
Town of Atherton

Selby Lane Bike Study

Final Traffic Analysis Report

Atherton, California

May 30, 2017

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INTRODUCTION

This report presents the analysis results of alternative improvements at the intersection of El Camino Real & Selby Lane in the Town of Atherton. Three alternative intersection modifications were evaluated in October 2015 to understand operational impacts to the surrounding traffic system. The three options were presented to the community and two alternatives that received the most support have been further analyzed in this study.

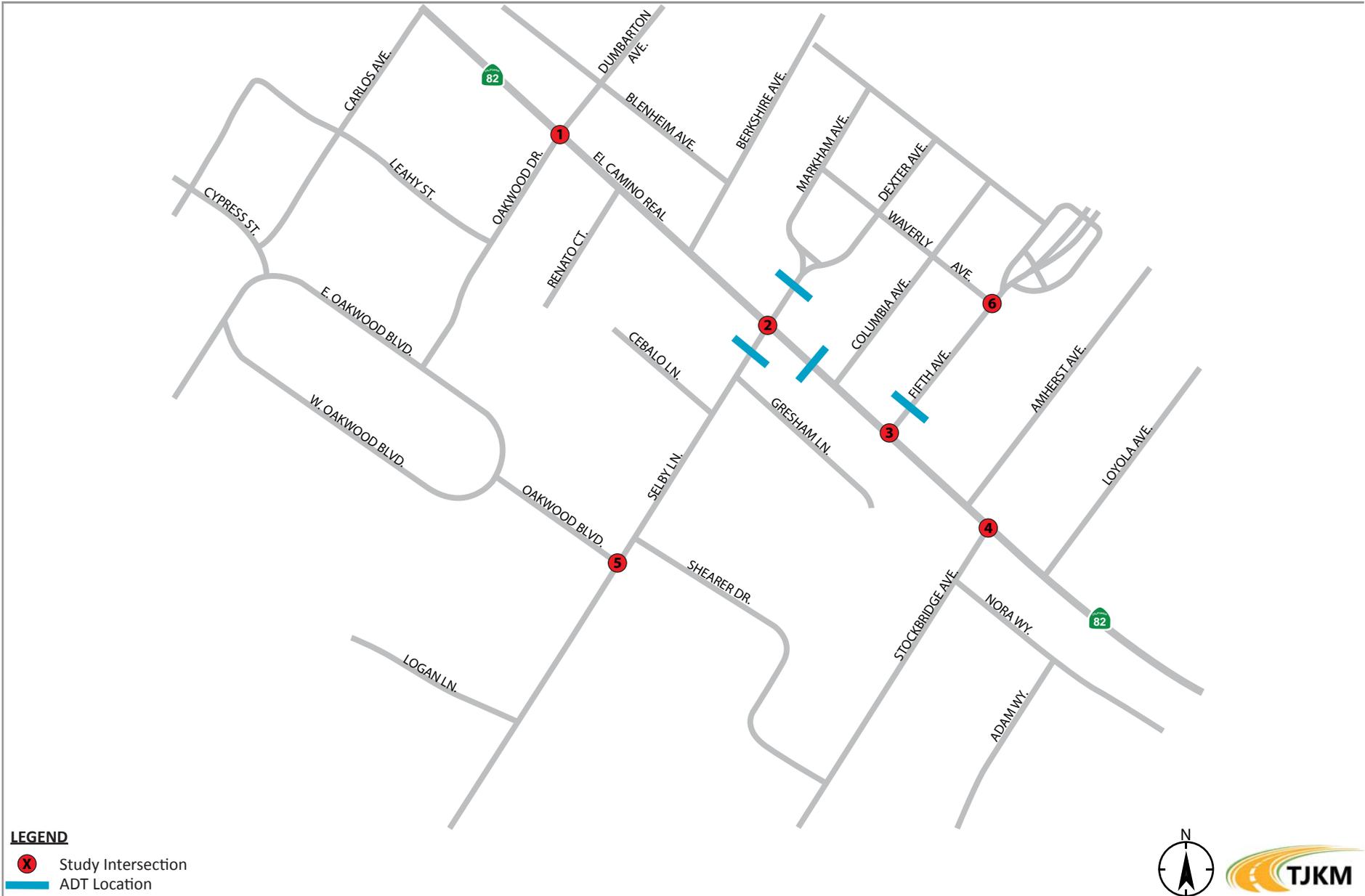
The following report summarizes a new analysis of the preferred alternatives utilizing data collected in May 2016 for vehicles, pedestrians, and bicycles. It also includes an expanded network of intersections compared with the original study, and evaluation of Selby Lane & El Camino Real as a signalized intersection. The purpose of this study is to determine the existing state of operations at six study intersections, and the projected impacts of two alternative intersection configurations. The project vicinity is illustrated in **Figure 1**, and the study intersections are listed below with their respective control types:

1. El Camino Real & Oakwood Drive-Dumbarton Avenue (Signal)
2. El Camino Real & Selby Lane (Two-Way Stop Control (TWSC))
3. El Camino Real & Fifth Avenue (Signal)
4. El Camino Real & Stockbridge Avenue (One-Way Stop Control (OWSC))
5. Oakwood Boulevard & Selby Lane (OWSC)
6. Waverly Avenue & Fifth Avenue (Signal)

The three scenarios evaluated in this report are as follows:

- Existing Conditions
 - Current intersection configurations and signal timings with 2016 traffic volumes
- Alternative 1 Conditions (Existing Volumes)
 - Restrict left-turns/through movements from Selby Lane onto/across El Camino Real
 - Restrict southbound left-turns from El Camino Real onto Selby Lane
- Alternative 2 Conditions (Existing Volumes)
 - Install signal at intersection of El Camino Real & Selby Lane

Vicinity Map and ADT Locations



LEGEND
X Study Intersection
ADT Location



Figure 1

STUDY METHODOLOGY

Level of Service Analysis Methodology

Traffic impacts on study intersections are quantified through the determination of level of service (LOS), a qualitative measure describing operational conditions within a traffic stream. There are six levels of service defined for signalized and unsignalized (e.g. Stop Control) intersections that are analyzed. LOS has letter designations ranging from A to F, with LOS A representing free flow traffic with little or no delay and LOS F representing jammed conditions with excessive delay and long back-ups. Procedures for analyzing intersection LOS are based on the Highway Capacity Manual 2000 (HCM 2000) methodology as described in detail in **Appendix A. Table 1** and **Table 2** present the levels of service and their descriptions.

Table 1: Signalized Intersection Level of Service Description

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: HCM 2000

Table 2: Unsignalized Intersection Level of Service Description

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: HCM 2000

Level of Service Standards

The Town of Atherton does not have LOS standards defined for intersections, so the San Mateo County standards are the baseline for this study. The County utilizes a standard of overall LOS C with no individual movement operating at less than LOS D to be considered acceptable. The following discusses standards set forth by the County for intersections.

- Intersections in compliance with the LOS standard under existing conditions shall not operate at LOS D or worse as a result of a project.
- Intersections NOT in compliance with the LOS standard under existing conditions shall not operate at LOS D or worse and experience an increase in average control delay by four or more seconds as a result of the project. *(This condition stipulates that a nonconforming intersection (e.g. overall LOS D, E, or F; or Movement LOS E or F) may not operate at overall LOS D, E, or F if the resulting delay is four or more seconds longer than determined under Existing Conditions without a project.)*

EXISTING CONDITIONS

This section of the report summarizes data collection efforts and the existing state of operations at the study intersections. The existing conditions data allowed development of a Synchro traffic model that provides basis for understanding impacts imposed by alternative improvement options.

Existing Roadway Network

California State Highway 82 (El Camino Real) is a surface highway with posted speed limit of 35 mph connecting Atherton residents to the north and south ends of the Peninsula. Within the study vicinity, the roadway provides three motor vehicle travel lanes in each direction and a continuous sidewalk along its eastern side. Sidewalk is provided on the west side of El Camino Real from Oakwood Drive to just south of Renato Court, where it becomes a pedestrian path at-grade with the roadway surface. Currently, there are no bicycle facilities on El Camino Real.

Dumbarton Avenue is an east-west local street with posted speed limit of 25 mph providing access between residential neighborhoods and El Camino Real. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction, on-street parking, continuous sidewalks on both sides, and no bicycle facilities.

Fifth Avenue is an east-west collector street with posted speed limit of 25 mph providing access between El Camino Real and North Fair Oaks. In the study vicinity, the roadway provides two motor vehicle travel lanes in each direction, on-street parking, continuous sidewalks on both sides, and no bicycle facilities.

Oakwood Boulevard is a north-south local street with posted speed limit of 25 mph providing access to residential neighborhoods and El Camino Real. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction and no pedestrian or bicycle facilities.

Oakwood Drive is an east-west local street with posted speed limit of 25 mph providing access between residential neighborhoods and El Camino Real. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction, on-street parking availability, and no pedestrian or bicycle facilities.

Selby Lane is an east-west local street with posted speed limit of 25 mph providing access to Selby Lane Elementary School, residential neighborhoods, and El Camino Real. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction, no sidewalks, and bicycle lanes between Oakwood Boulevard and El Camino Real.

Stockbridge Avenue is an east-west local street with posted speed limit of 25 mph providing access between residential neighborhoods and El Camino Real. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction and no pedestrian or bicycle facilities.

Waverly Avenue is a north-south local street with posted speed limit of 25 mph that runs from Markham Avenue to Fifth Avenue. In the study vicinity, the roadway provides one motor vehicle travel lane in each direction, on-street parking, continuous sidewalks on both sides, and no bicycle facilities.

Data Collection

Turning movement volumes were collected at the six study intersections on May 10, 2016. The collection was performed on a Tuesday while school was in session, representing typical weekday traffic. Vehicles, pedestrians, and bicycles were included in the volume counts during the a.m. peak period (7:00 a.m. – 9:00 a.m.), school p.m. peak period (1:15 p.m. – 3:15 p.m.), and p.m. peak period (4:00 p.m. – 6:00 p.m.). The following is the list of intersections included for analysis:

1. El Camino Real & Oakwood Drive-Dumbarton Avenue (Signal)
2. El Camino Real & Selby Lane (TWSC)
3. El Camino Real & Fifth Avenue (Signal)
4. El Camino Real & Stockbridge Avenue (OWSC)
5. Oakwood Boulevard & Selby Lane (OWSC)
6. Waverly Avenue & Fifth Avenue (Signal)

Additionally, average daily traffic (ADT) volumes were collected at the following four locations:

1. Selby Lane, west of El Camino Real
2. Selby Lane, east of El Camino Real
3. Fifth Avenue, east of El Camino Real
4. El Camino Real, between Selby Lane and Columbia Avenue

An origin-destination (O-D) survey was performed for three routes within the project vicinity as well. The O-D survey aids in understanding what impacts may arise to existing route choices with implementation of any alternative improvements in the system. All collected data is provided in **Appendix B**.

Existing Conditions Analysis

Level of Service Analysis Results

TJKM analyzed the six study intersections using a.m., school p.m., and p.m. peak hour turning movement volumes and signal timing sheets acquired from the Town and Caltrans. Peak hour volumes, traffic controls and lane geometries for the study intersections are illustrated in **Figure 2**, and bicycle and pedestrian volumes are illustrated in **Figure 3**. The analysis is based on the aforementioned LOS methodology found in HCM 2000 using Synchro 8.0 software.

Table 3 summarizes the Existing Conditions LOS analysis results for the six study intersections. Movement LOS tables and Synchro summary sheets are provided in **Appendix C** for Existing Conditions. Under this scenario, the following intersections operate at unacceptable LOS:

- El Camino Real & Oakwood Drive-Dumbarton Avenue during the a.m. peak hour
 - Westbound movement operates at LOS F
- El Camino Real & Selby Lane during the a.m. and school p.m. peak hour
- El Camino Real & Stockbridge Avenue during all peak hours
- Oakwood Boulevard & Selby Lane during the a.m. peak hour

Table 3: Existing Conditions Level of Service Analysis Results

ID	Intersection	Control Type	AM Peak Hour		School PM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	33.7	C	12.5	B	18.8	B
2	El Camino Real & Selby Ln	TWSC	>50*	F	76.2	F	19.2	C
3	El Camino Real & Fifth Ave	Signal	21.0	C	16.7	B	25.1	C
4	El Camino Real & Stockbridge Ave	OWSC	>50*	F	75.8	F	249.6	F
5	Oakwood Blvd & Selby Ln	OWSC	33.4	D	12.7	B	13.1	B
6	Waverly Ave & Fifth Ave	Signal	3.5	A	2.2	A	5.0	A

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

>50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.

Bold indicates unacceptable operations.

The Existing Conditions analysis results show that all study intersections with Stop Control operate unacceptably during at least one peak hour. Stop Control intersections tend to have higher delays experienced by vehicles on the minor street. LOS and delay for OWSC or TWSC intersections is dependent on the critical movement at the location, typically minor street left-turn or thru movements. With large volumes on El Camino Real, it is difficult for minor street vehicles to find sufficient gap in the traffic stream to perform a left-turn or thru maneuver.

Existing Traffic Volumes, Lane Geometry and Controls

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
<p>El Camino Real</p> <p>Oakwood Dr.</p> <p>Dumbarton Ave.</p> <p>16 [32] (18) 2,098 [1,228] (1,418) 42 [53] (87) 39 [52] (66)</p> <p>47 [39] (54) 30 [19] (23) 225 [94] (92)</p> <p>81 [69] (51) 42 [38] (28) 120 [41] (64)</p> <p>58 [32] (28) 51 [66] (124) 1,090 [1,376] (2,004) 39 [38] (54)</p>	<p>El Camino Real</p> <p>Selby Ln.</p> <p>201 [69] (92) 2,236 [1,252] (1,391) 24 [17] (29) 34 [29] (34)</p> <p>30 [15] (26) 3 [1] (0) 0 [2] (1)</p> <p>9 [13] (5) 0 [0] (0) 251 [173] (159)</p> <p>19 [12] (4) 222 [187] (273) 1,172 [1,504] (2,250) 3 [4] (16)</p>	<p>El Camino Real</p> <p>Fifth Ave.</p> <p>1,865 [971] (1,024) 616 [460] (529)</p> <p>697 [502] (799) 491 [206] (286)</p> <p>676 [1,182] (1,704) 186 [271] (263)</p>
<p>Intersection #4 El Camino Real/ Stockbridge Ave.</p>	<p>Intersection #5 Oakwood Blvd./ Selby Ln.</p>	<p>Intersection #6 Waverly Ave./ Fifth Ave.</p>
<p>El Camino Real</p> <p>Stockbridge Ave.</p> <p>170 [54] (76) 2,200 [1,132] (1,201)</p> <p>38 [38] (37) 134 [61] (61)</p> <p>31 [12] (20) 91 [59] (108) 851 [1,407] (2,002)</p>	<p>Oakwood Blvd.</p> <p>Selby Ln.</p> <p>88 [44] (30) 38 [17] (16)</p> <p>11 [33] (52) 403 [234] (311)</p> <p>152 [85] (87) 252 [172] (143)</p>	<p>Waverly Ave.</p> <p>Fifth Ave.</p> <p>29 [14] (18) 19 [21] (42)</p> <p>18 [23] (15) 1,193 [678] (1,086)</p> <p>16 [6] (12) 753 [713] (779)</p>



Existing Bicycle and Pedestrian Volumes

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
<p>El Camino Real</p> <p>Oakwood Dr. → 6 [0] (3)</p> <p>Oakwood Dr. ← 1 [1] (0)</p> <p>Oakwood Dr. → 8 [1] (8)</p> <p>Oakwood Dr. ← 8 [0] (1)</p> <p>Dumbarton Ave. → 27 [0] (21)</p> <p>Dumbarton Ave. ← 1 [0] (0)</p> <p>Dumbarton Ave. → 6 [0] (2)</p> <p>Dumbarton Ave. ← 2 [0] (0)</p> <p>Stockbridge Ave. → 2 [2] (0)</p> <p>Stockbridge Ave. ← 6 [0] (4)</p> <p>Stockbridge Ave. → 0 [1] (0)</p> <p>Stockbridge Ave. ← 0 [0] (0)</p> <p>El Camino Real → 1 [1] (0)</p> <p>El Camino Real ← 3 [0] (9)</p> <p>El Camino Real → 0 [0] (1)</p> <p>El Camino Real ← 12 [0] (16)</p>	<p>El Camino Real</p> <p>Selby Ln. → 3 [0] (1)</p> <p>Selby Ln. ← 0 [0] (0)</p> <p>Selby Ln. → 8 [3] (7)</p> <p>Selby Ln. ← 1 [0] (0)</p> <p>Oakwood Blvd. → 4 [0] (3)</p> <p>Oakwood Blvd. ← 1 [0] (1)</p> <p>Oakwood Blvd. → 5 [0] (3)</p> <p>Oakwood Blvd. ← 0 [0] (0)</p> <p>Selby Ln. → 0 [1] (0)</p> <p>Selby Ln. ← 1 [0] (1)</p> <p>Selby Ln. → 3 [0] (1)</p> <p>Selby Ln. ← 0 [0] (0)</p> <p>Oakwood Blvd. → 2 [1] (2)</p> <p>Oakwood Blvd. ← 2 [1] (8)</p> <p>Oakwood Blvd. → 0 [0] (0)</p> <p>Oakwood Blvd. ← 7 [0] (14)</p>	<p>El Camino Real</p> <p>Fifth Ave. → 9 [0] (1)</p> <p>Fifth Ave. ← 3 [0] (2)</p> <p>Fifth Ave. → 0 [0] (1)</p> <p>Fifth Ave. ← 0 [0] (3)</p> <p>Waverly Ave. → 10 [0] (7)</p> <p>Waverly Ave. ← 4 [1] (7)</p> <p>Waverly Ave. → 2 [2] (4)</p> <p>Waverly Ave. ← 9 [0] (17)</p>
Intersection #4 El Camino Real/ Stockbridge Ave.	Intersection #5 Oakwood Blvd./ Selby Ln.	Intersection #6 Waverly Ave./ Fifth Ave.
<p>El Camino Real</p> <p>Stockbridge Ave. → 0 [0] (0)</p> <p>Stockbridge Ave. ← 6 [0] (3)</p> <p>Stockbridge Ave. → 7 [1] (4)</p> <p>Stockbridge Ave. ← 1 [0] (1)</p> <p>Stockbridge Ave. → 0 [0] (0)</p> <p>Stockbridge Ave. ← 0 [0] (3)</p> <p>El Camino Real → 0 [0] (0)</p> <p>El Camino Real ← 3 [2] (4)</p>	<p>Oakwood Blvd.</p> <p>Selby Ln. → 1 [0] (3)</p> <p>Selby Ln. ← 7 [1] (4)</p> <p>Selby Ln. → 5 [1] (1)</p> <p>Selby Ln. ← 1 [0] (5)</p> <p>Oakwood Blvd. → 1 [0] (3)</p> <p>Oakwood Blvd. ← 3 [1] (1)</p> <p>Selby Ln. → 4 [1] (9)</p> <p>Selby Ln. ← 3 [1] (1)</p> <p>Oakwood Blvd. → 3 [0] (2)</p>	<p>Waverly Ave.</p> <p>Fifth Ave. → 9 [0] (12)</p> <p>Fifth Ave. ← 2 [1] (0)</p> <p>Fifth Ave. → 9 [3] (11)</p> <p>Fifth Ave. ← 0 [0] (0)</p> <p>Fifth Ave. → 0 [0] (0)</p> <p>Fifth Ave. → 2 [0] (3)</p> <p>Fifth Ave. → 5 [1] (11)</p> <p>Fifth Ave. → 14 [0] (26)</p>



Queuing Analysis Results

Queuing analysis was also performed for the study intersections to understand adequacy of the existing turn pockets and provide basis for recommending storage lengths with each alternative. **Table 4** summarizes the Existing Conditions queues at turn pockets as determined through Synchro. The results presented below are based on 95th Percentile Queue Lengths (in feet), which is the highest queue length in the lane group. Queue summary reports generated from Synchro are provided in **Appendix C** for Existing Conditions. Under this scenario, the following pocket storage lengths are insufficient:

- Northbound left-turn at El Camino Real & Selby Lane during the a.m. and p.m. peak hours

The northbound left-turn pocket at this intersection is 55 feet, which is exceeded by the queues found during the a.m. and p.m. peak hours. Queues that exceed capacity have potential to spill over into the adjacent thru lanes, causing longer delays and back-ups. As noted in the table below, the following queues may be longer than calculated:

- Westbound left-turn at El Camino Real & Fifth Avenue during the a.m. peak hour
- Southbound left-turn at El Camino Real & Fifth Avenue during the a.m. and p.m. peak hours

The westbound left-turn is accommodated with a left turn trap lane that extends from El Camino Real to Waverly Avenue, which is over 600 feet in length. This distance would accommodate the possibly longer queue during the a.m. peak hour. The southbound left-turn queue is close to the storage capacity of 295 feet, and a longer queue could result in vehicles spilling into the adjacent southbound thru lane. This movement, however, provides two left-turn pockets and operates acceptably under Existing Conditions.

Table 4: Existing Conditions Turn-Pocket Queuing Summary

ID	Intersection	Peak Hour	EBL	WBL	WBR	NBL	SBL	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	AM	-	-	-	m99	80	-
		School PM	-	-	-	84	86	-
		PM	-	-	-	m129	131	-
2	El Camino Real & Selby Ln	AM	-	-	-	193	4	-
		School PM	-	-	-	45	3	-
		PM	-	-	-	68	7	-
3	El Camino Real & Fifth Ave	AM	-	#391	136	-	#272	-
		School PM	-	177	138	-	178	-
		PM	-	244	253	-	#274	-
4	El Camino Real & Stockbridge Ave	AM	-	-	-	51	-	-
		School PM	-	-	-	9	-	-
		PM	-	-	-	17	-	-
5	Oakwood Blvd & Selby Ln	AM	17	-	-	-	92	-
		School PM	8	-	-	-	12	-
		PM	7	-	-	-	11	-
6	Waverly Ave & Fifth Ave	AM	-	-	-	-	30	-
		School PM	-	-	-	-	28	-
		PM	-	-	-	-	42	-

Notes: **Bold** =95th percentile queue length exceeds provided storage capacity
 m = Volume for 95th percentile queue is metered by upstream signal
 # = Volume for 95th percentile queue exceeds capacity, queue may be longer
 All measurements in feet

ALTERNATIVE EVALUATION

This section discusses the two alternative improvement options for the intersection of El Camino Real & Selby Lane. The alternatives are as follows:

- Alternative 1 Conditions (Existing Volumes)
 - Restrict left-turns/through movements from Selby Lane onto/across El Camino Real
 - Restrict southbound left-turns from El Camino Real onto Selby Lane
 - Install Rectangular Rapid Flashing Beacon (RRFB) for pedestrian crossing across El Camino Real

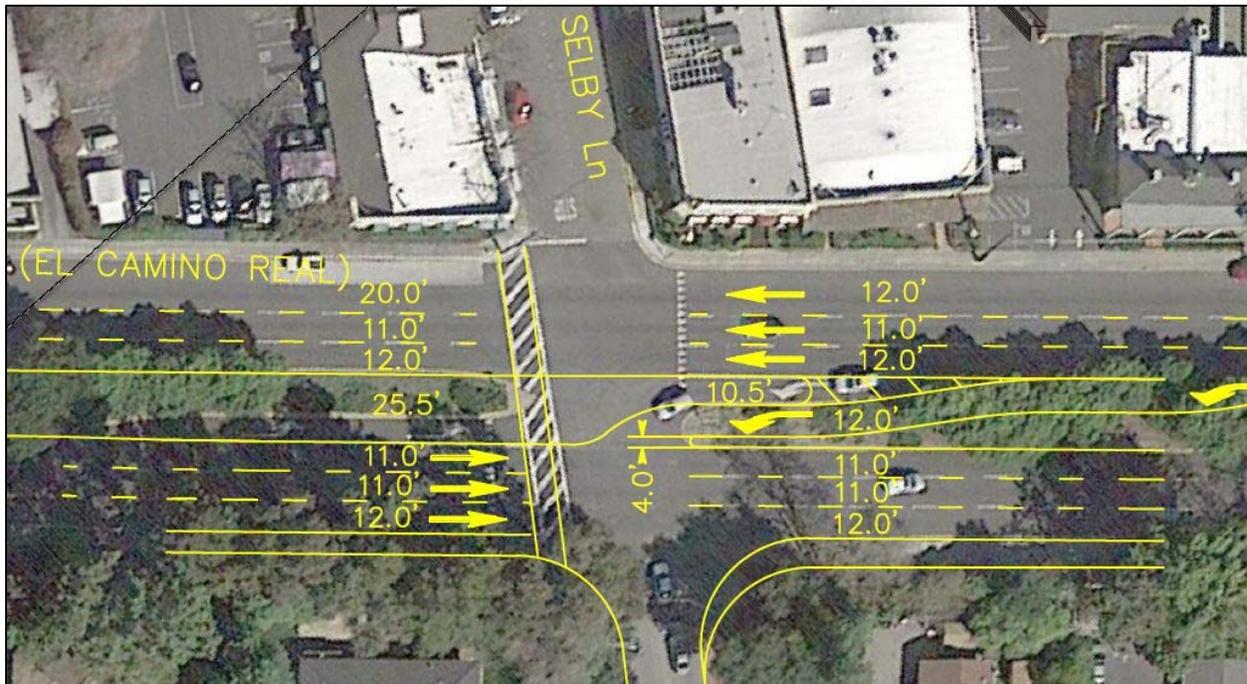


Image: Alternative 1 Design – Plan View

- Alternative 2 Conditions (Existing Volumes)
 - Install signal at intersection of El Camino Real & Selby Lane
 - Retain existing lane geometry

Alternative 1

The existing traffic volumes under Alternative 1 Conditions were analyzed at the study intersections during the a.m., school p.m., and p.m. peak hours. The alternative restricts movements at the intersection of El Camino Real & Selby Lane, which requires assumptions for traffic rerouting. The alternative intersection configuration would prohibit southbound left- and U-turns, eastbound left- and thru-movements, and westbound left- and thru-movements. The assumptions under this scenario are as follows:

- Existing southbound U-turns moved to southbound left-turn at El Camino Real & Oakwood Drive-Dumbarton Avenue
- Existing southbound left-turns moved to southbound left-turn at El Camino Real & Fifth Avenue
 - Then added to eastbound left-turn at Waverly Avenue & Fifth Avenue
- Existing eastbound left-turns moved to eastbound left-turn at Oakwood Boulevard & Selby Lane
 - Then added to eastbound left-turn at El Camino Real & Oakwood Drive-Dumbarton Avenue
- Existing westbound left-turns and thru-movements moved to southbound right-turn at Waverly Avenue & Fifth Avenue
 - Left-turns added to westbound left-turn at El Camino Real & Fifth Avenue
 - Thru-movements added to westbound right-turn at El Camino Real & Fifth Avenue
 - Then added to northbound left-turn at El Camino Real & Selby Lane

Figure 4 illustrates the rerouted traffic volumes using the above list of assumptions for Alternative 1, and **Figure 5** illustrates the adjusted Existing Conditions volumes under the Alternative 1 scenario.

Alternative 1 Traffic Rerouting

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
		<p>Note: * Volumes equal to the sum of removed volumes from east leg of Intersection #2</p>



Alternative 1 Traffic Volumes, Lane Geometry and Controls

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
<p>El Camino Real</p> <p>Oakwood Dr.</p> <p>Dumbarton Ave.</p> <p>16 [32] (18) 2,064 [1,199] (1,384) 76 [82] (121) 39 [52] (66)</p> <p>47 [39] (54) 30 [19] (23) 225 [94] (92)</p> <p>90 [82] (56) 42 [38] (28) 120 [41] (64)</p> <p>58 [32] (28) 51 [66] (124) 1,090 [1,376] (2,004) 39 [38] (54)</p> <p>1,090 [1,376] (2,004)</p>	<p>El Camino Real</p> <p>Selby Ln.</p> <p>201 [69] (92) 2,260 [1,269] (1,420)</p> <p>30 [15] (26)</p> <p>251 [173] (159)</p> <p>19 [12] (16) 225 [188] (273) 1,172 [1,504] (2,250) 3 [4] (16)</p>	<p>El Camino Real</p> <p>Fifth Ave.</p> <p>1,865 [971] (1,024) 640 [477] (558)</p> <p>700 [503] (799) 491 [208] (287)</p> <p>676 [1,182] (1,704) 186 [271] (263)</p>
<p>El Camino Real</p> <p>Stockbridge Ave.</p> <p>170 [54] (76) 2,200 [1,132] (1,201)</p> <p>38 [38] (37) 134 [61] (61)</p> <p>31 [12] (20) 91 [59] (108) 851 [1,407] (2,002)</p>	<p>Oakwood Blvd.</p> <p>Selby Ln.</p> <p>88 [44] (30) 38 [17] (16)</p> <p>11 [33] (52) 403 [234] (311)</p> <p>161 [98] (92) 243 [159] (138)</p>	<p>Waverly Ave.</p> <p>Fifth Ave.</p> <p>32 [17] (19) 19 [21] (42)</p> <p>18 [23] (15) 1,193 [678] (1,086)</p> <p>40 [23] (41) 753 [713] (779)</p>



Level of Service Analysis Results

Using the above assumptions, existing traffic volumes were rerouted through the study intersections. Alternative 1 peak-hour volumes are illustrated in **Figure 5**. **Table 5** summarizes the Alternative 1 LOS analysis results for the six study intersections. As shown in the table, the intersection of El Camino Real & Selby Lane experiences the greatest benefit of the alternative intersection configuration. The delay is reduced during the a.m., school p.m., and p.m. peak hours and LOS is improved to acceptable level during the school p.m. peak hour. Movement LOS tables and Synchro summary sheets are provided in **Appendix D** for Alternative 1.

Under this scenario, the following intersections show operational improvements from Existing Conditions:

- El Camino Real & Selby Lane
 - School p.m. peak hour LOS improves from LOS F to LOS B

The following intersections operate at unacceptable LOS under Alternative 1 Conditions:

- El Camino Real & Oakwood Drive-Dumbarton Avenue during the a.m. peak hour
 - Westbound movement operates at LOS F (as under Existing Conditions)
- El Camino Real & Selby Lane during the a.m. peak hour
- El Camino Real & Stockbridge Avenue during all peak hours (as under Existing Conditions)
- Oakwood Boulevard & Selby Lane during the a.m. peak hour (as under Existing Conditions)

No intersection operations are projected to degrade significantly from Existing Conditions, and the alternative intersection configuration yields substantial improvement at El Camino Real & Selby Lane during the school p.m. peak hour. This improvement is attributed to the removal of critical minor street movements and resulting traffic diversion.

Table 5: Alternative 1 Conditions Level of Service Analysis Results

ID	Intersection	Control Type	Scenario	AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Existing	33.7	C	12.5	B	18.8	B
			Alternative 1	32.3	C	13.5	B	21.5	C
2	El Camino Real & Selby Ln	TWSC	Existing	>50*	F	76.2	F	19.2	C
			Alternative 1	68.9	F	14.8	B	18.4	C
3	El Camino Real & Fifth Ave	Signal	Existing	21.0	C	16.7	B	25.1	C
			Alternative 1	21.5	C	17.1	B	26.1	C
4	El Camino Real & Stockbridge Ave	OWSC	Existing	>50*	F	75.8	F	249.6	F
			Alternative 1	>50*	F	76.0	F	250.6	F
5	Oakwood Blvd & Selby Ln	OWSC	Existing	33.4	D	12.7	B	13.1	B
			Alternative 1	34.5	D	12.8	B	13.1	B
6	Waverly Ave & Fifth Ave	Signal	Existing	3.5	A	2.2	A	5.0	A
			Alternative 1	3.6	A	2.7	A	5.1	A

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

>50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.

