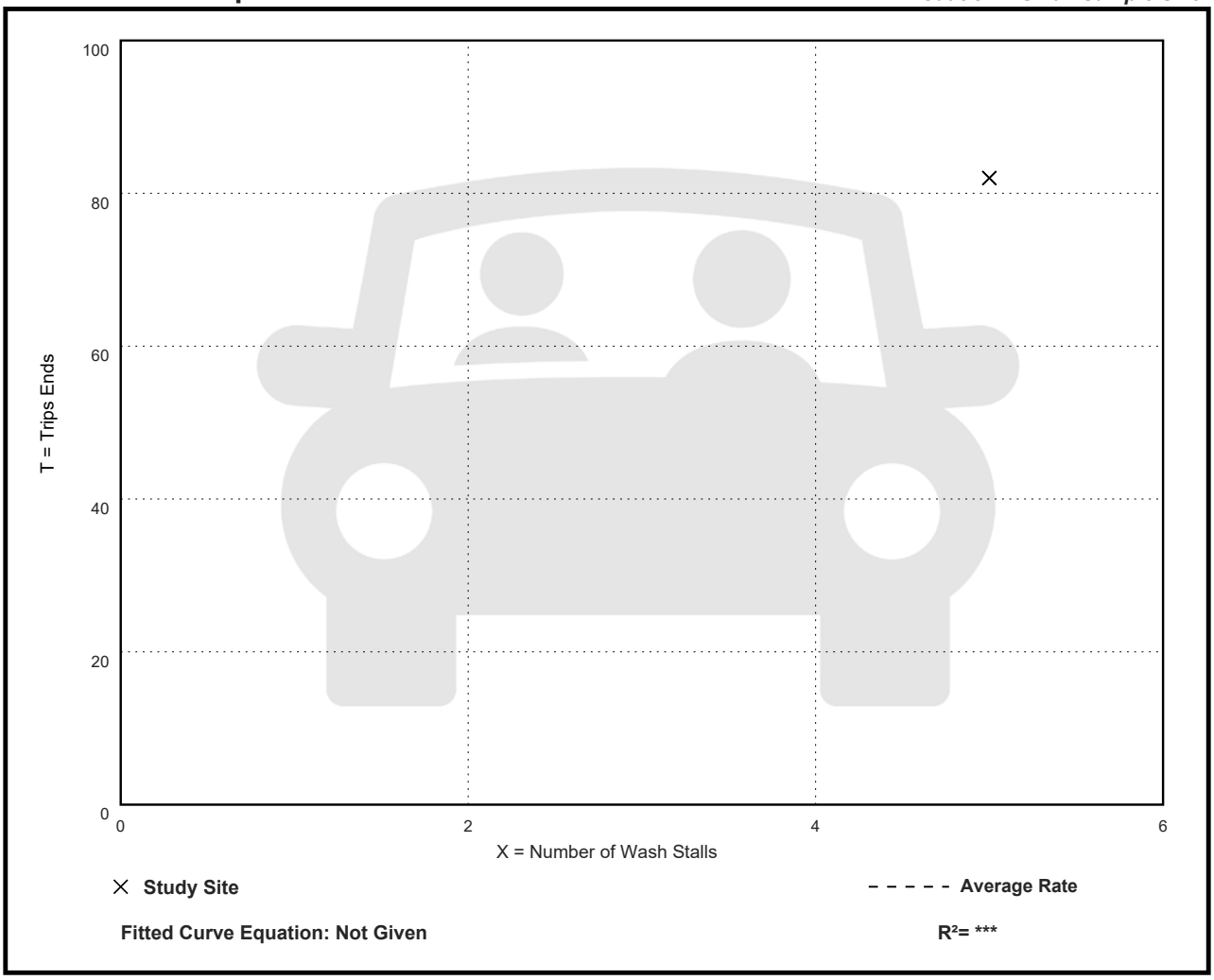
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Wash Stalls: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
16.40	16.40 - 16.40	***

Data Plot and Equation

Caution – Small Sample Size



Appendix 4 - Tables for LOS, Delays and Queue Lengths

AM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				13.4		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.0		0.0		0.0	0.0	0.0	0.0	
Existing Plus Project	Delay (Sec)				12.9		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.1		0.0		0.0	0.0	0.0	0.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)				13.6		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.2		0.0		0.0	0.0	0.0	0.0	
Future Plus Project 2025	Delay (Sec)				13.1		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.2		0.0		0.0	0.0	0.0	0.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				11.8		0.0		0.0	0.0	8.8	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.0		0.0		0.0	0.0	0.0	0.0	
Existing Plus Project	Delay (Sec)				14.0		0.0		0.0	0.0	8.8	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.1		0.0		0.0	0.0	0.0	0.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)				12.0		0.0		0.0	0.0	8.9	0.0	
	LOS				C		A		A	A	A	A	
	95th% Queue (veh)				0.7		0.0		0.0	0.0	0.0	0.0	
Future Plus Project 2025	Delay (Sec)				14.0		0.0		0.0	0.0	8.9	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.3		0.0		0.0	0.0	0.0	0.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				13.4		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.0		0.0		0.0	0.0	0.0	0.0	
Existing Plus Project	Delay (Sec)				12.9		0.0		0.0	0.0	8.3	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.1		0.0		0.0	0.0	0.0	0.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)				14.7		0.0		0.0	0.0	8.6	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.2		0.0		0.0	0.0	0.0	0.0	
Future Plus Project 2040	Delay (Sec)				15.3		0.0		0.0	0.0	8.6	0.0	
	LOS				C		A		A	A	A	A	
	95th% Queue (veh)				0.3		0.0		0.0	0.0	0.0	0.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	C	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				11.8		0.0		0.0	0.0	8.8	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.0		0.0		0.0	0.0	0.0	0.0	
Existing Plus Project	Delay (Sec)				14.0		0.0		0.0	0.0	8.8	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.1		0.0		0.0	0.0	0.0	0.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Taylor Road Northbound			Taylor Road Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)				12.8		0.0		0.0	0.0	9.2	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.8		0.0		0.0	0.0	0.0	0.0	
Future Plus Project 2040	Delay (Sec)				14.0		0.0		0.0	0.0	8.5	0.0	
	LOS				B		A		A	A	A	A	
	95th% Queue (veh)				0.9		0.0		0.0	0.0	0.0	0.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	-0.7	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	3.0	30.0	0.0	15.0	0.0	65.0	0.0	115.0	95.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	21.0	32.0	0.0	34.0	0.0	70.0	4.0	123.0	110.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	18.0	2.0	0.0	19.0	0.0	5.0	4.0	8.0	15.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0	0.0	11.9	0.0	0.0	0.0	8.0	7.6	14.9	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	4.0	30.0	0.0	17.0	0.0	66.0	0.0	119.0	98.0	0.0
Future Plus Project 2025	Delay (Sec)	0.0	0.0	0.0	12.0	0.0	0.0	0.0	8.0	7.6	15.0	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	11.0	31.0	0.0	21.0	0.0	67.0	0.0	123.0	98.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	7.0	1.0	0.0	4.0	0.0	1.0	0.0	4.0	0.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Existing Southbound Left turn: 115 ft Turn Bay Length: 210 ft
Queue for Existing Plus Project Southbound Left turn: 123 ft Turn Bay Length: 210 ft
Queue for Future Southbound Left turn: 119 ft Turn Bay Length: 210 ft
Queue for Future Plus Project Southbound Left turn: 123 ft Turn Bay Length: 210 ft

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	14.2	0.0	0.0	0.0	8.1	7.2	20.3	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	24.0	34.0	0.0	18.0	0.0	117.0	10.0	130.0	106.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	14.3	0.0	0.0	0.0	8.1	7.2	20.5	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	0.0	32.0	0.0	35.0	0.0	136.0	21.0	143.0	132.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	-24.0	-2.0	0.0	17.0	0.0	19.0	11.0	13.0	26.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0	0.0	14.4	0.0	0.0	0.0	8.1	7.2	21.4	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	26.0	35.0	0.0	19.0	0.0	121.0	12.0	133.0	109.0	0.0
Future Plus Project 2025	Delay (Sec)	0.0	0.0	0.0	14.4	0.0	0.0	0.0	8.2	7.2	21.6	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	35.0	35.0	0.0	24.0	0.0	122.0	12.0	133.0	111.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	9.0	0.0	0.0	5.0	0.0	1.0	0.0	0.0	2.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Existing Southbound Left turn: 130 ft Turn Bay Length: 210 ft
Queue for Existing Plus Project Southbound Left turn: 143 ft Turn Bay Length: 210 ft
Queue for Future Southbound Left turn: 133 ft Turn Bay Length: 210 ft
Queue for Future Plus Project Southbound Left turn: 133 ft Turn Bay Length: 210 ft

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	3.0	30.0	0.0	15.0	0.0	65.0	0.0	115.0	95.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	21.0	32.0	0.0	34.0	0.0	70.0	4.0	123.0	110.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	18.0	2.0	0.0	19.0	0.0	5.0	4.0	8.0	15.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0	0.0	11.9	0.0	0.0	0.0	8.0	7.6	14.9	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	4.0	30.0	0.0	17.0	0.0	66.0	0.0	119.0	98.0	0.0
Future Plus Project 2025 Plus Improvement	Delay (Sec)	0.0	15.2	19.0	17.5	0.0	10.2	0.0	13.4	12.7	30.5	8.0	0.0
	LOS	A	B	B	B	A	B	A	B	B	C	A	A
	95th% Queue (ft)	0.0	53.0	19.0	40.0	0.0	25.0	0.0	110.0	9.0	163.0	163.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	15.2	19.0	5.6	0.0	10.2	0.0	5.4	5.1	15.6	4.7	0.0
	LOS	No Change	B	B	No Change	No Change	B	No Change	B	B	C	No Change	No Change
	95th% Queue (ft)	0.0	53.0	15.0	10.0	0.0	8.0	0.0	44.0	9.0	44.0	65.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future Plus Project Plus Improvement Southbound Left turn: 163 ft Turn Bay Length: 210 ft
Queue for Future Plus Project Plus Improvement Eastbound Through: 53 ft Turn Bay Length: 30 ft

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	14.2	0.0	0.0	0.0	8.1	7.2	20.3	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	24.0	34.0	0.0	18.0	0.0	117.0	10.0	130.0	106.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	14.3	0.0	0.0	0.0	8.1	7.2	20.5	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	0.0	32.0	0.0	35.0	0.0	136.0	21.0	143.0	132.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	-24.0	-2.0	0.0	17.0	0.0	19.0	11.0	13.0	26.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0	0.0	14.4	0.0	0.0	0.0	8.1	7.2	21.4	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	26.0	35.0	0.0	19.0	0.0	121.0	12.0	133.0	109.0	0.0
Future Plus Project 2025 Plus Improvement	Delay (Sec)	0.0	17.7	23.6	22.2	0.0	12.7	0.0	15.6	13.6	47.4	8.5	6.2
	LOS	A	B	C	C	A	B	A	B	B	D	A	A
	95th% Queue (ft)	0.0	60.0	38.0	42.0	0.0	27.0	0.0	265.0	33.0	171.0	184.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	17.7	23.6	7.8	0.0	12.7	0.0	7.5	6.4	26.0	5.4	3.9
	LOS	No Change	B	C	C	No Change	B	No Change	B	B	D	No Change	No Change
	95th% Queue (ft)	0.0	60.0	12.0	7.0	0.0	8.0	0.0	144.0	21.0	38.0	75.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future Plus Project plus Improvement Southbound Left turn: 171 ft Turn Bay Length: 210 ft
Queue for Future Plus Project Plus Improvement Eastbound Through: 60 ft Storage Length: 30 ft
Queue for Future Plus Project Plus Improvement Northbound Through: 265 ft

The proposed project improvement will address the storage lengths and the traffic signal timing.

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	3.0	30.0	0.0	15.0	0.0	65.0	0.0	115.0	95.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	21.0	32.0	0.0	34.0	0.0	70.0	4.0	123.0	110.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	18.0	2.0	0.0	19.0	0.0	5.0	4.0	8.0	15.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0	0.0	12.5	0.0	0.0	0.0	8.3	7.8	17.8	3.6	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	10.0	36.0	0.0	26.0	0.0	51.0	0.0	146.0	122.0	0.0
Future Plus Project 2040	Delay (Sec)	0.0	0.0	0.0	12.5	0.0	0.0	0.0	8.3	7.7	18.0	3.6	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	17.0	36.0	0.0	31.0	0.0	76.0	0.0	146.0	124.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	7.0	0.0	0.0	5.0	0.0	25.0	0.0	0.0	2.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Southbound Left turn: 146 ft Turn Bay Length: 210 ft
Queue for Future 2040 Plus Project Southbound Left turn: 146 ft Turn Bay Length: 210 ft

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	14.2	0.0	0.0	0.0	8.1	7.2	20.3	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	24.0	34.0	0.0	18.0	0.0	117.0	10.0	130.0	106.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	14.3	0.0	0.0	0.0	8.1	7.2	20.5	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	0.0	32.0	0.0	35.0	0.0	136.0	21.0	143.0	132.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	-24.0	-2.0	0.0	17.0	0.0	19.0	11.0	13.0	26.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0	0.0	15.4	0.0	0.0	0.0	8.7	7.5	28.5	3.4	2.2
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	36.0	38.0	0.0	29.0	0.0	142.0	17.0	154.0	152.0	0.0
Future Plus Project 2040	Delay (Sec)	0.0	0.0	0.0	15.5	0.0	0.0	0.0	8.7	7.5	28.7	3.2	2.2
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	51.0	38.0	0.0	34.0	0.0	143.0	17.0	154.0	133.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	15.0	0.0	0.0	5.0	0.0	1.0	0.0	0.0	-19.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Southbound Left turn: 154 ft Turn Bay Length: 210 ft
Queue for Future 2040 Plus Project Eastbound Left turn: 51 ft

The proposed project improvement will address the storage lengths and the traffic signal timing.

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	3.0	30.0	0.0	15.0	0.0	65.0	0.0	115.0	95.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.0	7.6	14.6	3.3	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	21.0	32.0	0.0	34.0	0.0	70.0	4.0	123.0	110.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	18.0	2.0	0.0	19.0	0.0	5.0	4.0	8.0	15.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0	0.0	12.5	0.0	0.0	0.0	8.3	7.8	17.8	3.6	0.0
	LOS	A	A	A	B	A	A	A	A	A	B	A	A
	95th% Queue (ft)	0.0	0.0	10.0	36.0	0.0	26.0	0.0	51.0	0.0	146.0	122.0	0.0
Future Plus Project 2040 Plus Improvement	Delay (Sec)	0.0	16.2	20.7	19.0	0.0	11.2	0.0	14.4	13.5	36.2	8.7	0.0
	LOS	A	B	C	B	A	B	A	B	B	D	A	A
	95th% Queue (ft)	0.0	53.0	26.0	44.0	0.0	29.0	0.0	147.0	14.0	187.0	205.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	16.2	20.7	6.5	0.0	11.2	0.0	6.1	5.7	18.4	5.1	0.0
	LOS	No Change	B	C	No Change	No Change	B	No Change	B	B	D	No Change	No Change
	95th% Queue (ft)	0.0	53.0	16.0	8.0	0.0	3.0	0.0	96.0	14.0	41.0	83.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Plus Project Plus Improvement Southbound Left turn: 187 ft Turn Bay Length: 210 ft
Queue for Future 2040 Plus Project Plus Improvement Eastbound Through: 53 ft
Queue for Future 2040 Plus Project Plus Improvement Northbound Through: 147 ft

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0	0.0	14.2	0.0	0.0	0.0	8.1	7.2	20.3	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	24.0	34.0	0.0	18.0	0.0	117.0	10.0	130.0	106.0	0.0
Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	14.3	0.0	0.0	0.0	8.1	7.2	20.5	3.1	2.3
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	0.0	32.0	0.0	35.0	0.0	136.0	21.0	143.0	132.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	-24.0	-2.0	0.0	17.0	0.0	19.0	11.0	13.0	26.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0	0.0	15.4	0.0	0.0	0.0	8.7	7.5	28.5	3.4	2.2
	LOS	A	A	A	B	A	A	A	A	A	C	A	A
	95th% Queue (ft)	0.0	0.0	36.0	38.0	0.0	29.0	0.0	142.0	17.0	154.0	152.0	0.0
Future Plus Project 2040 Plus Improvement	Delay (Sec)	0.0	18.1	24.9	23.8	0.0	13.3	0.0	17.4	14.2	96.5	9.7	6.7
	LOS	A	B	C	C	A	B	A	B	B	F	A	A
	95th% Queue (ft)	0.0	53.0	47.0	47.0	0.0	35.0	0.0	314.0	38.0	196.0	220.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	18.1	24.9	8.4	0.0	13.3	0.0	8.7	6.7	68.0	6.3	4.5
	LOS	No Change	B	C	C	No Change	B	No Change	B	B	F	No Change	No Change
	95th% Queue (ft)	0.0	53.0	11.0	9.0	0.0	6.0	0.0	172.0	21.0	42.0	68.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Plus Project plus Improvement Southbound Left turn: 196 ft Turn Bay Length: 210 ft
Queue for Future 2040 Plus Project Plus Improvement Eastbound Through: 53 ft
Queue for Future 2040 Plus Project Plus Improvement Northbound Through: 314 ft

The proposed project improvement will address the storage lengths and the traffic signal timing.