Bold indicates unacceptable operations.

Queuing Analysis Results

Table 6 summarizes the Alternative 1 Conditions queues at turn pockets as determined through Synchro. The results presented below are based on 95th Percentile Queue Lengths (in feet), which is the highest queue length in the lane group. Queue summary reports generated from Synchro are provided in **Appendix D** for Alternative 1 Conditions. The following pocket storage lengths are insufficient:

- Northbound left-turn at El Camino Real & Selby Lane during the a.m. and p.m. peak hours
- Southbound left-turn at El Camino Real & Fifth Avenue during the p.m. peak hour

The northbound left-turn pocket at El Camino Real & Selby Lane is 55 feet, which is exceeded by the queues projected during the a.m. and p.m. peak hours under Alternative 1. The southbound left-turn pocket at El Camino Real & Fifth Avenue is 295 feet, which is exceeded by the queue projected during the p.m. peak hour. Queues that exceed capacity have potential to spill over into the adjacent thru lanes, causing longer delays and back-ups. The following queues may be longer than calculated:

- Westbound left-turn at El Camino Real & Fifth Avenue during the a.m. peak hour
- Southbound left-turn at El Camino Real & Fifth Avenue during the a.m. and p.m. peak hours

The westbound left-turn at El Camino Real & Fifth Avenue is accommodated with a left-turn trap lane that extends from El Camino Real to Waverly Avenue, which is over 600 feet in length. This distance would accommodate the possibly longer queue during the a.m. peak hour. The southbound left-turn queue is at storage capacity for the movement, and a longer queue could result in vehicles spilling into the adjacent southbound thru lanes. The two left-turn pockets provided operate acceptably under Alternative 1 Conditions. The increase in queue lengths due to Alternative 1 is equivalent to approximately one vehicle.

Table 6: Alternative 1 Conditions Turn-Pocket Queuing Summary

ID	Intersection	Peak Hour	EBL	EBR	WBL	WBR	NBL	SBL	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	AM	-	-	-	-	100	102	-
		School PM	-	-	-	-	86	104	-
		PM	-	-	-	-	133	155	-
2	El Camino Real & Selby Ln	AM	-	55	-	5	214	-	-
		School PM	-	20	-	2	45	-	-
		PM	-	21	-	3	73	-	-
3	El Camino Real & Fifth Ave	AM	-	-	#391	137	-	#288	-
		School PM	-	-	178	138	-	185	-
		PM	-	-	245	253	-	#296	-
4	El Camino Real & Stockbridge Ave	AM	-	-	-	-	52	-	-
		School PM	-	-	-	-	9	-	-
		PM	-	-	-	-	17	-	-
5	Oakwood Blvd & Selby Ln	AM	18	-	-	-	-	94	-
		School PM	10	-	-	-	-	12	-
		PM	7	-	-	-	-	11	-
6	Waverly Ave & Fifth Ave	AM	-	-	-	-	-	31	-
		School PM	-	-	-	-	-	29	-
		PM	-	-	-	-	-	42	-

Notes: **Bold** =95th percentile queue length exceeds provided storage capacity
 # = Volume for 95th percentile queue exceeds capacity, queue may be longer
 All measurements in feet

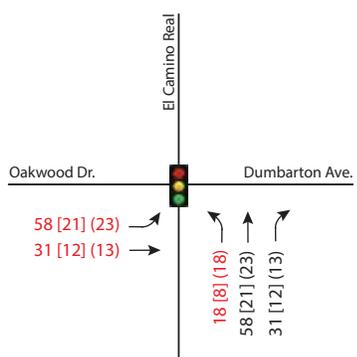
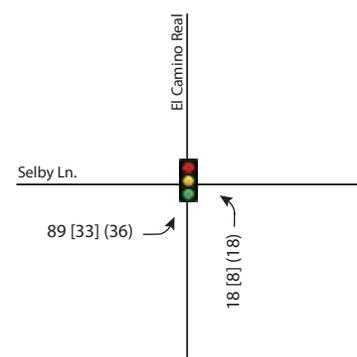
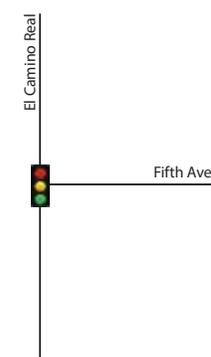
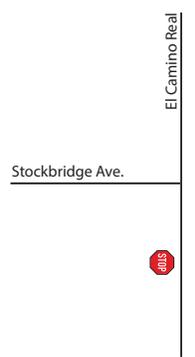
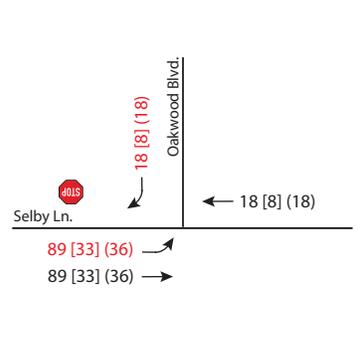
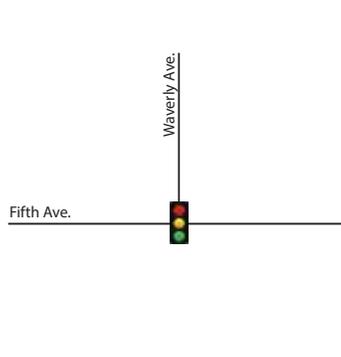
Alternative 2

The existing traffic volumes under Alternative 2 Conditions were analyzed at the study intersections during the a.m., school p.m., and p.m. peak hours. The alternative involves installing a signal at the intersection of El Camino Real & Selby Lane, which requires traffic rerouting and signal timing assumptions. The alternative intersection control would improve minor street operations and cause traffic diversion. Alternative 2 peak hour volumes are illustrated in **Figure 5**. The assumptions under this scenario are as follows:

- Northbound left-turns at El Camino Real & Oakwood Drive-Dumbarton Avenue moved to northbound left-turn at El Camino Real & Selby Lane
 - Volume removed from southbound right-turn at Oakwood Boulevard & Selby Lane
- Eastbound left-turns at Oakwood Boulevard & Selby Lane moved to eastbound left-turn at El Camino Real & Selby Lane
 - Existing eastbound approach at El Camino Real & Oakwood Drive-Dumbarton Avenue is 65% left-turns and 35% thru-movements
 - 65% moved to northbound thru-movement at El Camino Real & Oakwood Drive-Dumbarton Avenue
 - 35% moved to northbound right-turn at El Camino Real & Oakwood Drive-Dumbarton Avenue
- El Camino Real & Selby Lane Intersection
 - Option 1
 - Permissive phasing for Selby Lane movements
 - Option 2
 - Split phasing for Selby Lane movements
 - Eastbound approach geometry modified to provide Shared Thru-Left Pocket and Exclusive Right-Turn Lane

Figure 6 illustrates the rerouted traffic volumes using the above list of assumptions for Alternative 2, and **Figure 7** illustrates the adjusted Existing Conditions volumes under the Alternative 2 scenario.

Alternative 2 Traffic Rerouting

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
		
Intersection #4 El Camino Real/ Stockbridge Ave.	Intersection #5 Oakwood Blvd./ Selby Ln.	Intersection #6 Waverly Ave./ Fifth Ave.
		



Alternative 2 Traffic Volumes, Lane Geometry and Controls

Intersection #1 El Camino Real/ Oakwood Dr./Dumbarton Ave.	Intersection #2 El Camino Real/ Selby Ln.	Intersection #3 El Camino Real/ Fifth Ave.
<p>El Camino Real</p> <p>Oakwood Dr.</p> <p>Dumbarton Ave.</p> <p>16 [32] (18) 2,098 [1,228] (1,418) 42 [53] (87) 39 [52] (66)</p> <p>47 [39] (54) 30 [19] (23) 225 [94] (92)</p> <p>23 [48] (28) 11 [26] (15) 120 [41] (64)</p> <p>58 [32] (28) 33 [58] (106) 1,148 [1,397] (2,027) 70 [50] (67)</p>	<p>El Camino Real</p> <p>Selby Ln.</p> <p>20 [69] (92) 2,236 [1,252] (1,391) 24 [17] (29) 34 [29] (34)</p> <p>30 [15] (26) 3 [1] (0) 0 [2] (1)</p> <p>98 [46] (41) 0 [0] (0) 251 [173] (159)</p> <p>19 [12] (16) 240 [195] (291) 1,172 [1,504] (2,250) 3 [4] (16)</p>	<p>El Camino Real</p> <p>Fifth Ave.</p> <p>1,865 [971] (1,024) 616 [460] (529)</p> <p>697 [502] (799) 491 [206] (286)</p> <p>676 [1,182] (1,704) 186 [271] (263)</p>
<p>El Camino Real</p> <p>Stockbridge Ave.</p> <p>170 [54] (76) 2,200 [1,132] (1,201)</p> <p>38 [38] (37) 134 [61] (61)</p> <p>31 [12] (20) 91 [59] (108) 851 [1,407] (2,002)</p>	<p>Oakwood Blvd.</p> <p>Selby Ln.</p> <p>70 [36] (12) 38 [17] (16)</p> <p>11 [33] (52) 421 [242] (329)</p> <p>63 [52] (51) 341 [205] (179)</p>	<p>Waverly Ave.</p> <p>Fifth Ave.</p> <p>29 [14] (18) 19 [21] (42)</p> <p>18 [23] (15) 1,193 [678] (1,086)</p> <p>16 [6] (12) 753 [713] (779)</p>



Option 1 Level of Service Analysis Results

Using the above assumptions, existing traffic volumes were rerouted through the study intersections.

Table 7 summarizes Alternative 2, Option 1 LOS analysis results for the study intersections. Movement LOS tables and Synchro summary sheets for Alternative 2, Option 1 are in **Appendix E**.

Under this scenario, the following intersections show operational improvements from Existing Conditions:

- El Camino Real & Selby Lane
 - A.M. peak hour LOS improves from LOS F to LOS E (still unacceptable per standards)
 - School p.m. peak hour LOS improves from LOS F to LOS B
- Oakwood Boulevard & Selby Lane
 - A.M. peak hour delay reduces from 33.4 to 26.1 seconds (still unacceptable per standards)

The following intersections operate at unacceptable LOS under Alternative 2, Option 1 Conditions:

- El Camino Real & Oakwood Drive-Dumbarton Avenue during the a.m. peak hour
 - Westbound movement operates at LOS E (improved from Existing Conditions)
- El Camino Real & Selby Lane during the a.m. peak hour
- El Camino Real & Stockbridge Avenue during all peak hours (as under Existing Conditions)
- Oakwood Boulevard & Selby Lane during the a.m. peak hour (as under Existing Conditions)

Intersections not in compliance with the LOS standard under Existing Conditions shall not operate at LOS D or worse and experience an increase in average control delay of four or more seconds. The intersections operating acceptably under Existing Conditions are not projected to worsen due to the project.

Table 7: Alternative 2, Option 1 Level of Service Analysis Results

ID	Intersection	Control Type	Scenario	AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS
				1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Existing	33.7	C
Option 1	28.7	C	12.0	B			18.7	B	
2	El Camino Real & Selby Ln	TWSC	Existing	>50*	F	76.2	F	19.2	C
		Signal	Option 1	55.4	E	17.3	B	21.1	C
3	El Camino Real & Fifth Ave	Signal	Existing	21.0	C	16.7	B	25.1	C
			Option 1	21.0	C	16.7	B	25.1	C
4	El Camino Real & Stockbridge Ave	OWSC	Existing	>50*	F	75.8	F	249.6	F
			Option 1	>50*	F	75.8	F	249.6	F
5	Oakwood Blvd & Selby Ln	OWSC	Existing	33.4	D	12.7	B	13.1	B
			Option 1	26.1	D	12.5	B	13.5	B
6	Waverly Ave & Fifth Ave	Signal	Existing	3.5	A	2.2	A	5.0	A
			Option 1	3.5	A	2.2	A	5.0	A

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

>50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.

Bold indicates unacceptable operations.

Option 1 Queuing Analysis Results

Table 8 summarizes the Alternative 2, Option 1 queues at turn pockets as determined through Synchro. The results presented below are based on 95th Percentile Queue Lengths (in feet), which is the highest queue length in the lane group. Queue summary reports generated from Synchro are provided in **Appendix E** for Alternative 2, Option 1. The following pocket storage lengths are insufficient:

- Northbound left-turn at El Camino Real & Selby Lane during all peak hours
- Southbound left-turn at El Camino Real & Selby Lane during the a.m. and p.m. peak hours

The northbound left-turn pocket at El Camino Real & Selby Lane is 55 feet, which is exceeded by the queues projected during the a.m. and p.m. peak hours under Alternative 2, Option 1. The southbound left-turn pocket at El Camino Real & Selby Lane is 105 feet, which is exceeded by the queue projected during the a.m. peak hour. Queues that exceed capacity have potential to spill over into the adjacent thru lanes, causing longer delays and back-ups. The following queues may be longer than calculated:

- Northbound left-turn at El Camino Real & Selby Lane during the a.m. and p.m. peak hours
- Westbound left-turn at El Camino Real & Fifth Avenue during the a.m. peak hour
- Southbound left-turn at El Camino Real & Fifth Avenue during the a.m. and p.m. peak hours

The westbound left-turn at El Camino Real & Fifth Avenue is accommodated with a left-turn trap lane that extends from El Camino Real to Waverly Avenue, which is over 600 feet in length. This distance would accommodate the possibly longer queue during the a.m. peak hour. The southbound left-turn queue is close to the storage capacity of 295 feet, and a longer queue could result in vehicles spilling into the adjacent southbound thru lane. Queue increases may be accommodated with turn-pocket extensions.

Table 8: Alternative 2, Option 1 Turn-Pocket Queuing Summary

ID	Intersection	Peak Hour	EBL	WBL	WBR	NBL	SBL	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	AM	-	-	-	86	79	-
		School PM	-	-	-	79	85	-
		PM	-	-	-	118	131	-
2	El Camino Real & Selby Ln	AM	-	-	-	#445	111	-
		School PM	-	-	-	288	87	-
		PM	-	-	-	#516	122	-
3	El Camino Real & Fifth Ave	AM	-	#391	136	-	#272	-
		School PM	-	177	138	-	178	-
		PM	-	244	253	-	#274	-
4	El Camino Real & Stockbridge Ave	AM	-	-	-	51	-	-
		School PM	-	-	-	9	-	-
		PM	-	-	-	17	-	-
5	Oakwood Blvd & Selby Ln	AM	6	-	-	-	63	-
		School PM	5	-	-	-	10	-
		PM	4	-	-	-	7	-
6	Waverly Ave & Fifth Ave	AM	-	-	-	-	30	-
		School PM	-	-	-	-	28	-
		PM	-	-	-	-	42	-

Notes: **Bold** =95th percentile queue length exceeds provided storage capacity
 # = Volume for 95th percentile queue exceeds capacity, queue may be longer
 All measurements in feet

Option 2 Level of Service Analysis Results

With signalization of the El Camino Real & Selby Lane intersection, split phasing is analyzed in the traffic model as Alternative 2, Option 2. Using the assumptions in the beginning of this chapter, existing traffic volumes were rerouted through the study intersections. **Table 9** summarizes Alternative 2, Option 2 LOS analysis results for the six study intersections compared to Alternative 2, Option 1. Movement LOS tables and Synchro summary sheets are provided in **Appendix F** for Alternative 2, Option 2.

As for Alternative 1 and Alternative 2, Option 1, El Camino Real & Selby Lane improves operations with Alternative 2, Option 2 during the a.m. and school p.m. peak hours. Option 2, however, improves a.m. peak hour operations to LOS D, which is near acceptable per the LOS standards. Compared with Alternative 1 and Alternative 2, Option 1, this alternative shows improvement to intersection operations during the a.m. peak hour, which is a substantial improvement from Existing Conditions.

Under this scenario, all study intersections except El Camino Real & Stockbridge Avenue operate at LOS D or better during all peak hours. From Existing Conditions, intersections not in compliance with the LOS standard shall not operate at LOS D or worse and experience an increase in average control delay of four or more seconds, therefore no intersection is negatively impacted as a result of the project. The intersections operating acceptably under Existing Conditions shall not operate at LOS D or worse.

Table 9: Alternative 2, Option 2 Level of Service Analysis Results

ID	Intersection	Control Type	Scenario	AM Peak Hour		School PM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS
				1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Option 1	28.7	C
Option 2	28.7	C	12.0	B			18.7	B	
2	El Camino Real & Selby Ln	Signal	Option 1	55.4	E	17.3	B	21.1	C
			Option 2	41.2	D	17.9	B	22.8	C
3	El Camino Real & Fifth Ave	Signal	Option 1	21.0	C	16.7	B	25.1	C
			Option 2	21.0	C	16.7	B	25.1	C
4	El Camino Real & Stockbridge Ave	OWSC	Option 1	>50*	F	75.8	F	249.6	F
			Option 2	>50*	F	75.8	F	249.6	F
5	Oakwood Blvd & Selby Ln	OWSC	Option 1	26.1	D	12.5	B	13.5	B
			Option 2	26.1	D	12.5	B	13.5	B
6	Waverly Ave & Fifth Ave	Signal	Option 1	3.5	A	2.2	A	5.0	A
			Option 2	3.5	A	2.2	A	5.0	A

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

>50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.

Bold indicates unacceptable operations.

Option 2 Queuing Analysis Results

Table 10 summarizes the queues projected at the turn pockets for Alternative 2, Option 2. Queue summary reports generated from Synchro are provided in **Appendix F** for Alternative 2, Option 2. Under this scenario, the northbound and southbound left-turn pockets at El Camino Real & Selby Lane are projected to be insufficient in storage length. The projected queue for the northbound left-turn exceeds storage capacity during all peak hours and during the a.m. and p.m. peak hours for the southbound movement. These queues have potential to spill back into the adjacent northbound or southbound through lanes on El Camino Real and cause increased delay and back-ups.

Table 10: Alternative 2, Option 2 Turn-Pocket Queuing Summary

ID	Intersection	Peak Hour	EBL	EBR	WBL	WBR	NBL	SBL	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	AM	-	-	-	-	86	79	-
		School PM	-	-	-	-	79	85	-
		PM	-	-	-	-	118	131	-
2	El Camino Real & Selby Ln	AM	146	72	-	-	#491	110	-
		School PM	80	59	-	-	#268	78	-
		PM	68	39	-	-	#560	120	-
3	El Camino Real & Fifth Ave	AM	-	-	#391	136	-	#272	-
		School PM	-	-	177	138	-	178	-
		PM	-	-	244	253	-	#274	-
4	El Camino Real & Stockbridge Ave	AM	-	-	-	-	51	-	-
		School PM	-	-	-	-	9	-	-
		PM	-	-	-	-	17	-	-
5	Oakwood Blvd & Selby Ln	AM	6	-	-	-	-	63	-
		School PM	5	-	-	-	-	10	-
		PM	4	-	-	-	-	7	-
6	Waverly Ave & Fifth Ave	AM	-	-	-	-	-	30	-
		School PM	-	-	-	-	-	28	-
		PM	-	-	-	-	-	42	-

Notes: **Bold** =95th percentile queue length exceeds provided storage capacity
 # = Volume for 95th percentile queue exceeds capacity, queue may be longer
 All measurements in feet

ALTERNATIVE COMPARISON

This section discusses the pros and cons of each alternative. For all alternative improvements, southbound queues at El Camino Real & Fifth Avenue and northbound and southbound queues at El Camino Real & Selby Lane would benefit from increased turn-pocket storage capacity.

Alternative Pros

Alternative 1

Compared with Existing Conditions, Alternative 1 attributes the following improvements to traffic operations:

- Reduced delay at El Camino Real & Selby Lane during the a.m. and school p.m. peak hours
 - Operational improvement for eastbound and westbound movements
- El Camino Real & Selby Lane improved to acceptable LOS during the school p.m. peak hour
- Improved pedestrian safety with installation of RRFB
 - Heightened awareness of pedestrian presence
 - Improved pedestrian visibility
- No negative impacts to surrounding intersection LOS and delay
- No negative impacts to intersection movement LOS and delay

Alternative 2

Compared with Existing Conditions, Alternative 2 attributes the following improvements to traffic operations:

- Reduced delay and improved LOS at El Camino Real & Selby Lane during the a.m. and school p.m. peak hours
- El Camino Real & Selby Lane improved to acceptable LOS during the school p.m. peak hour
- Improved access for Selby Lane and surrounding neighborhood residents
- Improved pedestrian safety with dedicated pedestrian crossing phases
- Improved vehicle safety with dedicated green time for minor street movements
- No negative impacts to existing vehicle access
- No negative impacts to surrounding intersection LOS and delay
- No negative impacts to intersection movement LOS and delay

Option 1

- El Camino Real & Selby Lane operation improved to LOS E during the a.m. peak hour

Option 2

- El Camino Real & Selby Lane operation improved to near acceptable (LOS D) operations during the a.m. peak hour

Alternative Cons

Alternative 1

Most negative aspects of Alternative 1 are associated with projected queues and the physical constraint of prohibiting movements. The following queues are projected to increase as a result of Alternative 1:

- Northbound left-turn at El Camino Real & Selby Lane during the a.m. and p.m. peak hours
- Southbound left-turn at El Camino Real & Fifth Avenue during all peak hours

The proposed movement restrictions would cause traffic diversion through the surrounding residential neighborhoods. This would result in up to approximately 15 vehicles travelling on Oakwood Boulevard and Oakwood Drive instead of Selby Lane during a peak hour. Additionally, Alternative 1 restricts access for Selby Lane and surrounding neighborhood residents. Residents on the east side of El Camino Real will only have right-in/right-out operations at El Camino Real & Selby Lane, forcing westbound left-turns and thru movements to the intersection of El Camino Real & Fifth Avenue. Residents on the west side of El Camino Real will experience similar restrictions, and will use El Camino Real & Oakwood Drive-Dumbarton Avenue to travel northbound.

Alternative 2

Alternative 2 is projected to cause the following queues to increase:

- Northbound left-turn at El Camino Real & Selby Lane during all peak hours
- Southbound left-turn at El Camino Real & Selby Lane during the a.m. peak hour

Additionally, either option for Alternative 2 will create more vehicle traffic on Selby Lane between Oakwood Boulevard and El Camino Real. The installation of a signal at the intersection will improve operations, allowing minor street vehicles to join El Camino Real traffic effectively. This provision will appeal to drivers who currently avoid the El Camino Real & Selby Lane intersection due to excessive delays. Approximately 90 vehicles are projected to divert from Oakwood Boulevard and Oakwood Drive onto Selby Lane during the a.m. peak hour as a result of Alternative 2.

Option 1

- Extensive queues projected for northbound left-turn at El Camino Real & Selby Lane
 - May be mitigated through signal coordination along El Camino Real and extended turn pocket

Option 2

- Lane geometry adjustment would require redesign of eastbound Selby Lane approach
- Extensive queues projected for northbound left-turn at El Camino Real & Selby Lane
 - May be mitigated through signal coordination along El Camino Real and extended turn pocket

Appendix A

Level of Service Analysis Methodology

LEVEL OF SERVICE

The description and procedures for calculating capacity and level of service are found in Transportation Research Board, Highway Capacity Manual 2000. Highway Capacity Manual 2000 represents the latest research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with level-of-service A representing the best operating conditions and level-of-service F the worst. Each level of service represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish service levels.

A general description of service levels for various types of facilities is shown in Table A-1

Table A-1: Level of Service Description

	Uninterrupted Flow	Interrupted Flow
Facility Type	Freeways Multi-lane Highways Two-lane Highways Urban Streets	Signalized Intersections Unsignalized Intersections Two-way Stop Control All-way Stop Control
LOS		
A	Free-flow	Very low delay.
B	Stable flow. Presence of other users noticeable.	Low delay.
C	Stable flow. Comfort and convenience starts to decline.	Acceptable delay.
D	High density stable flow.	Tolerable delay.
E	Unstable flow.	Limit of acceptable delay.
F	Forced or breakdown flow.	Unacceptable delay

Source: Highway Capacity Manual 2000

Urban Streets

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas.

Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials.

Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals.

Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control. As a result, these factors also affect quality of service.

The street environment includes the geometric characteristics of the facility, the character of roadside activity and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway density, spacing between signalized intersections, existence of parking, level of pedestrian activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic control (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds, however, such controls are needed to establish right-of-way.

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service. The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

Level-of-service A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

Level-of-service B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

Level-of-service C describes stable operations, however, ability to maneuver and change lanes in midblock location may be more restricted than at level-of-service B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

Level-of-service D borders on a range in which in which small increases in flow may cause substantial increases in delay and decreases in travel speed. Level-of-service D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors.

Level-of-service E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Level-of-service F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.

The methodology to determine level of service stratifies urban streets into four classifications. The classifications are complex, and are related to functional and design categories. Table A-II describes the functional and design categories, while Table A-III relates these to the urban street classification.

Once classified, the urban street is divided into segments for analysis. An urban street segment is a one-way section of street encompassing a series of blocks or links terminating at a signalized intersection. Adjacent segments of urban streets may be combined to form larger street sections, provided that the segments have similar demand flows and characteristics.

Levels of service are related to the average travel speed of vehicles along the urban street segment or section.

Travel times for existing conditions are obtained by field measurements. The maximum-car technique is used. The vehicle is driven at the posted speed limit unless impeded by actual traffic conditions. In the maximum-car technique, a safe level of vehicular operation is maintained by observing proper following distances and by changing speeds at reasonable rates of acceleration and deceleration. The maximum-car technique provides the best base for measuring traffic performance.

An observer records the travel time and locations and duration of delay. The beginning and ending points are the centers of intersections. Delays include times waiting in queues at signalized intersections. The travel speed is determined by dividing the length of the segment by the travel time. Once the travel speed on the arterial is determined, the level of service is found by comparing the speed to the criteria in Table A-IV. Level-of-service criteria vary for the different classifications of urban street, reflecting differences in driver expectations.

Table A-II: Functional and Design Categories for Urban Streets

Criterion	Functional Category			
	Principal Arterial		Minor Arterial	
Mobility function	Very important		Important	
Access function	Very minor		Substantial	
Points connected	Freeways, important activity centers, major traffic generators		Principal arterials	
Predominant trips served	Relatively long trips between major points and through trips entering, leaving, and passing through city		Trips of moderate length within relatively small geographical areas	
Criterion	Design Category			
	High-Speed	Suburban	Intermediate	Urban
Driveway access density	Very low density	Low density	Moderate density	High density
Arterial type	Multilane divided; undivided or two-lane with shoulders	Multilane divided: undivided or two-lane with shoulders	Multilane divided or undivided; one way, two lane	Undivided one way; two way, two or more lanes
Parking	No	No	Some	Usually
Separate left-turn lanes	Yes	Yes	Usually	Some
Signals per mile	0.5 to 2	1 to 5	4 to 10	6 to 12
Speed limits	45 to 55 mph	40 to 45 mph	30 to 40 mph	25 to 35 mph
Pedestrian activity	Very little	Little	Some	Usually
Roadside development	Low density	Low to medium density	Medium to moderate density	High density

Source: Highway Capacity Manual 2000

Table A-III: Urban Street Class based on Function and Design Categories

Design Category	Functional Category	
	Principal Arterial	Minor Arterial
High-Speed	I	Not applicable
Suburban	II	II
Intermediate	II	III or IV
Urban	III or IV	IV

Source: Highway Capacity Manual 2000

Table A-IV: Urban Street Levels of Service by Class

Urban Street Class	I	II	III	IV
Range of Free Flow Speeds (mph)	45 to 55	35 to 45	30 to 35	25 to 35
Typical Free Flow Speed (mph)	50	40	33	30
Level of Service	Average Travel Speed (mph)			
A	>42	>35	>30	>25
B	>34	>28	>24	>19
C	>27	>22	>18	>13
D	>21	>17	>14	>9
E	>16	>13	>10	>7
F	≤16	≤13	≤10	≤7

Source: Highway Capacity Manual 2000

Interrupted Flow

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs. These all operate quite differently and have differing impacts on overall flow.

Signalized Intersections

The capacity of a highway is related primarily to the geometric characteristics of the facility, as well as to the composition of the traffic stream on the facility. Geometrics are a fixed, or non-varying, characteristic of a facility.

At the signalized intersection, an additional element is introduced into the concept of capacity: time allocation. A traffic signal essentially allocates time among conflicting traffic movements seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are stated in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the ratio of green time to cycle length and the volume to capacity ratio for the lane group.

For each intersection analyzed the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A level of service designation is given to the control delay to better describe the level of operation. A description of levels of service for signalized intersections can be found in Table A-V

Table A-V: Description of Level of Service for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: Highway Capacity Manual 2000

The use of control delay, which may also be referred to as signal delay, was introduced in the 1997 update to the *Highway Capacity Manual*, and represents a departure from previous updates. In the third edition, published in 1985 and the 1994 update to the third edition, delay only included stopped delay. Thus, the level of service criteria listed in Table A-V differs from earlier criteria.

Unsignalized Intersections

The current procedures on unsignalized intersections were first introduced in the 1997 update to the *Highway Capacity Manual* and represent a revision of the methodology published in the 1994 update to the 1985 *Highway Capacity Manual*. The revised procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, *i. e.*, in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.

Two-Way Stop Controlled Intersections

Two-way stop controlled intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At two-way stop-controlled intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A level of service designation is given to the expected control delay for each minor movement. Level of service is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required

to slow or stop at the intersection. A description of levels of service for two-way stop-controlled intersections is found in Table A-VI.