AM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	32.0	26.9	24.4	34.6	22.1	19.4	43.6	13.4	9.6	39.4	23.2	23.3
	LOS	C	C	C	C	C	B	D	B	A	D	C	C
	95th% Queue (ft)	34.0	155.0	12.0	138.0	149.0	0.0	206.0	101.0	29.0	29.0	237.0	0.0
Existing Plus Project	Delay (Sec)	32.2	27.2	24.6	35.3	22.2	19.5	44.1	13.4	9.5	39.6	23.4	23.5
	LOS	C	C	C	D	C	B	D	B	A	D	C	C
	95th% Queue (ft)	34.0	156.0	12.0	143.0	149.0	0.0	207.0	103.0	29.0	29.0	241.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.2	0.3	0.2	0.7	0.1	0.1	0.5	0.0	-0.1	0.2	0.2	0.2
	LOS	No Change	No Change	No Change	D	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	1.0	0.0	5.0	0.0	0.0	1.0	2.0	0.0	0.0	4.0	0.0

AM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	32.5	27.7	25.0	35.7	22.7	19.8	45.4	13.4	9.5	39.7	23.8	23.9
	LOS	C	C	C	D	C	B	D	B	A	D	C	C
	95th% Queue (ft)	35.0	157.0	13.0	143.0	153.0	0.0	212.0	103.0	29.0	31.0	245.0	0.0
Future Plus Project 2025	Delay (Sec)	32.7	28.0	25.2	36.4	22.7	19.9	45.8	13.4	9.5	39.9	24.0	24.1
	LOS	C	C	C	D	C	B	D	B	A	D	C	C
	95th% Queue (ft)	35.0	159.0	12.0	150.0	152.0	0.0	216.0	107.0	30.0	31.0	252.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.2	0.3	0.2	0.7	0.0	0.1	0.4	0.0	0.0	0.2	0.2	0.2
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	2.0	-1.0	7.0	-1.0	0.0	4.0	4.0	1.0	0.0	7.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Existing Westbound Left turn: 138 ft & Northbound Left turn: 206 ft
Queue for Existing Plus Project Westbound Left turn: 143 ft & Northbound Left turn: 207 ft
Queue for Future 2025 Westbound Left turn: 143 ft & Northbound Left turn: 212 ft
Queue for Future 2025 Plus Project Westbound Left turn: 150 ft & Northbound Left turn: 216 ft

PM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	31.2	27.7	25.7	45.1	25.7	20.0	45.6	16.1	11.0	37.9	23.8	23.9
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	64.0	178.0	44.0	198.0	240.0	0.0	248.0	218.0	39.0	38.0	225.0	0.0
Existing Plus Project	Delay (Sec)	31.3	27.9	25.9	47.8	25.9	20.1	45.8	16.1	11.0	38.0	23.8	23.9
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	64.0	179.0	44.0	203.0	240.0	0.0	248.0	221.0	39.0	38.0	228.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.1	0.2	0.2	2.7	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	1.0	0.0	5.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0

PM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	31.4	28.5	26.3	49.0	26.7	20.5	47.0	16.0	11.0	38.2	23.9	24.0
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	67.0	182.0	44.0	203.0	245.0	0.0	253.0	224.0	39.0	39.0	231.0	0.0
Future Plus Project 2025	Delay (Sec)	31.5	28.7	26.4	52.7	26.9	20.6	47.2	16.0	11.0	38.3	24.0	24.0
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	67.0	183.0	44.0	208.0	245.0	0.0	253.0	226.0	39.0	39.0	234.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.1	0.2	0.1	3.7	0.2	0.1	0.2	0.0	0.0	0.1	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	1.0	0.0	5.0	0.0	0.0	0.0	2.0	0.0	0.0	3.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Existing Westbound Left turn: 198 ft & Northbound Left turn: 2248 ft
Queue for Existing Plus Project Westbound Left turn: 203 ft & Northbound Left turn: 248 ft
Queue for Future 2025 Westbound Left turn: 203 ft & Northbound Left turn: 253 ft
Queue for Future 2025 Plus Project Westbound Left turn: 208 ft & Northbound Left turn: 253 ft

AM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	32.0	26.9	24.4	34.6	22.1	19.4	43.6	13.4	9.6	39.4	23.2	23.3
	LOS	C	C	C	C	C	B	D	B	A	D	C	C
	95th% Queue (ft)	34.0	155.0	12.0	138.0	149.0	0.0	206.0	101.0	29.0	29.0	237.0	0.0
Existing Plus Project	Delay (Sec)	32.2	27.2	24.6	35.3	22.2	19.5	44.1	13.4	9.5	39.6	23.4	23.5
	LOS	C	C	C	D	C	B	D	B	A	D	C	C
	95th% Queue (ft)	34.0	156.0	12.0	143.0	149.0	0.0	207.0	103.0	29.0	29.0	241.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.2	0.3	0.2	0.7	0.1	0.1	0.5	0.0	-0.1	0.2	0.2	0.2
	LOS	No Change	No Change	No Change	D	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	1.0	0.0	5.0	0.0	0.0	1.0	2.0	0.0	0.0	4.0	0.0

AM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	34.5	32.3	27.7	50.1	25.7	21.8	65.9	13.2	9.3	41.6	26.6	26.7
	LOS	C	C	C	D	C	C	E	B	A	D	C	C
	95th% Queue (ft)	39.0	178.0	20.0	177.0	174.0	0.0	256.0	125.0	33.0	35.0	308.0	0.0
Future Plus Project 2040	Delay (Sec)	34.1	31.7	27.2	50.4	25.2	21.4	62.9	13.5	9.6	40.6	25.9	26.0
	LOS	C	C	C	D	C	C	E	B	A	D	C	C
	95th% Queue (ft)	39.0	180.0	20.0	181.0	174.0	0.0	257.0	127.0	33.0	41.0	292.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	-0.4	-0.6	-0.5	0.3	-0.5	-0.4	-3.0	0.3	0.3	-1.0	-0.7	-0.7
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	2.0	0.0	4.0	0.0	0.0	1.0	2.0	0.0	6.0	-16.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Southbound Left turn: 177 ft & Northbound Left turn: 256 ft
Queue for Future 2040 Plus Project Southbound Left turn: 181 ft & Northbound Left turn: 257 ft

PM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	31.2	27.7	25.7	45.1	25.7	20.0	45.6	16.1	11.0	37.9	23.8	23.9
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	64.0	178.0	44.0	198.0	240.0	0.0	248.0	218.0	39.0	38.0	225.0	0.0
Existing Plus Project	Delay (Sec)	31.3	27.9	25.9	47.8	25.9	20.1	45.8	16.1	11.0	38.0	23.8	23.9
	LOS	C	C	C	D	C	C	D	B	B	D	C	C
	95th% Queue (ft)	64.0	179.0	44.0	203.0	240.0	0.0	248.0	221.0	39.0	38.0	228.0	0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.1	0.2	0.2	2.7	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	1.0	0.0	5.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0

PM		Taylor Road Eastbound			Taylor Road Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	34.0	29.9	27.5	110.4	32.9	22.1	95.7	17.5	12.3	41.3	26.5	26.6
	LOS	C	C	C	F	C	C	F	B	B	D	C	C
	95th% Queue (ft)	74.0	208.0	47.0	238.0	287.0	0.0	292.0	264.0	49.0	42.0	273.0	0.0
Future Plus Project 2040	Delay (Sec)	34.1	30.2	27.6	118.9	33.1	22.2	96.8	17.5	12.4	41.4	26.7	26.7
	LOS	C	C	C	F	C	C	F	B	B	D	C	C
	95th% Queue (ft)	74.0	210.0	47.0	242.0	287.0	0.0	292.0	266.0	52.0	42.0	276.0	0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.1	0.3	0.1	8.5	0.2	0.1	1.1	0.0	0.1	0.1	0.2	0.1
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	2.0	0.0	4.0	0.0	0.0	0.0	2.0	3.0	0.0	3.0	0.0

95th percentile volume exceeds capacity for the following: (queue shown is maximum after two cycles)
Queue for Future 2040 Southbound Left turn: 238 ft & Northbound Left turn: 292 ft
Queue for Future 2040 Plus Project Southbound Left turn: 242 ft & Northbound Left turn: 292 ft

AM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Existing Plus Project	Delay (Sec)	7.3	0.0			0.0	0.0				9.1		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Future Plus Project 2025	Delay (Sec)	7.3	0.0			0.0	0.0				9.1		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Future to Future Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Existing Plus Project	Delay (Sec)	7.3	0.0			0.0	0.0				9.4		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Future Plus Project 2025	Delay (Sec)	7.3	0.0			0.0	0.0				9.3		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Future to Future Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Existing Plus Project	Delay (Sec)	7.3	0.0			0.0	0.0				9.1		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

AM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Future Plus Project 2040	Delay (Sec)	7.3	0.0			0.0	0.0				9.2		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Future to Future Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Existing Plus Project	Delay (Sec)	7.3	0.0			0.0	0.0				9.1		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

PM		Brace Road Eastbound			Brace Road Westbound			Driveway 1 Northbound			Driveway 1 Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)	0.0	0.0			0.0	0.0				0.0		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.0		0.0
Future Plus Project 2040	Delay (Sec)	7.3	0.0			0.0	0.0				9.5		0.0
	LOS	A	A			A	A				A		A
	95th% Queue (veh)	0.0	0.0			0.0	0.0				0.1		0.0
Comparison of Future to Future Plus Project	Delay (Sec)	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

AM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Existing Plus Project	Delay (Sec)			11.9									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Future Plus Project 2025	Delay (Sec)			12.0									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Existing Plus Project	Delay (Sec)			12.2									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Future Plus Project 2025	Delay (Sec)			12.3									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Existing Plus Project	Delay (Sec)			11.9									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Future Plus Project 2040	Delay (Sec)			13.2									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Existing Plus Project	Delay (Sec)			12.2									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

PM		Driveway 2 Eastbound			Driveway 2 Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)			0.0									0.0
	LOS			A									A
	95th% Queue (veh)			0.0									0.0
Future Plus Project 2040	Delay (Sec)			14.5									0.0
	LOS			B									A
	95th% Queue (veh)			0.1									0.0
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	B	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (veh)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				19.7		20.8		7.9	8.3	19.8	3.9	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				36.0		6.0		83.0	32.0	48.0	161.0	
Existing Plus Project	Delay (Sec)				19.7		20.8		8.0	8.3	19.8	4.0	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				36.0		6.0		84.0	32.0	48.0	163.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	2.0	0.0

AM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)				19.8		21.1		8.0	8.3	19.9	4.0	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				37.0		6.0		84.0	33.0	49.0	165.0	
Future Plus Project 2025	Delay (Sec)				19.8		21.1		8.0	8.3	19.9	4.0	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				37.0		6.0		86.0	33.0	49.0	168.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	3.0	0.0

PM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				76.0		64.3		9.4	13.1	36.2	4.3	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				86.0		33.0		154.0	50.0	145.0	197.0	
Existing Plus Project	Delay (Sec)				76.0		64.3		9.5	13.1	36.2	4.4	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				86.0		33.0		156.0	50.0	145.0	201.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	4.0	0.0

PM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2025	Delay (Sec)				83.4		68.6		9.5	13.4	37.6	4.4	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				88.0		33.0		159.0	50.0	149.0	207.0	
Future Plus Project 2025	Delay (Sec)				83.4		68.6		9.5	13.4	37.6	4.4	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				88.0		33.0		159.0	50.0	149.0	207.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				19.7		20.8		7.9	8.3	19.8	3.9	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				36.0		6.0		83.0	32.0	48.0	161.0	
Existing Plus Project	Delay (Sec)				19.7		20.8		8.0	8.3	19.8	4.0	
	LOS				B		C		A	A	B	A	
	95th% Queue (ft)				36.0		6.0		84.0	32.0	48.0	163.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	2.0	0.0

AM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)				20.7		22.1		8.2	8.7	20.7	4.4	
	LOS				C		C		A	A	C	A	
	95th% Queue (ft)				41.0		10.0		97.0	35.0	55.0	202.0	
Future 2040 Plus Project	Delay (Sec)				20.7		22.1		8.3	8.7	20.7	4.4	
	LOS				C		C		A	A	C	A	
	95th% Queue (ft)				41.0		10.0		99.0	35.0	55.0	204.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0

PM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing	Delay (Sec)				76.0		64.3		9.4	13.1	36.2	4.3	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				86.0		33.0		154.0	50.0	145.0	197.0	
Existing Plus Project	Delay (Sec)				76.0		64.3		9.5	13.1	36.2	4.4	
	LOS				F		E		A	B	D	A	
	95th% Queue (ft)				86.0		33.0		156.0	50.0	145.0	201.0	
Comparison of Existing to Existing Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	4.0	0.0

PM		Costco Eastbound			Costco Westbound			Sierra College Bl. Northbound			Sierra College Bl. Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Future 2040	Delay (Sec)				141.1		104.3		10.2	15.9	49.8	5.0	
	LOS				F		F		B	B	D	A	
	95th% Queue (ft)				102.0		35.0		186.0	54.0	172.0	253.0	
Future 2040 Plus Project	Delay (Sec)				141.1		104.3		10.3	15.9	49.8	5.1	
	LOS				F		F		B	B	D	A	
	95th% Queue (ft)				102.0		35.0		189.0	54.0	172.0	257.0	
Comparison of Future to Future Plus Project	Delay (Sec)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
	LOS	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change	No Change
	95th% Queue (ft)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	4.0	0.0

Appendix 5 - (HCM) analysis worksheets

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	164	370	197	17	794	58	195	86	254	192	15
v/c Ratio	0.78	0.22	0.18	0.17	0.72	0.27	0.53	0.20	0.76	0.36	0.03
Control Delay	61.9	12.9	1.8	40.2	25.5	38.8	33.4	2.6	50.4	26.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	12.9	1.8	40.2	25.5	38.8	33.4	2.6	50.4	26.4	0.1
Queue Length 50th (ft)	72	45	0	7	153	12	80	0	57	74	0
Queue Length 95th (ft)	#206	101	29	29	237	34	155	12	#138	149	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	209	1721	1090	121	1444	339	613	614	339	613	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.21	0.18	0.14	0.55	0.17	0.32	0.14	0.75	0.31	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	111	98	143	555	88	141	774
v/c Ratio	0.28	0.23	0.36	0.32	0.13	0.64	0.36
Control Delay	1.9	19.9	4.0	12.4	0.4	38.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	19.9	4.0	12.4	0.4	38.1	6.9
Queue Length 50th (ft)	0	11	0	42	0	35	63
Queue Length 95th (ft)	3	30	15	65	0	#115	95
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	397	427	394	2379	860	220	2582
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	0.36	0.23	0.10	0.64	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

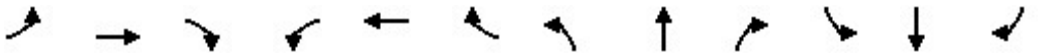
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	151	340	181	16	574	156	53	179	79	234	177	14
Future Volume (veh/h)	151	340	181	16	574	156	53	179	79	234	177	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	370	197	17	624	170	58	195	86	254	192	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	1430	797	29	841	229	137	337	286	348	451	382
Arrive On Green	0.11	0.40	0.40	0.02	0.30	0.30	0.04	0.18	0.18	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	2761	751	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	164	370	197	17	401	393	58	195	86	254	192	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1735	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.0	4.6	4.7	0.6	13.5	13.5	1.1	6.4	3.1	4.8	5.8	0.5
Cycle Q Clear(g_c), s	6.0	4.6	4.7	0.6	13.5	13.5	1.1	6.4	3.1	4.8	5.8	0.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	1430	797	29	541	529	137	337	286	348	451	382
V/C Ratio(X)	0.81	0.26	0.25	0.59	0.74	0.74	0.42	0.58	0.30	0.73	0.43	0.04
Avail Cap(c_a), veh/h	230	1804	964	134	806	787	374	674	571	374	674	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	13.3	9.4	32.5	20.8	20.8	31.2	25.0	23.6	29.1	21.4	19.3
Incr Delay (d2), s/veh	14.9	0.1	0.2	6.9	2.4	2.5	0.8	1.9	0.7	5.5	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.6	1.4	0.3	5.2	5.1	0.4	2.7	1.1	2.1	2.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	13.4	9.6	39.4	23.2	23.3	32.0	26.9	24.4	34.6	22.1	19.4
LnGrp LOS	D	B	A	D	C	C	C	C	C	C	C	B
Approach Vol, veh/h		731			811			339			461	
Approach Delay, s/veh		19.1			23.6			27.1			28.9	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	32.3	11.2	17.5	12.1	25.8	7.1	21.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.6	6.7	6.8	8.4	8.0	15.5	3.1	7.8
Green Ext Time (p_c), s	0.0	3.7	0.0	1.3	0.0	4.7	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	102	90	0	132	0	511	81	130	712	0
Future Volume (veh/h)	0	0	102	90	0	132	0	511	81	130	712	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	111	98	0	143	0	555	88	141	774	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	333	0	0	0	1435	445	216	2023	902
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.28	0.28	0.12	0.57	0.00
Sat Flow, veh/h		0		3456	98		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		98	11.8		0	555	88	141	774	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.7			0.0	2.4	1.1	2.0	3.2	0.0
Cycle Q Clear(g_c), s				0.7			0.0	2.4	1.1	2.0	3.2	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				333			0	1435	445	216	2023	902
V/C Ratio(X)				0.29			0.00	0.39	0.20	0.65	0.38	0.00
Avail Cap(c_a), veh/h				642			0	3414	1060	331	3630	1619
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				11.3			0.0	7.8	7.4	11.3	3.2	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	3.3	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2			0.0	0.4	0.2	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.8			0.0	8.0	7.6	14.6	3.3	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								643			915	
Approach Delay, s/veh								7.9			5.1	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	7.8	12.1	7.1			19.8						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.0	4.4	2.7			5.2						
Green Ext Time (p_c), s	0.0	3.2	0.0			5.2						

Intersection Summary	
HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	1	0	311	100	7	457
Future Vol, veh/h	1	0	311	100	7	457
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	338	109	8	497

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	906	393	0	0	447	0
Stage 1	393	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	307	656	-	-	1113	-
Stage 1	682	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	305	656	-	-	1113	-
Mov Cap-2 Maneuver	429	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	13.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	429	1113	-
HCM Lane V/C Ratio	-	-	0.003	0.007	-
HCM Control Delay (s)	-	-	13.4	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0

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

Existing Condition No Traffic Volume

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1083	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1083	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

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

Existing Condition No Traffic Volume

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1084
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