Table A-VI: Description of Level of Service for Two-Way Stop Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: Highway Capacity Manual 2000

Appendix B

Data Collection Efforts

- Peak Period Intersection Turning Movement Counts
- 24-hour, 7-day Average Daily Traffic
- Origin-Destination Survey

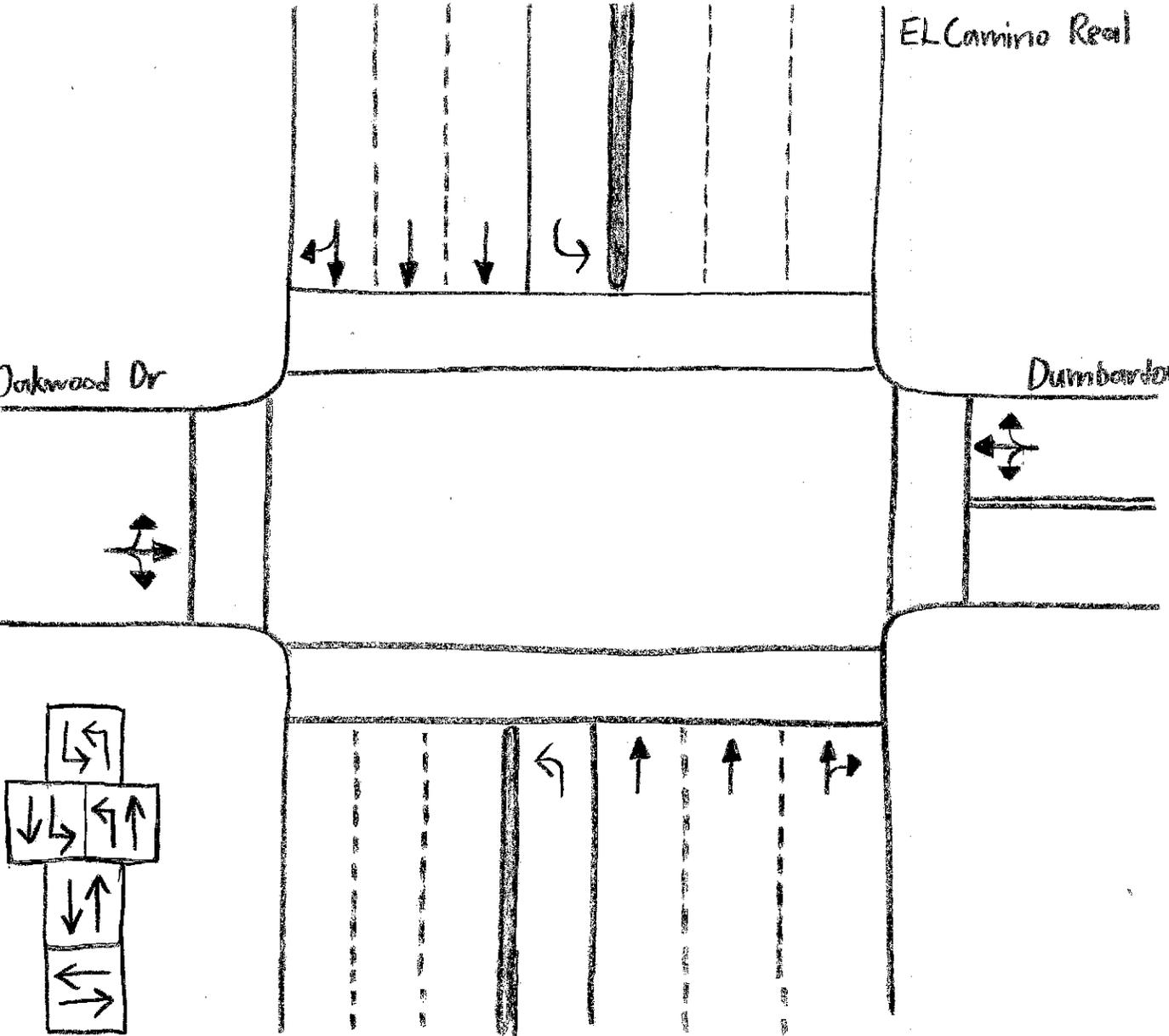
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16-7360-001

EL Camino Real

Oakwood Dr

Dumbarton Ave



ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7360-001 El Camino Real & Oakwood Drive

Date : 5/10/2016

City of Atherton
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	9	257	4	10	280	29	5	13	0	47	10	119	4	1	134	11	6	13	0	30	491	11
7:15	4	396	3	6	409	30	5	21	0	56	7	171	6	4	188	28	2	28	0	58	711	10
7:30	10	553	3	7	573	56	6	15	0	77	10	219	7	6	242	14	4	30	0	48	940	13
7:45	7	542	6	8	563	65	8	11	0	84	14	272	11	21	318	24	5	23	0	52	1017	29
Total	30	1748	16	31	1825	180	24	60	0	264	41	781	28	32	882	77	17	94	0	188	3159	63
8:00	8	475	4	9	496	58	13	13	0	84	15	325	6	27	373	14	18	37	0	69	1022	36
8:15	17	528	3	15	563	46	3	8	0	57	12	274	15	4	305	29	15	30	0	74	999	19
8:30	10	490	5	11	516	25	1	12	0	38	10	233	4	4	251	32	18	26	0	76	881	15
8:45	10	470	3	16	499	30	5	8	0	43	17	261	7	9	294	27	11	20	0	58	894	25
Total	45	1963	15	51	2074	159	22	41	0	222	54	1093	32	44	1223	102	62	113	0	277	3796	95
13:15	11	293	7	13	324	16	3	9	0	28	8	336	6	6	356	20	2	16	0	38	746	19
13:30	11	283	5	19	318	15	1	11	0	27	10	297	8	6	321	9	2	13	0	24	690	25
13:45	9	279	6	13	307	15	0	8	0	23	12	307	1	10	330	10	2	9	0	21	681	23
14:00	15	295	3	15	328	20	5	10	0	35	9	318	9	7	343	4	3	7	0	14	720	22
Total	46	1150	21	60	1277	66	9	38	0	113	39	1258	24	29	1350	43	9	45	0	97	2837	89
14:15	11	293	11	14	329	28	7	6	0	41	18	340	7	8	373	14	3	6	0	23	766	22
14:30	13	320	9	15	357	29	3	7	0	39	11	337	13	3	364	17	14	13	0	44	804	18
14:45	18	323	7	9	357	18	6	15	0	39	13	310	8	10	341	22	18	8	0	48	785	19
15:00	11	292	5	14	322	19	3	11	0	33	24	389	10	11	434	16	3	14	0	33	822	25
Total	53	1228	32	52	1365	94	19	39	0	152	66	1376	38	32	1512	69	38	41	0	148	3177	84
16:00	28	326	4	16	374	27	3	12	0	42	20	422	10	6	458	12	8	11	0	31	905	22
16:15	23	304	9	13	349	23	8	11	0	42	25	485	9	15	534	11	11	15	0	37	962	28
16:30	25	326	7	18	376	18	2	12	0	32	32	468	7	9	516	13	9	15	0	37	961	27
16:45	27	297	4	21	349	34	4	12	0	50	27	477	10	9	523	12	5	12	0	29	951	30
Total	103	1253	24	68	1448	102	17	47	0	166	104	1852	36	39	2031	48	33	53	0	134	3779	107
17:00	22	335	5	14	376	24	8	17	0	49	32	528	16	7	583	12	8	18	0	38	1046	21
17:15	23	345	2	16	386	22	5	15	0	42	31	511	13	7	562	14	9	21	0	44	1034	23
17:30	21	379	6	14	420	19	8	5	0	32	28	488	13	7	536	13	6	14	0	33	1021	21
17:45	21	359	5	22	407	27	2	17	0	46	33	477	12	7	529	12	5	11	0	28	1010	29
Total	87	1418	18	66	1589	92	23	54	0	169	124	2004	54	28	2210	51	28	64	0	143	4111	94
Grand Total	364	8760	126	328	9578	693	114	279	0	1086	428	8364	212	204	9208	390	187	410	0	987	20859	532
Apprch %	3.8%	91.5%	1.3%	3.4%		63.8%	10.5%	25.7%	0.0%		4.6%	90.8%	2.3%	2.2%		39.5%	18.9%	41.5%	0.0%			
Total %	1.7%	42.0%	0.6%	1.6%	45.9%	3.3%	0.5%	1.3%	0.0%	5.2%	2.1%	40.1%	1.0%	1.0%	44.1%	1.9%	0.9%	2.0%	0.0%	4.7%	100.0%	

START TIME	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	10	553	3	7	573	56	6	15	0	77	10	219	7	6	242	14	4	30	0	48	940
7:45	7	542	6	8	563	65	8	11	0	84	14	272	11	21	318	24	5	23	0	52	1017
8:00	8	475	4	9	496	58	13	13	0	84	15	325	6	27	373	14	18	37	0	69	1022
8:15	17	528	3	15	563	46	3	8	0	57	12	274	15	4	305	29	15	30	0	74	999
Total Volume	42	2098	16	39	2195	225	30	47	0	302	51	1090	39	58	1238	81	42	120	0	243	3978
% App Total	1.9%	95.6%	0.7%	1.8%		74.5%	9.9%	15.6%	0.0%		4.1%	88.0%	3.2%	4.7%		33.3%	17.3%	49.4%	0.0%		
PHF	.618	.948	.667	.650	.958	.865	.577	.783	.000	.899	.850	.838	.650	.537	.830	.698	.583	.811	.000	.821	.973

START TIME	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	11	293	11	14	329	28	7	6	0	41	18	340	7	8	373	14	3	6	0	23	766
14:30	13	320	9	15	357	29	3	7	0	39	11	337	13	3	364	17	14	13	0	44	804
14:45	18	323	7	9	357	18	6	15	0	39	13	310	8	10	341	22	18	8	0	48	785
15:00	11	292	5	14	322	19	3	11	0	33	24	389	10	11	434	16	3	14	0	33	822
Total Volume	53	1228	32	52	1365	94	19	39	0	152	66	1376	38	32	1512	69	38	41	0	148	3177
% App Total	3.9%	90.0%	2.3%	3.8%		61.8%	12.5%	25.7%	0.0%		4.4%	91.0%	2.5%	2.1%		46.6%	25.7%	27.7%	0.0%		
PHF	.736	.950	.727	.867	.956	.810	.679	.650	.000	.927	.688	.884	.731	.727	.871	.784	.528	.732	.000	.771	.966

START TIME	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	22	335	5	14	376	24	8	17	0	49	32	528	16	7	583	12	8	18	0	38	1046
17:15	23	345	2	16	386	22	5	15	0	42	31	511	13	7	562	14	9	21	0	44	1034
17:30	21	379	6	14	420	19	8	5	0	32	28	488	13	7	536	13	6	14	0	33	1021
17:45	21	359	5	22	407	27	2	17	0	46	33	477	12	7	529	12	5	11	0	28	1010
Total Volume	87	1418	18	66	1589	92	23	54	0	169	124	2004	54	28	2210	51	28	64	0	143	4111
% App Total	5.5%	89.2%	1.1%	4.2%		54.4%	13.6%	32.0%	0.0%		5.6%	90.7%	2.4%	1.3%		35.7%	19.6%	44.8%	0.0%		
PHF	.946	.935	.750	.750	.946	.852	.719	.794	.000	.862	.939	.949	.844	1.000	.948	.911	.778	.762	.000	.813	.983

ALL TRAFFIC DATA

(916) 771-8700

orders@attraffic.com

City of Atherton
All Vehicles & Utoms On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

File Name : 16-7360-001 El Camino Real & Oakwood Drive
Date : 5/10/2016

Bank 1 Count = Bikes & Peds

START TIME	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	2	0	1	2	0	2	0	2	2	0	5	0	0	5	1	0	0	0	1	10	3
7:15	0	1	0	1	1	0	0	0	5	0	0	2	0	0	2	1	0	0	1	1	4	7
7:30	0	0	0	7	0	1	2	0	4	3	0	0	0	0	0	1	1	0	1	2	5	12
7:45	0	1	0	5	1	0	4	1	3	5	1	0	0	0	1	1	0	0	2	1	8	10
Total	0	4	0	14	4	1	8	1	14	10	1	7	0	0	8	4	1	0	4	5	27	32
8:00	0	5	0	9	5	0	0	0	4	0	0	2	0	0	2	0	3	0	1	3	10	14
8:15	0	2	1	6	3	1	0	0	1	1	0	1	0	0	1	0	2	0	2	2	7	9
8:30	0	1	0	3	1	0	0	0	2	0	0	0	0	0	0	1	1	0	2	2	3	7
8:45	0	0	0	8	0	1	1	0	3	2	0	1	0	0	1	0	0	0	3	0	3	14
Total	0	8	1	26	9	2	1	0	10	3	0	4	0	0	4	1	6	0	8	7	23	44
13:15	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3	0
13:30	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	0
13:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	6	0
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
14:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0
15:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0
Total	0	1	1	0	2	0	0	0	0	0	1	0	0	0	1	2	0	1	0	3	6	0
16:00	0	3	0	7	3	0	0	0	10	0	2	1	0	1	3	0	0	0	5	0	6	23
16:15	0	2	0	5	2	0	0	0	3	0	0	0	0	2	0	0	0	2	1	2	4	11
16:30	0	1	0	0	1	0	0	0	3	0	0	0	1	0	1	0	0	0	1	0	2	4
16:45	0	2	0	10	2	0	2	0	1	2	0	0	1	0	1	0	0	0	2	0	5	13
Total	0	8	0	22	8	0	2	0	17	2	2	1	2	3	5	0	0	2	9	2	17	51
17:00	0	2	0	4	2	0	1	0	1	1	0	4	0	0	4	0	1	0	1	1	8	6
17:15	1	2	0	8	3	0	0	0	5	0	0	0	1	0	1	0	0	0	0	0	4	13
17:30	0	2	0	5	2	0	1	0	7	1	0	2	0	0	2	0	2	0	0	2	7	12
17:45	0	2	0	4	2	0	0	0	3	0	0	3	0	0	3	0	1	0	2	1	6	9
Total	1	8	0	21	9	0	2	0	16	2	0	9	1	0	10	0	4	0	3	4	25	40
Grand Total	1	31	2	83	34	3	13	1	57	17	6	23	3	32	7	11	3	24	21	104	167	
Apprch %	2.9%	91.2%	5.9%			17.6%	76.5%	5.9%			18.8%	71.9%	9.4%		33.3%	52.4%	14.3%					
Total %	1.0%	29.8%	1.9%		32.7%	2.9%	12.5%	1.0%		16.3%	5.8%	22.1%	2.9%		30.8%	6.7%	10.6%	2.9%		20.2%	100.0%	

AM PEAK HOUR	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	0	0	7	0	1	2	0	4	3	0	0	0	0	0	1	1	0	1	2	5
7:45	0	1	0	5	1	0	4	1	3	5	1	0	0	0	1	1	0	0	2	1	8
8:00	0	5	0	9	5	0	0	0	4	0	0	2	0	0	2	0	3	0	1	3	10
8:15	0	2	1	6	3	1	0	0	1	1	0	1	0	0	1	0	2	0	2	7	
Total Volume	0	8	1	27	9	2	6	1	12	9	1	3	0	4	2	6	0	6	8	30	
% App Total	0.0%	88.9%	11.1%			22.2%	66.7%	11.1%			25.0%	75.0%	0.0%		25.0%	75.0%	0.0%				
PHF	.000	.400	.250		.450	.500	.375	.250		.450	.250	.375	.000		.500	.500	.000		.667	.750	

NOON PEAK HOUR	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
14:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
15:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total Volume	0	1	1	0	2	0	0	0	0	0	1	0	0	0	1	2	0	1	0	3	6
% App Total	0.0%	50.0%	50.0%			0.0%	0.0%	0.0%			100.0%	0.0%	0.0%		66.7%	0.0%	33.3%				
PHF	.000	.250	.250		.500	.000	.000	.000		.000	.250	.000	.000		.250	.500	.000	.250		.750	.750

PM PEAK HOUR	El Camino Real Southbound					Oakwood Drive Westbound					El Camino Real Northbound					Oakwood Drive Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 17:00 to 18:00																					
Peak Hour For Entire Intersection Begins at 17:00																					
17:00	0	2	0	4	2	0	1	0	1	1	0	4	0	0	4	0	1	0	1	1	8
17:15	1	2	0	8	3	0	0	0	5	0	0	0	1	0	1	0	0	0	0	0	4
17:30	0	2	0	5	2	0	1	0	7	1	0	2	0	0	2	0	2	0	0	2	7
17:45	0	2	0	4	2	0	0	0	3	0	0	3	0	0	3	0	1	0	2	1	6
Total Volume	1	8	0	21	9	0	2	0	16	2	0	9	1	0	10	0	4	0	3	4	25
% App Total	11.1%	88.9%	0.0%			0.0%	100.0%	0.0%			0.0%	90.0%	10.0%		6.7%	100.0%	0.0%				
PHF	.250	1.000	.000		.750	.000	.500	.000		.500	.000	.563	.250		.625	.000	.500	.000		.500	.781

Southbound Peds = North Leg (traveling EB or WB)

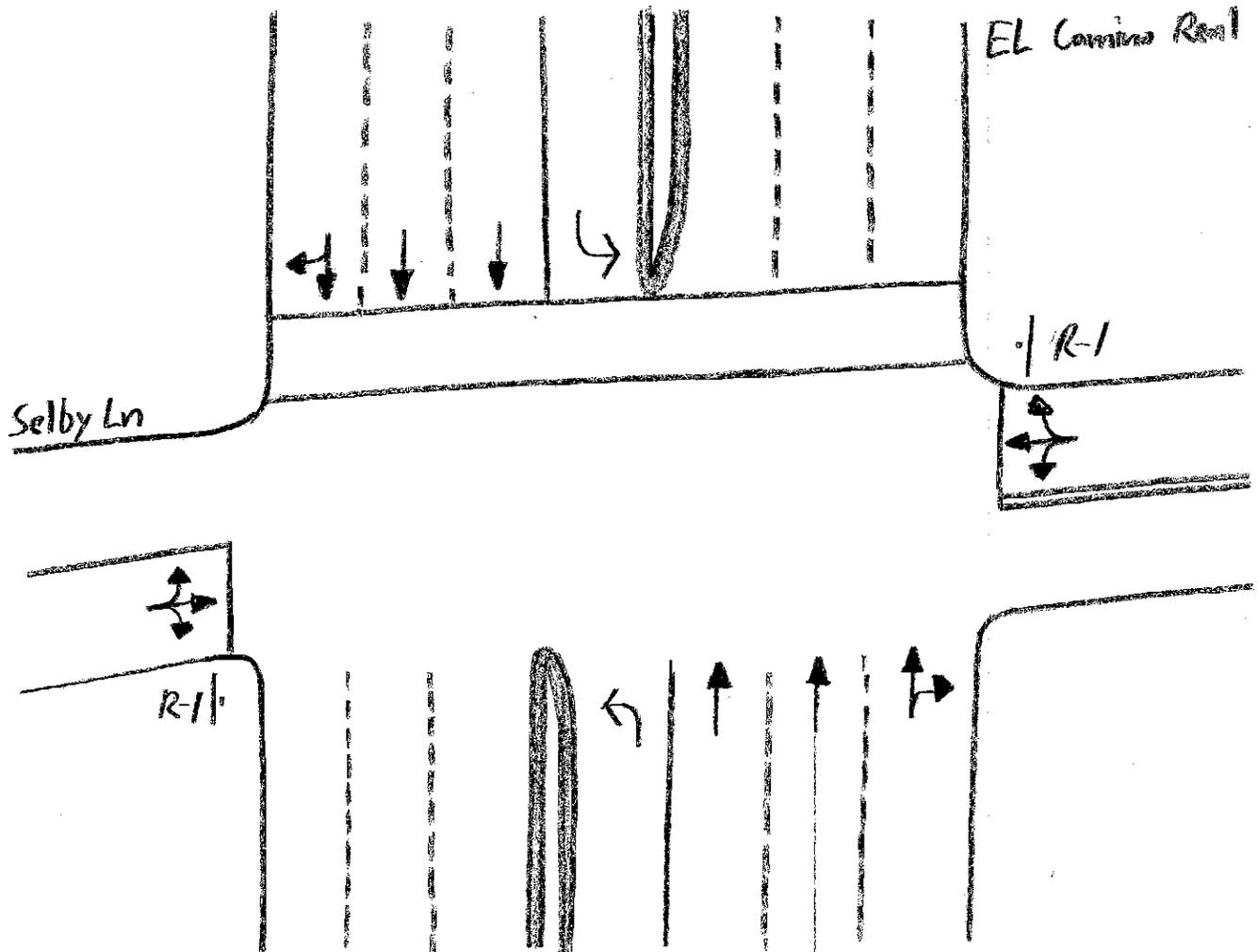
Westbound Peds = East Leg (traveling NB or SB)

Northbound Peds = South Leg (traveling EB or WB)

Eastbound Peds = West Leg (traveling NB or SB)

NT ↑

16-7360-002



ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7360-002 El Camino Real & Selby Lane

Date : 5/10/2016

City of Atherton
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	6	278	14	4	302	0	1	4	0	5	28	138	0	4	170	1	0	24	0	25	502	8
7:15	4	424	14	4	446	0	0	6	0	6	57	166	0	3	226	2	0	46	0	48	726	7
7:30	9	592	27	15	643	0	0	6	0	6	52	212	1	7	272	4	0	61	0	65	986	22
7:45	4	584	60	7	655	0	3	8	0	11	53	308	0	7	368	0	0	48	0	48	1082	14
Total	23	1878	115	30	2046	0	4	24	0	28	190	824	1	21	1036	7	0	179	0	186	3296	51
8:00	4	501	73	7	585	0	0	12	0	12	68	359	1	4	432	2	0	70	0	72	1101	11
8:15	7	559	41	5	612	0	0	4	0	4	49	293	1	1	344	3	0	72	0	75	1035	6
8:30	11	496	28	13	548	0	0	8	0	8	36	234	1	3	274	2	1	79	0	82	912	16
8:45	15	495	14	7	531	0	0	6	0	6	36	296	3	8	343	5	0	58	0	63	943	15
Total	37	2051	156	32	2276	0	0	30	0	30	189	1182	6	16	1393	12	1	279	0	292	3991	48
13:15	4	316	13	6	339	0	1	10	0	11	34	323	2	3	362	7	2	20	0	29	741	9
13:30	6	284	10	5	305	3	0	8	0	11	30	307	3	4	344	7	1	33	0	41	701	9
13:45	7	291	13	5	316	0	0	9	0	9	30	316	2	7	355	9	1	22	0	32	712	12
14:00	5	294	18	5	322	0	1	5	0	6	40	343	3	7	393	4	0	30	0	34	755	12
Total	22	1185	54	21	1282	3	2	32	0	37	134	1289	10	21	1454	27	4	105	0	136	2909	42
14:15	5	304	21	6	336	0	0	4	0	4	54	367	0	3	424	2	0	25	0	27	791	9
14:30	9	323	21	5	358	2	0	4	0	6	46	351	4	2	403	3	0	51	0	54	821	7
14:45	3	323	11	10	347	0	1	5	0	6	41	315	0	5	361	4	0	51	0	55	769	15
15:00	0	302	16	8	326	0	0	2	0	2	46	471	0	2	519	4	0	46	0	50	897	10
Total	17	1252	69	29	1367	2	1	15	0	18	187	1504	4	12	1707	13	0	173	0	186	3278	41
16:00	6	340	21	7	374	1	0	7	0	8	54	460	4	3	521	5	0	52	0	57	960	10
16:15	7	323	11	3	344	0	0	8	0	8	65	516	6	2	589	3	0	48	0	51	992	5
16:30	8	339	14	1	362	0	0	7	0	7	60	533	2	5	600	3	0	35	0	38	1007	6
16:45	5	324	18	5	352	1	0	7	0	7	66	587	3	4	660	3	0	36	0	39	1058	9
Total	26	1326	64	16	1432	1	0	29	0	30	245	2096	15	14	2370	14	0	171	0	185	4017	30
17:00	9	328	29	10	376	0	0	7	0	7	67	554	7	5	633	1	0	32	0	33	1049	15
17:15	9	347	24	11	391	0	0	6	0	6	62	550	4	3	619	0	0	41	0	41	1057	14
17:30	6	392	21	8	427	1	0	6	0	7	78	559	2	4	643	1	0	50	0	51	1128	12
17:45	7	351	17	10	385	0	1	5	0	6	51	504	0	4	559	4	0	32	0	36	986	14
Total	31	1418	91	39	1579	1	1	24	0	26	258	2167	13	16	2454	6	0	155	0	161	4220	55
Grand Total	156	9110	549	167	9982	7	8	154	0	169	1203	9062	49	100	10414	79	5	1062	0	1146	21711	267
Approch %	1.6%	91.3%	5.5%	1.7%	46.0%	4.1%	4.7%	91.1%	0.0%	0.8%	11.6%	87.0%	0.5%	1.0%	48.0%	6.9%	0.4%	92.7%	0.0%	5.5%	5.3%	100.0%
Total %	0.7%	42.0%	2.5%	0.8%	46.0%	0.0%	0.0%	0.7%	0.0%	0.8%	5.5%	41.7%	0.2%	0.5%	48.0%	0.4%	0.0%	4.9%	0.0%	5.5%	5.3%	100.0%

START TIME	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	9	592	27	15	643	0	0	6	0	6	52	212	1	7	272	4	0	61	0	65	986
7:45	4	584	60	7	655	0	3	8	0	11	53	308	0	7	368	0	0	48	0	48	1082
8:00	4	501	73	7	585	0	0	12	0	12	68	359	1	4	432	2	0	70	0	72	1101
8:15	7	559	41	5	612	0	0	4	0	4	49	293	1	1	344	3	0	72	0	75	1035
Total Volume	24	2236	201	34	2495	0	3	30	0	33	222	1172	3	19	1416	9	0	251	0	260	4204
% App Total	1.0%	89.6%	8.1%	1.4%	.688	0.0%	9.1%	90.9%	0.0%	.688	15.7%	82.8%	0.2%	1.3%	.819	3.5%	0.0%	96.5%	0.0%	.867	.955
PHF	.667	.944	.688	.567	.952	.000	.250	.825	.000	.688	.816	.816	.750	.679	.819	.563	.000	.872	.000	.867	.955

START TIME	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	5	304	21	6	336	0	0	4	0	4	54	367	0	3	424	2	0	25	0	27	791
14:30	9	323	21	5	358	2	0	4	0	6	46	351	4	2	403	3	0	51	0	54	821
14:45	3	323	11	10	347	0	1	5	0	6	41	315	0	5	361	4	0	51	0	55	769
15:00	0	302	16	8	326	0	0	2	0	2	46	471	0	2	519	4	0	46	0	50	897
Total Volume	17	1252	69	29	1367	2	1	15	0	18	187	1504	4	12	1707	13	0	173	0	186	3278
% App Total	1.2%	91.6%	5.0%	2.1%	.955	11.1%	5.6%	83.3%	0.0%	.750	11.0%	88.1%	0.2%	0.7%	.822	7.0%	0.0%	93.0%	0.0%	.845	.914
PHF	.472	.969	.821	.725	.955	.250	.250	.750	.000	.750	.866	.798	.250	.600	.822	.813	.000	.848	.000	.845	.914

START TIME	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	5	324	18	5	352	0	0	7	0	7	66	587	3	4	660	3	0	36	0	39	1058
17:00	9	328	29	10	376	0	0	7	0	7	67	554	7	5	633	1	0	32	0	33	1049
17:15	9	347	24	11	391	0	0	6	0	6	62	550	4	3	619	0	0	41	0	41	1057
17:30	6	392	21	8	427	1	0	6	0	7	78	559	2	4	643	1	0	50	0	51	1128
Total Volume	29	1391	92	34	1546	1	0	26	0	27	273	2250	16	16	2555	5	0	159	0	164	4292
% App Total	1.9%	90.0%	6.0%	2.2%	.905	3.7%	0.0%	96.3%	0.0%	.964	10.7%	88.1%	0.6%	0.6%	.800	3.0%	0.0%	97.0%	0.0%	.804	.951
PHF	.806	.887	.793	.773	.905	.250	.000	.929	.000	.964	.875	.958	.571	.800	.968	.417	.000	.795	.000	.804	.951

ALL TRAFFIC DATA

(916) 771-8700

orders@attraffic.com

City of Atherton
All Vehicles & Utoms On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

File Name : 16-7360-002 El Camino Real & Selby Lane
Date : 5/10/2016

Bank 1 Count = Bikes & Peds

START TIME	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total	Peds Total						
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL								
7:00	0	2	0	0	2	0	1	0	2	1	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	8	2	
7:15	0	2	0	0	2	0	1	1	1	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5	1	
7:30	0	0	0	1	0	0	4	1	2	4	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	3	
7:45	0	1	0	1	1	0	1	1	1	2	1	0	0	0	1	0	1	2	0	3	0	1	2	0	3	7	2	
Total	0	5	0	2	5	0	7	2	6	9	3	5	0	0	8	0	1	2	0	3	0	0	2	0	3	25	8	
8:00	0	4	1	1	5	0	0	0	2	0	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	6	4	
8:15	0	3	0	1	3	0	0	0	2	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	5	3	
8:30	0	1	0	0	1	0	0	0	3	0	0	1	0	0	1	0	0	3	0	3	0	0	1	0	1	5	3	
8:45	0	3	1	1	3	0	0	0	3	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	5	4	
Total	0	11	1	3	12	0	0	0	10	0	0	4	0	0	4	0	0	5	1	5	0	0	5	1	5	21	14	
13:15	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	
13:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0	0	1	0	0	1	3	0	
13:45	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	1	0	0	1	0	1	1	0	2	1	3	0	0	4	0	1	0	0	1	0	1	0	0	1	8	0	
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	
14:30	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	
14:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
15:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	2	0	
Total	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	0	0	0	1	6	0	
16:00	0	2	1	2	3	0	0	0	5	0	0	3	0	0	3	0	0	0	1	0	0	0	0	1	0	6	8	
16:15	2	2	0	0	4	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	
16:30	1	0	0	0	1	0	0	0	2	0	0	2	0	0	2	0	1	1	0	2	0	1	1	0	2	5	2	
16:45	0	2	0	0	2	0	1	0	2	1	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	5	2	
Total	3	6	1	2	10	0	2	0	13	2	0	5	0	0	5	0	2	2	1	4	0	2	2	1	4	21	16	
17:00	0	2	0	1	2	0	1	0	1	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	7	2	
17:15	0	0	0	0	0	0	1	1	4	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5	4	
17:30	0	3	0	2	3	0	0	0	7	0	2	1	0	0	3	0	0	0	1	0	0	0	0	1	0	6	10	
17:45	0	2	1	0	3	0	0	0	2	0	0	2	0	0	2	0	0	0	0	1	0	0	0	1	0	5	3	
Total	0	7	1	3	8	0	2	1	14	3	2	10	0	0	12	0	0	0	2	0	0	0	0	2	0	23	19	
Grand Total	3	33	3	10	39	0	12	4	43	16	7	28	0	0	35	1	4	9	4	14	0	0	4	0	14	104	57	
Apprch %	7.7%	84.6%	31.7%	2.9%	37.5%	0.0%	75.0%	11.5%	25.0%	15.4%	20.0%	80.0%	0.0%	0.0%	33.7%	7.1%	28.6%	3.6%	64.3%	13.5%	1.0%	3.6%	8.7%	0.0%	100.0%			
Total %	2.9%	31.7%	2.9%	3.8%	15.4%	0.0%	11.5%	3.8%	15.4%	6.7%	26.9%	0.0%	0.0%	0.0%	33.7%	1.0%	3.6%	8.7%	13.5%	100.0%								

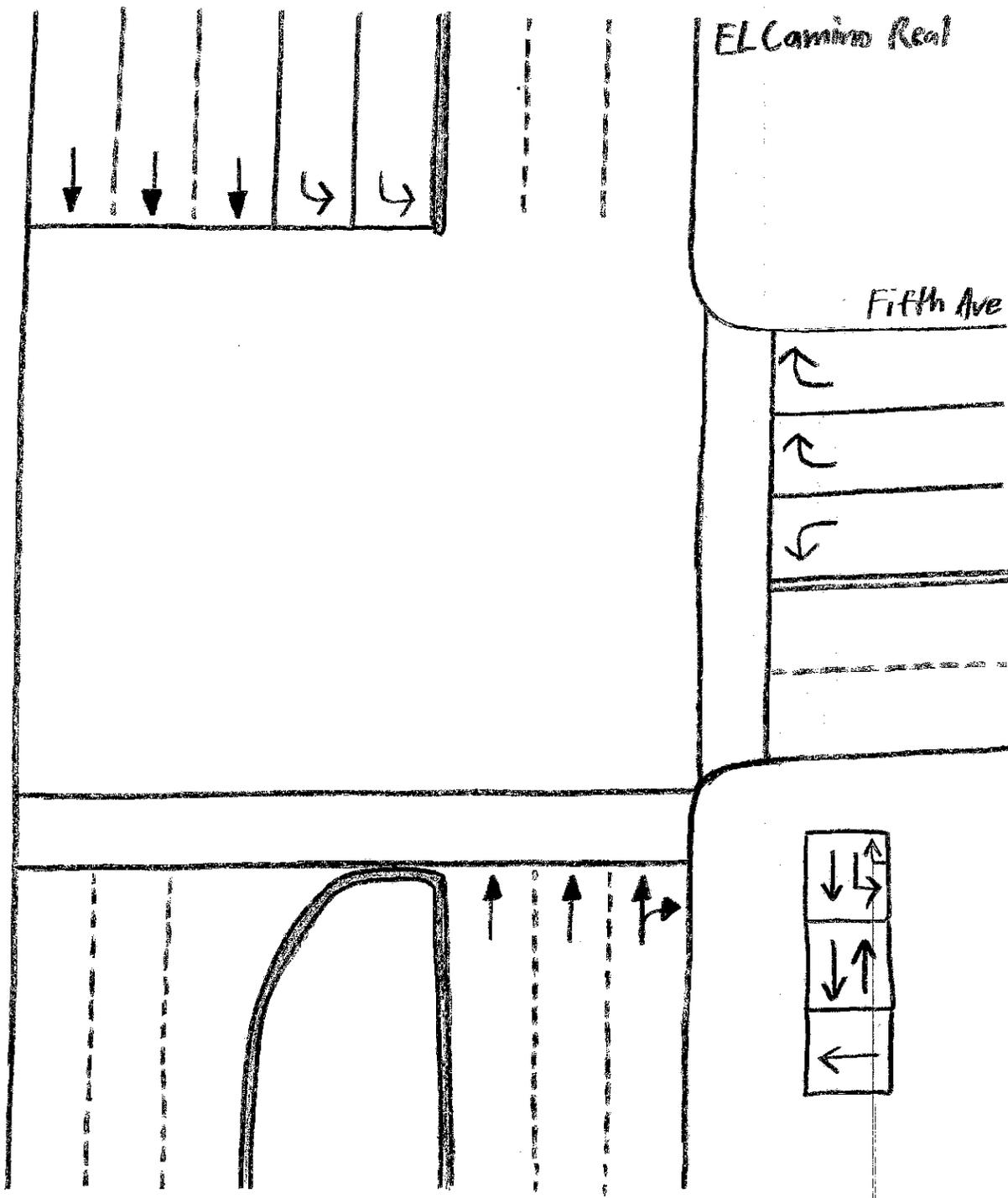
AM PEAK HOUR	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour For Entire Intersection Begins at 07:30																						
7:30	0	0	0	1	0	0	4	0	2	4	1	0	0	0	1	0	0	0	0	0	0	0
7:45	0	1	0	1	1	0	1	1	1	2	1	0	0	0	1	0	1	2	0	3	0	1
8:00	0	4	1	1	5	0	0	0	2	0	0	1	0	0	1	0	0	0	1	0	0	0
8:15	0	3	0	1	3	0	0	0	2	0	0	1	0	0	1	0	0	1	0	1	0	0
Total Volume	0	8	1	4	9	0	5	1	7	6	2	2	0	0	4	0	1	3	1	4	0	23
% App Total	0.0%	88.9%	11.1%	0.0%	45.0%	0.0%	83.3%	16.7%	25.0%	37.5%	50.0%	50.0%	0.0%	0.0%	100.0%	0.0%	25.0%	75.0%	0.0%	33.3%	0.0%	82.1%
PHF	.000	.500	.250	.450	.450	.000	.315	.250	.375	.375	.500	.500	.000	.000	1.000	.000	.250	.750	.375	.375	.000	.821

NOON PEAK HOUR	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
14:30	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
14:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
Total Volume	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	6
% App Total	0.0%	100.0%	0.0%	0.0%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	16.7%	0.0%	100.0%
PHF	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.250	.000	.000	.000	.250	.000	.750

PM PEAK HOUR	El Camino Real Southbound					Selby Lane Westbound					El Camino Real Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour For Entire Intersection Begins at 16:45																						
16:45	0	2	0	0	2	0	1	0	2	1	0	0	0	0	0	0	1	1	0	2	0	5
17:00	0	2	0	1	2	0	1	0	1	1	0	4	0	0	4	0	0	0	0	0	0	7
17:15	0	0	0	0	0	0	1	1	4	2	0	3	0	0	3	0	0	0	0	0	0	5
17:30	0	3	0	2	3	0	0	0	7	0	2	1	0	0	3	0	0	0	1	0	0	6
Total Volume	0	7	0	3	7	0	3	1	14	4	2	8	0	0	10	0	1	1	1	2	0	23
% App Total	0.0%	100.0%	0.0%	0.0%	17.7%	0.0%	75.0%	25.0%	33.3%	50.0%	20.0%	80.0%	0.0%	0.0%	62.5%	0.0%	50.0%	50.0%	0.0%	16.7%	0.0%	100.0%
PHF	.000	.583	.000	.375	.583	.000	.750	.250	.500</													

N↑

16-7360-003



ALL TRAFFIC DATA

City of Atherton
All Vehicles & Utoms On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@attraffic.com

File Name : 16-7360-003 El Camino Real & Fifth Avenue
Date : 5/10/2016

Bank 1 Count = Bikes & Peds

START TIME	El Camino Real Southbound					Fifth Avenue Westbound					El Camino Real Northbound					Fifth Avenue Eastbound					Total	Peds Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
7:00	1	0	0	0	1	1	0	1	4	2	0	1	0	1	1	0	0	0	0	0	0	4	5
7:15	1	1	0	0	2	1	0	1	3	2	0	0	0	3	0	0	0	0	0	0	0	4	6
7:30	0	0	0	0	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	8
7:45	2	2	0	0	4	4	0	0	3	0	0	0	1	3	1	0	0	0	0	0	0	5	6
Total	4	3	0	0	7	2	0	2	13	4	0	1	1	12	2	0	0	0	0	0	13	25	
8:00	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0
8:15	0	4	0	0	4	0	0	0	3	0	0	2	1	2	3	0	0	0	0	0	0	7	5
8:30	3	1	0	0	4	1	0	0	3	1	0	1	0	0	1	0	0	0	0	0	0	6	3
8:45	5	1	0	0	6	0	0	0	4	0	0	0	0	2	4	0	0	0	0	0	0	6	6
Total	9	9	0	0	18	1	0	0	10	1	0	5	1	4	6	0	0	0	0	0	25	14	
13:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	0	
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	3	0	
16:00	2	0	0	0	2	1	0	0	8	1	0	2	0	1	2	0	0	0	0	0	0	5	9
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	0	1	6
16:45	1	1	0	0	2	2	1	0	2	1	0	2	2	2	4	0	0	0	0	0	0	7	4
Total	3	1	0	0	4	2	0	1	16	3	0	4	2	4	6	0	0	0	0	0	13	20	
17:00	1	0	0	0	1	1	0	1	6	2	0	1	0	0	1	0	0	0	0	0	0	4	6
17:15	0	0	0	0	0	1	0	0	6	1	0	3	0	2	3	0	0	0	0	0	0	4	8
17:30	0	0	0	0	0	0	0	0	3	0	0	1	2	3	3	0	0	0	0	0	0	3	6
17:45	0	1	0	0	1	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	2	3
Total	1	1	0	0	2	2	0	1	18	3	0	6	2	5	8	0	0	0	0	0	13	23	
Grand Total	17	15	0	0	32	7	0	4	57	11	0	19	8	25	27	0	0	0	0	0	70	82	
Apprch %	53.1%	46.9%	0.0%			63.6%	0.0%	36.4%			0.0%	70.4%	29.6%			0.0%	0.0%	0.0%					
Total %	24.3%	21.4%	0.0%		45.7%	10.0%	0.0%	5.7%		15.7%	0.0%	27.1%	11.4%		38.6%	0.0%	0.0%	0.0%		0.0%	100.0%		

AM PEAK HOUR	El Camino Real Southbound					Fifth Avenue Westbound					El Camino Real Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 07:30 to 08:30																						
Peak Hour For Entire Intersection Begins at 07:30																						
7:30	0	0	0	0	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0
7:45	2	2	0	0	4	0	0	0	3	0	0	0	1	3	1	0	0	0	0	0	0	5
8:00	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6
8:15	0	4	0	0	4	0	0	0	3	0	0	2	1	2	3	0	0	0	0	0	0	7
Total Volume	3	9	0	0	12	0	0	0	9	0	0	4	2	10	6	0	0	0	0	0	18	
% App Total	25.0%	75.0%	0.0%			0.0%	0.0%	0.0%			0.0%	66.7%	33.3%			0.0%	0.0%	0.0%				
PHF	.375	.563	.000		.750	.000	.000	.000		.000	.000	.500	.500		.500	.000	.000	.000		.000	.643	

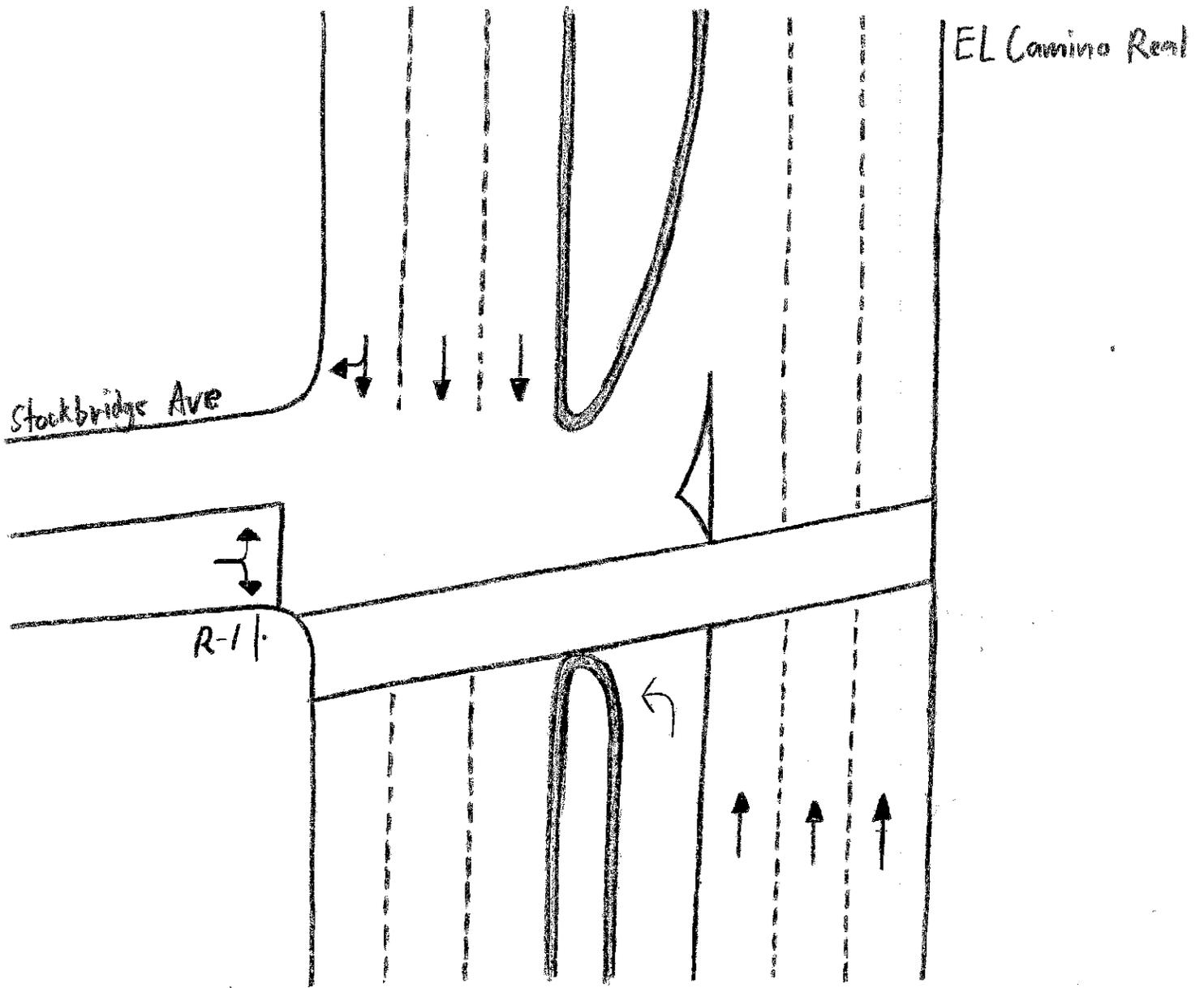
NOON PEAK HOUR	El Camino Real Southbound					Fifth Avenue Westbound					El Camino Real Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:15 to 15:15																						
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
14:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	3	
% App Total	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			0.0%	33.3%	66.7%			0.0%	0.0%	0.0%				
PHF	.000	.000	.000		.000	.000	.000	.000		.000	.000	.250	.500		.750	.000	.000	.000		.000	.750	

PM PEAK HOUR	El Camino Real Southbound					Fifth Avenue Westbound					El Camino Real Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 16:45 to 17:45																						
Peak Hour For Entire Intersection Begins at 16:45																						
16:45	1	1	0	0	2	1	0	0	2	1	0	2	2	2	4	0	0	0	0	0	0	7
17:00	1	0	0	0	1	1	0	1	6	2	0	1	0	0	1	0	0	0	0	0	0	4
17:15	0	0	0	0	0	1	0	0	6	1	0	3	0	2	3	0	0	0	0	0	0	4
17:30	0	0	0	0	0	0	0	0	3	0	0	1	2	3	3	0	0	0	0	0	0	3
Total Volume	2	1	0	0	3	3	0	1	17	4	0	7	4	7	11	0	0	0	0	0	18	
% App Total	66.7%	33.3%	0.0%			75.0%	0.0%	25.0%		5.0%	0.0%	63.6%	36.4%			0.0%	0.0%	0.0%				
PHF	.500	.250	.000		.375	.750	.000	.250		.500	.000	.583	.500		.688	.000	.000	.000		.000	.643	

Southbound Peds = North Leg (traveling EB or WB)
Westbound Peds = East Leg (traveling NB or SB)
Northbound Peds = South Leg (traveling EB or WB)
Eastbound Peds = West Leg (traveling NB or SB)

NT ↑

16-7360-004



ALL TRAFFIC DATA

(916) 771-8700

orders@atdtraffic.com

File Name : 16-7360-004 El Camino Real & Stockbridge Avenue

Date : 5/10/2016

City of Atherton
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

Unshifted Count = All Vehicles & Uturns

START TIME	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	300	15	0	315	0	0	0	0	0	13	89	0	2	104	1	0	13	0	14	433	2
7:15	0	448	15	0	464	0	0	0	0	0	8	111	0	6	125	2	0	22	0	24	613	6
7:30	0	609	47	0	656	0	0	0	0	0	21	148	0	9	178	4	0	30	0	34	868	9
7:45	0	588	57	0	645	0	0	0	0	0	21	216	0	9	246	5	0	29	0	34	925	9
Total	0	1946	134	0	2080	0	0	0	0	0	63	564	0	26	653	12	0	94	0	106	2839	26
8:00	0	471	45	0	516	0	0	0	0	0	29	234	0	7	270	19	0	32	0	51	837	7
8:15	0	532	21	0	553	0	0	0	0	0	20	253	0	6	279	10	0	43	0	53	885	6
8:30	0	488	21	0	509	0	0	0	0	0	6	206	0	3	215	11	0	39	0	50	774	3
8:45	0	487	20	0	507	0	0	0	0	0	7	236	0	5	248	9	0	25	0	34	789	5
Total	0	1978	107	0	2085	0	0	0	0	0	62	929	0	21	1012	49	0	139	0	188	3285	21
13:15	0	272	11	0	283	0	0	0	0	0	15	318	0	4	337	8	0	13	0	21	641	4
13:30	0	279	16	0	295	0	0	0	0	0	21	278	0	4	303	4	0	10	0	14	612	4
13:45	0	281	7	0	288	0	0	0	0	0	12	309	0	1	322	6	0	15	0	21	631	1
14:00	0	288	10	0	298	0	0	0	0	0	11	309	0	3	323	10	0	19	0	29	650	3
Total	0	1120	44	0	1164	0	0	0	0	0	59	1214	0	12	1285	28	0	57	0	85	2534	12
14:15	0	268	9	0	277	0	0	0	0	0	15	332	0	1	348	11	0	12	0	23	648	1
14:30	0	303	11	0	314	0	0	0	0	0	15	385	0	3	403	8	0	14	0	22	739	3
14:45	0	280	20	0	300	0	0	0	0	0	12	297	0	3	312	10	0	16	0	26	638	3
15:00	0	281	14	0	295	0	0	0	0	0	17	393	0	5	415	9	0	19	0	28	738	5
Total	0	1132	54	0	1186	0	0	0	0	0	59	1407	0	12	1478	38	0	61	0	99	2763	12
16:00	0	301	13	0	314	0	0	0	0	0	19	442	0	5	466	15	0	20	0	35	815	5
16:15	0	298	16	0	314	0	0	0	0	0	23	462	0	4	489	11	0	22	0	33	836	4
16:30	0	310	16	0	326	0	0	0	0	0	23	489	0	5	517	10	0	19	0	29	872	5
16:45	0	304	20	0	324	0	0	0	0	0	26	506	0	5	537	9	0	18	0	27	888	5
Total	0	1213	65	0	1278	0	0	0	0	0	91	1899	0	19	2009	45	0	79	0	124	3411	19
17:00	0	287	13	0	300	0	0	0	0	0	27	484	0	4	515	12	0	11	0	23	838	4
17:15	0	300	27	0	327	0	0	0	0	0	32	523	0	6	561	6	0	13	0	19	907	6
17:30	0	340	16	0	356	0	0	0	0	0	29	454	0	3	486	5	0	10	0	15	857	3
17:45	0	299	15	0	314	0	0	0	0	0	48	425	0	2	475	6	0	11	0	17	806	2
Total	0	1226	71	0	1297	0	0	0	0	0	136	1886	0	15	2037	29	0	45	0	74	3408	15
Grand Total	0	8615	475	0	9090	0	0	0	0	0	470	7899	0	105	8474	201	0	475	0	676	18240	105
Apprch %	0.0%	94.8%	5.2%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.5%	93.2%	0.0%	1.2%	46.5%	29.7%	0.0%	70.3%	0.0%	3.7%	100.0%	
Total %	0.0%	47.2%	2.6%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	43.3%	0.0%	0.6%	46.5%	1.1%	0.0%	2.6%	0.0%	3.7%	100.0%	

START TIME	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	0	609	47	0	656	0	0	0	0	0	21	148	0	9	178	4	0	30	0	34	868
7:45	0	588	57	0	645	0	0	0	0	0	21	216	0	9	246	5	0	29	0	34	925
8:00	0	471	45	0	516	0	0	0	0	0	29	234	0	7	270	19	0	32	0	51	837
8:15	0	532	21	0	553	0	0	0	0	0	20	253	0	6	279	10	0	43	0	53	885
Total Volume	0	2200	170	0	2370	0	0	0	0	0	91	851	0	31	973	38	0	134	0	172	3515
% App Total	0.0%	92.8%	7.2%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%	87.5%	0.0%	3.2%	46.5%	22.1%	0.0%	77.9%	0.0%	3.7%	100.0%
PHF	.000	.934	.746	.000	.903	.000	.000	.000	.000	.000	.784	.841	.000	.861	.872	.500	.000	.779	.000	.811	.950

START TIME	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	0	268	9	0	277	0	0	0	0	0	15	332	0	1	348	11	0	12	0	23	648
14:30	0	303	11	0	314	0	0	0	0	0	15	385	0	3	403	8	0	14	0	22	739
14:45	0	280	20	0	300	0	0	0	0	0	12	297	0	3	312	10	0	16	0	26	638
15:00	0	281	14	0	295	0	0	0	0	0	17	393	0	5	415	9	0	19	0	28	738
Total Volume	0	1132	54	0	1186	0	0	0	0	0	59	1407	0	12	1478	38	0	61	0	99	2763
% App Total	0.0%	95.4%	4.6%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	95.2%	0.0%	0.8%	46.5%	38.4%	0.0%	61.6%	0.0%	3.7%	100.0%
PHF	.000	.934	.675	.000	.944	.000	.000	.000	.000	.000	.868	.895	.000	.833	.890	.864	.000	.803	.000	.884	.935

START TIME	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	310	16	0	326	0	0	0	0	0	23	489	0	5	517	10	0	19	0	29	872
16:45	0	304	20	0	324	0	0	0	0	0	26	506	0	5	537	9	0	18	0	27	888
17:00	0	287	13	0	300	0	0	0	0	0	27	484	0	4	515	12	0	11	0	23	838
17:15	0	300	27	0	327	0	0	0	0	0	32	523	0	6	561	6	0	13	0	19	907
Total Volume	0	1201	76	0	1277	0	0	0	0	0	108	2002	0	20	2130	37	0	61	0	98	3505
% App Total	0.0%	94.0%	6.0%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	94.0%	0.0%	0.9%	46.5%	37.8%	0.0%	62.2%	0.0%	3.7%	100.0%
PHF	.000	.969	.704	.000	.976	.000	.000	.000	.000	.000	.844	.957	.000	.833	.949	.771	.000	.803	.000	.845	.966

ALL TRAFFIC DATA

City of Atherton
All Vehicles & Utoms On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
reporters@attraffic.com

File Name : 16-7360-004 El Camino Real & Stockbridge Avenue
Date : 5/10/2016

Bank 1 Count = Bikes & Peds

START TIME	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total	Peds Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	0
7:15	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	0
7:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0
Total	0	4	2	0	6	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	9	0
8:00	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5	0
8:15	0	3	3	0	6	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	8	0
8:30	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	0
8:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	0	10	4	0	14	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	18	0
13:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
13:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
13:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0
14:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0
Total	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	6	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0
14:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	0
16:00	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	5	0
16:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
16:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:45	0	0	2	0	2	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	4	1
Total	0	4	2	0	6	0	0	0	0	0	1	3	0	3	4	1	0	0	0	1	11	3
17:00	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0
17:15	0	2	0	0	2	0	0	0	0	0	0	1	0	2	1	1	0	0	0	1	4	2
17:30	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	2	1
17:45	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1
Total	0	6	1	0	7	0	0	0	0	0	0	2	0	4	2	2	0	0	0	2	11	4
Grand Total	0	26	9	0	35	0	0	0	0	0	4	14	0	7	18	4	0	0	0	4	57	7
Apprch %	0.0%	74.3%	25.7%			0.0%	0.0%	0.0%			22.2%	77.8%	0.0%			100.0%	0.0%	0.0%				
Total %	0.0%	45.6%	15.8%		61.4%	0.0%	0.0%	0.0%		0.0%	7.0%	24.6%	0.0%		31.6%	7.0%	0.0%	0.0%		7.0%	100.0%	

AM PEAK HOUR	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 07:30 to 08:30																						
Peak Hour For Entire Intersection Begins at 07:30																						
7:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:45	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
8:00	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5	
8:15	0	3	3	0	6	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	8	
Total Volume	0	7	6	0	13	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	17	
% App Total	0.0%	53.8%	46.2%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%				
PHF	.000	.583	.500		.542	.000	.000	.000		.000	.000	.750	.000		.750	.250	.000	.000		.250	.531	

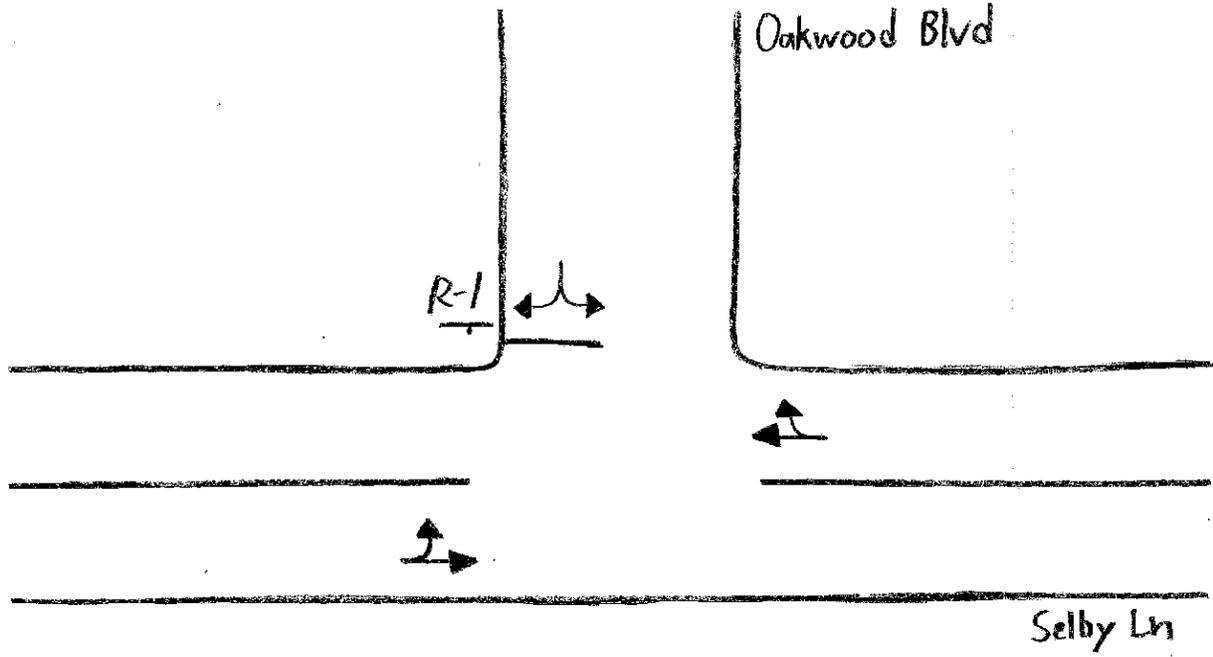
NOON PEAK HOUR	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:15 to 15:15																						
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14:30	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
14:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	
% App Total	0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%				
PHF	.000	.250	.000		.250	.000	.000	.000		.000	.000	.500	.000		.500	.000	.000	.000		.000	.375	

PM PEAK HOUR	El Camino Real Southbound					Stockbridge Avenue Westbound					El Camino Real Northbound					Stockbridge Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 16:30 to 17:30																						
Peak Hour For Entire Intersection Begins at 16:30																						
16:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
16:45	0	0	2	0	2	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	4	
17:00	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
17:15	0	2	0	0	2	0	0	0	0	0	0	1	0	2	1	1	0	0	0	1	4	
Total Volume	0	4	3	0	7	0	0	0	0	0	0	4	0	3	4	1	0	0	0	1	12	
% App Total	0.0%	57.1%	42.9%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%				
PHF	.000	.500	.375		.875	.000	.000	.000		.000	.000	.500	.000		.500	.250	.000	.000		.250	.750	

Southbound Peds = North Leg (traveling EB or WB)
Westbound Peds = East Leg (traveling NB or SB)
Northbound Peds = South Leg (traveling EB or WB)
Eastbound Peds = West Leg (traveling NB or SB)

N ↑

16-7360-005



ALL TRAFFIC DATA

City of Atherton
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7360-005 Oakwood Boulevard & Selby Lane
Date : 5/10/2016

Unshifted Count = All Vehicles & Uturns

START TIME	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	6	0	8	0	14	0	40	1	0	41	0	0	0	0	0	2	22	0	0	24	79	0
7:15	5	0	13	0	18	0	64	6	0	70	0	0	0	0	0	13	42	0	0	55	143	0
7:30	12	0	31	0	43	0	77	3	0	80	0	0	0	0	0	6	47	0	0	53	176	0
7:45	7	0	39	0	46	0	112	4	0	116	0	0	0	0	0	24	54	0	0	78	240	0
Total	30	0	91	0	121	0	293	14	0	307	0	0	0	0	0	45	165	0	0	210	638	0
8:00	5	0	32	0	37	0	145	1	0	146	0	0	0	0	0	33	66	0	0	99	282	0
8:15	14	0	11	0	25	0	83	2	0	85	0	0	0	0	0	57	65	0	0	122	232	0
8:30	12	0	6	0	18	0	63	4	0	67	0	0	0	0	0	38	67	0	0	105	190	0
8:45	9	0	12	0	21	0	45	2	0	47	0	0	0	0	0	22	46	0	0	68	136	0
Total	40	0	61	0	101	0	336	9	0	345	0	0	0	0	0	150	244	0	0	394	840	0
13:15	4	0	5	0	9	0	41	8	0	49	0	0	0	0	0	14	25	0	0	39	97	0
13:30	4	0	5	0	9	0	32	5	0	37	0	0	0	0	0	16	36	0	0	52	98	0
13:45	3	0	9	0	12	0	40	5	0	45	0	0	0	0	0	7	25	0	0	32	89	0
14:00	7	0	1	0	8	0	51	9	0	60	0	0	0	0	0	5	32	0	0	37	105	0
Total	18	0	20	0	38	0	164	27	0	191	0	0	0	0	0	42	118	0	0	160	389	0
14:15	3	0	12	0	15	0	71	7	0	78	0	0	0	0	0	6	22	0	0	28	121	0
14:30	6	0	13	0	19	0	65	8	0	73	0	0	0	0	0	47	48	0	0	95	187	0
14:45	3	0	10	0	13	0	44	9	0	53	0	0	0	0	0	22	49	0	0	71	137	0
15:00	5	0	9	0	14	0	54	9	0	63	0	0	0	0	0	10	53	0	0	63	140	0
Total	17	0	44	0	61	0	234	33	0	267	0	0	0	0	0	85	172	0	0	257	585	0
16:00	6	0	4	0	10	0	62	13	0	75	0	0	0	0	0	15	46	0	0	61	146	0
16:15	6	0	4	0	10	0	69	9	0	78	0	0	0	0	0	16	42	0	0	58	146	0
16:30	6	0	7	0	13	0	65	13	0	78	0	0	0	0	0	17	35	0	0	52	143	0
16:45	3	0	7	0	10	0	73	10	0	83	0	0	0	0	0	23	32	0	0	55	148	0
Total	21	0	22	0	43	0	269	45	0	314	0	0	0	0	0	71	155	0	0	226	583	0
17:00	7	0	10	0	17	0	85	15	0	100	0	0	0	0	0	21	30	0	0	51	168	0
17:15	1	0	7	0	8	0	68	15	0	83	0	0	0	0	0	21	41	0	0	62	153	0
17:30	5	0	6	0	11	0	85	12	0	97	0	0	0	0	0	22	40	0	0	62	170	0
17:45	4	0	7	0	11	0	61	8	0	69	0	0	0	0	0	20	36	0	0	56	136	0
Total	17	0	30	0	47	0	299	50	0	349	0	0	0	0	0	84	147	0	0	231	627	0
Grand Total	143	0	268	0	411	0	1595	178	0	1773	0	0	0	0	0	477	1001	0	0	1478	3662	0
Apprch %	34.8%	0.0%	65.2%	0.0%	11.2%	0.0%	90.0%	10.0%	0.0%	48.4%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	67.7%	0.0%	0.0%	40.4%	100.0%	0
Total %	3.9%	0.0%	7.3%	0.0%	11.2%	0.0%	43.6%	4.9%	0.0%	48.4%	0.0%	0.0%	0.0%	0.0%	0.0%	13.0%	27.3%	0.0%	0.0%	40.4%	100.0%	0

START TIME	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
7:45	7	0	39	0	46	0	112	4	0	116	0	0	0	0	0	24	54	0	0	78	240
8:00	5	0	32	0	37	0	145	1	0	146	0	0	0	0	0	33	66	0	0	99	282
8:15	14	0	11	0	25	0	83	2	0	85	0	0	0	0	0	57	65	0	0	122	232
8:30	12	0	5	0	18	0	63	4	0	67	0	0	0	0	0	38	67	0	0	105	190
Total Volume	38	0	88	0	126	0	403	11	0	414	0	0	0	0	0	152	252	0	0	404	944
% App Total	30.2%	0.0%	69.8%	0.0%	.685	0.0%	97.3%	2.7%	0.0%	.709	0.0%	0.0%	0.0%	0.0%	.000	37.6%	62.4%	0.0%	0.0%	.828	.837
PHF	.679	.000	.564	.000	.685	.000	.695	.688	.000	.709	.000	.000	.000	.000	.000	.667	.940	.000	.000	.828	.837