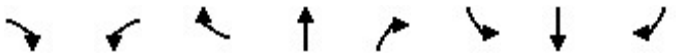
Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	183	714	315	23	706	128	228	145	324	307	41
v/c Ratio	0.88	0.48	0.29	0.22	0.70	0.49	0.54	0.31	0.96	0.60	0.08
Control Delay	77.3	18.5	2.2	43.4	27.1	42.4	31.6	6.7	79.7	31.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	18.5	2.2	43.4	27.1	42.4	31.6	6.7	79.7	31.6	0.3
Queue Length 50th (ft)	85	108	0	10	143	29	94	0	78	129	0
Queue Length 95th (ft)	#248	218	39	38	225	64	178	44	#198	240	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	207	1640	1069	120	1435	336	608	614	336	608	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.44	0.29	0.19	0.49	0.38	0.38	0.24	0.96	0.50	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	164	105	150	991	143	149	854	2
v/c Ratio	0.44	0.29	0.41	0.48	0.19	0.80	0.39	0.00
Control Delay	5.9	23.6	5.0	13.3	1.3	58.4	7.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	23.6	5.0	13.3	1.3	58.4	7.1	0.0
Queue Length 50th (ft)	0	15	0	84	0	45	72	0
Queue Length 95th (ft)	24	34	18	117	10	#130	106	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	371	363	368	2094	784	187	2253	1054
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.29	0.41	0.47	0.18	0.80	0.38	0.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

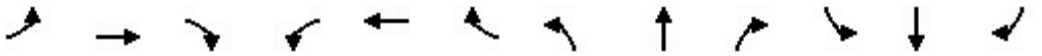
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	168	657	290	21	545	105	118	210	133	298	282	38
Future Volume (veh/h)	168	657	290	21	545	105	118	210	133	298	282	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	714	315	23	592	114	128	228	145	324	307	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1357	779	37	823	158	208	342	290	379	434	368
Arrive On Green	0.13	0.38	0.38	0.02	0.28	0.28	0.06	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2973	571	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	183	714	315	23	353	353	128	228	145	324	307	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1768	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.6	10.2	8.3	0.8	11.8	11.8	2.4	7.4	5.4	6.0	9.9	1.3
Cycle Q Clear(g_c), s	6.6	10.2	8.3	0.8	11.8	11.8	2.4	7.4	5.4	6.0	9.9	1.3
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	1357	779	37	492	489	208	342	290	379	434	368
V/C Ratio(X)	0.82	0.53	0.40	0.62	0.72	0.72	0.61	0.67	0.50	0.85	0.71	0.11
Avail Cap(c_a), veh/h	233	1830	990	136	818	813	379	684	580	379	684	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	15.7	10.6	31.9	21.4	21.4	30.1	25.0	24.1	28.7	23.1	19.9
Incr Delay (d2), s/veh	17.7	0.4	0.4	6.1	2.4	2.4	1.1	2.7	1.6	16.4	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.6	2.4	0.4	4.6	4.6	0.9	3.3	2.0	3.2	4.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	16.1	11.0	37.9	23.8	23.9	31.2	27.7	25.7	45.1	25.7	20.0
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1212			729			501			672	
Approach Delay, s/veh		19.2			24.3			28.0			34.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	30.6	11.7	17.5	12.8	23.7	8.5	20.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.8	12.2	8.0	9.4	8.6	13.8	4.4	11.9
Green Ext Time (p_c), s	0.0	7.1	0.0	1.7	0.0	4.3	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	151	97	0	138	0	912	132	137	786	2
Future Volume (veh/h)	0	0	151	97	0	138	0	912	132	137	786	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	164	105	0	150	0	991	143	149	854	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	326	0	0	0	1907	592	203	2228	994
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.37	0.37	0.11	0.63	0.63
Sat Flow, veh/h		0		3456	105		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		105	14.2		0	991	143	149	854	2
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.9			0.0	4.9	2.0	2.6	3.8	0.0
Cycle Q Clear(g_c), s				0.9			0.0	4.9	2.0	2.6	3.8	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				326			0	1907	592	203	2228	994
V/C Ratio(X)				0.32			0.00	0.52	0.24	0.73	0.38	0.00
Avail Cap(c_a), veh/h				535			0	2845	883	276	3025	1349
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				13.7			0.0	7.9	7.0	13.8	3.0	2.3
Incr Delay (d2), s/veh				0.6			0.0	0.2	0.2	6.4	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	1.0	0.4	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.2			0.0	8.1	7.2	20.3	3.1	2.3
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1134			1005	
Approach Delay, s/veh								8.0			5.6	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	16.6	7.6			24.8						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.6	6.9	2.9			5.8						
Green Ext Time (p_c), s	0.0	5.2	0.0			5.8						

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	2	440	147	1	543
Future Vol, veh/h	0	2	440	147	1	543
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	478	160	1	590

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1150	558	0	0	638	0
Stage 1	558	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	219	529	-	-	946	-
Stage 1	573	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	219	529	-	-	946	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	552	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	529	946	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	11.8	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0

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

Existing Condition No Traffic Volume

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	1083	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	1083	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

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

Existing Condition No Traffic Volume

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1084
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Queues
5: Taylor Road & Sierra College Blvd

06/26/2024

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	164	375	200	17	800	58	197	86	261	192	15
v/c Ratio	0.79	0.23	0.18	0.17	0.73	0.27	0.54	0.20	0.77	0.36	0.03
Control Delay	62.7	13.0	1.8	40.4	25.7	38.9	33.5	2.6	51.8	26.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	13.0	1.8	40.4	25.7	38.9	33.5	2.6	51.8	26.4	0.1
Queue Length 50th (ft)	73	46	0	7	155	13	81	0	59	74	0
Queue Length 95th (ft)	#207	103	29	29	241	34	156	12	#143	149	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	207	1718	1090	121	1439	337	611	613	337	611	613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.22	0.18	0.14	0.56	0.17	0.32	0.14	0.77	0.31	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	128	98	154	555	88	141	785
v/c Ratio	0.34	0.25	0.45	0.33	0.14	0.69	0.39
Control Delay	4.7	21.4	8.4	13.8	0.7	43.8	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	21.4	8.4	13.8	0.7	43.8	8.3
Queue Length 50th (ft)	0	11	0	43	0	36	66
Queue Length 95th (ft)	21	32	34	70	4	#123	110
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	774	396	341	2216	790	204	2407
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.25	0.45	0.25	0.11	0.69	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

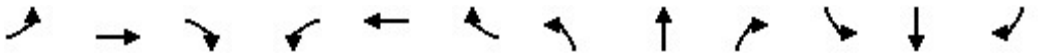
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	151	345	184	16	580	156	53	181	79	240	177	14
Future Volume (veh/h)	151	345	184	16	580	156	53	181	79	240	177	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	375	200	17	630	170	58	197	86	261	192	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	1434	802	29	846	228	136	335	284	354	453	384
Arrive On Green	0.11	0.40	0.40	0.02	0.31	0.31	0.04	0.18	0.18	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	2767	746	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	164	375	200	17	404	396	58	197	86	261	192	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1736	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.0	4.7	4.8	0.6	13.7	13.7	1.1	6.5	3.2	4.9	5.8	0.5
Cycle Q Clear(g_c), s	6.0	4.7	4.8	0.6	13.7	13.7	1.1	6.5	3.2	4.9	5.8	0.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	1434	802	29	543	531	136	335	284	354	453	384
V/C Ratio(X)	0.81	0.26	0.25	0.59	0.74	0.75	0.43	0.59	0.30	0.74	0.42	0.04
Avail Cap(c_a), veh/h	229	1793	962	133	801	783	372	670	568	372	670	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	13.3	9.4	32.7	20.9	20.9	31.4	25.2	23.9	29.2	21.4	19.4
Incr Delay (d2), s/veh	15.1	0.1	0.2	6.9	2.5	2.6	0.8	2.0	0.7	6.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.7	1.4	0.3	5.3	5.2	0.4	2.8	1.1	2.2	2.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	13.4	9.5	39.6	23.4	23.5	32.2	27.2	24.6	35.3	22.2	19.5
LnGrp LOS	D	B	A	D	C	C	C	C	C	D	C	B
Approach Vol, veh/h		739			817			341			468	
Approach Delay, s/veh		19.2			23.8			27.4			29.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	32.5	11.4	17.5	12.1	26.0	7.1	21.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.6	6.8	6.9	8.5	8.0	15.7	3.1	7.8
Green Ext Time (p_c), s	0.0	3.8	0.0	1.3	0.0	4.7	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	118	90	0	142	0	511	81	130	722	0
Future Volume (veh/h)	0	0	118	90	0	142	0	511	81	130	722	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	128	98	0	154	0	555	88	141	785	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	333	0	0	0	1435	445	216	2023	902
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.28	0.28	0.12	0.57	0.00
Sat Flow, veh/h		0		3456	98		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		98	11.8		0	555	88	141	785	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.7			0.0	2.4	1.1	2.0	3.3	0.0
Cycle Q Clear(g_c), s				0.7			0.0	2.4	1.1	2.0	3.3	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				333			0	1435	445	216	2023	902
V/C Ratio(X)				0.29			0.00	0.39	0.20	0.65	0.39	0.00
Avail Cap(c_a), veh/h				642			0	3414	1060	331	3630	1619
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				11.3			0.0	7.8	7.4	11.3	3.2	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	3.3	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2			0.0	0.4	0.2	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.8			0.0	8.0	7.6	14.6	3.3	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								643			926	
Approach Delay, s/veh								7.9			5.0	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	7.8	12.1	7.1			19.8						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.0	4.4	2.7			5.3						
Green Ext Time (p_c), s	0.0	3.2	0.0			5.3						

Intersection Summary	
HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	6	2	311	106	7	457
Future Vol, veh/h	6	2	311	106	7	457
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	2	338	115	8	497

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	909	396	0	0	453	0
Stage 1	396	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	305	653	-	-	1108	-
Stage 1	680	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	303	653	-	-	1108	-
Mov Cap-2 Maneuver	427	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	12.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	467	1108	-
HCM Lane V/C Ratio	-	-	0.019	0.007	-
HCM Control Delay (s)	-	-	12.9	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	866	12
Future Vol, veh/h	0	10	0	0	866	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	0	941	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	477	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	534	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	534	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	534	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	11.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	100	0	21	17	7
Future Vol, veh/h	6	100	0	21	17	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	109	0	23	18	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	135	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	859	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	855	1069
Mov Cap-2 Maneuver	-	-	-	-	855	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	902	-

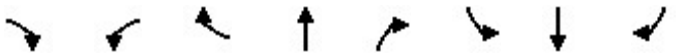
Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	908
HCM Lane V/C Ratio	0.004	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	183	721	320	23	713	128	230	145	330	307	41
v/c Ratio	0.89	0.48	0.30	0.22	0.70	0.49	0.55	0.31	0.99	0.60	0.08
Control Delay	77.9	18.6	2.2	43.6	27.3	42.6	31.8	6.8	84.6	31.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.9	18.6	2.2	43.6	27.3	42.6	31.8	6.8	84.6	31.7	0.3
Queue Length 50th (ft)	85	110	0	11	146	29	95	0	80	129	0
Queue Length 95th (ft)	#248	221	39	38	228	64	179	44	#203	240	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	206	1637	1071	120	1430	335	606	613	335	606	609
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.44	0.30	0.19	0.50	0.38	0.38	0.24	0.99	0.51	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	186	105	161	1004	143	149	867	2
v/c Ratio	0.39	0.20	0.41	0.53	0.20	0.78	0.40	0.00
Control Delay	2.4	21.3	7.2	15.0	2.6	58.1	8.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	21.3	7.2	15.0	2.6	58.1	8.4	0.0
Queue Length 50th (ft)	0	15	0	92	0	48	82	0
Queue Length 95th (ft)	0	32	35	136	21	#143	132	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	476	1333	724	1975	724	191	2101	981
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.08	0.22	0.51	0.20	0.78	0.41	0.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

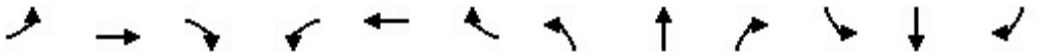
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	168	663	294	21	551	105	118	212	133	304	282	38
Future Volume (veh/h)	168	663	294	21	551	105	118	212	133	304	282	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	721	320	23	599	114	128	230	145	330	307	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1364	782	37	830	158	208	341	289	378	433	367
Arrive On Green	0.13	0.38	0.38	0.02	0.28	0.28	0.06	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2980	566	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	183	721	320	23	357	356	128	230	145	330	307	41
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1769	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.6	10.3	8.4	0.8	11.9	12.0	2.4	7.5	5.4	6.2	9.9	1.3
Cycle Q Clear(g_c), s	6.6	10.3	8.4	0.8	11.9	12.0	2.4	7.5	5.4	6.2	9.9	1.3
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	1364	782	37	495	493	208	341	289	378	433	367
V/C Ratio(X)	0.82	0.53	0.41	0.62	0.72	0.72	0.61	0.67	0.50	0.87	0.71	0.11
Avail Cap(c_a), veh/h	233	1824	987	135	815	811	378	682	578	378	682	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	15.7	10.6	32.0	21.4	21.4	30.2	25.1	24.2	28.9	23.3	20.0
Incr Delay (d2), s/veh	17.8	0.4	0.4	6.1	2.4	2.4	1.1	2.8	1.6	18.9	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.6	2.5	0.4	4.6	4.6	1.0	3.3	2.0	3.4	4.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	16.1	11.0	38.0	23.8	23.9	31.3	27.9	25.9	47.8	25.9	20.1
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1224			736			503			678	
Approach Delay, s/veh		19.2			24.3			28.2			36.2	
Approach LOS		B			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	30.8	11.7	17.5	12.8	23.8	8.5	20.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.8	12.3	8.2	9.5	8.6	14.0	4.4	11.9
Green Ext Time (p_c), s	0.0	7.2	0.0	1.8	0.0	4.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	171	97	0	148	0	924	132	137	798	2
Future Volume (veh/h)	0	0	171	97	0	148	0	924	132	137	798	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	186	105	0	161	0	1004	143	149	867	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	326	0	0	0	1918	595	203	2233	996
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.38	0.38	0.11	0.63	0.63
Sat Flow, veh/h		0		3456	105		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		105	14.3		0	1004	143	149	867	2
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.9			0.0	5.0	2.0	2.6	3.9	0.0
Cycle Q Clear(g_c), s				0.9			0.0	5.0	2.0	2.6	3.9	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				326			0	1918	595	203	2233	996
V/C Ratio(X)				0.32			0.00	0.52	0.24	0.73	0.39	0.00
Avail Cap(c_a), veh/h				1918			0	2833	880	275	3013	1344
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				13.7			0.0	7.9	6.9	13.9	3.0	2.2
Incr Delay (d2), s/veh				0.6			0.0	0.2	0.2	6.6	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	1.0	0.4	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.3			0.0	8.1	7.2	20.5	3.1	2.2
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1147			1018	
Approach Delay, s/veh								8.0			5.6	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	16.7	7.6			24.9						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	18.0			27.5						
Max Q Clear Time (g_c+I1), s	4.6	7.0	2.9			5.9						
Green Ext Time (p_c), s	0.0	5.2	0.2			5.9						

Intersection Summary			
HCM 6th Ctrl Delay			7.2
HCM 6th LOS			A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	6	4	440	153	1	543
Future Vol, veh/h	6	4	440	153	1	543
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	4	478	166	1	590

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1153	561	0	0	644	0
Stage 1	561	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	218	527	-	-	941	-
Stage 1	571	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	218	527	-	-	941	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	571	-	-	-	-	-
Stage 2	552	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	409	941	-
HCM Lane V/C Ratio	-	-	0.027	0.001	-
HCM Control Delay (s)	-	-	14	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	0	0	913	12
Future Vol, veh/h	0	12	0	0	913	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	0	0	992	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	503	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	514	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	514	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	514	-	-
HCM Lane V/C Ratio	-	0.025	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	147	21	0	20	8
Future Vol, veh/h	6	147	21	0	20	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	160	23	0	22	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	197	23
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	792	1054
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	788	1054
Mov Cap-2 Maneuver	-	-	-	-	788	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	849
HCM Lane V/C Ratio	0.004	-	-	-	0.036
HCM Control Delay (s)	7.3	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Queues
5: Taylor Road & Sierra College Blvd

06/26/2024

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	168	377	201	18	811	60	199	88	260	197	16
v/c Ratio	0.81	0.24	0.19	0.18	0.73	0.28	0.54	0.21	0.77	0.37	0.03
Control Delay	65.7	14.4	2.0	40.8	25.9	39.1	33.7	2.7	52.0	26.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	14.4	2.0	40.8	25.9	39.1	33.7	2.7	52.0	26.7	0.1
Queue Length 50th (ft)	75	46	0	8	159	13	82	0	60	77	0
Queue Length 95th (ft)	#212	103	29	31	245	35	157	13	#143	153	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	207	1655	1060	120	1432	336	608	610	336	608	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.23	0.19	0.15	0.57	0.18	0.33	0.14	0.77	0.32	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	100	147	567	90	145	790
v/c Ratio	0.29	0.25	0.38	0.33	0.13	0.70	0.38
Control Delay	2.2	20.7	4.5	13.2	0.4	43.7	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	20.7	4.5	13.2	0.4	43.7	7.8
Queue Length 50th (ft)	0	12	0	43	0	36	65
Queue Length 95th (ft)	4	30	17	66	0	#119	98
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	387	402	384	2246	825	207	2441
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.25	0.38	0.25	0.11	0.70	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

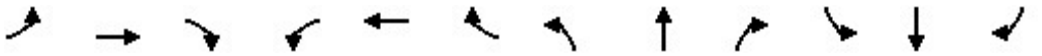
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	155	347	185	17	586	160	55	183	81	239	181	15
Future Volume (veh/h)	155	347	185	17	586	160	55	183	81	239	181	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	377	201	18	637	174	60	199	88	260	197	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1448	808	30	850	232	138	332	281	352	448	380
Arrive On Green	0.12	0.41	0.41	0.02	0.31	0.31	0.04	0.18	0.18	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	2759	753	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	168	377	201	18	410	401	60	199	88	260	197	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1735	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.2	4.8	4.8	0.7	14.0	14.1	1.1	6.6	3.3	4.9	6.0	0.5
Cycle Q Clear(g_c), s	6.2	4.8	4.8	0.7	14.0	14.1	1.1	6.6	3.3	4.9	6.0	0.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1448	808	30	547	534	138	332	281	352	448	380
V/C Ratio(X)	0.81	0.26	0.25	0.60	0.75	0.75	0.43	0.60	0.31	0.74	0.44	0.04
Avail Cap(c_a), veh/h	227	1778	954	132	794	775	368	664	563	368	664	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	13.3	9.3	33.0	21.0	21.0	31.7	25.6	24.2	29.5	21.8	19.7
Incr Delay (d2), s/veh	16.3	0.1	0.2	6.8	2.7	2.8	0.8	2.1	0.8	6.3	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.7	1.4	0.3	5.4	5.3	0.5	2.9	1.2	2.2	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	13.4	9.5	39.7	23.8	23.9	32.5	27.7	25.0	35.7	22.7	19.8
LnGrp LOS	D	B	A	D	C	C	C	C	C	D	C	B
Approach Vol, veh/h		746			829			347			473	
Approach Delay, s/veh		19.5			24.2			27.8			29.8	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	33.0	11.4	17.5	12.4	26.3	7.2	21.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.7	6.8	6.9	8.6	8.2	16.1	3.1	8.0
Green Ext Time (p_c), s	0.0	3.8	0.0	1.4	0.0	4.8	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	105	92	0	135	0	522	83	133	727	0
Future Volume (veh/h)	0	0	105	92	0	135	0	522	83	133	727	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	114	100	0	147	0	567	90	145	790	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	337	0	0	0	1447	449	218	2031	906
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.28	0.28	0.12	0.57	0.00
Sat Flow, veh/h		0		3456	100		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		100	11.9		0	567	90	145	790	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.7			0.0	2.4	1.2	2.1	3.3	0.0
Cycle Q Clear(g_c), s				0.7			0.0	2.4	1.2	2.1	3.3	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				337			0	1447	449	218	2031	906
V/C Ratio(X)				0.30			0.00	0.39	0.20	0.67	0.39	0.00
Avail Cap(c_a), veh/h				636			0	3381	1050	328	3595	1604
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				11.4			0.0	7.8	7.4	11.4	3.2	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	3.5	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2			0.0	0.5	0.2	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.9			0.0	8.0	7.6	14.9	3.3	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								657			935	
Approach Delay, s/veh								8.0			5.1	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	7.8	12.2	7.2			20.0						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.1	4.4	2.7			5.3						
Green Ext Time (p_c), s	0.0	3.3	0.0			5.3						

Intersection Summary	
HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	2	0	318	102	8	467
Future Vol, veh/h	2	0	318	102	8	467
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	346	111	9	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	928	402	0	0	457	0
Stage 1	402	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	297	648	-	-	1104	-
Stage 1	676	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	295	648	-	-	1104	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	588	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	13.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	420	1104	-
HCM Lane V/C Ratio	-	-	0.005	0.008	-
HCM Control Delay (s)	-	-	13.6	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	866	0
Future Vol, veh/h	0	0	0	0	866	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	941	0

Future without project no DWY Traffic

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	471	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	539	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	539	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

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

Future without project no DWY Traffic

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1084
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Queues
5: Taylor Road & Sierra College Blvd

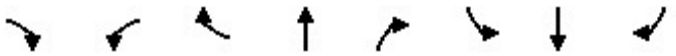
06/26/2024

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	187	729	322	24	721	132	234	148	330	313	42
v/c Ratio	0.92	0.49	0.30	0.24	0.70	0.51	0.55	0.31	0.99	0.61	0.08
Control Delay	83.6	18.7	2.2	44.0	27.3	43.1	32.0	6.7	87.5	32.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.6	18.7	2.2	44.0	27.3	43.1	32.0	6.7	87.5	32.2	0.3
Queue Length 50th (ft)	88	113	0	11	149	30	97	0	~81	133	0
Queue Length 95th (ft)	#253	224	39	39	231	67	182	44	#203	245	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	204	1624	1072	118	1417	332	600	610	332	600	604
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.45	0.30	0.20	0.51	0.40	0.39	0.24	0.99	0.52	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	168	108	153	1012	147	152	872	3
v/c Ratio	0.45	0.30	0.42	0.49	0.19	0.81	0.39	0.00
Control Delay	6.2	23.7	5.2	13.3	1.4	60.8	7.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	23.7	5.2	13.3	1.4	60.8	7.2	0.0
Queue Length 50th (ft)	0	15	0	86	0	46	74	0
Queue Length 95th (ft)	26	35	19	121	12	#133	109	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	371	362	368	2093	784	187	2251	1053
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.30	0.42	0.48	0.19	0.81	0.39	0.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

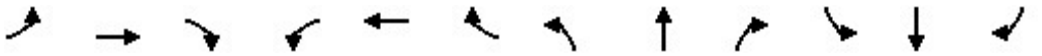
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	172	671	296	22	556	108	121	215	136	304	288	39
Future Volume (veh/h)	172	671	296	22	556	108	121	215	136	304	288	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	729	322	24	604	117	132	234	148	330	313	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1376	786	38	833	161	213	338	287	375	426	361
Arrive On Green	0.13	0.39	0.39	0.02	0.28	0.28	0.06	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2970	574	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	187	729	322	24	361	360	132	234	148	330	313	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1767	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.8	10.5	8.5	0.9	12.2	12.2	2.5	7.8	5.6	6.2	10.3	1.4
Cycle Q Clear(g_c), s	6.8	10.5	8.5	0.9	12.2	12.2	2.5	7.8	5.6	6.2	10.3	1.4
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1376	786	38	499	496	213	338	287	375	426	361
V/C Ratio(X)	0.82	0.53	0.41	0.63	0.72	0.73	0.62	0.69	0.52	0.88	0.73	0.12
Avail Cap(c_a), veh/h	231	1812	980	134	809	805	375	677	574	375	677	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	15.7	10.6	32.2	21.5	21.6	30.4	25.4	24.5	29.1	23.7	20.3
Incr Delay (d2), s/veh	18.8	0.4	0.4	6.0	2.4	2.5	1.1	3.0	1.7	19.9	3.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.7	2.5	0.4	4.7	4.7	1.0	3.4	2.1	3.4	4.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	16.0	11.0	38.2	23.9	24.0	31.4	28.5	26.3	49.0	26.7	20.5
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1238			745			514			685	
Approach Delay, s/veh		19.4			24.4			28.6			37.1	
Approach LOS		B			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	31.2	11.7	17.5	13.0	24.1	8.6	20.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.9	12.5	8.2	9.8	8.8	14.2	4.5	12.3
Green Ext Time (p_c), s	0.0	7.2	0.0	1.8	0.0	4.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	155	99	0	141	0	931	135	140	802	3
Future Volume (veh/h)	0	0	155	99	0	141	0	931	135	140	802	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	168	108	0	153	0	1012	147	152	872	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	330	0	0	0	1921	596	204	2234	997
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.38	0.38	0.11	0.63	0.63
Sat Flow, veh/h		0		3456	108		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		108	14.4		0	1012	147	152	872	3
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				1.0			0.0	5.0	2.1	2.7	3.9	0.0
Cycle Q Clear(g_c), s				1.0			0.0	5.0	2.1	2.7	3.9	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				330			0	1921	596	204	2234	997
V/C Ratio(X)				0.33			0.00	0.53	0.25	0.74	0.39	0.00
Avail Cap(c_a), veh/h				529			0	2815	874	273	2993	1335
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				13.8			0.0	7.9	7.0	14.0	3.0	2.3
Incr Delay (d2), s/veh				0.6			0.0	0.2	0.2	7.4	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	1.0	0.4	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.4			0.0	8.1	7.2	21.4	3.1	2.3
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1159			1027	
Approach Delay, s/veh								8.0			5.8	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	16.8	7.6			25.0						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.7	7.0	3.0			5.9						
Green Ext Time (p_c), s	0.0	5.3	0.0			5.9						

Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	3	449	150	2	554
Future Vol, veh/h	0	3	449	150	2	554
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	488	163	2	602

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1176	570	0	0	651	0
Stage 1	570	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	211	521	-	-	935	-
Stage 1	566	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	211	521	-	-	935	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	544	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	521	935	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	12	8.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	866	0
Future Vol, veh/h	0	0	0	0	866	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	941	0

Future without project no DWY Traffic

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	471	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	539	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	539	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	0

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

Future without project no DWY Traffic

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1084
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	168	383	204	18	817	60	201	88	266	197	16
v/c Ratio	0.82	0.24	0.19	0.18	0.74	0.28	0.54	0.21	0.79	0.37	0.03
Control Delay	66.4	14.5	2.0	41.2	26.2	39.4	33.6	2.7	54.2	26.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	14.5	2.0	41.2	26.2	39.4	33.6	2.7	54.2	26.6	0.1
Queue Length 50th (ft)	76	47	0	8	161	13	84	0	61	77	0
Queue Length 95th (ft)	#216	107	30	31	252	35	159	12	#150	152	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	206	1649	1060	119	1426	335	606	608	335	606	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.23	0.19	0.15	0.57	0.18	0.33	0.14	0.79	0.33	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	132	100	158	580	90	145	801
v/c Ratio	0.34	0.25	0.41	0.34	0.13	0.70	0.39
Control Delay	3.4	21.0	5.2	13.1	0.4	44.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	21.0	5.2	13.1	0.4	44.5	7.7
Queue Length 50th (ft)	0	12	0	45	0	36	66
Queue Length 95th (ft)	11	31	21	67	0	#123	98
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	386	400	383	2235	821	206	2428
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.25	0.41	0.26	0.11	0.70	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

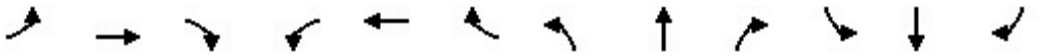
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	155	352	188	17	592	160	55	185	81	245	181	15
Future Volume (veh/h)	155	352	188	17	592	160	55	185	81	245	181	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	383	204	18	643	174	60	201	88	266	197	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1452	812	30	855	231	138	330	280	358	449	381
Arrive On Green	0.12	0.41	0.41	0.02	0.31	0.31	0.04	0.18	0.18	0.10	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	2765	747	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	168	383	204	18	413	404	60	201	88	266	197	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1736	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.3	4.9	4.9	0.7	14.2	14.2	1.2	6.7	3.3	5.1	6.1	0.5
Cycle Q Clear(g_c), s	6.3	4.9	4.9	0.7	14.2	14.2	1.2	6.7	3.3	5.1	6.1	0.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	1452	812	30	549	537	138	330	280	358	449	381
V/C Ratio(X)	0.81	0.26	0.25	0.60	0.75	0.75	0.44	0.61	0.31	0.74	0.44	0.04
Avail Cap(c_a), veh/h	225	1768	953	131	790	771	366	661	560	366	661	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	13.3	9.3	33.2	21.1	21.1	31.9	25.8	24.4	29.6	21.9	19.8
Incr Delay (d2), s/veh	16.5	0.1	0.2	6.8	2.8	2.9	0.8	2.2	0.8	6.8	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.7	1.4	0.3	5.5	5.4	0.5	2.9	1.2	2.3	2.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	13.4	9.5	39.9	24.0	24.1	32.7	28.0	25.2	36.4	22.7	19.9
LnGrp LOS	D	B	A	D	C	C	C	C	C	D	C	B
Approach Vol, veh/h		755			835			349			479	
Approach Delay, s/veh		19.6			24.4			28.1			30.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	33.3	11.5	17.5	12.4	26.5	7.2	21.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.7	6.9	7.1	8.7	8.3	16.2	3.2	8.1
Green Ext Time (p_c), s	0.0	3.8	0.0	1.4	0.0	4.8	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	121	92	0	145	0	534	83	133	737	0
Future Volume (veh/h)	0	0	121	92	0	145	0	534	83	133	737	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	132	100	0	158	0	580	90	145	801	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	336	0	0	0	1464	454	217	2038	909
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.29	0.29	0.12	0.57	0.00
Sat Flow, veh/h		0		3456	100		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		100	12.0		0	580	90	145	801	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.7			0.0	2.5	1.2	2.1	3.4	0.0
Cycle Q Clear(g_c), s				0.7			0.0	2.5	1.2	2.1	3.4	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				336			0	1464	454	217	2038	909
V/C Ratio(X)				0.30			0.00	0.40	0.20	0.67	0.39	0.00
Avail Cap(c_a), veh/h				632			0	3362	1044	326	3575	1595
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				11.5			0.0	7.8	7.4	11.5	3.2	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	3.5	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2			0.0	0.5	0.2	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.0			0.0	8.0	7.6	15.0	3.3	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								670			946	
Approach Delay, s/veh								8.0			5.1	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	7.8	12.3	7.2			20.2						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.1	4.5	2.7			5.4						
Green Ext Time (p_c), s	0.0	3.3	0.0			5.4						

Intersection Summary	
HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	7	2	318	108	8	467
Future Vol, veh/h	7	2	318	108	8	467
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	2	346	117	9	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	931	405	0	0	463	0
Stage 1	405	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	296	646	-	-	1098	-
Stage 1	673	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	294	646	-	-	1098	-
Mov Cap-2 Maneuver	419	-	-	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	588	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	13.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	454	1098	-
HCM Lane V/C Ratio	-	-	0.022	0.008	-
HCM Control Delay (s)	-	-	13.1	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	884	12
Future Vol, veh/h	0	10	0	0	884	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	0	961	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	487	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	526	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	526	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	526	-	-
HCM Lane V/C Ratio	-	0.021	-	-
HCM Control Delay (s)	-	12	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	102	0	21	17	7
Future Vol, veh/h	6	102	0	21	17	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	111	0	23	18	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	137	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	125	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	856	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	901	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	852	1069
Mov Cap-2 Maneuver	-	-	-	-	852	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	901	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	906
HCM Lane V/C Ratio	0.004	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Queues
5: Taylor Road & Sierra College Blvd

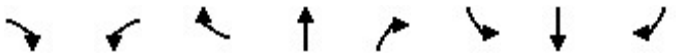
06/26/2024

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	187	736	326	24	728	132	236	148	337	313	42
v/c Ratio	0.92	0.49	0.30	0.24	0.71	0.51	0.56	0.31	1.02	0.61	0.08
Control Delay	84.4	18.8	2.2	44.2	27.4	43.2	32.2	6.7	93.4	32.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.4	18.8	2.2	44.2	27.4	43.2	32.2	6.7	93.4	32.2	0.3
Queue Length 50th (ft)	89	115	0	11	152	31	98	0	~89	134	0
Queue Length 95th (ft)	#253	226	39	39	234	67	183	44	#208	245	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	204	1621	1074	118	1413	331	599	609	331	599	603
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.45	0.30	0.20	0.52	0.40	0.39	0.24	1.02	0.52	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	190	108	164	1025	147	152	885	3
v/c Ratio	0.51	0.30	0.45	0.50	0.19	0.81	0.40	0.00
Control Delay	8.3	23.7	6.0	13.4	1.4	60.8	7.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	23.7	6.0	13.4	1.4	60.8	7.2	0.0
Queue Length 50th (ft)	0	15	0	88	0	46	75	0
Queue Length 95th (ft)	35	35	24	122	12	#133	111	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	371	363	368	2090	783	187	2251	1053
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.30	0.45	0.49	0.19	0.81	0.39	0.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

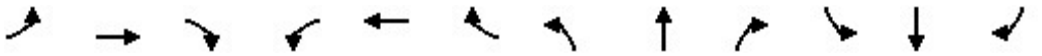
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	172	677	300	22	562	108	121	217	136	310	288	39
Future Volume (veh/h)	172	677	300	22	562	108	121	217	136	310	288	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	736	326	24	611	117	132	236	148	337	313	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	1383	788	38	841	161	213	337	286	374	425	360
Arrive On Green	0.13	0.39	0.39	0.02	0.28	0.28	0.06	0.18	0.18	0.11	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2976	569	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	187	736	326	24	364	364	132	236	148	337	313	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1768	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.8	10.6	8.7	0.9	12.3	12.4	2.5	7.9	5.6	6.4	10.3	1.4
Cycle Q Clear(g_c), s	6.8	10.6	8.7	0.9	12.3	12.4	2.5	7.9	5.6	6.4	10.3	1.4
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1383	788	38	502	499	213	337	286	374	425	360
V/C Ratio(X)	0.82	0.53	0.41	0.63	0.73	0.73	0.62	0.70	0.52	0.90	0.74	0.12
Avail Cap(c_a), veh/h	230	1806	977	134	807	803	374	675	572	374	675	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	15.7	10.6	32.3	21.5	21.6	30.4	25.6	24.6	29.3	23.9	20.4
Incr Delay (d2), s/veh	18.9	0.4	0.4	6.1	2.4	2.5	1.1	3.2	1.7	23.4	3.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.8	2.5	0.4	4.8	4.8	1.0	3.5	2.1	3.7	4.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	16.0	11.0	38.3	24.0	24.0	31.5	28.7	26.4	52.7	26.9	20.6
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1249			752			516			692	
Approach Delay, s/veh		19.4			24.5			28.8			39.1	
Approach LOS		B			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	31.4	11.7	17.5	13.0	24.3	8.6	20.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.9	12.6	8.4	9.9	8.8	14.4	4.5	12.3
Green Ext Time (p_c), s	0.0	7.3	0.0	1.8	0.0	4.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	175	99	0	151	0	943	135	140	814	3
Future Volume (veh/h)	0	0	175	99	0	151	0	943	135	140	814	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	190	108	0	164	0	1025	147	152	885	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	330	0	0	0	1932	600	204	2239	999
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.38	0.38	0.11	0.63	0.63
Sat Flow, veh/h		0		3456	108		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		108	14.4		0	1025	147	152	885	3
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				1.0			0.0	5.1	2.1	2.7	4.0	0.0
Cycle Q Clear(g_c), s				1.0			0.0	5.1	2.1	2.7	4.0	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				330			0	1932	600	204	2239	999
V/C Ratio(X)				0.33			0.00	0.53	0.25	0.75	0.40	0.00
Avail Cap(c_a), veh/h				527			0	2804	870	272	2981	1330
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				13.8			0.0	7.9	7.0	14.1	3.0	2.2
Incr Delay (d2), s/veh				0.6			0.0	0.2	0.2	7.5	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	1.0	0.4	1.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.4			0.0	8.2	7.2	21.6	3.1	2.2
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1172			1040	
Approach Delay, s/veh								8.0			5.8	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	16.9	7.6			25.1						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.7	7.1	3.0			6.0						
Green Ext Time (p_c), s	0.0	5.3	0.0			6.0						