START TIME	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	3	0	12	0	15	0	71	7	0	78	0	0	0	0	0	6	22	0	0	28	121
14:30	6	0	13	0	19	0	65	8	0	73	0	0	0	0	0	47	48	0	0	95	187
14:45	3	0	10	0	13	0	44	9	0	53	0	0	0	0	0	22	49	0	0	71	137
15:00	5	0	9	0	14	0	54	9	0	63	0	0	0	0	0	10	53	0	0	63	140
Total Volume	17	0	44	0	61	0	234	33	0	267	0	0	0	0	0	85	172	0	0	257	585
% App Total	27.9%	0.0%	72.1%	0.0%	.803	0.0%	87.6%	12.4%	0.0%	.856	0.0%	0.0%	0.0%	0.0%	.000	33.1%	66.9%	0.0%	0.0%	.676	.782
PHF	.708	.000	.846	.000	.803	.000	.824	.917	.000	.856	.000	.000	.000	.000	.000	.452	.811	.000	.000	.676	.782

START TIME	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	3	0	7	0	10	0	73	10	0	83	0	0	0	0	0	23	32	0	0	55	148
17:00	7	0	10	0	17	0	85	15	0	100	0	0	0	0	0	21	30	0	0	51	168
17:15	1	0	7	0	8	0	68	15	0	83	0	0	0	0	0	21	41	0	0	62	153
17:30	5	0	6	0	11	0	85	12</													

ALL TRAFFIC DATA

City of Atherton
All Vehicles & Utoms On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7360-005 Oakwood Boulevard & Selby Lane
Date : 5/10/2016

START TIME	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total	Peds Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
7:00	0	0	3	1	3	0	3	0	2	3	0	0	0	0	0	0	0	0	1	0	0	6	4
7:15	0	0	2	0	2	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	4	2
7:30	1	0	6	0	7	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	12	0
7:45	1	0	4	0	5	0	1	1	2	2	0	0	0	0	0	2	2	0	0	4	4	11	2
Total	2	0	15	1	17	0	9	3	6	12	0	0	0	0	0	2	2	0	1	4	33	8	
8:00	1	0	1	0	2	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	1
8:15	2	0	2	1	4	0	1	0	0	1	0	0	0	0	0	1	0	0	1	1	1	6	2
8:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	3	0
8:45	1	0	2	2	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	6	2
Total	5	0	5	3	10	0	2	0	1	2	0	0	0	0	0	2	4	0	1	6	18	5	
13:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
13:45	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	1	4	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	3	0
14:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	2	5	0
16:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16:15	0	0	1	1	1	0	0	2	1	2	0	0	0	0	0	1	0	0	0	0	1	4	2
16:30	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	3	3	0	0	0	6	8	1
16:45	0	0	1	1	1	0	0	0	1	0	0	0	0	0	2	1	0	0	2	3	4	4	0
Total	0	0	3	5	3	0	0	3	3	3	0	0	0	0	0	6	4	0	2	10	16	10	
17:00	1	0	2	1	3	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	5	2
17:15	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	5	0	0	0	0	5	6	2
17:30	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	2	0	0	1	2	4	2	0
17:45	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	2	0	0	0	0	2	4	1
Total	1	0	4	4	5	0	1	4	2	5	0	0	0	0	0	9	0	0	1	9	19	7	
Grand Total	9	0	29	13	38	0	15	10	12	25	0	0	0	0	0	20	12	0	5	32	95	30	
Apprch %	23.7%	0.0%	76.3%			0.0%	60.0%	40.0%			0.0%	0.0%	0.0%			62.5%	37.5%	0.0%					
Total %	9.5%	0.0%	30.5%		40.0%	0.0%	15.8%	10.5%		26.3%	0.0%	0.0%	0.0%		0.0%	21.1%	12.6%	0.0%		33.7%	100.0%		

AM PEAK HOUR	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 07:45 to 08:45																						
Peak Hour For Entire Intersection Begins at 07:45																						
7:45	1	0	4	0	5	0	1	1	2	2	0	0	0	0	0	2	2	0	0	4	11	
8:00	1	0	1	0	2	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	
8:15	2	0	2	1	4	0	1	0	0	1	0	0	0	0	0	1	0	0	1	1	6	
8:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3	
Total Volume	5	0	7	1	12	0	3	1	3	4	0	0	0	0	0	4	3	0	1	7	23	
% App Total	41.7%	0.0%	58.3%			0.0%	75.0%	25.0%			0.0%	0.0%	0.0%			57.1%	42.9%	0.0%				
PHF	.625	.000	.438		.600	.000	.750	.250		.500	.000	.000	.000		.000	.500	.375	.000		.438	.523	

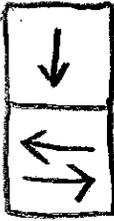
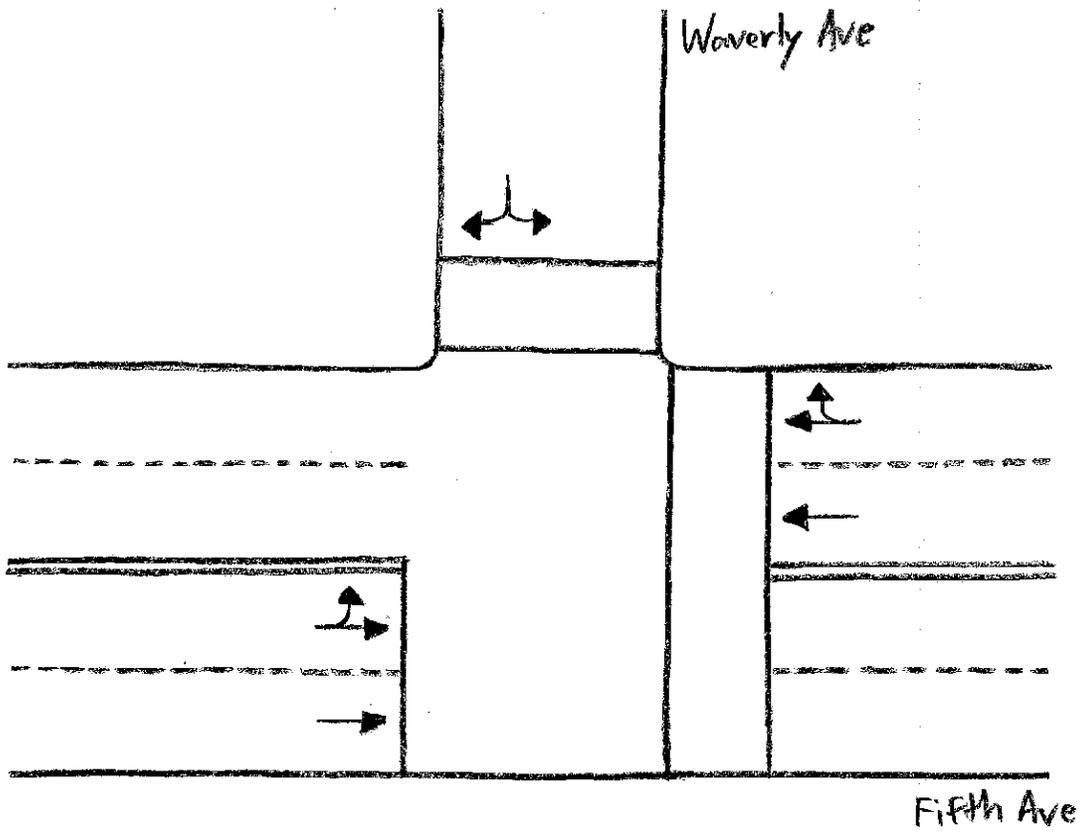
NOON PEAK HOUR	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:15 to 15:15																						
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	3
14:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	2	5
% App Total	50.0%	0.0%	50.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			50.0%	50.0%	0.0%				
PHF	.250	.000	.250		.500	.000	.250	.000		.250	.000	.000	.000		.000	.250	.250	.000		.500	.417	

PM PEAK HOUR	Oakwood Boulevard Southbound					Selby Lane Westbound					Oakwood Boulevard Northbound					Selby Lane Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 16:45 to 17:45																						
Peak Hour For Entire Intersection Begins at 16:45																						
16:45	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	2	1	0	2	3	4	
17:00	1	0	2	1	3	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5	
17:15	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	5	0	0	0	0	5	6
17:30	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	2	0	0	1	2	4	
Total Volume	1	0	4	5	5	0	1	3	2	4	0	0	0	0	0	9	1	0	3	10	19	
% App Total	20.0%	0.0%	80.0%			0.0%	25.0%	75.0%			0.0%	0.0%	0.0%			90.0%	10.0%	0.0%				
PHF	.250	.000	.500		.417	.000	.250	.750		.500	.000	.000	.000		.000	.450	.250	.000		.500	.792	

Southbound Peds = North Leg (traveling EB or WB)
Westbound Peds = East Leg (traveling NB or SB)
Northbound Peds = South Leg (traveling EB or WB)
Eastbound Peds = West Leg (traveling NB or SB)

N↑

16-7360-006



ALL TRAFFIC DATA

City of Atherton
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7360-006 Waverly Avenue & Fifth Avenue
Date : 5/10/2016

Unshifted Count = All Vehicles & Uturns

START TIME	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total	Uturns Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	7	0	6	0	13	0	180	1	0	181	0	0	0	0	0	3	82	0	0	85	279	0
7:15	2	0	4	0	6	0	213	6	0	219	0	0	0	0	0	1	96	0	0	97	322	0
7:30	5	0	9	0	14	0	288	2	0	290	0	0	0	0	0	3	171	0	0	174	478	0
7:45	4	0	10	0	14	0	338	3	0	341	0	0	0	0	0	1	178	0	0	179	534	0
Total	18	0	29	0	47	0	1019	12	0	1031	0	0	0	0	0	8	527	0	0	535	1613	0
8:00	7	0	7	0	14	0	329	5	0	334	0	0	0	0	0	6	204	0	1	211	559	1
8:15	3	0	3	0	6	0	238	8	0	246	0	0	0	0	0	5	200	0	0	205	457	0
8:30	9	0	2	0	11	0	162	3	0	165	0	0	0	0	0	0	211	0	0	211	387	0
8:45	6	0	3	0	9	0	205	5	0	210	0	0	0	0	0	2	174	0	0	176	395	0
Total	25	0	15	0	40	0	934	21	0	955	0	0	0	0	0	13	789	0	1	803	1798	1
13:15	10	0	4	0	14	0	166	3	0	169	0	0	0	0	0	3	134	0	0	137	320	0
13:30	8	0	2	0	10	0	126	2	0	128	0	0	0	0	0	4	142	0	1	147	285	1
13:45	3	0	3	0	6	0	131	3	0	134	0	0	0	0	0	0	119	0	0	119	259	0
14:00	8	0	2	0	10	0	175	1	0	176	0	0	0	0	0	1	150	0	0	151	337	0
Total	29	0	11	0	40	0	598	9	0	607	0	0	0	0	0	8	545	0	1	554	1201	1
14:15	2	0	5	0	7	0	176	5	0	181	0	0	0	0	0	3	154	0	0	157	345	0
14:30	6	0	2	0	8	0	149	5	0	154	0	0	0	0	0	1	171	0	0	172	334	0
14:45	8	0	3	0	11	0	134	5	0	139	0	0	0	0	0	1	193	0	0	194	344	0
15:00	5	0	4	0	9	0	219	8	0	227	0	0	0	0	0	1	195	0	0	196	432	0
Total	21	0	14	0	35	0	678	23	0	701	0	0	0	0	0	6	713	0	0	719	1455	0
16:00	7	0	10	0	17	0	220	9	0	229	0	0	0	0	0	6	225	0	0	231	477	0
16:15	1	0	4	0	5	0	248	7	0	255	0	0	0	0	0	3	213	0	0	216	476	0
16:30	9	0	5	0	14	0	264	4	0	268	0	0	0	0	0	2	188	0	2	192	474	2
16:45	9	0	2	0	11	0	292	4	0	296	0	0	0	0	0	1	188	0	0	189	496	0
Total	26	0	21	0	47	0	1024	24	0	1048	0	0	0	0	0	12	814	0	2	828	1923	2
17:00	12	0	5	0	17	0	261	6	0	267	0	0	0	0	0	3	209	0	1	213	497	1
17:15	12	0	6	0	18	0	269	1	0	270	0	0	0	0	0	3	194	0	0	197	485	0
17:30	6	0	7	0	13	0	244	4	0	248	0	0	0	0	0	5	185	0	0	190	451	0
17:45	7	0	5	0	12	0	220	4	0	224	0	0	0	0	0	5	175	0	0	180	416	0
Total	37	0	23	0	60	0	994	15	0	1009	0	0	0	0	0	16	763	0	1	780	1849	1
Grand Total	156	0	113	0	269	0	5247	104	0	5351	0	0	0	0	0	63	4151	0	5	4219	9839	5
Apprch %	58.0%	0.0%	42.0%	0.0%	2.7%	0.0%	98.1%	1.9%	0.0%	54.4%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	98.4%	0.0%	0.1%	42.9%	100.0%	
Total %	1.6%	0.0%	1.1%	0.0%	2.7%	0.0%	53.3%	1.1%	0.0%	54.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	42.2%	0.0%	0.1%	42.9%	100.0%	

START TIME	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
7:30	5	0	9	0	14	0	288	2	0	290	0	0	0	0	0	3	171	0	0	174	478
7:45	4	0	10	0	14	0	338	3	0	341	0	0	0	0	0	1	178	0	0	179	534
8:00	7	0	7	0	14	0	329	5	0	334	0	0	0	0	0	6	204	0	1	211	559
8:15	3	0	3	0	6	0	238	8	0	246	0	0	0	0	0	5	200	0	0	205	457
Total Volume	19	0	29	0	48	0	1193	18	0	1211	0	0	0	0	0	15	753	0	1	769	2028
% App Total	39.6%	0.0%	60.4%	0.0%	0.0%	0.0%	98.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	97.9%	0.0%	0.1%	0.0%	
PHF	.679	.000	.725	.000	.857	.000	.882	.563	.000	.888	.000	.000	.000	.000	.000	.625	.923	.000	.250	.911	.907

START TIME	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 14:15 to 15:15																					
Peak Hour For Entire Intersection Begins at 14:15																					
14:15	2	0	5	0	7	0	176	5	0	181	0	0	0	0	0	3	154	0	0	157	345
14:30	6	0	2	0	8	0	149	5	0	154	0	0	0	0	0	1	171	0	0	172	334
14:45	8	0	3	0	11	0	134	5	0	139	0	0	0	0	0	0	193	0	0	194	344
15:00	5	0	4	0	9	0	219	8	0	227	0	0	0	0	0	1	195	0	0	196	432
Total Volume	21	0	14	0	35	0	678	23	0	701	0	0	0	0	0	6	713	0	0	719	1455
% App Total	60.0%	0.0%	40.0%	0.0%	0.0%	0.0%	96.7%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	99.2%	0.0%	0.0%	0.0%	
PHF	.656	.000	.700	.000	.795	.000	.774	.719	.000	.772	.000	.000	.000	.000	.000	.500	.914	.000	.000	.917	.842

START TIME	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total
	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	9	0	5	0	14	0	264	4	0	268	0	0	0	0	0	2	188	0	2	192	474
16:45	9	0	2	0	11	0	292	4	0	296	0	0	0	0	0	1	188	0	0	189	496
17:00	12	0	5	0	17	0	261	6	0	267	0	0	0	0	0	3	209	0	1	213	497
17:15	12	0	6	0	18	0	269	1	0	270	0	0	0	0	0	3	194	0	0	197	485
Total Volume	42	0	18	0	60	0	1086	15	0	1101	0	0	0	0	0	9	779	0	3	791	1952
% App Total	70.0%	0.0%	30.0%	0.0%	0.0%	0.0%	98.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	98.5%	0.0%	0.4%	0.0%	
PHF	.875	.000	.750	.000	.833	.000	.930	.625	.000	.930	.000										

ALL TRAFFIC DATA

City of Atherton
 All Vehicles & Utoms On Unshifted
 Bikes & Peds On Bank 1
 Nothing On Bank 2

(916) 771-8700
orders@attraffic.com

File Name : 16-7360-006 Waverly Avenue & Fifth Avenue
 Date : 5/10/2016

Bank 1 Count = Bikes & Peds

START TIME	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total	Peds Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
7:00	0	0	0	4	0	0	8	1	10	9	0	0	0	0	0	0	2	0	0	0	2	11	14
7:15	0	0	1	1	1	0	2	0	5	2	0	0	0	0	0	0	0	0	0	0	0	3	6
7:30	0	0	0	2	0	0	4	1	1	5	0	0	0	0	0	0	1	0	0	0	1	6	3
7:45	0	0	0	4	0	0	3	1	9	4	0	0	0	0	0	2	2	0	0	0	4	8	13
Total	0	0	1	11	1	0	17	3	25	20	0	0	0	0	0	2	5	0	0	7	28	36	
8:00	0	0	0	2	0	0	2	0	2	2	0	0	0	0	0	0	1	0	0	0	1	3	4
8:15	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	1	3
8:30	0	0	0	6	0	0	3	0	1	3	0	0	0	0	0	0	4	0	0	0	4	7	7
8:45	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	6	0	0	0	6	8	0
Total	0	0	0	9	0	0	6	1	5	7	0	0	0	0	0	0	12	0	0	12	19	14	
13:15	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	0	2	3	0
13:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
13:45	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	2	4	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	6	0	0	6	10	0	
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
14:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
15:00	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	5	0	
16:00	0	0	1	3	1	0	2	0	4	2	0	0	0	0	0	0	3	0	0	0	3	6	7
16:15	1	0	0	4	1	0	0	2	3	2	0	0	0	0	0	0	3	0	0	0	3	6	7
16:30	0	0	0	2	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	1	5
16:45	0	0	0	1	0	0	3	0	3	3	0	0	0	0	0	1	2	0	0	0	3	6	4
Total	1	0	1	10	2	0	6	2	13	8	0	0	0	0	0	1	8	0	0	9	19	23	
17:00	0	0	0	3	0	0	5	0	12	5	0	0	0	0	0	1	6	0	0	0	7	12	15
17:15	0	0	0	6	0	0	2	0	8	2	0	0	0	0	0	1	3	0	0	0	4	6	14
17:30	0	0	0	5	0	0	2	0	3	2	0	0	0	0	0	0	3	0	0	0	3	5	8
17:45	0	0	0	5	0	0	1	0	5	1	0	0	0	0	0	0	2	0	0	0	2	3	10
Total	0	0	0	19	0	0	10	0	28	10	0	0	0	0	0	2	14	0	0	16	26	47	
Grand Total	1	0	2	49	3	0	45	8	71	53	0	0	0	0	0	5	46	0	0	0	51	107	120
Apprch %	33.3%	0.0%	0.0%	66.7%		0.0%	84.9%	15.1%			0.0%	0.0%	0.0%			9.8%	90.2%	0.0%					
Total %	0.9%	0.0%	1.9%		2.8%	0.0%	42.1%	7.5%		49.5%	0.0%	0.0%	0.0%		0.0%	4.7%	43.0%	0.0%			47.7%	100.0%	

AM PEAK HOUR	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 07:30 to 08:30																						
Peak Hour For Entire Intersection Begins at 07:30																						
7:30	0	0	0	2	0	0	4	1	1	5	0	0	0	0	0	0	1	0	0	0	1	6
7:45	0	0	0	4	0	0	3	1	9	4	0	0	0	0	0	2	2	0	0	0	4	8
8:00	0	0	0	2	0	0	2	0	2	2	0	0	0	0	0	0	1	0	0	0	1	3
8:15	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	9	0	0	9	2	14	11	0	0	0	0	0	2	5	0	0	7	18	
% App Total	0.0%	0.0%	0.0%			0.0%	81.8%	18.2%			0.0%	0.0%	0.0%			28.6%	71.4%	0.0%				
PHF	.000	.000	.000		.000	.000	.563	.500		.550	.000	.000	.000		.000	.250	.625	.000		.438	.563	

NOON PEAK HOUR	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 14:15 to 15:15																						
Peak Hour For Entire Intersection Begins at 14:15																						
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
14:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	0	1	5
% App Total	0.0%	0.0%	0.0%			0.0%	75.0%	25.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%				
PHF	.000	.000	.000		.000	.000	.375	.250		.333	.000	.000	.000		.000	.000	.250	.000		.250	.417	

PM PEAK HOUR	Waverly Avenue Southbound					Fifth Avenue Westbound					Waverly Avenue Northbound					Fifth Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 16:30 to 17:30																						
Peak Hour For Entire Intersection Begins at 16:30																						
16:30	0	0	0	2	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	1	0	0	3	0	3	3	0	0	0	0	0	1	2	0	0	0	3	6
17:00	0	0	0	3	0	0	5	0	12	5	0	0	0	0	0	1	6	0	0	0	7	12
17:15	0	0	0	6	0	0	2	0	8	2	0	0	0	0	0	1	3	0	0	0	4	6
Total Volume	0	0	0	12	0	0	11	0	26	11	0	0	0	0	0	3	11	0	0	14	25	
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			21.4%	78.6%	0.0%				
PHF	.000	.000	.000		.000	.000	.550	.000		.550	.000	.000	.000		.000	.750	.458	.000		.500	.521	

Southbound Peds = North Leg (traveling EB or WB)
 Westbound Peds = East Leg (traveling NB or SB)
 Northbound Peds = South Leg (traveling EB or WB)
 Eastbound Peds = West Leg (traveling NB or SB)

VOLUME

Selby Lane west of El Camino Real

Day: Tuesday
Date: 5/10/2016

City: Atherton
Project #: 16-7361-001

DAILY TOTALS						NB	SB	EB			WB	Total
						0	0	2,295			3,434	5,729
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	1	3	4	12:00	0	0	44	47	91	
00:15	0	0	2	3	5	12:15	0	0	35	39	74	
00:30	0	0	3	1	4	12:30	0	0	32	41	73	
00:45	0	0	1	7	8	12:45	0	0	31	142	177	
01:00	0	0	0	0	0	13:00	0	0	39	45	84	
01:15	0	0	1	0	1	13:15	0	0	32	49	81	
01:30	0	0	1	0	1	13:30	0	0	42	37	79	
01:45	0	0	0	2	2	13:45	0	0	31	144	177	
02:00	0	0	1	3	4	14:00	0	0	35	61	96	
02:15	0	0	0	0	0	14:15	0	0	27	79	106	
02:30	0	0	0	0	0	14:30	0	0	57	71	128	
02:45	0	0	1	2	3	14:45	0	0	57	176	263	
03:00	0	0	0	1	1	15:00	0	0	56	65	121	
03:15	0	0	1	0	1	15:15	0	0	48	60	108	
03:30	0	0	1	2	3	15:30	0	0	53	79	132	
03:45	0	0	0	2	2	15:45	0	0	53	210	281	
04:00	0	0	0	0	0	16:00	0	0	54	80	134	
04:15	0	0	1	0	1	16:15	0	0	46	77	123	
04:30	0	0	0	0	0	16:30	0	0	37	75	112	
04:45	0	0	2	3	5	16:45	0	0	37	174	322	
05:00	0	0	3	0	3	17:00	0	0	32	90	122	
05:15	0	0	5	2	7	17:15	0	0	43	88	131	
05:30	0	0	4	2	6	17:30	0	0	39	91	130	
05:45	0	0	7	19	26	17:45	0	0	48	162	329	
06:00	0	0	6	10	16	18:00	0	0	36	76	112	
06:15	0	0	10	8	18	18:15	0	0	28	75	103	
06:30	0	0	17	15	32	18:30	0	0	31	71	102	
06:45	0	0	19	52	71	18:45	0	0	30	125	271	
07:00	0	0	34	45	79	19:00	0	0	23	44	67	
07:15	0	0	44	77	121	19:15	0	0	17	36	53	
07:30	0	0	62	85	147	19:30	0	0	17	43	60	
07:45	0	0	61	201	262	19:45	0	0	16	73	155	
08:00	0	0	66	150	216	20:00	0	0	16	33	49	
08:15	0	0	84	73	157	20:15	0	0	10	34	44	
08:30	0	0	69	69	138	20:30	0	0	5	32	37	
08:45	0	0	52	271	323	20:45	0	0	11	42	121	
09:00	0	0	56	28	84	21:00	0	0	14	22	36	
09:15	0	0	39	55	94	21:15	0	0	13	26	39	
09:30	0	0	38	36	74	21:30	0	0	9	17	26	
09:45	0	0	37	170	207	21:45	0	0	12	48	132	
10:00	0	0	37	35	72	22:00	0	0	6	16	22	
10:15	0	0	35	31	66	22:15	0	0	1	13	14	
10:30	0	0	22	35	57	22:30	0	0	6	7	13	
10:45	0	0	30	124	154	22:45	0	0	3	16	50	
11:00	0	0	43	43	86	23:00	0	0	2	6	8	
11:15	0	0	29	31	60	23:15	0	0	2	3	5	
11:30	0	0	25	41	66	23:30	0	0	3	4	7	
11:45	0	0	26	123	149	23:45	0	0	0	7	13	
TOTALS			976	1191	2167	TOTALS			1319	2243	3562	
SPLIT %			45.0%	55.0%	37.8%	SPLIT %			37.0%	63.0%	62.2%	

DAILY TOTALS						NB	SB	EB			WB	Total
						0	0	2,295			3,434	5,729
AM Peak Hour			07:45	07:15	07:30	PM Peak Hour			14:30	16:45	15:30	
AM Pk Volume			280	430	699	PM Pk Volume			218	359	519	
Pk Hr Factor			0.833	0.717	0.809	Pk Hr Factor			0.956	0.986	0.968	
7 - 9 Volume	0	0	472	661	1133	4 - 6 Volume	0	0	336	651	987	
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour			16:00	16:45	16:45	
7 - 9 Pk Volume	0	0	280	430	699	4 - 6 Pk Volume	0	0	174	359	510	
Pk Hr Factor	0.000	0.000	0.833	0.717	0.809	Pk Hr Factor	0.000	0.000	0.806	0.986	0.973	

VOLUME

Selby Lane west of El Camino Real

Day: Wednesday
Date: 5/11/2016

City: Atherton
Project #: 16-7361-001

DAILY TOTALS						NB	SB					Total
						0	0					5,669
								2,287	3,382			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	2	2	4	12:00	0	0	34	48	82	
00:15	0	0	3	2	5	12:15	0	0	34	45	79	
00:30	0	0	0	2	2	12:30	0	0	32	45	77	
00:45	0	0	0	5	2	12:45	0	0	32	132	164	
01:00	0	0	2	0	2	13:00	0	0	33	34	67	
01:15	0	0	2	2	4	13:15	0	0	26	46	72	
01:30	0	0	0	1	1	13:30	0	0	38	41	79	
01:45	0	0	0	4	2	13:45	0	0	22	119	141	
02:00	0	0	0	0	0	14:00	0	0	31	70	101	
02:15	0	0	0	0	0	14:15	0	0	48	73	121	
02:30	0	0	0	2	2	14:30	0	0	57	61	118	
02:45	0	0	0	0	0	14:45	0	0	46	182	228	
03:00	0	0	1	3	4	15:00	0	0	47	64	111	
03:15	0	0	1	0	1	15:15	0	0	41	67	108	
03:30	0	0	1	2	3	15:30	0	0	41	62	103	
03:45	0	0	0	3	0	15:45	0	0	53	182	235	
04:00	0	0	2	1	3	16:00	0	0	58	78	136	
04:15	0	0	1	1	2	16:15	0	0	38	65	103	
04:30	0	0	1	2	3	16:30	0	0	49	94	143	
04:45	0	0	5	9	2	16:45	0	0	47	192	239	
05:00	0	0	7	1	8	17:00	0	0	44	99	143	
05:15	0	0	5	2	7	17:15	0	0	54	96	150	
05:30	0	0	6	2	8	17:30	0	0	38	90	128	
05:45	0	0	7	25	2	17:45	0	0	44	180	224	
06:00	0	0	2	10	12	18:00	0	0	38	65	103	
06:15	0	0	4	12	16	18:15	0	0	29	74	103	
06:30	0	0	16	17	33	18:30	0	0	31	74	105	
06:45	0	0	20	42	21	18:45	0	0	23	121	144	
07:00	0	0	23	32	55	19:00	0	0	31	54	85	
07:15	0	0	39	61	100	19:15	0	0	22	51	73	
07:30	0	0	58	99	157	19:30	0	0	20	36	56	
07:45	0	0	71	191	120	19:45	0	0	19	92	111	
08:00	0	0	55	146	201	20:00	0	0	18	36	54	
08:15	0	0	88	97	185	20:15	0	0	23	30	53	
08:30	0	0	71	47	118	20:30	0	0	27	30	57	
08:45	0	0	55	269	51	20:45	0	0	22	90	112	
09:00	0	0	34	38	72	21:00	0	0	14	23	37	
09:15	0	0	50	47	97	21:15	0	0	13	21	34	
09:30	0	0	37	38	75	21:30	0	0	8	13	21	
09:45	0	0	37	158	31	21:45	0	0	8	43	51	
10:00	0	0	28	24	52	22:00	0	0	5	11	16	
10:15	0	0	38	27	65	22:15	0	0	5	9	14	
10:30	0	0	21	24	45	22:30	0	0	4	7	11	
10:45	0	0	16	103	34	22:45	0	0	6	20	26	
11:00	0	0	32	29	61	23:00	0	0	2	5	7	
11:15	0	0	30	39	69	23:15	0	0	2	8	10	
11:30	0	0	28	37	65	23:30	0	0	3	6	9	
11:45	0	0	25	115	41	23:45	0	0	3	10	13	
TOTALS			924	1155	2079	TOTALS			1363	2227	3590	
SPLIT %			44.4%	55.6%	36.7%	SPLIT %			38.0%	62.0%	63.3%	

DAILY TOTALS						NB	SB					Total
						0	0					5,669
								2,287	3,382			
AM Peak Hour			07:45	07:30	07:30	PM Peak Hour			14:15	16:30	16:30	
AM Pk Volume			285	462	734	PM Pk Volume			198	358	552	
Pk Hr Factor			0.810	0.791	0.913	Pk Hr Factor			0.868	0.904	0.920	
7 - 9 Volume	0	0	460	653	1113	4 - 6 Volume	0	0	372	639	1011	
7 - 9 Peak Hour			07:45	07:30	07:30	4 - 6 Peak Hour			16:30	16:30	16:30	
7 - 9 Pk Volume	0	0	285	462	734	4 - 6 Pk Volume	0	0	194	358	552	
Pk Hr Factor	0.000	0.000	0.810	0.791	0.913	Pk Hr Factor	0.000	0.000	0.898	0.904	0.920	