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	6	5	449	156	2	554
Future Vol, veh/h	6	5	449	156	2	554
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	5	488	170	2	602

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1179	573	0	0	658	0
Stage 1	573	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	211	519	-	-	930	-
Stage 1	564	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	211	519	-	-	930	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	544	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	410	930	-
HCM Lane V/C Ratio	-	-	0.029	0.002	-
HCM Control Delay (s)	-	-	14	8.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	0	0	932	12
Future Vol, veh/h	0	12	0	0	932	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	0	0	1013	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	513	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	506	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	506	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	506	-	-
HCM Lane V/C Ratio	-	0.026	-	-
HCM Control Delay (s)	-	12.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	150	0	21	20	8
Future Vol, veh/h	6	150	0	21	20	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	163	0	23	22	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	189	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	800	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	796	1069
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	859
HCM Lane V/C Ratio	0.004	-	-	-	0.035
HCM Control Delay (s)	7.3	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	192	433	230	21	929	68	228	101	298	226	18
v/c Ratio	0.98	0.27	0.21	0.22	0.79	0.32	0.60	0.23	0.94	0.47	0.03
Control Delay	101.1	15.0	2.1	44.1	28.4	41.7	36.0	3.5	76.9	30.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.1	15.0	2.1	44.1	28.4	41.7	36.0	3.5	76.9	30.1	0.1
Queue Length 50th (ft)	~97	58	0	10	200	17	105	0	77	99	0
Queue Length 95th (ft)	#256	125	33	35	308	39	178	20	#177	174	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	195	1643	1075	113	1353	317	574	584	317	574	584
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.26	0.21	0.19	0.69	0.21	0.40	0.17	0.94	0.39	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	130	115	168	650	103	166	952
v/c Ratio	0.34	0.30	0.44	0.36	0.14	0.83	0.45
Control Delay	3.3	22.3	6.0	12.9	0.4	60.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	22.3	6.0	12.9	0.4	60.3	8.0
Queue Length 50th (ft)	0	14	0	51	0	44	83
Queue Length 95th (ft)	10	36	26	75	0	#146	122
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	381	388	378	2181	807	200	2369
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.30	0.44	0.30	0.13	0.83	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

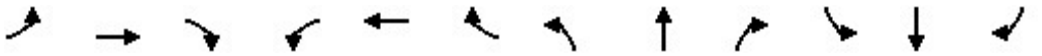
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	177	398	212	19	672	183	63	210	93	274	208	17
Future Volume (veh/h)	177	398	212	19	672	183	63	210	93	274	208	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	433	230	21	730	199	68	228	101	298	226	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	1545	848	34	922	251	143	313	265	347	423	358
Arrive On Green	0.12	0.43	0.43	0.02	0.33	0.33	0.04	0.17	0.17	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2760	752	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	192	433	230	21	470	459	68	228	101	298	226	18
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1735	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	7.6	5.6	5.7	0.8	17.2	17.2	1.4	8.3	4.1	6.1	7.6	0.6
Cycle Q Clear(g_c), s	7.6	5.6	5.7	0.8	17.2	17.2	1.4	8.3	4.1	6.1	7.6	0.6
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	1545	848	34	593	579	143	313	265	347	423	358
V/C Ratio(X)	0.90	0.28	0.27	0.62	0.79	0.79	0.48	0.73	0.38	0.86	0.53	0.05
Avail Cap(c_a), veh/h	213	1674	906	124	748	730	347	625	530	347	625	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	13.1	9.1	34.9	21.6	21.6	33.6	28.3	26.6	31.8	24.4	21.7
Incr Delay (d2), s/veh	34.8	0.1	0.2	6.6	4.9	5.1	0.9	3.9	1.1	18.3	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.0	1.6	0.4	7.0	6.9	0.6	3.8	1.5	3.3	3.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	13.2	9.3	41.6	26.6	26.7	34.5	32.3	27.7	50.1	25.7	21.8
LnGrp LOS	E	B	A	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		855			950			397			542	
Approach Delay, s/veh		24.0			27.0			31.5			39.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	36.7	11.7	17.5	13.1	29.5	7.5	21.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	2.8	7.7	8.1	10.3	9.6	19.2	3.4	9.6
Green Ext Time (p_c), s	0.0	4.4	0.0	1.5	0.0	4.8	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	120	106	0	155	0	598	95	153	876	0
Future Volume (veh/h)	0	0	120	106	0	155	0	598	95	153	876	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	130	115	0	168	0	650	103	166	952	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	361	0	0	0	1533	476	227	2074	925
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.30	0.30	0.13	0.58	0.00
Sat Flow, veh/h		0		3456	115		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		115	12.5		0	650	103	166	952	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.9			0.0	2.9	1.4	2.6	4.4	0.0
Cycle Q Clear(g_c), s				0.9			0.0	2.9	1.4	2.6	4.4	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				361			0	1533	476	227	2074	925
V/C Ratio(X)				0.32			0.00	0.42	0.22	0.73	0.46	0.00
Avail Cap(c_a), veh/h				599			0	3186	989	309	3387	1511
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				12.0			0.0	8.1	7.6	12.1	3.4	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	5.7	0.2	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	0.6	0.3	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.5			0.0	8.3	7.8	17.8	3.6	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								753			1118	
Approach Delay, s/veh								8.2			5.7	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	13.2	7.5			21.3						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.6	4.9	2.9			6.4						
Green Ext Time (p_c), s	0.0	3.7	0.1			6.5						

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	2	0	364	138	9	535
Future Vol, veh/h	2	0	364	138	9	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	396	150	10	582

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1073	471	0	0	546	0
Stage 1	471	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	244	593	-	-	1023	-
Stage 1	628	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	242	593	-	-	1023	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	375	1023	-
HCM Lane V/C Ratio	-	-	0.006	0.01	-
HCM Control Delay (s)	-	-	14.7	8.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	866	12
Future Vol, veh/h	0	10	0	0	866	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	0	941	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	477	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	534	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	534	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	534	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	11.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	117	0	0	0	0
Future Vol, veh/h	0	117	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	127	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	128	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	866	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1622	-	-	-	866	1084
Mov Cap-2 Maneuver	-	-	-	-	866	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

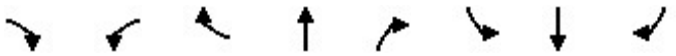
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	214	836	370	27	827	151	267	170	379	359	49
v/c Ratio	1.12	0.54	0.34	0.28	0.76	0.59	0.61	0.34	1.22	0.76	0.10
Control Delay	138.9	20.1	2.7	47.4	29.4	48.0	34.3	6.5	159.5	40.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.9	20.1	2.7	47.4	29.4	48.0	34.3	6.5	159.5	40.6	0.4
Queue Length 50th (ft)	~139	152	4	14	196	40	124	0	~134	175	0
Queue Length 95th (ft)	#292	264	49	42	273	74	208	47	#238	#287	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	191	1579	1081	111	1330	311	563	597	311	563	575
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.53	0.34	0.24	0.62	0.49	0.47	0.28	1.22	0.64	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	192	124	176	1161	168	175	1116	3
v/c Ratio	0.51	0.33	0.47	0.57	0.22	0.91	0.50	0.00
Control Delay	8.4	24.3	6.9	14.1	1.8	76.8	8.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	24.3	6.9	14.1	1.8	76.8	8.1	0.0
Queue Length 50th (ft)	0	18	0	103	0	~55	104	0
Queue Length 95th (ft)	36	38	29	142	17	#154	152	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	375	373	372	2021	764	192	2234	1046
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.33	0.47	0.57	0.22	0.91	0.50	0.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

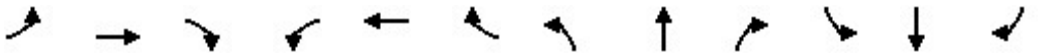
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	197	769	340	25	638	123	139	246	156	349	330	45
Future Volume (veh/h)	197	769	340	25	638	123	139	246	156	349	330	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	836	370	27	693	134	151	267	170	379	359	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1420	791	41	902	174	232	375	318	345	436	369
Arrive On Green	0.12	0.40	0.40	0.02	0.30	0.30	0.07	0.20	0.20	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2970	574	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	214	836	370	27	414	413	151	267	170	379	359	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1767	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	8.6	13.3	11.0	1.1	15.3	15.3	3.1	9.6	6.9	7.2	13.1	1.8
Cycle Q Clear(g_c), s	8.6	13.3	11.0	1.1	15.3	15.3	3.1	9.6	6.9	7.2	13.1	1.8
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	1420	791	41	539	536	232	375	318	345	436	369
V/C Ratio(X)	1.01	0.59	0.47	0.65	0.77	0.77	0.65	0.71	0.54	1.10	0.82	0.13
Avail Cap(c_a), veh/h	212	1664	900	123	743	739	345	622	527	345	622	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	17.0	11.8	35.0	22.8	22.8	32.8	26.9	25.8	32.5	26.3	21.9
Incr Delay (d2), s/veh	63.9	0.5	0.5	6.3	3.7	3.7	1.2	3.0	1.7	77.9	6.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	4.9	3.3	0.5	6.2	6.2	1.3	4.3	2.6	6.5	6.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.7	17.5	12.3	41.3	26.5	26.6	34.0	29.9	27.5	110.4	32.9	22.1
LnGrp LOS	F	B	B	D	C	C	C	C	C	F	C	C
Approach Vol, veh/h		1420			854			588			787	
Approach Delay, s/veh		27.9			27.0			30.3			69.6	
Approach LOS		C			C			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	34.3	11.7	20.0	13.1	27.4	9.3	22.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	3.1	15.3	9.2	11.6	10.6	17.3	5.1	15.1
Green Ext Time (p_c), s	0.0	7.9	0.0	1.9	0.0	4.6	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	177	114	0	162	0	1068	155	161	1027	3
Future Volume (veh/h)	0	0	177	114	0	162	0	1068	155	161	1027	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	192	124	0	176	0	1161	168	175	1116	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	345	0	0	0	2000	621	222	2290	1021
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.39	0.39	0.12	0.64	0.64
Sat Flow, veh/h		0		3456	124		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		124	15.4		0	1161	168	175	1116	3
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				1.2			0.0	6.3	2.5	3.4	5.7	0.0
Cycle Q Clear(g_c), s				1.2			0.0	6.3	2.5	3.4	5.7	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				345			0	2000	621	222	2290	1021
V/C Ratio(X)				0.36			0.00	0.58	0.27	0.79	0.49	0.00
Avail Cap(c_a), veh/h				491			0	2613	811	253	2778	1239
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				14.8			0.0	8.4	7.3	14.9	3.2	2.2
Incr Delay (d2), s/veh				0.6			0.0	0.3	0.2	13.6	0.2	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4			0.0	1.3	0.5	1.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				15.4			0.0	8.7	7.5	28.5	3.4	2.2
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1329			1294	
Approach Delay, s/veh								8.5			6.8	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.9	18.3	8.0			27.2						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	5.4	8.3	3.2			7.7						
Green Ext Time (p_c), s	0.0	5.5	0.1			7.7						

Intersection Summary			
HCM 6th Ctrl Delay			8.0
HCM 6th LOS			A

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	3	515	172	2	636
Future Vol, veh/h	0	3	515	172	2	636
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	560	187	2	691

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1349	654	0	0	747	0
Stage 1	654	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	166	467	-	-	861	-
Stage 1	517	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	166	467	-	-	861	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	12.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	467	861	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s)	-	-	12.8	9.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	866	12
Future Vol, veh/h	0	10	0	0	866	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	0	941	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	477	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	534	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	534	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	534	-	-
HCM Lane V/C Ratio	-	0.02	-	-
HCM Control Delay (s)	-	11.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	172	0	0	0	0
Future Vol, veh/h	0	172	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	187	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	188	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	801	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	845	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	801	1084
Mov Cap-2 Maneuver	-	-	-	-	801	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	845	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Queues
5: Taylor Road & Sierra College Blvd

06/26/2024

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	192	438	234	27	892	68	230	101	304	226	18
v/c Ratio	0.97	0.27	0.22	0.27	0.78	0.32	0.60	0.23	0.95	0.46	0.03
Control Delay	97.0	15.3	2.1	45.2	28.0	41.5	35.5	3.5	77.6	29.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.0	15.3	2.1	45.2	28.0	41.5	35.5	3.5	77.6	29.6	0.1
Queue Length 50th (ft)	95	58	0	13	188	17	104	0	77	97	0
Queue Length 95th (ft)	#257	127	33	41	292	39	180	20	#181	174	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	198	1635	1068	115	1373	321	582	590	321	582	590
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.27	0.22	0.23	0.65	0.21	0.40	0.17	0.95	0.39	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	115	179	663	103	166	963
v/c Ratio	0.39	0.30	0.47	0.36	0.14	0.83	0.45
Control Delay	4.6	22.4	7.0	12.9	0.4	60.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	22.4	7.0	12.9	0.4	60.5	8.0
Queue Length 50th (ft)	0	14	0	52	0	44	84
Queue Length 95th (ft)	17	36	31	76	0	#146	124
Internal Link Dist (ft)				318			239
Turn Bay Length (ft)		140			200	210	
Base Capacity (vph)	381	388	378	2178	806	200	2366
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.30	0.47	0.30	0.13	0.83	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

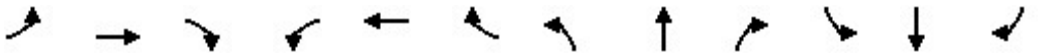
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	177	403	215	25	638	183	63	212	93	280	208	17
Future Volume (veh/h)	177	403	215	25	638	183	63	212	93	280	208	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	438	234	27	693	199	68	230	101	304	226	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	1506	833	41	888	255	144	317	268	351	429	363
Arrive On Green	0.12	0.42	0.42	0.02	0.33	0.33	0.04	0.17	0.17	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2724	782	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	192	438	234	27	452	440	68	230	101	304	226	18
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1730	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	7.5	5.7	5.8	1.1	16.3	16.3	1.4	8.3	4.0	6.1	7.5	0.6
Cycle Q Clear(g_c), s	7.5	5.7	5.8	1.1	16.3	16.3	1.4	8.3	4.0	6.1	7.5	0.6
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	1506	833	41	579	564	144	317	268	351	429	363
V/C Ratio(X)	0.89	0.29	0.28	0.65	0.78	0.78	0.47	0.73	0.38	0.87	0.53	0.05
Avail Cap(c_a), veh/h	216	1694	916	126	757	737	351	633	536	351	633	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	13.4	9.4	34.3	21.6	21.6	33.2	27.9	26.1	31.4	24.0	21.3
Incr Delay (d2), s/veh	32.2	0.1	0.2	6.2	4.3	4.4	0.9	3.8	1.1	19.1	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	2.0	1.7	0.5	6.6	6.4	0.6	3.7	1.5	3.3	3.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	13.5	9.6	40.6	25.9	26.0	34.1	31.7	27.2	50.4	25.2	21.4
LnGrp LOS	E	B	A	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		864			919			399			548	
Approach Delay, s/veh		23.4			26.4			31.0			39.1	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	35.6	11.7	17.5	13.1	28.6	7.5	21.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	3.1	7.8	8.1	10.3	9.5	18.3	3.4	9.5
Green Ext Time (p_c), s	0.0	4.4	0.0	1.5	0.0	4.8	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	136	106	0	165	0	610	95	153	886	0
Future Volume (veh/h)	0	0	136	106	0	165	0	610	95	153	886	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	148	115	0	179	0	663	103	166	963	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	360	0	0	0	1549	481	226	2081	928
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.30	0.30	0.13	0.59	0.00
Sat Flow, veh/h		0		3456	115		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		115	12.5		0	663	103	166	963	0
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				0.9			0.0	3.0	1.4	2.6	4.5	0.0
Cycle Q Clear(g_c), s				0.9			0.0	3.0	1.4	2.6	4.5	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				360			0	1549	481	226	2081	928
V/C Ratio(X)				0.32			0.00	0.43	0.21	0.73	0.46	0.00
Avail Cap(c_a), veh/h				596			0	3169	984	307	3369	1503
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				12.0			0.0	8.1	7.5	12.2	3.4	0.0
Incr Delay (d2), s/veh				0.5			0.0	0.2	0.2	5.8	0.2	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3			0.0	0.6	0.3	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.5			0.0	8.3	7.7	18.0	3.6	0.0
LnGrp LOS				B			A	A	A	B	A	A
Approach Vol, veh/h								766			1129	
Approach Delay, s/veh								8.2			5.7	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.2	13.3	7.5			21.5						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	4.6	5.0	2.9			6.5						
Green Ext Time (p_c), s	0.0	3.8	0.1			6.6						

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	7	2	364	123	9	535
Future Vol, veh/h	7	2	364	123	9	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	2	396	134	10	582

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1065	463	0	0	530	0
Stage 1	463	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	246	599	-	-	1037	-
Stage 1	634	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	244	599	-	-	1037	-
Mov Cap-2 Maneuver	377	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	411	1037	-
HCM Lane V/C Ratio	-	-	0.024	0.009	-
HCM Control Delay (s)	-	-	14	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	1081	12
Future Vol, veh/h	0	10	0	0	1081	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	0	0	1175	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	594	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	448	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	448	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	448	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	117	0	21	17	7
Future Vol, veh/h	6	117	0	21	17	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	127	0	23	18	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	153	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	839	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	835	1069
Mov Cap-2 Maneuver	-	-	-	-	835	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.2
HCM LOS			A

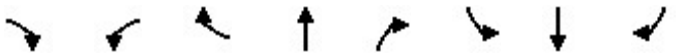
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	892
HCM Lane V/C Ratio	0.004	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	214	842	374	27	834	151	270	170	386	359	49
v/c Ratio	1.12	0.55	0.35	0.28	0.76	0.59	0.61	0.34	1.25	0.76	0.10
Control Delay	139.7	20.1	2.9	47.4	29.6	48.1	34.6	6.4	169.1	40.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.7	20.1	2.9	47.4	29.6	48.1	34.6	6.4	169.1	40.6	0.4
Queue Length 50th (ft)	~140	154	6	14	198	40	126	0	~139	176	0
Queue Length 95th (ft)	#292	266	52	42	276	74	210	47	#242	#287	0
Internal Link Dist (ft)		15			329		957			568	
Turn Bay Length (ft)						500		500			
Base Capacity (vph)	191	1579	1080	111	1327	310	561	596	310	561	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.53	0.35	0.24	0.63	0.49	0.48	0.29	1.25	0.64	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	214	124	187	1174	168	175	1013	3
v/c Ratio	0.57	0.33	0.50	0.59	0.22	0.90	0.45	0.00
Control Delay	10.8	24.2	7.9	14.2	1.8	74.0	7.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	24.2	7.9	14.2	1.8	74.0	7.6	0.0
Queue Length 50th (ft)	0	18	0	105	0	~55	91	0
Queue Length 95th (ft)	#51	38	34	143	17	#154	133	0
Internal Link Dist (ft)				318			239	
Turn Bay Length (ft)		140			200	210		210
Base Capacity (vph)	377	378	375	2020	764	195	2148	1011
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.33	0.50	0.58	0.22	0.90	0.47	0.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

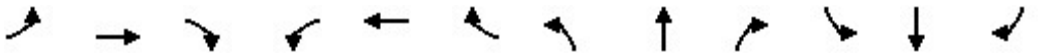
HCM 6th Signalized Intersection Summary
5: Taylor Road & Sierra College Blvd

06/26/2024

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	197	775	344	25	644	123	139	248	156	355	330	45
Future Volume (veh/h)	197	775	344	25	644	123	139	248	156	355	330	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	842	374	27	700	134	151	270	170	386	359	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	1424	793	41	908	174	232	375	318	344	436	369
Arrive On Green	0.12	0.40	0.40	0.02	0.31	0.31	0.07	0.20	0.20	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	1781	2976	569	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	214	842	374	27	418	416	151	270	170	386	359	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1768	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	8.6	13.5	11.2	1.1	15.5	15.5	3.1	9.8	7.0	7.2	13.2	1.8
Cycle Q Clear(g_c), s	8.6	13.5	11.2	1.1	15.5	15.5	3.1	9.8	7.0	7.2	13.2	1.8
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	1424	793	41	542	539	232	375	318	344	436	369
V/C Ratio(X)	1.01	0.59	0.47	0.65	0.77	0.77	0.65	0.72	0.53	1.12	0.82	0.13
Avail Cap(c_a), veh/h	212	1659	897	123	741	737	344	620	525	344	620	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	17.0	11.8	35.1	22.9	22.9	33.0	27.0	25.9	32.6	26.4	22.0
Incr Delay (d2), s/veh	64.9	0.5	0.5	6.4	3.8	3.9	1.2	3.1	1.7	86.3	6.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	4.9	3.4	0.5	6.3	6.2	1.3	4.3	2.6	6.9	6.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.8	17.5	12.4	41.4	26.7	26.7	34.1	30.2	27.6	118.9	33.1	22.2
LnGrp LOS	F	B	B	D	C	C	C	C	C	F	C	C
Approach Vol, veh/h		1430			861			591			794	
Approach Delay, s/veh		28.1			27.2			30.5			74.1	
Approach LOS		C			C			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	34.5	11.7	20.0	13.1	27.6	9.4	22.4
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.0	33.8	7.2	24.0	8.6	30.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	3.1	15.5	9.2	11.8	10.6	17.5	5.1	15.2
Green Ext Time (p_c), s	0.0	8.0	0.0	2.0	0.0	4.6	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	197	114	0	172	0	1080	155	161	932	3
Future Volume (veh/h)	0	0	197	114	0	172	0	1080	155	161	932	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	0	1870	1870	0	1870	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	214	124	0	187	0	1174	168	175	1013	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	0	2	0	2	2	2	2	2
Cap, veh/h	0	0	0	344	0	0	0	2008	623	222	2294	1023
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.39	0.39	0.12	0.65	0.65
Sat Flow, veh/h		0		3456	124		0	5274	1585	1781	3554	1585
Grp Volume(v), veh/h		0.0		124	15.5		0	1174	168	175	1013	3
Grp Sat Flow(s),veh/h/ln				1728	B		0	1702	1585	1781	1777	1585
Q Serve(g_s), s				1.2			0.0	6.4	2.5	3.4	5.0	0.0
Cycle Q Clear(g_c), s				1.2			0.0	6.4	2.5	3.4	5.0	0.0
Prop In Lane				1.00			0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h				344			0	2008	623	222	2294	1023
V/C Ratio(X)				0.36			0.00	0.58	0.27	0.79	0.44	0.00
Avail Cap(c_a), veh/h				489			0	2603	808	252	2768	1235
HCM Platoon Ratio				1.00			1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00			0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				14.8			0.0	8.4	7.3	15.0	3.1	2.2
Incr Delay (d2), s/veh				0.6			0.0	0.3	0.2	13.7	0.1	0.0
Initial Q Delay(d3),s/veh				0.0			0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4			0.0	1.4	0.5	1.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				15.5			0.0	8.7	7.5	28.7	3.2	2.2
LnGrp LOS				B			A	A	A	C	A	A
Approach Vol, veh/h								1342			1191	
Approach Delay, s/veh								8.6			7.0	
Approach LOS								A			A	

Timer - Assigned Phs	1	2	3			6						
Phs Duration (G+Y+Rc), s	8.9	18.4	8.0			27.3						
Change Period (Y+Rc), s	4.5	4.5	4.5			4.5						
Max Green Setting (Gmax), s	5.0	18.0	5.0			27.5						
Max Q Clear Time (g_c+I1), s	5.4	8.4	3.2			7.0						
Green Ext Time (p_c), s	0.0	5.5	0.1			6.9						

Intersection Summary			
HCM 6th Ctrl Delay			8.2
HCM 6th LOS			A

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	6	5	515	178	2	636
Future Vol, veh/h	6	5	515	178	2	636
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	5	560	193	2	691

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1352	657	0	0	753	0
Stage 1	657	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	165	465	-	-	857	-
Stage 1	516	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	165	465	-	-	857	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	15.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	362	857	-
HCM Lane V/C Ratio	-	-	0.033	0.003	-
HCM Control Delay (s)	-	-	15.3	9.2	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	0	0	1241	12
Future Vol, veh/h	0	12	0	0	1241	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	0	0	1349	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	681	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	393	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	393	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	393	-	-
HCM Lane V/C Ratio	-	0.033	-	-
HCM Control Delay (s)	-	14.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	172	0	21	20	8
Future Vol, veh/h	6	172	0	21	20	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	187	0	23	22	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	23	0	-	0	213	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	201	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	-	775	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	771	1069
Mov Cap-2 Maneuver	-	-	-	-	771	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	833	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	838
HCM Lane V/C Ratio	0.004	-	-	-	0.036
HCM Control Delay (s)	7.3	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	18	114	100	11	147	580	90	145	801
v/c Ratio	no cap	0.22	0.32	no cap	0.21	0.60	0.14	0.89	0.42
Control Delay		2.8	30.9		3.0	22.5	1.4	83.7	13.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	Error	2.8	30.9	Error	3.0	22.5	1.4	83.7	13.1
Queue Length 50th (ft)	~15	0	19	0	0	73	0	~63	115
Queue Length 95th (ft)	#53	19	40	0	25	110	9	#163	163
Internal Link Dist (ft)	30			946		318			239
Turn Bay Length (ft)			140				200	210	
Base Capacity (vph)	1	629	316	1	800	1453	879	163	1932
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	18.00	0.18	0.32	11.00	0.18	0.40	0.10	0.89	0.41

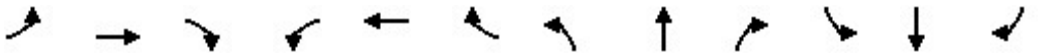
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
8: Sierra College Blvd & Brace Road

06/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	105	92	10	135	12	522	83	133	737	0
Future Volume (veh/h)	8	8	105	92	10	135	12	522	83	133	737	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	9	114	100	11	147	13	567	90	145	801	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	229	194	293	0	512	0	1162	361	184	1586	708
Arrive On Green	0.00	0.12	0.12	0.08	0.32	0.32	0.00	0.23	0.23	0.10	0.45	0.00
Sat Flow, veh/h	0	1870	1585	3456	0	1585	0	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	0	9	114	100	0	147	0	567	90	145	801	0
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1728	0	1585	0	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.2	2.7	1.1	0.0	2.7	0.0	3.8	1.8	3.1	6.3	0.0
Cycle Q Clear(g_c), s	0.0	0.2	2.7	1.1	0.0	2.7	0.0	3.8	1.8	3.1	6.3	0.0
Prop In Lane	0.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	229	194	293	0	512	0	1162	361	184	1586	708
V/C Ratio(X)	0.00	0.04	0.59	0.34	0.00	0.29	0.00	0.49	0.25	0.79	0.50	0.00
Avail Cap(c_a), veh/h	0	863	731	443	0	512	0	2356	731	228	2506	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	15.1	16.2	16.8	0.0	9.9	0.0	13.1	12.3	17.1	7.7	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.8	0.7	0.0	0.3	0.0	0.3	0.4	13.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.9	0.4	0.0	0.7	0.0	1.1	0.5	1.7	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.2	19.0	17.5	0.0	10.2	0.0	13.4	12.7	30.5	8.0	0.0
LnGrp LOS	A	B	B	B	A	B	A	B	B	C	A	A
Approach Vol, veh/h		123			247			657			946	
Approach Delay, s/veh		18.7			13.1			13.3			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	13.4	7.8	9.3	0.0	21.9	0.0	17.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	27.5	5.0	5.0
Max Q Clear Time (g_c+I1), s	5.1	5.8	3.1	4.7	0.0	8.3	0.0	4.7
Green Ext Time (p_c), s	0.0	3.1	0.0	0.3	0.0	5.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	22	168	108	11	153	1025	147	152	885	3
v/c Ratio	no cap	0.32	0.34	no cap	0.22	1.04	0.23	0.93	0.46	0.00
Control Delay		5.4	31.4		3.2	66.1	4.5	92.4	13.5	0.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	Error	5.4	31.4	Error	3.2	66.1	4.5	92.4	13.5	0.0
Queue Length 50th (ft)	~18	0	21	0	0	~188	0	~69	131	0
Queue Length 95th (ft)	#60	38	42	0	27	#265	33	#171	184	0
Internal Link Dist (ft)	30			946		318			239	
Turn Bay Length (ft)			140				200	210		210
Base Capacity (vph)	1	638	317	1	800	1476	881	163	1924	932
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	22.00	0.26	0.34	11.00	0.19	0.69	0.17	0.93	0.46	0.00

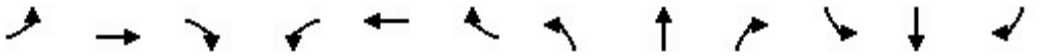
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
8: Sierra College Blvd & Brace Road

06/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	155	99	10	141	12	931	135	140	814	3
Future Volume (veh/h)	10	10	155	99	10	141	12	931	135	140	814	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	11	168	108	11	153	13	1012	147	152	885	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	279	237	273	0	509	0	1523	473	183	1755	783
Arrive On Green	0.00	0.15	0.15	0.08	0.32	0.32	0.00	0.30	0.30	0.10	0.49	0.49
Sat Flow, veh/h	0	1870	1585	3456	0	1585	0	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	0	11	168	108	0	153	0	1012	147	152	885	3
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1728	0	1585	0	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.2	4.9	1.4	0.0	3.5	0.0	8.4	3.5	4.1	8.2	0.0
Cycle Q Clear(g_c), s	0.0	0.2	4.9	1.4	0.0	3.5	0.0	8.4	3.5	4.1	8.2	0.0
Prop In Lane	0.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	279	237	273	0	509	0	1523	473	183	1755	783
V/C Ratio(X)	0.00	0.04	0.71	0.40	0.00	0.30	0.00	0.66	0.31	0.83	0.50	0.00
Avail Cap(c_a), veh/h	0	693	587	356	0	509	0	1892	587	183	2012	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	17.7	19.7	21.3	0.0	12.4	0.0	14.9	13.2	21.4	8.3	6.2
Incr Delay (d2), s/veh	0.0	0.1	3.9	0.9	0.0	0.3	0.0	0.6	0.4	26.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	1.8	0.6	0.0	1.1	0.0	2.7	1.1	2.8	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.7	23.6	22.2	0.0	12.7	0.0	15.6	13.6	47.4	8.5	6.2
LnGrp LOS	A	B	C	C	A	B	A	B	B	D	A	A
Approach Vol, veh/h		179			261			1159			1040	
Approach Delay, s/veh		23.2			16.6			15.3			14.2	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	19.0	8.3	11.8	0.0	28.5	0.0	20.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	27.5	5.0	5.0
Max Q Clear Time (g_c+I1), s	6.1	10.4	3.4	6.9	0.0	10.2	0.0	5.5
Green Ext Time (p_c), s	0.0	4.1	0.0	0.4	0.0	5.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	18	130	115	11	168	663	103	166	963
v/c Ratio	no cap	0.24	0.34	no cap	0.24	0.72	0.17	0.95	0.50
Control Delay		3.9	31.2		3.2	26.2	2.1	95.3	14.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	Error	3.9	31.2	Error	3.2	26.2	2.1	95.3	14.0
Queue Length 50th (ft)	~15	0	22	0	0	87	0	~81	147
Queue Length 95th (ft)	#53	26	44	0	29	#147	14	#187	205
Internal Link Dist (ft)	30			946		318			239
Turn Bay Length (ft)			140				200	210	
Base Capacity (vph)	1	664	339	1	840	1551	932	175	1924
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	18.00	0.20	0.34	11.00	0.20	0.43	0.11	0.95	0.50

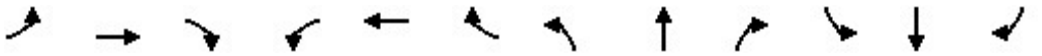
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
8: Sierra College Blvd & Brace Road

06/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	120	106	10	155	12	598	95	153	886	0
Future Volume (veh/h)	8	8	120	106	10	155	12	598	95	153	886	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	9	130	115	11	168	13	650	103	166	963	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	243	206	303	0	513	0	1223	380	210	1648	735
Arrive On Green	0.00	0.13	0.13	0.09	0.32	0.32	0.00	0.24	0.24	0.12	0.46	0.00
Sat Flow, veh/h	0	1870	1585	3456	0	1585	0	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	0	9	130	115	0	168	0	650	103	166	963	0
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1728	0	1585	0	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.2	3.3	1.3	0.0	3.4	0.0	4.7	2.2	3.8	8.4	0.0
Cycle Q Clear(g_c), s	0.0	0.2	3.3	1.3	0.0	3.4	0.0	4.7	2.2	3.8	8.4	0.0
Prop In Lane	0.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	243	206	303	0	513	0	1223	380	210	1648	735
V/C Ratio(X)	0.00	0.04	0.63	0.38	0.00	0.33	0.00	0.53	0.27	0.79	0.58	0.00
Avail Cap(c_a), veh/h	0	795	674	408	0	513	0	2170	674	210	2308	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	16.1	17.5	18.2	0.0	10.8	0.0	14.0	13.1	18.2	8.3	0.0
Incr Delay (d2), s/veh	0.0	0.1	3.2	0.8	0.0	0.4	0.0	0.4	0.4	18.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	1.2	0.5	0.0	1.0	0.0	1.4	0.7	2.3	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	20.7	19.0	0.0	11.2	0.0	14.4	13.5	36.2	8.7	0.0
LnGrp LOS	A	B	C	B	A	B	A	B	B	D	A	A
Approach Vol, veh/h		139			283			753			1129	
Approach Delay, s/veh		20.4			14.4			14.3			12.7	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	14.6	8.2	10.0	0.0	24.1	0.0	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	27.5	5.0	5.0
Max Q Clear Time (g_c+I1), s	5.8	6.7	3.3	5.3	0.0	10.4	0.0	5.4
Green Ext Time (p_c), s	0.0	3.4	0.0	0.3	0.0	6.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	18	197	124	11	176	1174	168	175	1013	3
v/c Ratio	no cap	0.37	0.42	no cap	0.26	1.30	0.28	1.15	0.60	0.00
Control Delay		6.6	32.9		4.1	169.7	5.0	152.8	15.3	0.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	Error	6.6	32.9	Error	4.1	169.7	5.0	152.8	15.3	0.0
Queue Length 50th (ft)	~15	5	24	0	4	~234	0	~88	158	0
Queue Length 95th (ft)	#53	47	47	0	35	#314	38	#196	220	0
Internal Link Dist (ft)	30			946		318			239	
Turn Bay Length (ft)			140				200	210		210
Base Capacity (vph)	1	614	296	1	769	1376	840	152	1679	833
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	18.00	0.32	0.42	11.00	0.23	0.85	0.20	1.15	0.60	0.00

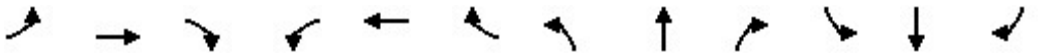
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
8: Sierra College Blvd & Brace Road

06/26/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	181	114	10	162	12	1068	155	161	932	3
Future Volume (veh/h)	8	8	181	114	10	162	12	1068	155	161	932	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	9	197	124	11	176	13	1161	168	175	1013	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	310	262	278	0	528	0	1582	491	172	1753	782
Arrive On Green	0.00	0.17	0.17	0.08	0.33	0.33	0.00	0.31	0.31	0.10	0.49	0.49
Sat Flow, veh/h	0	1870	1585	3456	0	1585	0	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	0	9	197	124	0	176	0	1161	168	175	1013	3
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1728	0	1585	0	1702	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.2	6.1	1.8	0.0	4.3	0.0	10.5	4.2	5.0	10.5	0.0
Cycle Q Clear(g_c), s	0.0	0.2	6.1	1.8	0.0	4.3	0.0	10.5	4.2	5.0	10.5	0.0
Prop In Lane	0.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	310	262	278	0	528	0	1582	491	172	1753	782
V/C Ratio(X)	0.00	0.03	0.75	0.45	0.00	0.33	0.00	0.73	0.34	1.02	0.58	0.00
Avail Cap(c_a), veh/h	0	650	551	334	0	528	0	1776	551	172	1888	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.1	20.6	22.7	0.0	13.0	0.0	16.0	13.8	23.4	9.3	6.7
Incr Delay (d2), s/veh	0.0	0.0	4.3	1.1	0.0	0.4	0.0	1.4	0.4	73.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	2.3	0.7	0.0	1.3	0.0	3.5	1.3	5.3	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.1	24.9	23.8	0.0	13.3	0.0	17.4	14.2	96.5	9.7	6.7
LnGrp LOS	A	B	C	C	A	B	A	B	B	F	A	A
Approach Vol, veh/h		206			300			1329			1191	
Approach Delay, s/veh		24.6			17.7			17.0			22.4	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	20.5	8.7	13.1	0.0	30.0	0.0	21.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	27.5	5.0	5.0
Max Q Clear Time (g_c+I1), s	7.0	12.5	3.8	8.1	0.0	12.5	0.0	6.3
Green Ext Time (p_c), s	0.0	3.5	0.0	0.5	0.0	6.0	0.0	0.0