VOLUME

Selby Lane west of El Camino Real

Day: Thursday
Date: 5/12/2016

City: Atherton
Project #: 16-7361-001

DAILY TOTALS						NB	SB					Total
						0	0					5,702
								2,254	3,448			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	0	3	3	12:00	0	0	36	50	86	
00:15	0	0	1	4	5	12:15	0	0	36	35	71	
00:30	0	0	2	0	2	12:30	0	0	29	65	94	
00:45	0	0	1	4	2	12:45	0	0	30	131	203	
					9						83	
01:00	0	0	2	1	3	13:00	0	0	31	59	90	
01:15	0	0	2	0	2	13:15	0	0	38	89	127	
01:30	0	0	3	2	5	13:30	0	0	74	60	134	
01:45	0	0	0	7	1	13:45	0	0	56	199	255	
					4						114	
02:00	0	0	1	0	1	14:00	0	0	41	60	101	
02:15	0	0	1	0	1	14:15	0	0	32	66	98	
02:30	0	0	0	0	0	14:30	0	0	41	46	87	
02:45	0	0	1	3	1	14:45	0	0	39	153	233	
					3						100	
03:00	0	0	0	1	1	15:00	0	0	43	59	102	
03:15	0	0	0	1	1	15:15	0	0	58	63	121	
03:30	0	0	1	2	3	15:30	0	0	46	63	109	
03:45	0	0	0	1	0	15:45	0	0	43	190	255	
					4						113	
04:00	0	0	1	0	1	16:00	0	0	41	79	120	
04:15	0	0	1	0	1	16:15	0	0	38	67	105	
04:30	0	0	0	0	0	16:30	0	0	47	79	126	
04:45	0	0	4	6	1	16:45	0	0	40	166	249	
					1						114	
05:00	0	0	1	0	1	17:00	0	0	36	85	121	
05:15	0	0	4	4	8	17:15	0	0	37	75	112	
05:30	0	0	5	1	6	17:30	0	0	49	88	137	
05:45	0	0	8	18	6	17:45	0	0	39	161	234	
					11						125	
06:00	0	0	7	6	13	18:00	0	0	39	76	115	
06:15	0	0	9	13	22	18:15	0	0	40	65	105	
06:30	0	0	13	14	27	18:30	0	0	29	52	81	
06:45	0	0	26	55	23	18:45	0	0	28	136	253	
					56						88	
07:00	0	0	30	38	68	19:00	0	0	29	50	79	
07:15	0	0	38	69	107	19:15	0	0	25	48	73	
07:30	0	0	56	95	151	19:30	0	0	19	44	63	
07:45	0	0	56	180	103	19:45	0	0	25	98	180	
					305						63	
08:00	0	0	62	148	210	20:00	0	0	20	37	57	
08:15	0	0	86	72	158	20:15	0	0	12	25	37	
08:30	0	0	65	55	120	20:30	0	0	13	30	43	
08:45	0	0	48	261	51	20:45	0	0	15	60	125	
					326						48	
09:00	0	0	32	30	62	21:00	0	0	13	28	41	
09:15	0	0	33	30	63	21:15	0	0	9	28	37	
09:30	0	0	25	32	57	21:30	0	0	8	16	24	
09:45	0	0	31	121	34	21:45	0	0	2	32	17	
					126						89	
10:00	0	0	31	27	58	22:00	0	0	8	16	24	
10:15	0	0	24	29	53	22:15	0	0	5	13	18	
10:30	0	0	23	34	57	22:30	0	0	1	11	12	
10:45	0	0	32	110	38	22:45	0	0	2	16	7	
					128						47	
11:00	0	0	28	46	74	23:00	0	0	1	6	7	
11:15	0	0	31	44	75	23:15	0	0	1	4	5	
11:30	0	0	41	44	85	23:30	0	0	1	1	2	
11:45	0	0	42	142	45	23:45	0	0	1	4	4	
					179						15	
TOTALS			908	1149	2057	TOTALS			1346	2299	3645	
SPLIT %			44.1%	55.9%	36.1%	SPLIT %			36.9%	63.1%	63.9%	

DAILY TOTALS						NB	SB					Total
						0	0					5,702
								2,254	3,448			
AM Peak Hour			07:45	07:30	07:30	PM Peak Hour			13:15	17:00	17:00	
AM Pk Volume			269	418	678	PM Pk Volume			209	334	495	
Pk Hr Factor			0.782	0.706	0.807	Pk Hr Factor			0.706	0.949	0.903	
7 - 9 Volume	0	0	441	631	1072	4 - 6 Volume	0	0	327	633	960	
7 - 9 Peak Hour			07:45	07:30	07:30	4 - 6 Peak Hour			16:00	17:00	17:00	
7 - 9 Pk Volume			269	418	678	4 - 6 Pk Volume			166	334	495	
Pk Hr Factor	0.000	0.000	0.782	0.706	0.807	Pk Hr Factor	0.000	0.000	0.883	0.949	0.903	

VOLUME

Selby Lane west of El Camino Real

Day: Friday
Date: 5/13/2016City: Atherton
Project #: 16-7361-001

DAILY TOTALS						NB	SB					Total
						0	0					5,720
								2,335	3,385			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	0	5	5	12:00	0	0	32	48	80	
00:15	0	0	1	1	2	12:15	0	0	29	50	79	
00:30	0	0	1	0	1	12:30	0	0	30	44	74	
00:45	0	0	2	4	6	12:45	0	0	41	132	185	
01:00	0	0	2	0	2	13:00	0	0	25	47	72	
01:15	0	0	0	1	1	13:15	0	0	35	48	83	
01:30	0	0	2	2	4	13:30	0	0	31	59	90	
01:45	0	0	0	4	4	13:45	0	0	22	113	135	
02:00	0	0	3	0	3	14:00	0	0	28	71	99	
02:15	0	0	0	1	1	14:15	0	0	29	85	114	
02:30	0	0	0	0	0	14:30	0	0	76	66	142	
02:45	0	0	1	4	5	14:45	0	0	56	189	245	
03:00	0	0	1	1	2	15:00	0	0	42	53	95	
03:15	0	0	0	1	1	15:15	0	0	68	65	133	
03:30	0	0	2	4	6	15:30	0	0	53	71	124	
03:45	0	0	0	3	3	15:45	0	0	55	218	273	
04:00	0	0	2	0	2	16:00	0	0	63	77	140	
04:15	0	0	1	1	2	16:15	0	0	46	76	122	
04:30	0	0	0	0	0	16:30	0	0	51	66	117	
04:45	0	0	4	7	11	16:45	0	0	55	215	270	
05:00	0	0	3	1	4	17:00	0	0	36	83	119	
05:15	0	0	3	4	7	17:15	0	0	43	74	117	
05:30	0	0	6	2	8	17:30	0	0	48	78	126	
05:45	0	0	5	17	22	17:45	0	0	35	162	197	
06:00	0	0	5	3	8	18:00	0	0	27	65	92	
06:15	0	0	10	10	20	18:15	0	0	23	63	86	
06:30	0	0	13	8	21	18:30	0	0	29	50	79	
06:45	0	0	25	53	78	18:45	0	0	33	112	145	
07:00	0	0	28	32	60	19:00	0	0	34	47	81	
07:15	0	0	40	57	97	19:15	0	0	24	42	66	
07:30	0	0	56	95	151	19:30	0	0	23	43	66	
07:45	0	0	55	179	234	19:45	0	0	17	98	115	
08:00	0	0	60	140	200	20:00	0	0	21	29	50	
08:15	0	0	83	74	157	20:15	0	0	12	31	43	
08:30	0	0	76	48	124	20:30	0	0	19	35	54	
08:45	0	0	54	273	327	20:45	0	0	16	68	84	
09:00	0	0	39	35	74	21:00	0	0	20	24	44	
09:15	0	0	38	30	68	21:15	0	0	21	26	47	
09:30	0	0	24	33	57	21:30	0	0	9	32	41	
09:45	0	0	35	136	171	21:45	0	0	7	57	64	
10:00	0	0	39	30	69	22:00	0	0	10	23	33	
10:15	0	0	30	24	54	22:15	0	0	9	18	27	
10:30	0	0	24	24	48	22:30	0	0	6	21	27	
10:45	0	0	32	125	157	22:45	0	0	9	34	43	
11:00	0	0	33	33	66	23:00	0	0	5	14	19	
11:15	0	0	31	36	67	23:15	0	0	4	6	10	
11:30	0	0	22	32	54	23:30	0	0	4	7	11	
11:45	0	0	30	116	146	23:45	0	0	3	16	19	
TOTALS			921	1104	2025	TOTALS			1414	2281	3695	
SPLIT %			45.5%	54.5%	35.4%	SPLIT %			38.3%	61.7%	64.6%	

DAILY TOTALS						NB	SB					Total
						0	0					5,720
								2,335	3,385			
AM Peak Hour			07:45	07:30	07:30	PM Peak Hour			14:30	16:45	15:15	
AM Pk Volume			274	425	679	PM Pk Volume			242	315	538	
Pk Hr Factor			0.825	0.759	0.849	Pk Hr Factor			0.796	0.949	0.954	
7 - 9 Volume	0	0	452	633	1085	4 - 6 Volume	0	0	377	602	979	
7 - 9 Peak Hour			07:45	07:30	07:30	4 - 6 Peak Hour			16:00	16:45	16:00	
7 - 9 Pk Volume	0	0	274	425	679	4 - 6 Pk Volume	0	0	215	315	514	
Pk Hr Factor	0.000	0.000	0.825	0.759	0.849	Pk Hr Factor	0.000	0.000	0.853	0.949	0.918	

VOLUME

Selby Lane west of El Camino Real

Day: Saturday
Date: 5/14/2016City: Atherton
Project #: 16-7361-001

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	1,487	2,119	3,606		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0	2	8	10	12:00	0	0	29	44	73
00:15	0	0	4	2	6	12:15	0	0	48	36	84
00:30	0	0	0	2	2	12:30	0	0	21	48	69
00:45	0	0	3	9	3	12:45	0	0	36	134	181
01:00	0	0	3	1	4	13:00	0	0	31	54	85
01:15	0	0	2	0	2	13:15	0	0	31	35	66
01:30	0	0	0	7	7	13:30	0	0	36	46	82
01:45	0	0	0	5	3	13:45	0	0	29	127	167
02:00	0	0	0	2	2	14:00	0	0	22	33	55
02:15	0	0	2	0	2	14:15	0	0	24	35	59
02:30	0	0	0	3	3	14:30	0	0	28	35	63
02:45	0	0	0	2	0	14:45	0	0	23	97	149
03:00	0	0	1	2	3	15:00	0	0	30	47	77
03:15	0	0	1	2	3	15:15	0	0	29	60	89
03:30	0	0	0	4	4	15:30	0	0	23	42	65
03:45	0	0	2	4	1	15:45	0	0	26	108	186
04:00	0	0	0	1	1	16:00	0	0	32	43	75
04:15	0	0	1	1	2	16:15	0	0	24	43	67
04:30	0	0	0	1	1	16:30	0	0	27	31	58
04:45	0	0	3	4	2	16:45	0	0	18	101	164
05:00	0	0	0	1	1	17:00	0	0	28	42	70
05:15	0	0	2	2	4	17:15	0	0	32	31	63
05:30	0	0	6	1	7	17:30	0	0	36	30	66
05:45	0	0	1	9	1	17:45	0	0	40	136	271
06:00	0	0	1	1	2	18:00	0	0	33	40	73
06:15	0	0	3	3	6	18:15	0	0	23	32	55
06:30	0	0	4	3	7	18:30	0	0	21	37	58
06:45	0	0	5	13	7	18:45	0	0	19	96	141
07:00	0	0	6	7	13	19:00	0	0	17	24	41
07:15	0	0	10	13	23	19:15	0	0	15	24	39
07:30	0	0	9	21	30	19:30	0	0	15	27	42
07:45	0	0	15	40	35	19:45	0	0	18	65	99
08:00	0	0	9	16	25	20:00	0	0	16	21	37
08:15	0	0	20	23	43	20:15	0	0	14	18	32
08:30	0	0	29	24	53	20:30	0	0	6	19	25
08:45	0	0	18	76	24	20:45	0	0	7	43	81
09:00	0	0	20	31	51	21:00	0	0	11	18	29
09:15	0	0	22	25	47	21:15	0	0	6	15	21
09:30	0	0	25	40	65	21:30	0	0	12	11	23
09:45	0	0	32	99	28	21:45	0	0	10	39	61
10:00	0	0	37	32	69	22:00	0	0	11	28	39
10:15	0	0	24	28	52	22:15	0	0	7	17	24
10:30	0	0	26	28	54	22:30	0	0	6	20	26
10:45	0	0	28	115	34	22:45	0	0	5	29	76
11:00	0	0	17	45	62	23:00	0	0	7	14	21
11:15	0	0	24	36	60	23:15	0	0	10	14	24
11:30	0	0	35	44	79	23:30	0	0	10	6	16
11:45	0	0	25	101	40	23:45	0	0	8	35	7
TOTALS			477	638	1115	TOTALS			1010	1481	2491
SPLIT %			42.8%	57.2%	30.9%	SPLIT %			40.5%	59.5%	69.1%

DAILY TOTALS					NB	SB	EB	WB	Total		
					0	0	1,487	2,119	3,606		
AM Peak Hour			11:30	11:45	11:30	PM Peak Hour			17:15	14:45	12:15
AM Pk Volume			137	168	301	PM Pk Volume			141	195	327
Pk Hr Factor			0.714	0.875	0.896	Pk Hr Factor			0.881	0.813	0.919
7 - 9 Volume	0	0	116	163	279	4 - 6 Volume	0	0	237	299	536
7 - 9 Peak Hour			08:00	07:45	07:45	4 - 6 Peak Hour			17:00	16:00	17:00
7 - 9 Pk Volume	0	0	76	98	171	4 - 6 Pk Volume	0	0	136	164	271
Pk Hr Factor	0.000	0.000	0.655	0.700	0.807	Pk Hr Factor	0.000	0.000	0.850	0.872	0.941

VOLUME

Selby Lane west of El Camino Real

Day: Sunday
Date: 5/15/2016

City: Atherton
Project #: 16-7361-001

DAILY TOTALS					NB	SB						Total	
					0	0						2,716	
							1,082			1,634			
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	10	12	22		12:00	0	0	19	24	43	
00:15	0	0	4	7	11		12:15	0	0	36	34	70	
00:30	0	0	6	7	13		12:30	0	0	16	31	47	
00:45	0	0	1	21	2	28	12:45	0	0	17	88	35	124
01:00	0	0	4	2	6		13:00	0	0	15	30	45	
01:15	0	0	1	4	5		13:15	0	0	19	33	52	
01:30	0	0	3	3	6		13:30	0	0	18	33	51	
01:45	0	0	0	8	4	13	13:45	0	0	19	71	29	125
02:00	0	0	2	4	6		14:00	0	0	24	43	67	
02:15	0	0	2	1	3		14:15	0	0	15	37	52	
02:30	0	0	0	2	2		14:30	0	0	26	23	49	
02:45	0	0	1	5	0	7	14:45	0	0	23	88	34	137
03:00	0	0	0	2	2		15:00	0	0	23	48	71	
03:15	0	0	0	1	1		15:15	0	0	18	36	54	
03:30	0	0	2	2	4		15:30	0	0	16	35	51	
03:45	0	0	1	3	1	6	15:45	0	0	16	73	22	141
04:00	0	0	0	1	1		16:00	0	0	19	27	46	
04:15	0	0	1	0	1		16:15	0	0	23	33	56	
04:30	0	0	0	0	0		16:30	0	0	28	27	55	
04:45	0	0	0	1	0	1	16:45	0	0	19	89	34	121
05:00	0	0	1	0	1		17:00	0	0	16	36	52	
05:15	0	0	0	2	2		17:15	0	0	13	24	37	
05:30	0	0	1	3	4		17:30	0	0	22	26	48	
05:45	0	0	4	6	1	6	17:45	0	0	19	70	20	106
06:00	0	0	1	4	5		18:00	0	0	15	40	55	
06:15	0	0	5	2	7		18:15	0	0	14	25	39	
06:30	0	0	4	2	6		18:30	0	0	19	33	52	
06:45	0	0	3	13	5	13	18:45	0	0	13	61	30	128
07:00	0	0	5	2	7		19:00	0	0	11	23	34	
07:15	0	0	4	4	8		19:15	0	0	10	28	38	
07:30	0	0	15	8	23		19:30	0	0	16	24	40	
07:45	0	0	7	31	11	25	19:45	0	0	7	44	28	103
08:00	0	0	11	15	26		20:00	0	0	10	17	27	
08:15	0	0	13	13	26		20:15	0	0	5	19	24	
08:30	0	0	10	15	25		20:30	0	0	13	21	34	
08:45	0	0	15	49	20	63	20:45	0	0	16	44	30	87
09:00	0	0	15	15	30		21:00	0	0	8	15	23	
09:15	0	0	18	15	33		21:15	0	0	11	19	30	
09:30	0	0	30	22	52		21:30	0	0	7	13	20	
09:45	0	0	18	81	21	73	21:45	0	0	4	30	6	53
10:00	0	0	21	19	40		22:00	0	0	5	12	17	
10:15	0	0	17	26	43		22:15	0	0	8	7	15	
10:30	0	0	17	33	50		22:30	0	0	10	3	13	
10:45	0	0	29	84	28	106	22:45	0	0	1	24	10	32
11:00	0	0	17	27	44		23:00	0	0	1	3	4	
11:15	0	0	27	35	62		23:15	0	0	3	1	4	
11:30	0	0	22	34	56		23:30	0	0	1	3	4	
11:45	0	0	26	92	33	129	23:45	0	0	1	6	0	7
TOTALS			394	470	864		TOTALS			688	1164	1852	
SPLIT %			45.6%	54.4%	31.8%		SPLIT %			37.1%	62.9%	68.2%	

DAILY TOTALS					NB	SB						Total
					0	0						2,716
							1,082			1,634		
AM Peak Hour			11:30	11:00	11:30	PM Peak Hour			14:30	14:45	14:45	
AM Pk Volume			103	129	228	PM Pk Volume			90	153	233	
Pk Hr Factor			0.715	0.921	0.814	Pk Hr Factor			0.865	0.797	0.820	
7 - 9 Volume	0	0	80	88	168	4 - 6 Volume	0	0	159	227	386	
7 - 9 Peak Hour			08:00	08:00	08:00	4 - 6 Peak Hour			16:00	16:15	16:15	
7 - 9 Pk Volume	0	0	49	63	112	4 - 6 Pk Volume	0	0	89	130	216	
Pk Hr Factor	0.000	0.000	0.817	0.788	0.800	Pk Hr Factor	0.000	0.000	0.795	0.903	0.964	

VOLUME

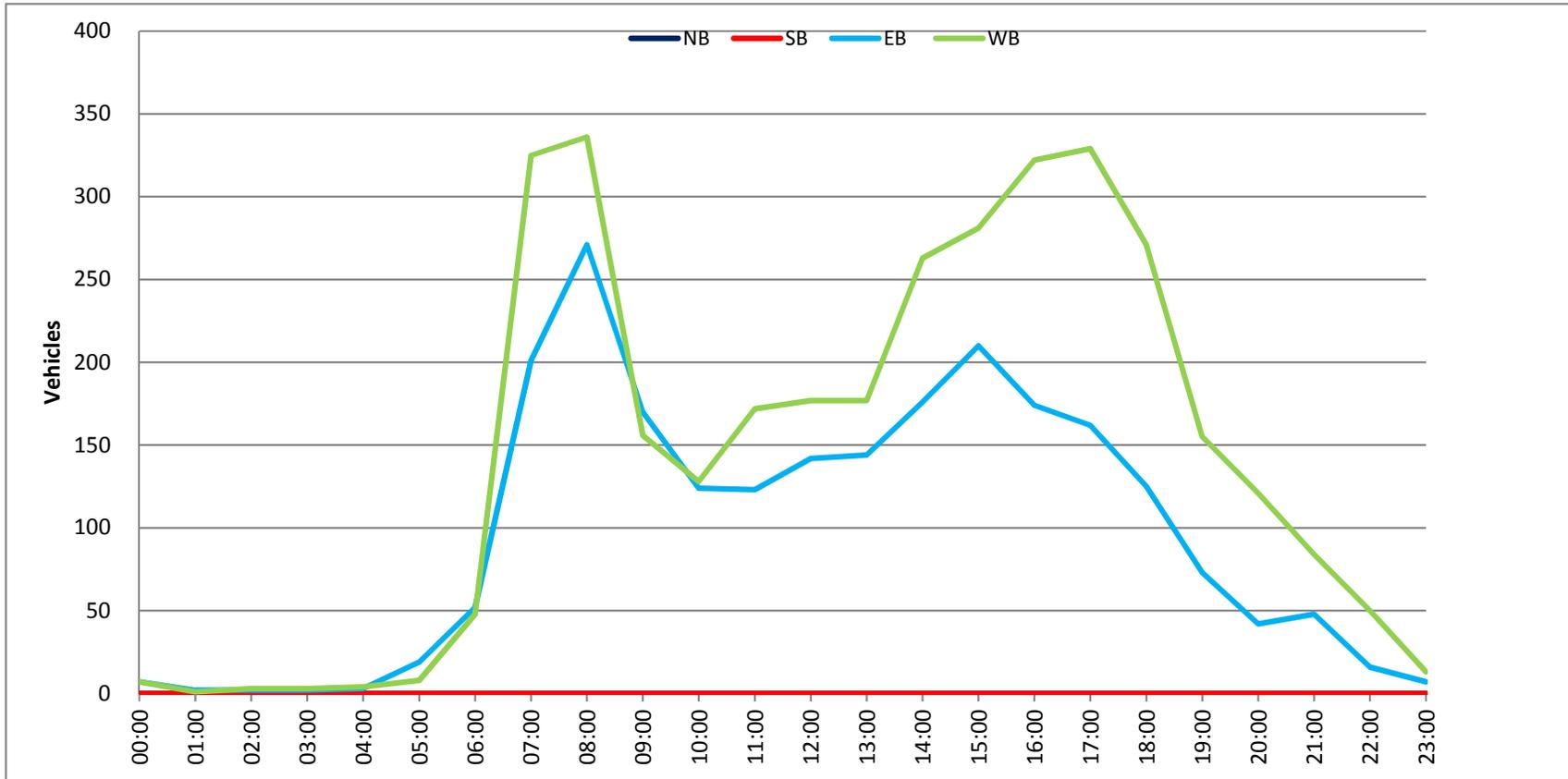
Selby Lane west of El Camino Real

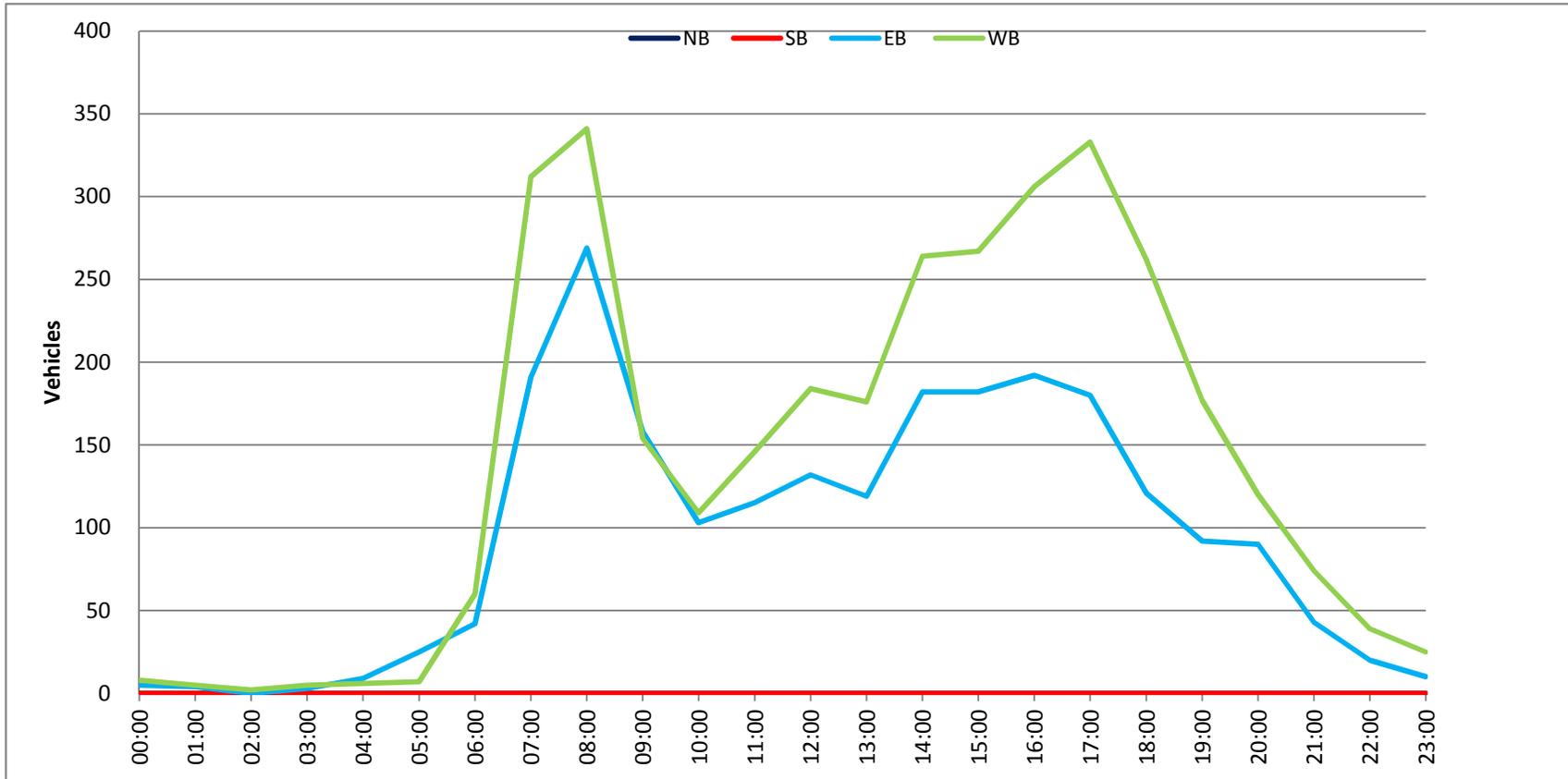
Day: Monday
Date: 5/16/2016

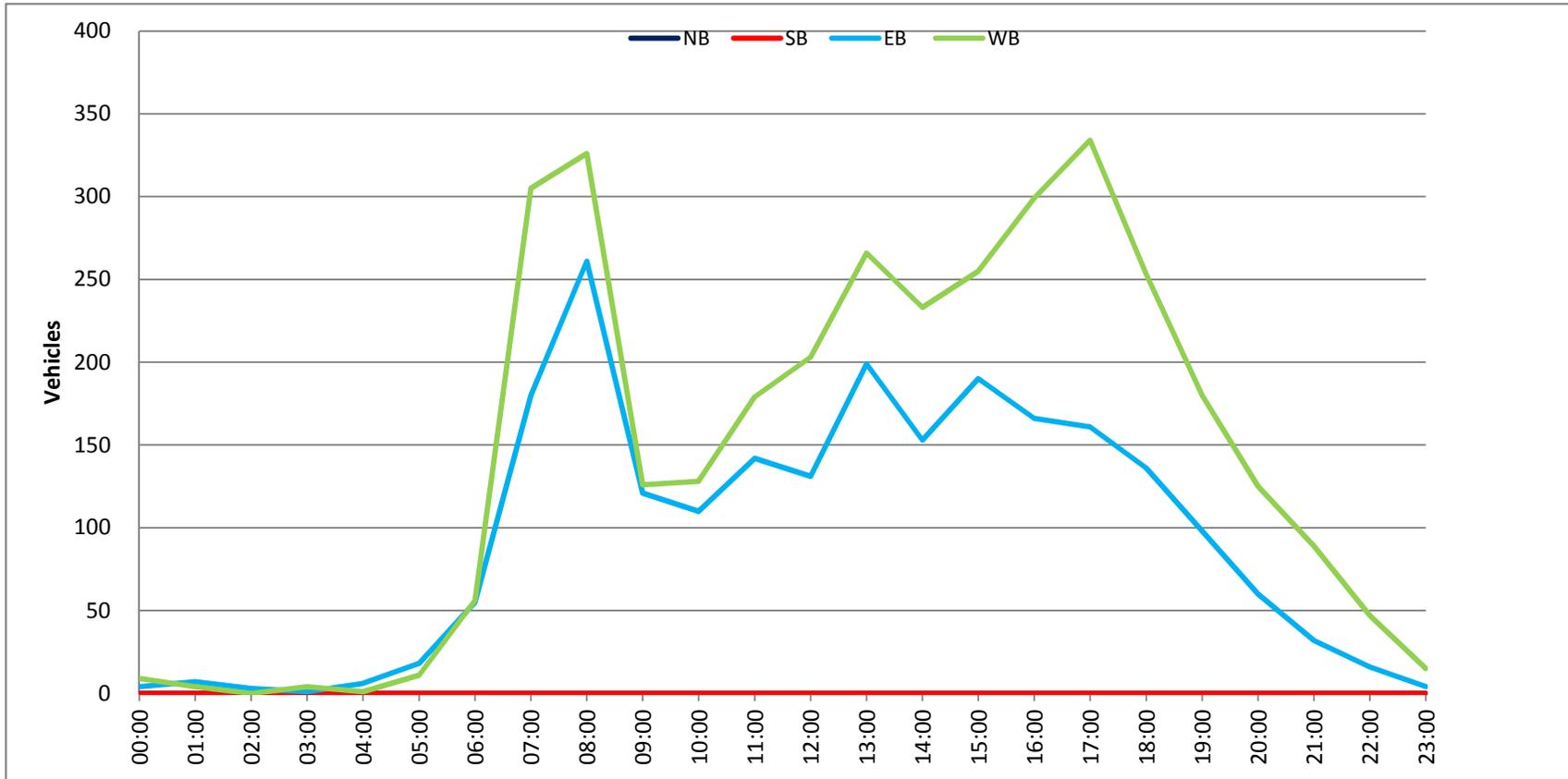
City: Atherton
Project #: 16-7361-001

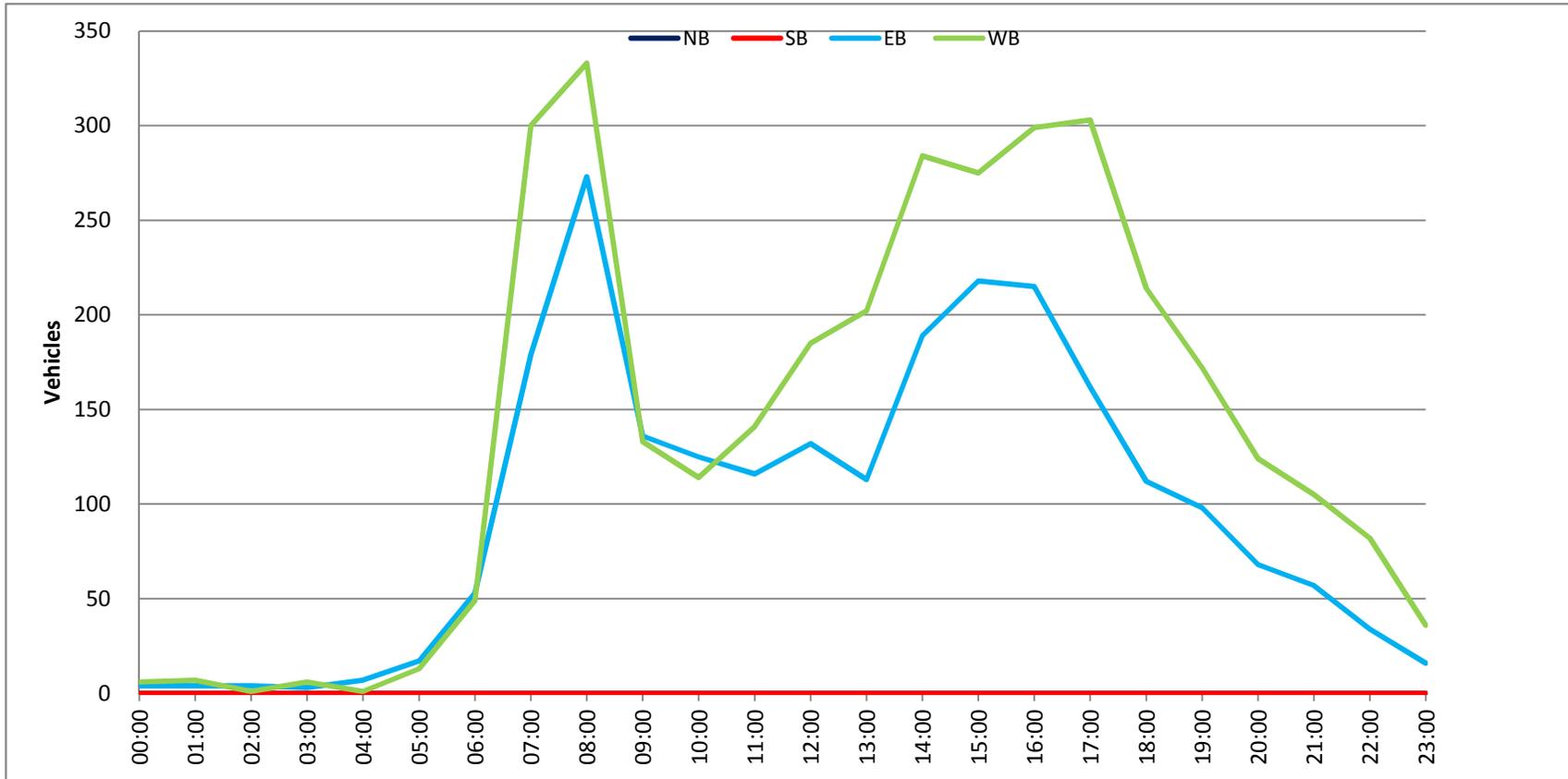
DAILY TOTALS						NB	SB					Total
						0	0					5,461
								2,203	3,258			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	0	2	2	12:00	0	0	26	24	50	
00:15	0	0	0	3	3	12:15	0	0	42	44	86	
00:30	0	0	1	0	1	12:30	0	0	29	43	72	
00:45	0	0	0	1	2	12:45	0	0	22	119	141	
01:00	0	0	1	0	1	13:00	0	0	32	41	73	
01:15	0	0	0	1	1	13:15	0	0	29	57	86	
01:30	0	0	1	1	2	13:30	0	0	45	44	89	
01:45	0	0	1	3	2	13:45	0	0	25	131	156	
02:00	0	0	0	0	0	14:00	0	0	25	64	89	
02:15	0	0	0	1	1	14:15	0	0	28	83	111	
02:30	0	0	0	0	0	14:30	0	0	59	61	120	
02:45	0	0	1	1	1	14:45	0	0	57	169	226	
03:00	0	0	0	1	1	15:00	0	0	41	59	100	
03:15	0	0	0	1	1	15:15	0	0	73	79	152	
03:30	0	0	1	1	2	15:30	0	0	59	88	147	
03:45	0	0	1	2	1	15:45	0	0	49	222	271	
04:00	0	0	0	1	1	16:00	0	0	58	60	118	
04:15	0	0	1	0	1	16:15	0	0	45	59	104	
04:30	0	0	0	0	0	16:30	0	0	54	85	139	
04:45	0	0	4	5	5	16:45	0	0	41	198	239	
05:00	0	0	2	1	3	17:00	0	0	39	92	131	
05:15	0	0	2	2	4	17:15	0	0	41	80	121	
05:30	0	0	5	2	7	17:30	0	0	38	87	125	
05:45	0	0	9	18	11	17:45	0	0	44	162	206	
06:00	0	0	6	7	13	18:00	0	0	39	76	115	
06:15	0	0	9	15	24	18:15	0	0	27	63	90	
06:30	0	0	15	21	36	18:30	0	0	25	53	78	
06:45	0	0	22	52	49	18:45	0	0	23	114	137	
07:00	0	0	26	36	62	19:00	0	0	28	39	67	
07:15	0	0	41	64	105	19:15	0	0	13	46	59	
07:30	0	0	61	92	153	19:30	0	0	15	32	47	
07:45	0	0	57	185	172	19:45	0	0	15	71	86	
08:00	0	0	55	128	183	20:00	0	0	13	28	41	
08:15	0	0	66	64	130	20:15	0	0	18	19	37	
08:30	0	0	65	48	113	20:30	0	0	15	34	49	
08:45	0	0	42	228	87	20:45	0	0	9	55	64	
09:00	0	0	35	40	75	21:00	0	0	19	18	37	
09:15	0	0	42	42	84	21:15	0	0	13	17	30	
09:30	0	0	34	31	65	21:30	0	0	8	11	19	
09:45	0	0	34	145	55	21:45	0	0	4	44	48	
10:00	0	0	39	31	70	22:00	0	0	6	16	22	
10:15	0	0	23	36	59	22:15	0	0	6	15	21	
10:30	0	0	25	37	62	22:30	0	0	3	10	13	
10:45	0	0	34	121	63	22:45	0	0	1	16	17	
11:00	0	0	29	40	69	23:00	0	0	3	6	9	
11:15	0	0	26	34	60	23:15	0	0	7	4	11	
11:30	0	0	39	38	77	23:30	0	0	3	2	5	
11:45	0	0	31	125	72	23:45	0	0	3	16	19	
TOTALS			886	1105	1991	TOTALS			1317	2153	3470	
SPLIT %			44.5%	55.5%	36.5%	SPLIT %			38.0%	62.0%	63.5%	

DAILY TOTALS						NB	SB					Total
						0	0					5,461
								2,203	3,258			
AM Peak Hour			07:45	07:15	07:30	PM Peak Hour			15:15	16:45	15:15	
AM Pk Volume			243	399	638	PM Pk Volume			239	341	546	
Pk Hr Factor			0.920	0.779	0.872	Pk Hr Factor			0.818	0.927	0.898	
7 - 9 Volume	0	0	413	592	1005	4 - 6 Volume	0	0	360	614	974	
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour			16:00	16:45	16:30	
7 - 9 Pk Volume	0	0	243	399	638	4 - 6 Pk Volume	0	0	198	341	514	
Pk Hr Factor	0.000	0.000	0.920	0.779	0.872	Pk Hr Factor	0.000	0.000	0.853	0.927	0.924	

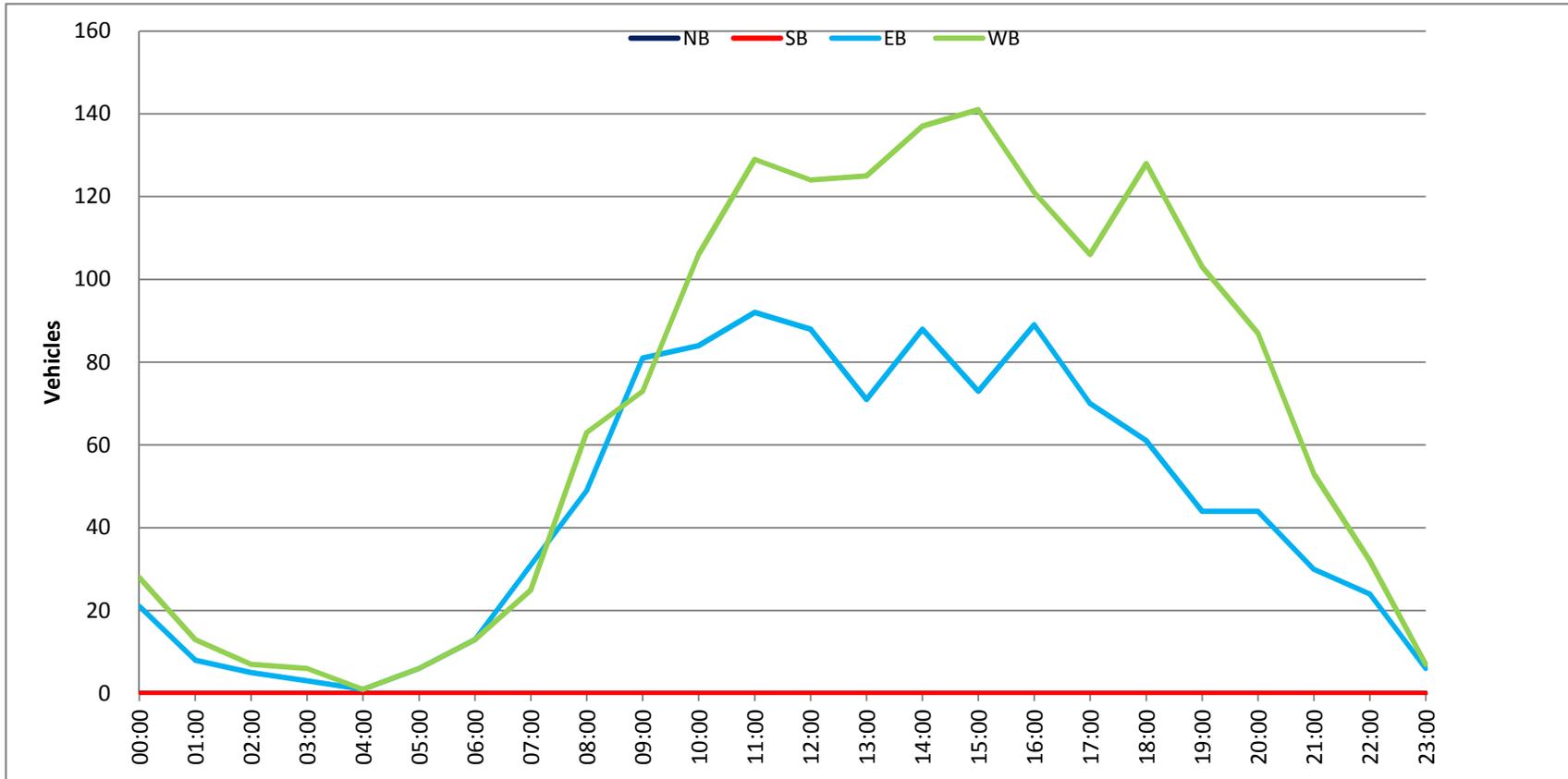












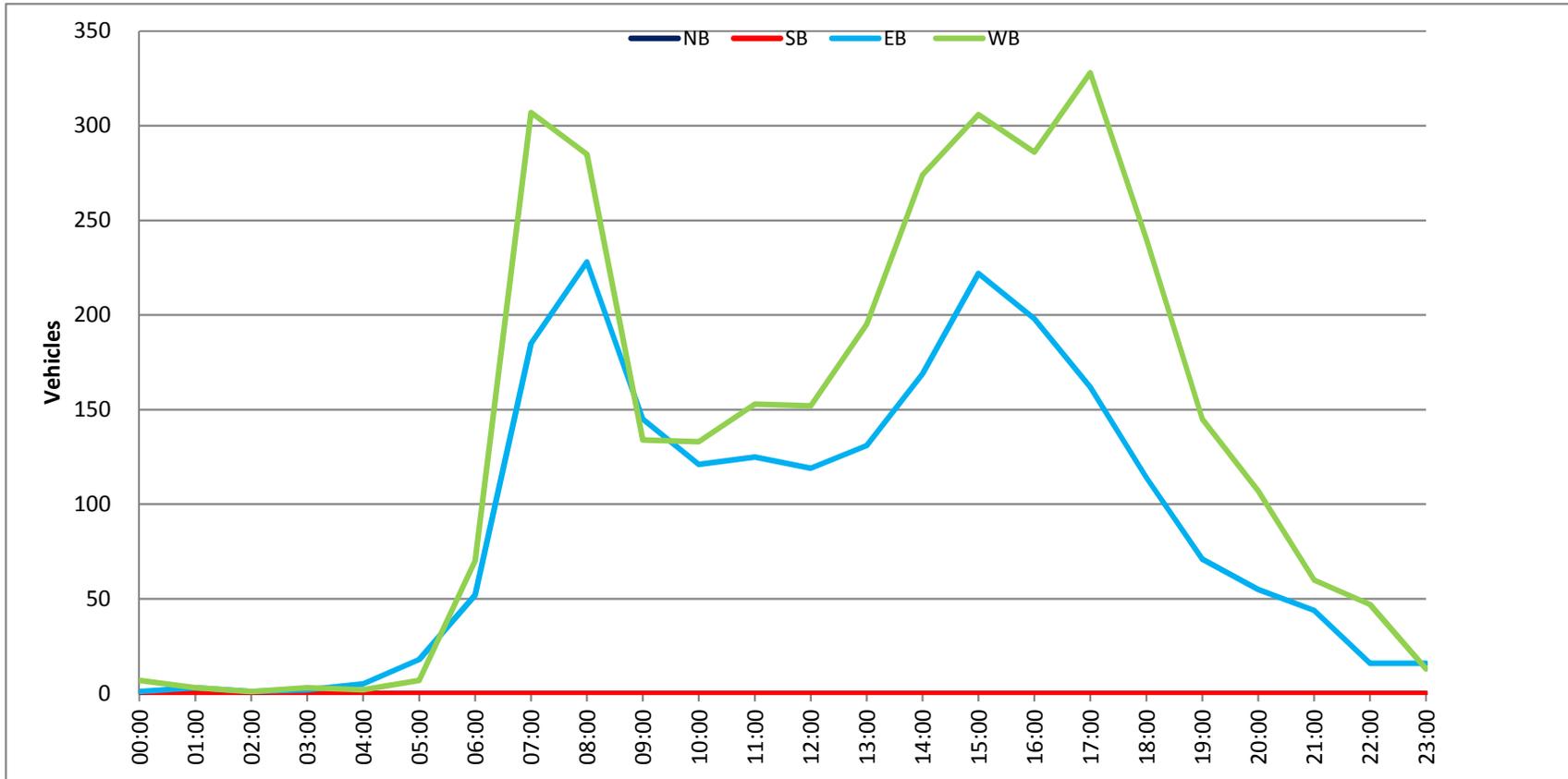
Prepared by NDS/ATD

Project #: 16-7361-001

City: Atherton

Location: Selby Lane west of El Camino Real

Date: 5/16/2016



VOLUME

Selby Lane east of El Camino Real

Day: Tuesday
Date: 5/10/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	389	295	684		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	2	0	2	12:00	0	0	2	3	5	
00:15	0	0	1	1	2	12:15	0	0	3	1	4	
00:30	0	0	2	0	2	12:30	0	0	5	4	9	
00:45	0	0	1	6	1	12:45	0	0	3	13	3	11
01:00	0	0	0	0	0	13:00	0	0	7	5	12	
01:15	0	0	2	0	2	13:15	0	0	5	5	10	
01:30	0	0	3	0	3	13:30	0	0	8	4	12	
01:45	0	0	0	5	0	13:45	0	0	6	26	8	22
02:00	0	0	0	0	0	14:00	0	0	3	2	5	
02:15	0	0	0	0	0	14:15	0	0	2	4	6	
02:30	0	0	0	0	0	14:30	0	0	8	5	13	
02:45	0	0	2	2	0	14:45	0	0	1	14	4	15
03:00	0	0	0	1	1	15:00	0	0	3	2	5	
03:15	0	0	0	1	1	15:15	0	0	3	4	7	
03:30	0	0	1	0	1	15:30	0	0	7	8	15	
03:45	0	0	0	1	0	15:45	0	0	5	18	5	19
04:00	0	0	1	0	1	16:00	0	0	13	3	16	
04:15	0	0	3	1	4	16:15	0	0	11	5	16	
04:30	0	0	0	0	0	16:30	0	0	11	8	19	
04:45	0	0	1	5	1	16:45	0	0	6	41	6	22
05:00	0	0	1	0	1	17:00	0	0	18	2	20	
05:15	0	0	1	2	3	17:15	0	0	5	3	8	
05:30	0	0	0	3	3	17:30	0	0	7	4	11	
05:45	0	0	0	2	2	17:45	0	0	8	38	6	15
06:00	0	0	1	2	3	18:00	0	0	7	1	8	
06:15	0	0	2	2	4	18:15	0	0	3	8	11	
06:30	0	0	3	5	8	18:30	0	0	6	3	9	
06:45	0	0	2	8	3	18:45	0	0	8	24	4	16
07:00	0	0	1	5	6	19:00	0	0	6	7	13	
07:15	0	0	6	9	15	19:15	0	0	4	2	6	
07:30	0	0	5	5	10	19:30	0	0	5	4	9	
07:45	0	0	7	19	12	19:45	0	0	6	21	2	15
08:00	0	0	5	9	14	20:00	0	0	13	2	15	
08:15	0	0	7	7	14	20:15	0	0	8	7	15	
08:30	0	0	6	6	12	20:30	0	0	5	3	8	
08:45	0	0	8	26	4	20:45	0	0	3	29	3	15
09:00	0	0	5	8	13	21:00	0	0	11	4	15	
09:15	0	0	5	3	8	21:15	0	0	5	3	8	
09:30	0	0	5	4	9	21:30	0	0	2	2	4	
09:45	0	0	1	16	3	21:45	0	0	2	20	1	10
10:00	0	0	3	3	6	22:00	0	0	4	0	4	
10:15	0	0	3	9	12	22:15	0	0	2	1	3	
10:30	0	0	5	1	6	22:30	0	0	1	1	2	
10:45	0	0	3	14	1	22:45	0	0	4	11	1	3
11:00	0	0	5	2	7	23:00	0	0	2	1	3	
11:15	0	0	6	7	13	23:15	0	0	5	3	8	
11:30	0	0	2	3	5	23:30	0	0	2	1	3	
11:45	0	0	7	20	2	23:45	0	0	1	10	0	5
TOTALS			124	127	251	TOTALS			265	168	433	
SPLIT %			49.4%	50.6%	36.7%	SPLIT %			61.2%	38.8%	63.3%	

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	389	295	684	
AM Peak Hour			08:00	07:15	07:45	PM Peak Hour			16:15	13:00	16:15
AM Pk Volume			26	35	59	PM Pk Volume			46	22	67
Pk Hr Factor			0.813	0.729	0.776	Pk Hr Factor			0.639	0.688	0.838
7 - 9 Volume	0	0	45	57	102	4 - 6 Volume	0	0	79	37	116
7 - 9 Peak Hour			08:00	07:15	07:45	4 - 6 Peak Hour			16:15	16:00	16:15
7 - 9 Pk Volume	0	0	26	35	59	4 - 6 Pk Volume	0	0	46	22	67
Pk Hr Factor	0.000	0.000	0.813	0.729	0.776	Pk Hr Factor	0.000	0.000	0.639	0.688	0.838

VOLUME

Selby Lane east of El Camino Real

Day: Wednesday
Date: 5/11/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	380	265	645	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0	2	1	3	12:00	0	0	5	5	10
00:15	0	0	0	1	1	12:15	0	0	10	3	13
00:30	0	0	0	0	0	12:30	0	0	3	4	7
00:45	0	0	0	2	2	12:45	0	0	7	25	17
01:00	0	0	1	0	1	13:00	0	0	5	5	10
01:15	0	0	1	0	1	13:15	0	0	3	4	7
01:30	0	0	1	0	1	13:30	0	0	3	2	5
01:45	0	0	0	3	3	13:45	0	0	5	16	14
02:00	0	0	0	0	0	14:00	0	0	5	2	7
02:15	0	0	0	0	0	14:15	0	0	8	7	15
02:30	0	0	2	1	3	14:30	0	0	9	3	12
02:45	0	0	1	3	4	14:45	0	0	3	25	20
03:00	0	0	0	1	1	15:00	0	0	4	2	6
03:15	0	0	2	0	2	15:15	0	0	4	5	9
03:30	0	0	1	1	2	15:30	0	0	10	4	14
03:45	0	0	0	3	3	15:45	0	0	4	22	13
04:00	0	0	0	0	0	16:00	0	0	13	2	15
04:15	0	0	1	0	1	16:15	0	0	5	3	8
04:30	0	0	2	0	2	16:30	0	0	8	3	11
04:45	0	0	0	3	3	16:45	0	0	12	38	11
05:00	0	0	3	2	5	17:00	0	0	9	5	14
05:15	0	0	0	0	0	17:15	0	0	10	3	13
05:30	0	0	0	2	2	17:30	0	0	6	5	11
05:45	0	0	2	5	7	17:45	0	0	3	28	15
06:00	0	0	0	2	2	18:00	0	0	12	7	19
06:15	0	0	1	4	5	18:15	0	0	5	6	11
06:30	0	0	0	5	5	18:30	0	0	9	1	10
06:45	0	0	2	3	5	18:45	0	0	7	33	19
07:00	0	0	6	5	11	19:00	0	0	8	1	9
07:15	0	0	9	7	16	19:15	0	0	7	6	13
07:30	0	0	1	10	11	19:30	0	0	10	4	14
07:45	0	0	4	20	24	19:45	0	0	7	32	15
08:00	0	0	7	9	16	20:00	0	0	5	1	6
08:15	0	0	1	3	4	20:15	0	0	5	2	7
08:30	0	0	4	8	12	20:30	0	0	5	5	10
08:45	0	0	5	17	22	20:45	0	0	3	18	10
09:00	0	0	3	5	8	21:00	0	0	14	5	19
09:15	0	0	3	5	8	21:15	0	0	1	0	1
09:30	0	0	3	2	5	21:30	0	0	4	0	4
09:45	0	0	1	10	11	21:45	0	0	3	22	6
10:00	0	0	3	0	3	22:00	0	0	2	0	2
10:15	0	0	5	4	9	22:15	0	0	1	1	2
10:30	0	0	7	5	12	22:30	0	0	1	2	3
10:45	0	0	3	18	21	22:45	0	0	7	11	3
11:00	0	0	8	4	12	23:00	0	0	3	1	4
11:15	0	0	6	3	9	23:15	0	0	2	0	2
11:30	0	0	3	2	5	23:30	0	0	0	0	0
11:45	0	0	1	18	19	23:45	0	0	0	5	1
TOTALS			105	120	225	TOTALS			275	145	420
SPLIT %			46.7%	53.3%	34.9%	SPLIT %			65.5%	34.5%	65.1%

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	380	265	645	
AM Peak Hour			10:30	07:15	07:15	PM Peak Hour			16:30	14:00	16:30
AM Pk Volume			24	35	56	PM Pk Volume			39	20	53
Pk Hr Factor			0.750	0.875	0.875	Pk Hr Factor			0.813	0.625	0.883
7 - 9 Volume	0	0	37	51	88	4 - 6 Volume	0	0	66	26	92
7 - 9 Peak Hour			07:15	07:15	07:15	4 - 6 Peak Hour			16:30	16:45	16:30
7 - 9 Pk Volume	0	0	21	35	56	4 - 6 Pk Volume	0	0	39	16	53
Pk Hr Factor	0.000	0.000	0.583	0.875	0.875	Pk Hr Factor	0.000	0.000	0.813	0.800	0.883

VOLUME

Selby Lane east of El Camino Real

Day: Thursday
Date: 5/12/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	379	311	690	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0	1	1	2	12:00	0	0	4	5	9
00:15	0	0	2	0	2	12:15	0	0	3	9	12
00:30	0	0	2	1	3	12:30	0	0	2	2	4
00:45	0	0	0	5	2	12:45	0	0	8	17	20
01:00	0	0	0	0	0	13:00	0	0	5	3	8
01:15	0	0	0	0	0	13:15	0	0	5	5	10
01:30	0	0	0	0	0	13:30	0	0	4	5	9
01:45	0	0	1	1	0	13:45	0	0	5	19	3
02:00	0	0	0	0	0	14:00	0	0	7	3	10
02:15	0	0	0	0	0	14:15	0	0	1	2	3
02:30	0	0	1	0	1	14:30	0	0	8	4	12
02:45	0	0	2	3	0	14:45	0	0	9	25	6
03:00	0	0	1	1	2	15:00	0	0	3	3	6
03:15	0	0	0	0	0	15:15	0	0	7	8	15
03:30	0	0	0	0	0	15:30	0	0	6	6	12
03:45	0	0	1	2	0	15:45	0	0	6	22	5
04:00	0	0	1	0	1	16:00	0	0	4	5	9
04:15	0	0	1	1	2	16:15	0	0	6	2	8
04:30	0	0	0	0	0	16:30	0	0	6	13	19
04:45	0	0	0	2	0	16:45	0	0	4	20	6
05:00	0	0	0	0	0	17:00	0	0	8	3	11
05:15	0	0	0	1	1	17:15	0	0	12	3	15
05:30	0	0	0	3	3	17:30	0	0	6	4	10
05:45	0	0	2	2	6	17:45	0	0	8	34	7
06:00	0	0	1	1	2	18:00	0	0	6	8	14
06:15	0	0	3	2	5	18:15	0	0	12	1	13
06:30	0	0	2	10	12	18:30	0	0	6	4	10
06:45	0	0	5	11	8	18:45	0	0	4	28	3
07:00	0	0	1	4	5	19:00	0	0	9	3	12
07:15	0	0	8	8	16	19:15	0	0	10	7	17
07:30	0	0	9	9	18	19:30	0	0	6	2	8
07:45	0	0	6	24	11	19:45	0	0	5	30	4
08:00	0	0	4	7	11	20:00	0	0	4	1	5
08:15	0	0	3	1	4	20:15	0	0	3	2	5
08:30	0	0	8	4	12	20:30	0	0	4	2	6
08:45	0	0	8	23	6	20:45	0	0	11	22	6
09:00	0	0	6	5	11	21:00	0	0	3	4	7
09:15	0	0	3	7	10	21:15	0	0	8	2	10
09:30	0	0	6	4	10	21:30	0	0	5	1	6
09:45	0	0	5	20	8	21:45	0	0	4	20	1
10:00	0	0	4	7	11	22:00	0	0	7	0	7
10:15	0	0	6	3	9	22:15	0	0	0	1	1
10:30	0	0	4	2	6	22:30	0	0	3	0	3
10:45	0	0	4	18	3	22:45	0	0	2	12	0
11:00	0	0	2	4	6	23:00	0	0	1	0	1
11:15	0	0	6	4	10	23:15	0	0	1	1	2
11:30	0	0	4	4	8	23:30	0	0	0	1	1
11:45	0	0	5	17	4	23:45	0	0	0	2	1
TOTALS			128	140	268	TOTALS			251	171	422
SPLIT %			47.8%	52.2%	38.8%	SPLIT %			59.5%	40.5%	61.2%

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	379	311	690	
AM Peak Hour			07:15	07:15	07:15	PM Peak Hour			17:00	16:00	16:30
AM Pk Volume			27	35	62	PM Pk Volume			34	26	55
Pk Hr Factor			0.750	0.795	0.861	Pk Hr Factor			0.708	0.500	0.724
7 - 9 Volume	0	0	47	50	97	4 - 6 Volume	0	0	54	43	97
7 - 9 Peak Hour			07:15	07:15	07:15	4 - 6 Peak Hour			17:00	16:00	16:30
7 - 9 Pk Volume	0	0	27	35	62	4 - 6 Pk Volume	0	0	34	26	55
Pk Hr Factor	0.000	0.000	0.750	0.795	0.861	Pk Hr Factor	0.000	0.000	0.708	0.500	0.724

VOLUME

Selby Lane east of El Camino Real

Day: Friday
Date: 5/13/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	438	296	734		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	1	0	1	12:00	0	0	4	4	8	
00:15	0	0	0	0	0	12:15	0	0	7	2	9	
00:30	0	0	3	0	3	12:30	0	0	1	4	5	
00:45	0	0	0	4	0	12:45	0	0	6	18	7	17
01:00	0	0	0	0	0	13:00	0	0	6	3	9	
01:15	0	0	1	0	1	13:15	0	0	3	9	12	
01:30	0	0	1	0	1	13:30	0	0	5	9	14	
01:45	0	0	0	2	0	13:45	0	0	7	21	4	25
02:00	0	0	0	0	0	14:00	0	0	4	3	7	
02:15	0	0	0	0	0	14:15	0	0	6	7	13	
02:30	0	0	0	0	0	14:30	0	0	8	2	10	
02:45	0	0	0	2	2	14:45	0	0	5	23	3	15
03:00	0	0	0	0	0	15:00	0	0	10	5	15	
03:15	0	0	1	0	1	15:15	0	0	15	7	22	
03:30	0	0	2	0	2	15:30	0	0	7	4	11	
03:45	0	0	1	4	0	15:45	0	0	6	38	7	23
04:00	0	0	0	0	0	16:00	0	0	5	6	11	
04:15	0	0	1	1	2	16:15	0	0	12	4	16	
04:30	0	0	0	1	1	16:30	0	0	8	5	13	
04:45	0	0	2	3	1	16:45	0	0	9	34	5	20
05:00	0	0	1	2	3	17:00	0	0	11	9	20	
05:15	0	0	0	0	0	17:15	0	0	10	2	12	
05:30	0	0	2	1	3	17:30	0	0	9	4	13	
05:45	0	0	1	4	3	17:45	0	0	9	39	5	20
06:00	0	0	0	0	0	18:00	0	0	5	3	8	
06:15	0	0	1	2	3	18:15	0	0	11	2	13	
06:30	0	0	3	7	10	18:30	0	0	8	7	15	
06:45	0	0	5	9	4	18:45	0	0	9	33	2	14
07:00	0	0	5	5	10	19:00	0	0	6	3	9	
07:15	0	0	6	7	13	19:15	0	0	11	1	12	
07:30	0	0	5	12	17	19:30	0	0	9	1	10	
07:45	0	0	8	24	11	19:45	0	0	5	31	2	7
08:00	0	0	7	6	13	20:00	0	0	3	1	4	
08:15	0	0	7	5	12	20:15	0	0	3	3	6	
08:30	0	0	6	2	8	20:30	0	0	3	3	6	
08:45	0	0	6	26	9	20:45	0	0	2	11	1	8
09:00	0	0	7	6	13	21:00	0	0	5	2	7	
09:15	0	0	4	6	10	21:15	0	0	6	1	7	
09:30	0	0	1	5	6	21:30	0	0	6	3	9	
09:45	0	0	4	16	7	21:45	0	0	9	26	1	7
10:00	0	0	2	3	5	22:00	0	0	4	1	5	
10:15	0	0	6	2	8	22:15	0	0	4	0	4	
10:30	0	0	6	8	14	22:30	0	0	3	1	4	
10:45	0	0	6	20	3	22:45	0	0	2	13	1	3
11:00	0	0	10	7	17	23:00	0	0	4	0	4	
11:15	0	0	2	1	3	23:15	0	0	3	1	4	
11:30	0	0	11	1	12	23:30	0	0	1	0	1	
11:45	0	0	5	28	6	23:45	0	0	3	11	0	1
TOTALS			140	136	276	TOTALS			298	160	458	
SPLIT %			50.7%	49.3%	37.6%	SPLIT %			65.1%	34.9%	62.4%	

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	438	296	734	
AM Peak Hour			10:45	07:15	07:15	PM Peak Hour			16:15	12:45	16:15
AM Pk Volume			29	36	62	PM Pk Volume			40	28	63
Pk Hr Factor			0.659	0.750	0.816	Pk Hr Factor			0.833	0.778	0.788
7 - 9 Volume	0	0	50	57	107	4 - 6 Volume	0	0	73	40	113
7 - 9 Peak Hour			07:45	07:15	07:15	4 - 6 Peak Hour			16:15	16:15	16:15
7 - 9 Pk Volume	0	0	28	36	62	4 - 6 Pk Volume	0	0	40	23	63
Pk Hr Factor	0.000	0.000	0.875	0.750	0.816	Pk Hr Factor	0.000	0.000	0.833	0.639	0.788