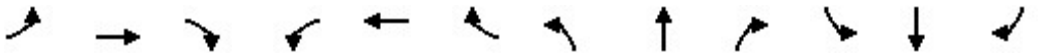
Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	165	59	643	168	59	1034
v/c Ratio	0.15	0.10	0.38	0.26	0.36	0.58
Control Delay	13.3	1.1	14.8	4.0	30.1	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	1.1	14.8	4.0	30.1	11.1
Queue Length 50th (ft)	19	0	57	0	18	112
Queue Length 95th (ft)	36	6	83	32	48	161
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	635	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.10	0.38	0.26	0.36	0.58

Intersection Summary

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	64	0	705	182	64	1123	0
Future Volume (veh/h)	0	0	0	178	0	64	0	705	182	64	1123	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				193	0	70	0	766	198	70	1221	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				193	0	70	0	766	198	70	1221	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				2.2	0.0	1.7	0.0	4.1	3.4	1.5	7.3	0.0
Cycle Q Clear(g_c), s				2.2	0.0	1.7	0.0	4.1	3.4	1.5	7.3	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.46	0.00	0.37	0.00	0.35	0.29	0.33	0.52	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				17.0	0.0	16.8	0.0	7.8	7.6	16.7	3.6	0.0
Incr Delay (d2), s/veh				3.7	0.0	5.4	0.0	0.4	1.1	4.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.8	0.0	1.2	1.0	0.8	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.7	0.0	22.1	0.0	8.3	8.7	20.7	4.4	0.0
LnGrp LOS				C	A	C	A	A	A	C	A	A
Approach Vol, veh/h					263			964			1291	
Approach Delay, s/veh					21.1			8.3			5.3	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.5	6.1				9.3		4.2				
Green Ext Time (p_c), s	0.0	4.7				5.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		8.1
HCM 6th LOS		A

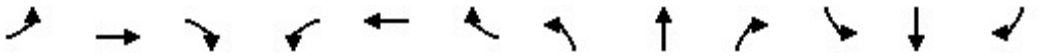
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	193	70	766	198	70	1221
v/c Ratio	0.17	0.12	0.46	0.30	0.43	0.68
Control Delay	13.5	1.7	15.5	4.0	32.2	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	1.7	15.5	4.0	32.2	12.7
Queue Length 50th (ft)	22	0	69	0	22	143
Queue Length 95th (ft)	41	10	99	35	#55	204
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	655	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.46	0.30	0.43	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	471	0	189	0	1222	453	167	1286	0
Future Volume (veh/h)	0	0	0	471	0	189	0	1222	453	167	1286	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				512	0	205	0	1328	492	182	1398	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				512	0	205	0	1328	492	182	1398	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	5.0	0.0	8.3	10.6	4.2	9.1	0.0
Cycle Q Clear(g_c), s				5.0	0.0	5.0	0.0	8.3	10.6	4.2	9.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.23	0.00	1.07	0.00	0.60	0.72	0.85	0.59	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.2	0.0	9.0	9.6	17.9	3.9	0.0
Incr Delay (d2), s/veh				122.9	0.0	86.0	0.0	1.2	6.3	31.9	1.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	6.1	0.0	2.4	3.8	3.4	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				141.1	0.0	104.3	0.0	10.2	15.9	49.8	5.0	0.0
LnGrp LOS				F	A	F	A	B	B	D	A	A
Approach Vol, veh/h					717			1820			1580	
Approach Delay, s/veh					130.6			11.7			10.2	
Approach LOS					F			B			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	6.2	12.6				11.1		7.0				
Green Ext Time (p_c), s	0.0	4.3				4.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			31.8
HCM 6th LOS			C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	512	205	1328	492	182	1398
v/c Ratio	0.45	0.31	0.79	0.58	1.12	0.78
Control Delay	15.9	4.0	20.9	4.8	138.5	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.0	20.9	4.8	138.5	15.0
Queue Length 50th (ft)	65	0	139	0	~71	177
Queue Length 95th (ft)	102	35	186	54	#172	253
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	660	1679	852	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.31	0.79	0.58	1.12	0.78

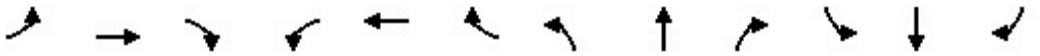
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	471	0	189	0	1234	453	167	1298	0
Future Volume (veh/h)	0	0	0	471	0	189	0	1234	453	167	1298	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				512	0	205	0	1341	492	182	1411	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				512	0	205	0	1341	492	182	1411	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	5.0	0.0	8.4	10.6	4.2	9.2	0.0
Cycle Q Clear(g_c), s				5.0	0.0	5.0	0.0	8.4	10.6	4.2	9.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.23	0.00	1.07	0.00	0.61	0.72	0.85	0.60	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.2	0.0	9.0	9.6	17.9	3.9	0.0
Incr Delay (d2), s/veh				122.9	0.0	86.0	0.0	1.2	6.3	31.9	1.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	6.1	0.0	2.5	3.8	3.4	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				141.1	0.0	104.3	0.0	10.3	15.9	49.8	5.1	0.0
LnGrp LOS				F	A	F	A	B	B	D	A	A
Approach Vol, veh/h					717			1833			1593	
Approach Delay, s/veh					130.6			11.8			10.2	
Approach LOS					F			B			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	6.2	12.6				11.2		7.0				
Green Ext Time (p_c), s	0.0	4.3				4.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		31.7
HCM 6th LOS		C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	512	205	1341	492	182	1411
v/c Ratio	0.45	0.31	0.80	0.58	1.12	0.79
Control Delay	15.9	4.0	21.2	4.8	138.5	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.0	21.2	4.8	138.5	15.3
Queue Length 50th (ft)	65	0	141	0	~71	180
Queue Length 95th (ft)	102	35	189	54	#172	257
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	660	1679	852	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.31	0.80	0.58	1.12	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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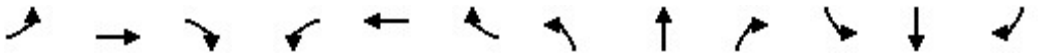
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	152	0	54	0	592	155	54	951	0
Future Volume (veh/h)	0	0	0	152	0	54	0	592	155	54	951	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				165	0	59	0	643	168	59	1034	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				165	0	59	0	643	168	59	1034	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				1.8	0.0	1.4	0.0	3.4	2.8	1.3	5.7	0.0
Cycle Q Clear(g_c), s				1.8	0.0	1.4	0.0	3.4	2.8	1.3	5.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.40	0.00	0.31	0.00	0.29	0.24	0.27	0.44	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				16.9	0.0	16.7	0.0	7.6	7.4	16.6	3.3	0.0
Incr Delay (d2), s/veh				2.8	0.0	4.2	0.0	0.3	0.8	3.1	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.7	0.0	1.0	0.8	0.6	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.7	0.0	20.8	0.0	7.9	8.3	19.8	3.9	0.0
LnGrp LOS				B	A	C	A	A	A	B	A	A
Approach Vol, veh/h					224			811			1093	
Approach Delay, s/veh					20.0			8.0			4.8	
Approach LOS					B			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.3	5.4				7.7		3.8				
Green Ext Time (p_c), s	0.0	4.1				5.1		0.1				

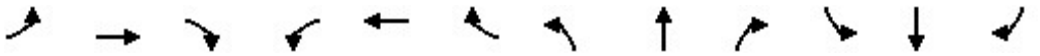
Intersection Summary		
HCM 6th Ctrl Delay		7.6
HCM 6th LOS		A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	165	59	657	168	59	1045
v/c Ratio	0.15	0.10	0.39	0.26	0.36	0.59
Control Delay	13.3	1.1	14.9	4.0	30.1	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	1.1	14.9	4.0	30.1	11.2
Queue Length 50th (ft)	19	0	58	0	18	114
Queue Length 95th (ft)	36	6	84	32	48	163
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	635	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.10	0.39	0.26	0.36	0.59

Intersection Summary

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	152	0	54	0	604	155	54	961	0
Future Volume (veh/h)	0	0	0	152	0	54	0	604	155	54	961	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				165	0	59	0	657	168	59	1045	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				165	0	59	0	657	168	59	1045	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				1.8	0.0	1.4	0.0	3.5	2.8	1.3	5.8	0.0
Cycle Q Clear(g_c), s				1.8	0.0	1.4	0.0	3.5	2.8	1.3	5.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.40	0.00	0.31	0.00	0.30	0.24	0.27	0.44	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				16.9	0.0	16.7	0.0	7.6	7.4	16.6	3.3	0.0
Incr Delay (d2), s/veh				2.8	0.0	4.2	0.0	0.3	0.8	3.1	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.7	0.0	1.0	0.8	0.6	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.7	0.0	20.8	0.0	8.0	8.3	19.8	4.0	0.0
LnGrp LOS				B	A	C	A	A	A	B	A	A
Approach Vol, veh/h					224			825			1104	
Approach Delay, s/veh					20.0			8.0			4.8	
Approach LOS					B			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.3	5.5				7.8		3.8				
Green Ext Time (p_c), s	0.0	4.1				5.2		0.1				

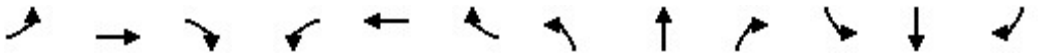
Intersection Summary		
HCM 6th Ctrl Delay		7.6
HCM 6th LOS		A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	170	61	657	173	61	1055
v/c Ratio	0.15	0.10	0.39	0.27	0.38	0.59
Control Delay	13.3	1.2	14.9	4.0	30.4	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	1.2	14.9	4.0	30.4	11.2
Queue Length 50th (ft)	19	0	58	0	19	115
Queue Length 95th (ft)	37	6	84	33	49	165
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	638	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.10	0.39	0.27	0.38	0.59

Intersection Summary

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	156	0	56	0	604	159	56	971	0
Future Volume (veh/h)	0	0	0	156	0	56	0	604	159	56	971	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				170	0	61	0	657	173	61	1055	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				170	0	61	0	657	173	61	1055	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				1.9	0.0	1.5	0.0	3.5	2.9	1.3	5.9	0.0
Cycle Q Clear(g_c), s				1.9	0.0	1.5	0.0	3.5	2.9	1.3	5.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.41	0.00	0.32	0.00	0.30	0.25	0.28	0.45	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				16.9	0.0	16.7	0.0	7.6	7.5	16.6	3.4	0.0
Incr Delay (d2), s/veh				3.0	0.0	4.4	0.0	0.3	0.9	3.3	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.7	0.0	1.0	0.9	0.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.8	0.0	21.1	0.0	8.0	8.3	19.9	4.0	0.0
LnGrp LOS				B	A	C	A	A	A	B	A	A
Approach Vol, veh/h					231			830			1116	
Approach Delay, s/veh					20.2			8.1			4.8	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.3	5.5				7.9		3.9				
Green Ext Time (p_c), s	0.0	4.1				5.2		0.1				

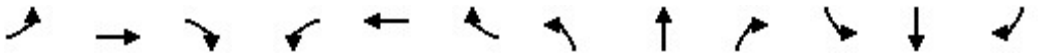
Intersection Summary		
HCM 6th Ctrl Delay		7.7
HCM 6th LOS		A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	170	61	670	173	61	1066
v/c Ratio	0.15	0.10	0.40	0.27	0.38	0.60
Control Delay	13.3	1.2	15.0	4.0	30.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	1.2	15.0	4.0	30.4	11.3
Queue Length 50th (ft)	19	0	60	0	19	116
Queue Length 95th (ft)	37	6	86	33	49	168
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	638	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.10	0.40	0.27	0.38	0.60

Intersection Summary

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	156	0	56	0	616	159	56	981	0
Future Volume (veh/h)	0	0	0	156	0	56	0	616	159	56	981	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				170	0	61	0	670	173	61	1066	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				170	0	61	0	670	173	61	1066	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				1.9	0.0	1.5	0.0	3.5	2.9	1.3	6.0	0.0
Cycle Q Clear(g_c), s				1.9	0.0	1.5	0.0	3.5	2.9	1.3	6.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.41	0.00	0.32	0.00	0.30	0.25	0.28	0.45	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				16.9	0.0	16.7	0.0	7.7	7.5	16.6	3.4	0.0
Incr Delay (d2), s/veh				3.0	0.0	4.4	0.0	0.4	0.9	3.3	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	0.7	0.0	1.0	0.9	0.7	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.8	0.0	21.1	0.0	8.0	8.3	19.9	4.0	0.0
LnGrp LOS				B	A	C	A	A	A	B	A	A
Approach Vol, veh/h					231			843			1127	
Approach Delay, s/veh					20.2			8.1			4.9	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.3	5.5				8.0		3.9				
Green Ext Time (p_c), s	0.0	4.2				5.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.7
HCM 6th LOS		A

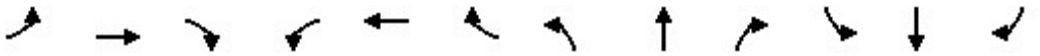
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	175	1135	421	154	1195
v/c Ratio	0.39	0.27	0.68	0.52	0.95	0.67
Control Delay	15.3	4.0	18.2	4.5	90.8	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	4.0	18.2	4.5	90.8	12.4
Queue Length 50th (ft)	54	0	113	0	51	138
Queue Length 95th (ft)	86	33	154	50	#145	197
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	640	1679	804	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.27	0.68	0.52	0.95	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	402	0	161	0	1044	387	142	1099	0
Future Volume (veh/h)	0	0	0	402	0	161	0	1044	387	142	1099	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				437	0	175	0	1135	421	154	1195	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				437	0	175	0	1135	421	154	1195	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	4.5	0.0	6.7	8.5	3.5	7.1	0.0
Cycle Q Clear(g_c), s				5.0	0.0	4.5	0.0	6.7	8.5	3.5	7.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.05	0.00	0.92	0.00	0.51	0.61	0.72	0.51	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.0	0.0	8.6	9.1	17.6	3.6	0.0
Incr Delay (d2), s/veh				57.7	0.0	46.3	0.0	0.9	4.0	18.6	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.0	0.0	3.9	0.0	1.9	2.9	2.3	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				76.0	0.0	64.3	0.0	9.4	13.1	36.2	4.3	0.0
LnGrp LOS				F	A	E	A	A	B	D	A	A
Approach Vol, veh/h					612			1556			1349	
Approach Delay, s/veh					72.6			10.4			8.0	
Approach LOS					E			B			A	

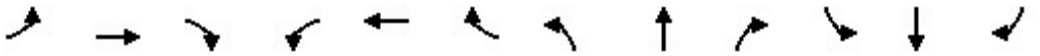
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	5.5	10.5				9.1		7.0				
Green Ext Time (p_c), s	0.0	5.1				5.3		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	437	175	1148	421	154	1208
v/c Ratio	0.39	0.27	0.68	0.52	0.95	0.68
Control Delay	15.3	4.0	18.3	4.5	90.8	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	4.0	18.3	4.5	90.8	12.6
Queue Length 50th (ft)	54	0	115	0	51	140
Queue Length 95th (ft)	86	33	156	50	#145	201
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	640	1679	804	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.27	0.68	0.52	0.95	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	402	0	161	0	1056	387	142	1111	0
Future Volume (veh/h)	0	0	0	402	0	161	0	1056	387	142	1111	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				437	0	175	0	1148	421	154	1208	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				437	0	175	0	1148	421	154	1208	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	4.5	0.0	6.8	8.5	3.5	7.2	0.0
Cycle Q Clear(g_c), s				5.0	0.0	4.5	0.0	6.8	8.5	3.5	7.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.05	0.00	0.92	0.00	0.52	0.61	0.72	0.51	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.0	0.0	8.6	9.1	17.6	3.6	0.0
Incr Delay (d2), s/veh				57.7	0.0	46.3	0.0	0.9	4.0	18.6	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.0	0.0	3.9	0.0	2.0	2.9	2.3	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				76.0	0.0	64.3	0.0	9.5	13.1	36.2	4.4	0.0
LnGrp LOS				F	A	E	A	A	B	D	A	A
Approach Vol, veh/h					612			1569			1362	
Approach Delay, s/veh					72.6			10.4			8.0	
Approach LOS					E			B			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	5.5	10.5				9.2		7.0				
Green Ext Time (p_c), s	0.0	5.1				5.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		20.2
HCM 6th LOS		C

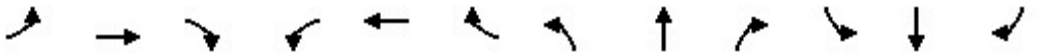
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	447	179	1171	429	158	1232
v/c Ratio	0.39	0.28	0.70	0.53	0.98	0.69
Control Delay	15.3	4.0	18.6	4.5	96.9	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	4.0	18.6	4.5	96.9	12.8
Queue Length 50th (ft)	56	0	117	0	52	145
Queue Length 95th (ft)	88	33	159	50	#149	207
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	642	1679	810	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.28	0.70	0.53	0.98	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	411	0	165	0	1065	395	145	1121	0
Future Volume (veh/h)	0	0	0	411	0	165	0	1065	395	145	1121	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				447	0	179	0	1158	429	158	1218	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				447	0	179	0	1158	429	158	1218	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	4.6	0.0	6.9	8.7	3.6	7.3	0.0
Cycle Q Clear(g_c), s				5.0	0.0	4.6	0.0	6.9	8.7	3.6	7.3	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.07	0.00	0.94	0.00	0.52	0.62	0.74	0.52	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.1	0.0	8.6	9.1	17.6	3.6	0.0
Incr Delay (d2), s/veh				65.2	0.0	50.5	0.0	0.9	4.2	20.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.5	0.0	4.1	0.0	2.0	2.9	2.4	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.4	0.0	68.6	0.0	9.5	13.4	37.6	4.4	0.0
LnGrp LOS				F	A	E	A	A	B	D	A	A
Approach Vol, veh/h					626			1587			1376	
Approach Delay, s/veh					79.2			10.5			8.2	
Approach LOS					E			B			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	5.6	10.7				9.3		7.0				
Green Ext Time (p_c), s	0.0	5.0				5.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

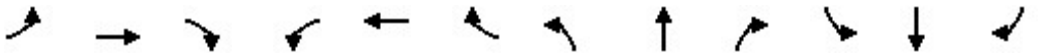
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	447	179	1171	429	158	1232
v/c Ratio	0.39	0.28	0.70	0.53	0.98	0.69
Control Delay	15.3	4.0	18.6	4.5	96.9	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	4.0	18.6	4.5	96.9	12.8
Queue Length 50th (ft)	56	0	117	0	52	145
Queue Length 95th (ft)	88	33	159	50	#149	207
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	642	1679	810	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.28	0.70	0.53	0.98	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
12: Costco & Sierra College

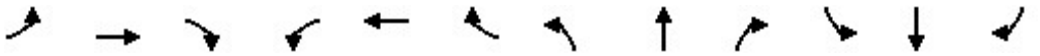
06/09/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	411	0	165	0	1077	395	145	1133	0
Future Volume (veh/h)	0	0	0	411	0	165	0	1077	395	145	1133	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				447	0	179	0	1171	429	158	1232	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				447	0	179	0	1171	429	158	1232	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				5.0	0.0	4.6	0.0	7.0	8.7	3.6	7.4	0.0
Cycle Q Clear(g_c), s				5.0	0.0	4.6	0.0	7.0	8.7	3.6	7.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				1.07	0.00	0.94	0.00	0.53	0.62	0.74	0.52	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				18.3	0.0	18.1	0.0	8.6	9.1	17.6	3.6	0.0
Incr Delay (d2), s/veh				65.2	0.0	50.5	0.0	0.9	4.2	20.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.5	0.0	4.1	0.0	2.0	2.9	2.4	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.4	0.0	68.6	0.0	9.5	13.4	37.6	4.4	0.0
LnGrp LOS				F	A	E	A	A	B	D	A	A
Approach Vol, veh/h					626			1600			1390	
Approach Delay, s/veh					79.2			10.6			8.2	
Approach LOS					E			B			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	5.6	10.7				9.4		7.0				
Green Ext Time (p_c), s	0.0	5.1				5.3		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		21.5
HCM 6th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	64	0	693	182	64	1113	0
Future Volume (veh/h)	0	0	0	178	0	64	0	693	182	64	1113	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h				193	0	70	0	753	198	70	1210	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	2	2	0
Cap, veh/h				416	0	191	0	2215	687	215	2355	0
Arrive On Green				0.12	0.00	0.12	0.00	0.43	0.43	0.12	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	1585	1781	3647	0
Grp Volume(v), veh/h				193	0	70	0	753	198	70	1210	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1585	1781	1777	0
Q Serve(g_s), s				2.2	0.0	1.7	0.0	4.1	3.4	1.5	7.2	0.0
Cycle Q Clear(g_c), s				2.2	0.0	1.7	0.0	4.1	3.4	1.5	7.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				416	0	191	0	2215	687	215	2355	0
V/C Ratio(X)				0.46	0.00	0.37	0.00	0.34	0.29	0.33	0.51	0.00
Avail Cap(c_a), veh/h				416	0	191	0	2215	687	215	2355	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				17.0	0.0	16.8	0.0	7.8	7.6	16.7	3.6	0.0
Incr Delay (d2), s/veh				3.7	0.0	5.4	0.0	0.4	1.1	4.0	0.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.8	0.0	1.2	1.0	0.8	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.7	0.0	22.1	0.0	8.2	8.7	20.7	4.4	0.0
LnGrp LOS				C	A	C	A	A	A	C	A	A
Approach Vol, veh/h					263			951			1280	
Approach Delay, s/veh					21.1			8.3			5.3	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	9.5	22.5				32.0		9.5				
Change Period (Y+Rc), s	4.5	4.5				4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.0				18.0		5.0				
Max Q Clear Time (g_c+I1), s	3.5	6.1				9.2		4.2				
Green Ext Time (p_c), s	0.0	4.6				5.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		8.1
HCM 6th LOS		A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	193	70	753	198	70	1210
v/c Ratio	0.17	0.12	0.45	0.30	0.43	0.68
Control Delay	13.5	1.7	15.4	4.0	32.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	1.7	15.4	4.0	32.2	12.6
Queue Length 50th (ft)	22	0	68	0	22	141
Queue Length 95th (ft)	41	10	97	35	#55	202
Internal Link Dist (ft)			775			204
Turn Bay Length (ft)	300	300		200	190	
Base Capacity (vph)	1133	603	1679	655	162	1785
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.45	0.30	0.43	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix 6 - Queueing Survey Data

TRUE DATA TO IMPROVE MOBILITY

Location: Sierra College Blvd Car Wash
Date: 8/30/2024
Time: 7:00 AM - 7:00 PM

	Maximum Queues	
Time	Inner Lane	Outer Lane
7:00	0	1
7:05	1	1
7:10	1	1
7:15	1	1
7:20	1	1
7:25	2	0
7:30	2	1
7:35	1	1
7:40	0	1
7:45	0	1
7:50	0	1
7:55	1	1
8:00	1	2
8:05	0	1
8:10	0	1
8:15	1	1
8:20	2	1
8:25	1	2
8:30	1	2
8:35	1	2
8:40	1	3
8:45	0	2
8:50	0	1
8:55	1	1
9:00	2	1
9:05	1	1
9:10	1	2
9:15	2	1
9:20	1	2
9:25	1	1
9:30	1	2
9:35	1	4
9:40	0	2
9:45	0	2
9:50	2	2
9:55	0	2
10:00	0	2

10:05	0	1
10:10	1	2
10:15	1	1
10:20	0	1
10:25	1	2
10:30	1	1
10:35	1	1
10:40	0	1
10:45	1	1
10:50	1	1
10:55	1	2
11:00	0	3
11:05	0	2
11:10	1	2
11:15	1	3
11:20	0	2
11:25	1	1
11:30	0	1
11:35	1	1
11:40	2	2
11:45	1	1
11:50	0	3
11:55	1	3
12:00	1	4
12:05	3	1
12:10	1	1
12:15	3	1
12:20	1	2
12:25	0	1
12:30	1	3
12:35	0	1
12:40	1	2
12:45	1	1
12:50	1	2
12:55	2	1
13:00	1	1
13:05	1	2
13:10	1	1
13:15	0	2
13:20	1	1
13:25	0	2
13:30	1	1
13:35	2	2
13:40	2	1
13:45	1	1
13:50	0	1
13:55	1	1

14:00	0	1
14:05	1	3
14:10	1	4
14:15	2	1
14:20	1	1
14:25	2	1
14:30	1	1
14:35	1	1
14:40	0	1
14:45	1	2
14:50	1	1
14:55	1	3
15:00	2	3
15:05	1	1
15:10	1	2
15:15	0	1
15:20	0	1
15:25	1	1
15:30	1	2
15:35	2	1
15:40	2	1
15:45	2	1
15:50	1	2
15:55	1	2
16:00	0	1
16:05	1	1
16:10	1	1
16:15	1	3
16:20	2	2
16:25	1	2
16:30	0	1
16:35	2	1
16:40	2	1
16:45	1	2
16:50	1	2
16:55	1	1
17:00	0	2
17:05	1	1
17:10	1	1
17:15	0	1
17:20	1	2
17:25	1	1
17:30	2	3
17:35	1	1
17:40	0	2
17:45	1	1
17:50	0	1

17:55	0	1
18:00	0	1
18:05	1	1
18:10	1	1
18:15	0	2
18:20	0	1
18:25	1	2
18:30	0	2
18:35	1	1
18:40	1	1
18:45	1	1
18:50	1	1
18:55	0	2

TRUE DATA TO IMPROVE MOBILITY

Location: Stanford Ranch Rd Car Wash
Date: 8/30/2024
Time: 7:00 AM - 7:00 PM

	Maximum Queues	
Time	Inner Lane	Outer Lane
7:00	0	0
7:05	0	0
7:10	0	0
7:15	0	0
7:20	0	0
7:25	0	0
7:30	0	0
7:35	0	0
7:40	0	0
7:45	0	0
7:50	0	0
7:55	0	0
8:00	0	0
8:05	0	0
8:10	0	0
8:15	0	0
8:20	0	0
8:25	0	0
8:30	0	0
8:35	0	0
8:40	0	0
8:45	0	0
8:50	0	0
8:55	0	0
9:00	0	0
9:05	0	0
9:10	0	0
9:15	0	0
9:20	0	0
9:25	0	0
9:30	0	0
9:35	0	0
9:40	0	0
9:45	0	0
9:50	0	0
9:55	0	0
10:00	0	0

10:05	0	0
10:10	0	0
10:15	0	0
10:20	0	0
10:25	0	0
10:30	0	0
10:35	0	0
10:40	0	0
10:45	0	0
10:50	0	0
10:55	0	0
11:00	0	0
11:05	0	0
11:10	0	0
11:15	0	0
11:20	0	0
11:25	0	0
11:30	0	0
11:35	0	0
11:40	0	0
11:45	0	0
11:50	1	3
11:55	2	3
12:00	1	3
12:05	1	4
12:10	1	1
12:15	2	2
12:20	2	2
12:25	4	2
12:30	2	2
12:35	1	1
12:40	1	2
12:45	1	3
12:50	1	2
12:55	1	1
13:00	2	2
13:05	2	4
13:10	3	4
13:15	1	3
13:20	1	2
13:25	1	3
13:30	2	1
13:35	3	3
13:40	2	1
13:45	1	2
13:50	1	3
13:55	2	2

14:00	1	3
14:05	1	2
14:10	1	2
14:15	1	2
14:20	1	2
14:25	1	2
14:30	1	1
14:35	1	2
14:40	0	2
14:45	2	1
14:50	2	2
14:55	2	2
15:00	1	1
15:05	2	5
15:10	3	4
15:15	2	3
15:20	2	2
15:25	2	2
15:30	1	3
15:35	1	2
15:40	1	2
15:45	1	1
15:50	1	1
15:55	1	1
16:00	1	2
16:05	1	2
16:10	2	1
16:15	2	4
16:20	2	4
16:25	1	1
16:30	2	2
16:35	1	1
16:40	1	2
16:45	1	2
16:50	1	4
16:55	3	2
17:00	1	2
17:05	1	2
17:10	1	1
17:15	2	1
17:20	1	1
17:25	2	3
17:30	1	2
17:35	1	3
17:40	3	3
17:45	1	1
17:50	1	2

17:55	1	1
18:00	2	2
18:05	2	1
18:10	1	3
18:15	1	2
18:20	2	4
18:25	1	3
18:30	1	1
18:35	1	2
18:40	1	1
18:45	2	1
18:50	1	2
18:55	0	1

Appendix 7 – Traffic Signal Warrant Analysis

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

COUNT DATE 5/10/2023
CALC _____ DATE _____
CHK _____ DATE _____

DIST _____ CO _____ RTE _____ PM _____

Major St: TAYLOR ROAD
Minor St: BRACE ROAD

Critical Approach Speed 40 mph
Critical Approach Speed _____ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☒ or ☐ } RURAL (R)
In built up area of isolated community of < 10,000 population..... ☐ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume SATISFIED YES ☐ NO ☒
(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				6-7 AM	7-8 AM	8-9 AM	9-10 AM	3-4 PM	4-5 PM	5-6 PM	6-7 PM
	U	R	U	R								Hour
APPROACH LANES	1		2 or More									
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	337	553	775	659	930	959	869	580
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	2	6	1	2	2	2	1	1

Condition B - Interruption of Continuous Traffic 100% SATISFIED YES ☐ NO ☒
80% SATISFIED YES ☐ NO ☒

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				6-7 AM	7-8 AM	8-9 AM	9-10 AM	3-4 PM	4-5 PM	5-6 PM	6-7 PM
	U	R	U	R								Hour
APPROACH LANES	1		2 or More									
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	337	553	775	659	930	959	869	580
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	2	6	1	2	2	2	1	1

Combination of Conditions A & B SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes ☐ No ☒
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED* YES ☐ NO ☒**

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	7-8 AM	3-4 PM	4-5 PM	5-6 PM
			Hour			
Both Approaches - Major Street	X		775	930	959	869
Higher Approach - Minor Street	X		1	2	2	1

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☐
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☒

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**
(Part A or Part B must be satisfied)

PART A **SATISFIED YES ☐ NO ☒**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☒
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☒ No ☐

PART B **SATISFIED YES ☐ NO ☒**

APPROACH LANES	One	2 or More	4-5 PM
			Hour
Both Approaches - Major Street	X		959
Higher Approach - Minor Street	X		2

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☐
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 3 of 5)

WARRANT 4 - Pedestrian Volume N/A **SATISFIED YES ☐ NO ☐**
(Parts 1 and 2 Must Be Satisfied)

Part 1 (Parts A or B must be satisfied)

	Hours - - ->				
A.	Vehicles per hour for any 4 hours				
	Pedestrians per hour for any 4 hours				

Figure 4C-5 or Figure 4C-6
SATISFIED YES ☐ NO ☐

	Hours - - ->				
B.	Vehicles per hour for any 1 hour				
	Pedestrians per hour for any 1 hour				

Figure 4C-7 or Figure 4C-8
SATISFIED YES ☐ NO ☐

Part 2 **SATISFIED YES ☐ NO ☐**

AND, The distance to the nearest traffic signal along the major street is greater than 300 ft	Yes ☐ No ☐
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street.	Yes ☐ No ☐

WARRANT 5 - School Crossing N/A **SATISFIED YES ☐ NO ☐**
(Parts A and B Must Be Satisfied)

Part A **SATISFIED YES ☐ NO ☐**
Gap/Minutes and # of Children

		Hour
Gaps vs Minutes	Minutes Children Using Crossing	
	Number of Adequate Gaps	
School Age Pedestrians Crossing Street / hr		

Gaps < Minutes YES ☐ NO ☐
AND Children > 20/hr YES ☐ NO ☐

AND, Consideration has been given to less restrictive remedial measures.	Yes ☐ No ☐

Part B **SATISFIED YES ☐ NO ☐**

The distance to the nearest traffic signal along the major street is greater than 300 ft	Yes ☐ No ☐
OR, The proposed signal will not restrict the progressive movement of traffic.	Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 4 of 5)

WARRANT 6 - Coordinated Signal System **SATISFIED YES ☐ NO ☒**
(All Parts Must Be Satisfied)

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	N 950 ft, S 3,560 ft, E 850 ft, W ___ ft	Yes ☐ No ☒
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.		Yes ☐ No ☐
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

WARRANT 7 - Crash Experience Warrant **SATISFIED YES ☐ NO ☒**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency.			Yes ☐ No ☐
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash.		Yes ☐ No ☒
5 OR MORE	~~0~~		
REQUIREMENTS	CONDITIONS	✓	Yes ☐ No ☒
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume		
	OR, Warrant 1, Condition B - Interruption of Continuous Traffic		
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8		

WARRANT 8 - Roadway Network N/A **SATISFIED YES ☐ NO ☐**
(All Parts Must Be Satisfied)

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULFILLED
1000 Veh/Hr	During Typical Weekday Peak Hour ___ Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.		Yes ☐ No ☐
	OR During Each of Any 5 Hrs. of a Sat. or Sun ___ Veh/Hr		

CHARACTERISTICS OF MAJOR ROUTES	MAJOR ROUTE A	MAJOR ROUTE B
Hwy. System Serving as Principal Network for Through Traffic		
Rural or Suburban Highway Outside Of, Entering, or Traversing a City		
Appears as Major Route on an Official Plan		
Any Major Route Characteristics Met, Both Streets		Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 5 of 5)

WARRANT 9 - Intersection Near a Grade Crossing N/A **SATISFIED YES ☐ NO ☐**
(Both Parts A and B Must Be Satisfied)

PART A A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach. Track Center Line to Limit Line _____ ft	Yes ☐ No ☐
PART B **There is one minor street approach lane at the track crossing -** During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-9. Major Street - Total of both approaches: _____ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): _____ VPH X AF (Use Tables 4C-2, 3, & 4 below to calculate AF) = _____ VPH	☐ ☐ Yes ☐ No ☐
OR, There are two or more minor street approach lanes at the track crossing - During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point falls above the applicable curve in Figure 4C-10. Major Street - Total of both approaches : _____ VPH Minor Street - Crosses the track (one direction only, approaching the intersection): _____ VPH X AF (Use Tables 4C-2, 3, & 4 below to calcualte AF) = _____ VPH	

☐ ☐

The minor street approach volume may be multiplied by up to three following adjustment factors (AF) as described in Section 4C.10.

1- Number of Rail Traffic per Day_____ Adjustment factor from table 4C-2____

2- Percentage of High-Occupancy Buses on Minor Street Approach_____ Adjustment factor from table 4C-3____

3- Percentage of Tractor-Trailer Trucks on Minor Street Approach_____ Adjustment factor from table 4C-4____ ☐

NOTE: If no data is availale or known, then use AF = 1 (no adjustment)

Appendix 8 – Stop Sign Guideline Analysis

Section 2B.07 Multi-Way Stop Applications

Support:

01 Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

02 The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.

Guidance: 03 The decision to install multi-way stop control should be based on an engineering study. 04 The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

A. 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 installation of the traffic control signal. **N/A**

B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions. **NO**

C. 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* **YES**

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* **NO, Side street volume is in single digits per hour**

3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.* **NO**

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition. **NO**

Option: 05 Other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;

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

C. 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; and **NO**

D. 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. **N/A**