VOLUME

Selby Lane east of El Camino Real

Day: Saturday
Date: 5/14/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	366	267	633		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	2	1	3	12:00	0	0	5	7	12	
00:15	0	0	1	0	1	12:15	0	0	2	9	11	
00:30	0	0	1	0	1	12:30	0	0	6	1	7	
00:45	0	0	2	6	3	12:45	0	0	6	19	3	20
01:00	0	0	1	0	1	13:00	0	0	3	2	5	
01:15	0	0	0	1	1	13:15	0	0	4	4	8	
01:30	0	0	1	1	2	13:30	0	0	9	9	18	
01:45	0	0	0	2	2	13:45	0	0	4	20	3	18
02:00	0	0	0	0	0	14:00	0	0	2	8	10	
02:15	0	0	0	0	0	14:15	0	0	4	6	10	
02:30	0	0	1	1	2	14:30	0	0	4	5	9	
02:45	0	0	1	2	0	14:45	0	0	3	13	2	21
03:00	0	0	0	1	1	15:00	0	0	11	5	16	
03:15	0	0	0	0	0	15:15	0	0	10	10	20	
03:30	0	0	0	1	1	15:30	0	0	5	2	7	
03:45	0	0	0	0	2	15:45	0	0	6	32	5	22
04:00	0	0	0	0	0	16:00	0	0	9	9	18	
04:15	0	0	1	0	1	16:15	0	0	7	3	10	
04:30	0	0	0	1	1	16:30	0	0	6	6	12	
04:45	0	0	0	1	0	16:45	0	0	4	26	5	23
05:00	0	0	0	0	0	17:00	0	0	11	6	17	
05:15	0	0	0	0	0	17:15	0	0	6	7	13	
05:30	0	0	0	2	2	17:30	0	0	6	4	10	
05:45	0	0	0	0	2	17:45	0	0	8	31	1	18
06:00	0	0	0	0	0	18:00	0	0	4	3	7	
06:15	0	0	0	0	0	18:15	0	0	7	3	10	
06:30	0	0	1	1	2	18:30	0	0	5	3	8	
06:45	0	0	0	1	5	18:45	0	0	3	19	8	17
07:00	0	0	2	4	6	19:00	0	0	11	1	12	
07:15	0	0	1	2	3	19:15	0	0	13	7	20	
07:30	0	0	2	4	6	19:30	0	0	3	0	3	
07:45	0	0	2	7	2	19:45	0	0	7	34	1	9
08:00	0	0	5	0	5	20:00	0	0	11	0	11	
08:15	0	0	1	2	3	20:15	0	0	2	2	4	
08:30	0	0	1	2	3	20:30	0	0	9	6	15	
08:45	0	0	1	8	6	20:45	0	0	4	26	2	10
09:00	0	0	4	5	9	21:00	0	0	6	2	8	
09:15	0	0	7	3	10	21:15	0	0	4	2	6	
09:30	0	0	6	6	12	21:30	0	0	8	1	9	
09:45	0	0	3	20	3	21:45	0	0	3	21	1	6
10:00	0	0	4	5	9	22:00	0	0	9	4	13	
10:15	0	0	6	3	9	22:15	0	0	4	2	6	
10:30	0	0	4	5	9	22:30	0	0	3	2	5	
10:45	0	0	9	23	2	22:45	0	0	6	22	0	8
11:00	0	0	7	6	13	23:00	0	0	2	0	2	
11:15	0	0	4	6	10	23:15	0	0	3	0	3	
11:30	0	0	4	2	6	23:30	0	0	6	1	7	
11:45	0	0	7	22	5	23:45	0	0	0	11	1	2
TOTALS			92	93	185	TOTALS			274	174	448	
SPLIT %			49.7%	50.3%	29.2%	SPLIT %			61.2%	38.8%	70.8%	

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	366	267	633	
AM Peak Hour			10:15	11:30	10:30	PM Peak Hour			19:00	13:30	15:15
AM Pk Volume			26	23	43	PM Pk Volume			34	26	56
Pk Hr Factor			0.722	0.639	0.827	Pk Hr Factor			0.654	0.722	0.700
7 - 9 Volume	0	0	15	22	37	4 - 6 Volume	0	0	57	41	98
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour			17:00	16:30	16:30
7 - 9 Pk Volume	0	0	10	12	19	4 - 6 Pk Volume	0	0	31	24	51
Pk Hr Factor	0.000	0.000	0.500	0.750	0.792	Pk Hr Factor	0.000	0.000	0.705	0.857	0.750

VOLUME

Selby Lane east of El Camino Real

Day: Sunday
Date: 5/15/2016

City: Atherton
Project #: 16-7361-002

DAILY TOTALS						NB	SB					Total		
						0	0	EB	WB			482		
								279	203					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00	0	0	1	0	1	12:00	0	0	6	5	11			
00:15	0	0	2	2	4	12:15	0	0	2	7	9			
00:30	0	0	2	0	2	12:30	0	0	5	6	11			
00:45	0	0	1	6	1	12:45	0	0	9	22	6	24	15	46
01:00	0	0	0	1	1	13:00	0	0	5	5	10			
01:15	0	0	0	0	0	13:15	0	0	6	3	9			
01:30	0	0	0	0	0	13:30	0	0	5	4	9			
01:45	0	0	1	1	0	13:45	0	0	5	21	3	15	8	36
02:00	0	0	1	0	1	14:00	0	0	7	2	9			
02:15	0	0	0	1	1	14:15	0	0	7	2	9			
02:30	0	0	0	0	0	14:30	0	0	4	4	8			
02:45	0	0	1	2	0	14:45	0	0	6	24	3	11	9	35
03:00	0	0	1	1	2	15:00	0	0	4	2	6			
03:15	0	0	0	0	0	15:15	0	0	4	2	6			
03:30	0	0	0	0	0	15:30	0	0	5	4	9			
03:45	0	0	0	1	0	15:45	0	0	3	16	5	13	8	29
04:00	0	0	0	0	0	16:00	0	0	3	1	4			
04:15	0	0	1	0	1	16:15	0	0	12	2	14			
04:30	0	0	2	2	4	16:30	0	0	5	3	8			
04:45	0	0	1	4	0	16:45	0	0	6	26	0	6	6	32
05:00	0	0	0	0	0	17:00	0	0	3	7	10			
05:15	0	0	0	1	1	17:15	0	0	3	2	5			
05:30	0	0	0	1	1	17:30	0	0	9	1	10			
05:45	0	0	0	0	2	17:45	0	0	3	18	4	14	7	32
06:00	0	0	0	0	0	18:00	0	0	3	2	5			
06:15	0	0	0	1	1	18:15	0	0	7	3	10			
06:30	0	0	0	0	0	18:30	0	0	5	3	8			
06:45	0	0	0	0	1	18:45	0	0	3	18	3	11	6	29
07:00	0	0	0	0	0	19:00	0	0	9	7	16			
07:15	0	0	1	4	5	19:15	0	0	4	5	9			
07:30	0	0	2	1	3	19:30	0	0	2	3	5			
07:45	0	0	1	4	1	19:45	0	0	7	22	1	16	8	38
08:00	0	0	1	3	4	20:00	0	0	3	2	5			
08:15	0	0	1	1	2	20:15	0	0	3	4	7			
08:30	0	0	4	2	6	20:30	0	0	5	1	6			
08:45	0	0	4	10	2	20:45	0	0	3	14	1	8	4	22
09:00	0	0	4	1	5	21:00	0	0	3	1	4			
09:15	0	0	2	1	3	21:15	0	0	7	2	9			
09:30	0	0	1	5	6	21:30	0	0	4	3	7			
09:45	0	0	1	8	2	21:45	0	0	1	15	1	7	2	22
10:00	0	0	5	5	10	22:00	0	0	4	2	6			
10:15	0	0	3	6	9	22:15	0	0	5	0	5			
10:30	0	0	4	4	8	22:30	0	0	2	2	4			
10:45	0	0	4	16	5	22:45	0	0	2	13	0	4	2	17
11:00	0	0	5	7	12	23:00	0	0	1	0	1			
11:15	0	0	4	3	7	23:15	0	0	2	1	3			
11:30	0	0	2	8	10	23:30	0	0	1	0	1			
11:45	0	0	2	13	1	23:45	0	0	1	5	0	1	1	6
TOTALS			65	73	138	TOTALS			214	130	344			
SPLIT %			47.1%	52.9%	28.6%	SPLIT %			62.2%	37.8%	71.4%			

DAILY TOTALS						NB	SB					Total
						0	0	EB	WB			482
								279	203			
AM Peak Hour			10:30	10:45	10:15	PM Peak Hour			16:00	12:00	12:00	
AM Pk Volume			17	23	38	PM Pk Volume			26	24	46	
Pk Hr Factor			0.850	0.719	0.792	Pk Hr Factor			0.542	0.857	0.767	
7 - 9 Volume	0	0	14	14	28	4 - 6 Volume	0	0	44	20	64	
7 - 9 Peak Hour			08:00	07:15	08:00	4 - 6 Peak Hour			16:00	17:00	16:15	
7 - 9 Pk Volume	0	0	10	9	18	4 - 6 Pk Volume	0	0	26	14	38	
Pk Hr Factor	0.000	0.000	0.625	0.563	0.750	Pk Hr Factor	0.000	0.000	0.542	0.500	0.679	

VOLUME

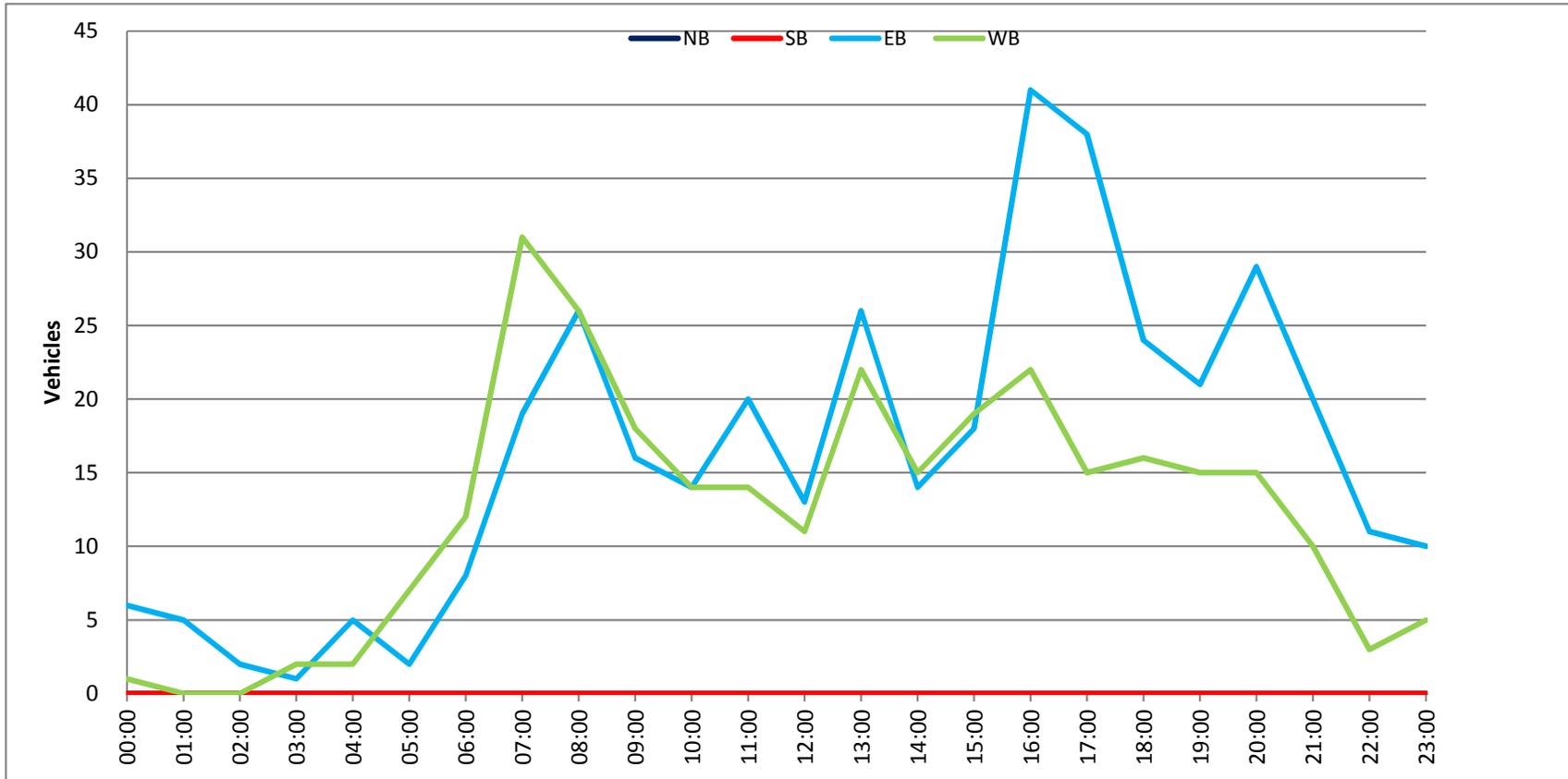
Selby Lane east of El Camino Real

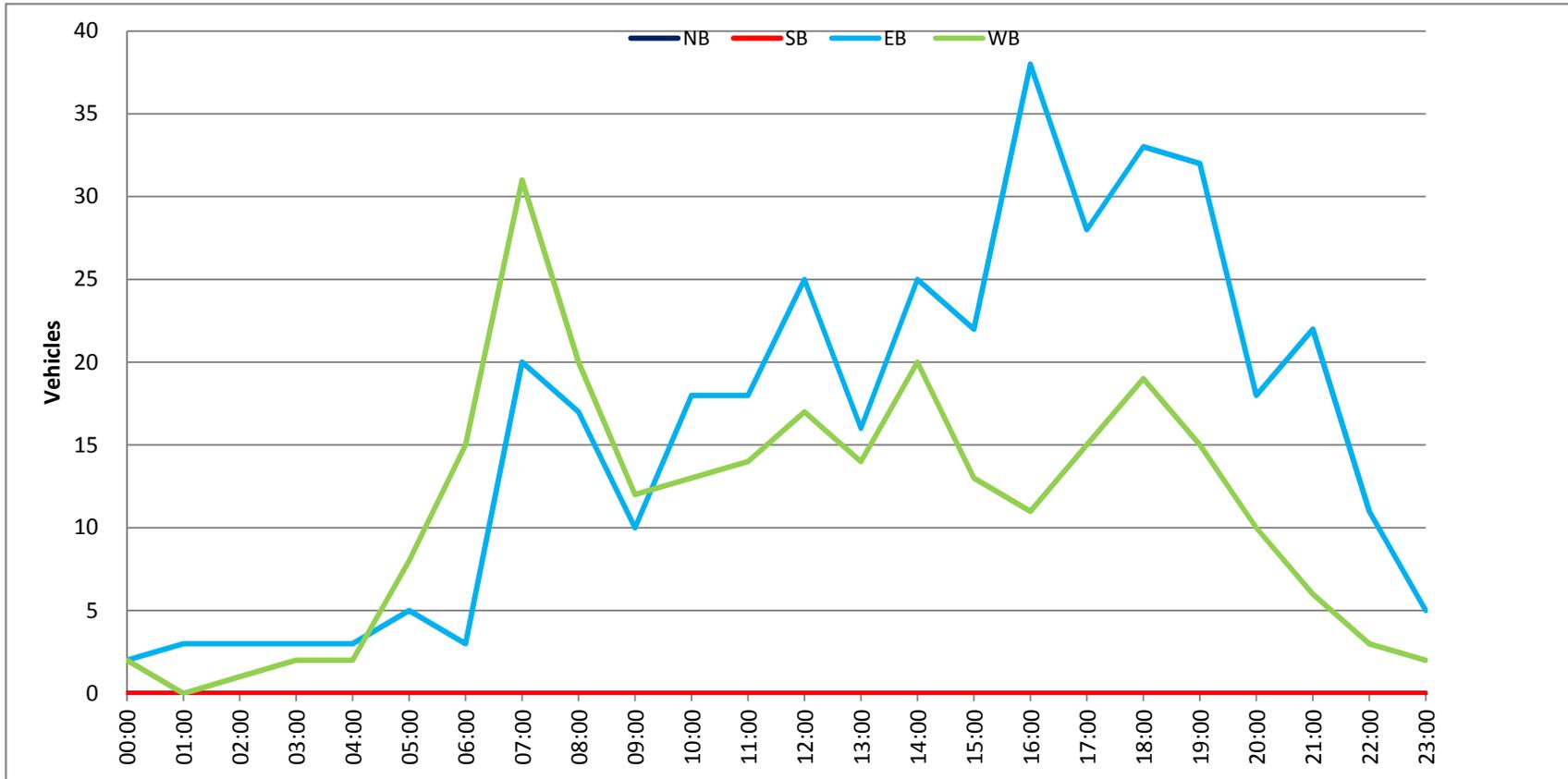
Day: Monday
Date: 5/16/2016

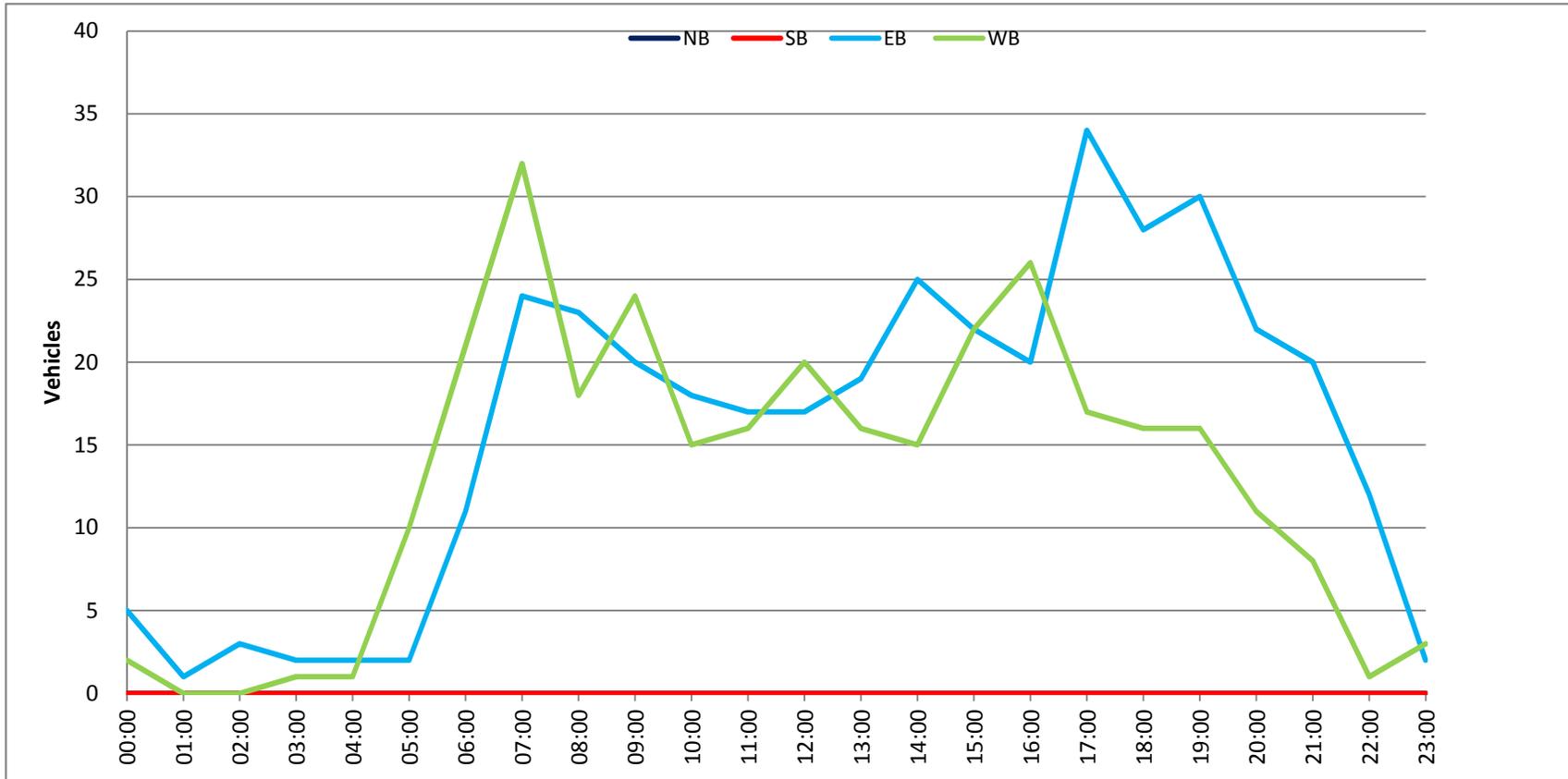
City: Atherton
Project #: 16-7361-002

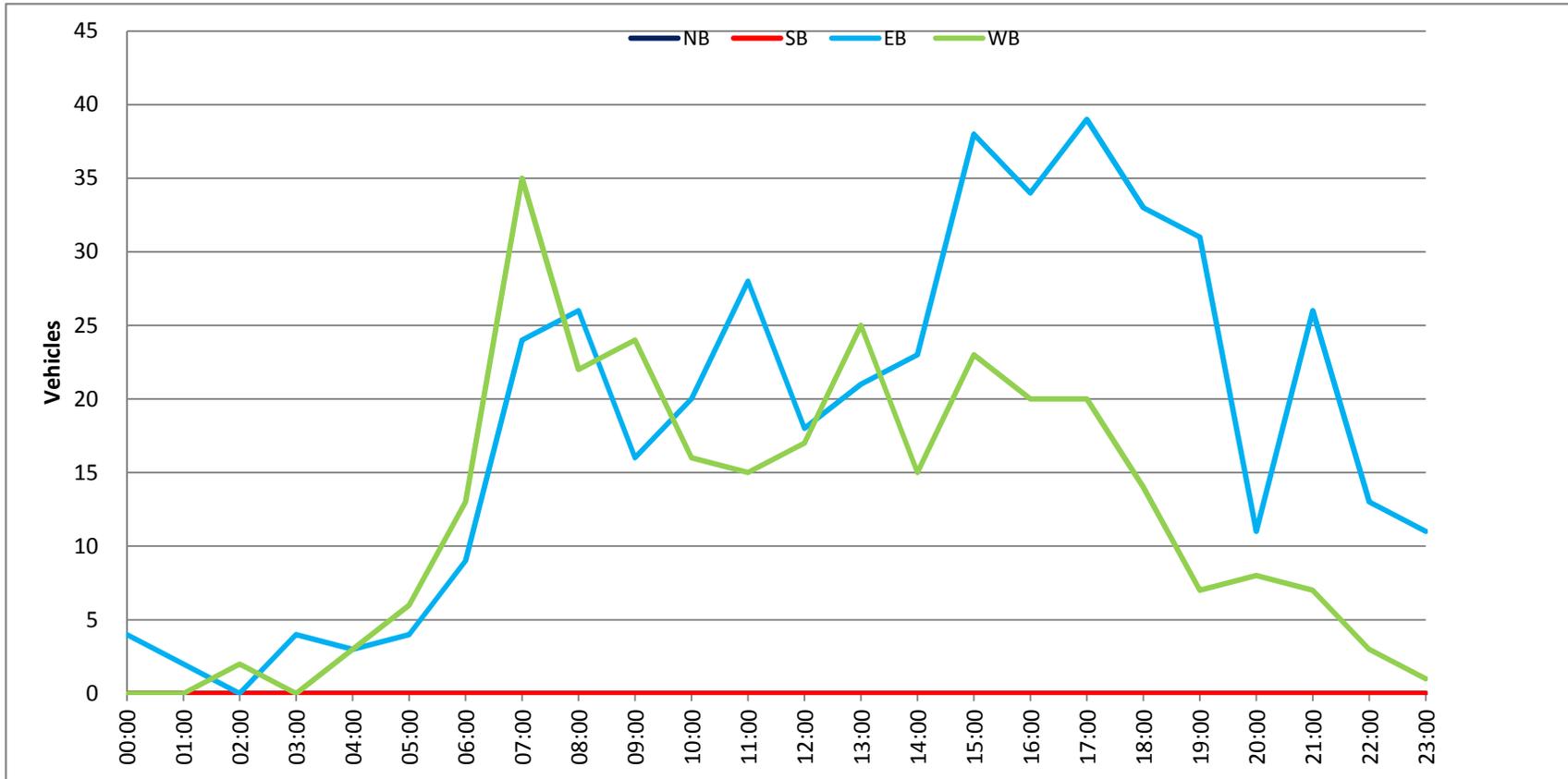
DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	385	272	657	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0	0	0	0	12:00	0	0	2	1	3
00:15	0	0	0	0	0	12:15	0	0	9	2	11
00:30	0	0	0	1	1	12:30	0	0	2	3	5
00:45	0	0	1	1	2	12:45	0	0	4	17	21
01:00	0	0	0	0	0	13:00	0	0	5	3	8
01:15	0	0	2	0	2	13:15	0	0	6	5	11
01:30	0	0	0	0	0	13:30	0	0	2	3	5
01:45	0	0	0	2	2	13:45	0	0	5	18	23
02:00	0	0	2	1	3	14:00	0	0	6	1	7
02:15	0	0	0	2	2	14:15	0	0	2	3	5
02:30	0	0	1	0	1	14:30	0	0	5	4	9
02:45	0	0	0	3	3	14:45	0	0	5	18	23
03:00	0	0	0	0	0	15:00	0	0	10	4	14
03:15	0	0	1	0	1	15:15	0	0	4	3	7
03:30	0	0	0	0	0	15:30	0	0	15	7	22
03:45	0	0	1	2	3	15:45	0	0	7	36	43
04:00	0	0	0	0	0	16:00	0	0	11	6	17
04:15	0	0	0	0	0	16:15	0	0	12	2	14
04:30	0	0	0	1	1	16:30	0	0	6	5	11
04:45	0	0	2	2	4	16:45	0	0	6	35	41
05:00	0	0	1	1	2	17:00	0	0	12	8	20
05:15	0	0	2	1	3	17:15	0	0	8	2	10
05:30	0	0	0	4	4	17:30	0	0	6	6	12
05:45	0	0	0	3	3	17:45	0	0	11	37	48
06:00	0	0	2	1	3	18:00	0	0	10	8	18
06:15	0	0	0	5	5	18:15	0	0	10	4	14
06:30	0	0	3	4	7	18:30	0	0	12	2	14
06:45	0	0	2	7	9	18:45	0	0	5	37	42
07:00	0	0	3	5	8	19:00	0	0	4	4	8
07:15	0	0	6	8	14	19:15	0	0	4	4	8
07:30	0	0	6	9	15	19:30	0	0	6	1	7
07:45	0	0	6	21	27	19:45	0	0	12	26	38
08:00	0	0	4	6	10	20:00	0	0	5	2	7
08:15	0	0	3	2	5	20:15	0	0	1	5	6
08:30	0	0	11	5	16	20:30	0	0	3	3	6
08:45	0	0	3	21	24	20:45	0	0	5	14	19
09:00	0	0	4	5	9	21:00	0	0	4	4	8
09:15	0	0	5	10	15	21:15	0	0	8	0	8
09:30	0	0	2	2	4	21:30	0	0	4	5	9
09:45	0	0	3	14	17	21:45	0	0	3	19	22
10:00	0	0	3	2	5	22:00	0	0	5	0	5
10:15	0	0	4	4	8	22:15	0	0	2	3	5
10:30	0	0	7	3	10	22:30	0	0	2	0	2
10:45	0	0	3	17	20	22:45	0	0	4	13	17
11:00	0	0	2	4	6	23:00	0	0	4	1	5
11:15	0	0	1	3	4	23:15	0	0	4	1	5
11:30	0	0	5	5	10	23:30	0	0	1	0	1
11:45	0	0	2	10	12	23:45	0	0	3	12	15
TOTALS			103	123	226	TOTALS			282	149	431
SPLIT %			45.6%	54.4%	34.4%	SPLIT %			65.4%	34.6%	65.6%

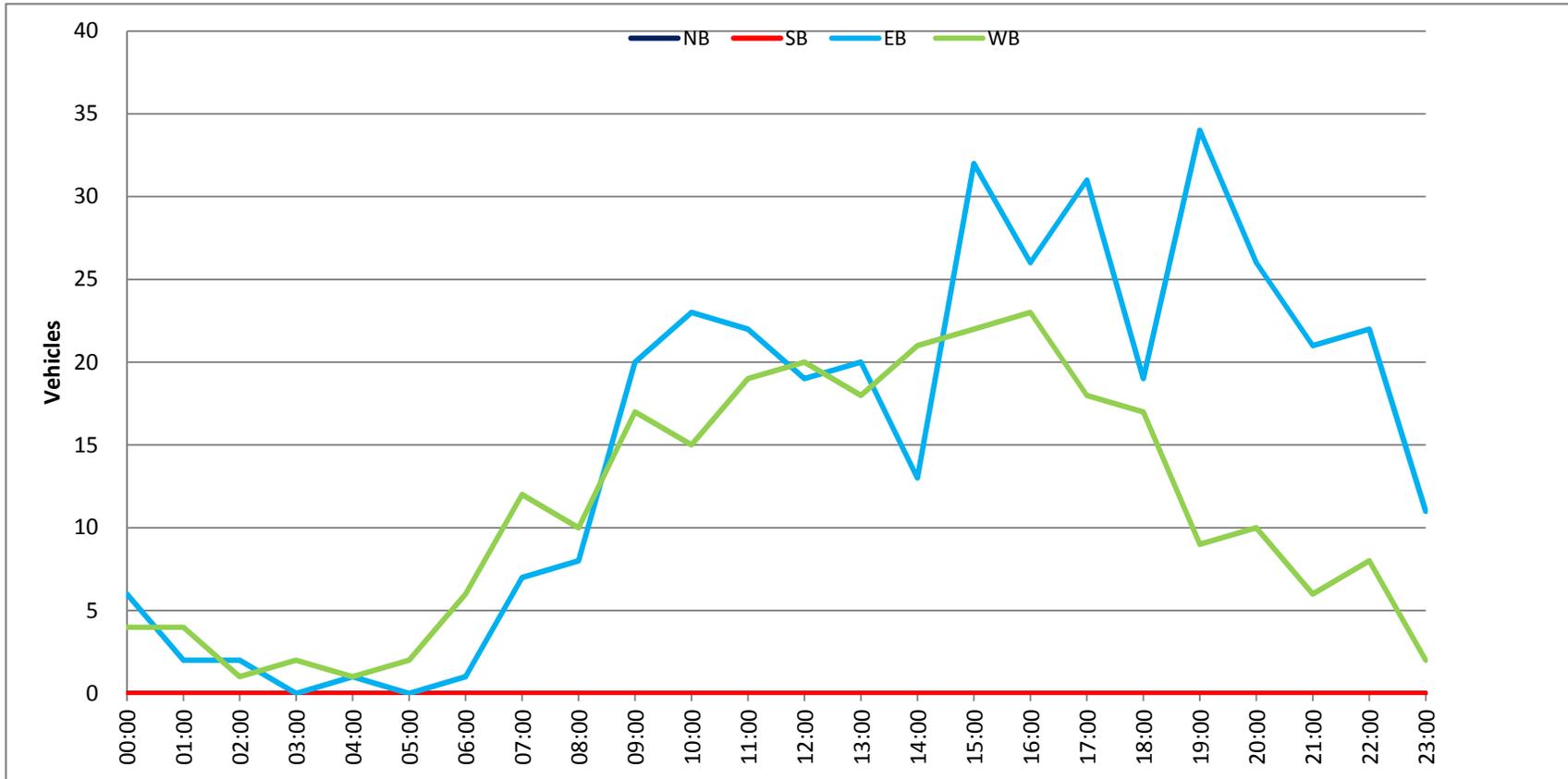
DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	385	272	657	
AM Peak Hour			07:45	07:15	07:15	PM Peak Hour			15:30	17:30	17:45
AM Pk Volume			24	31	53	PM Pk Volume			45	24	63
Pk Hr Factor			0.545	0.861	0.883	Pk Hr Factor			0.750	0.750	0.875
7 - 9 Volume	0	0	42	49	91	4 - 6 Volume	0	0	72	38	110
7 - 9 Peak Hour			07:45	07:15	07:15	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	24	31	53	4 - 6 Pk Volume	0	0	37	22	59
Pk Hr Factor	0.000	0.000	0.545	0.861	0.883	Pk Hr Factor	0.000	0.000	0.771	0.688	0.738

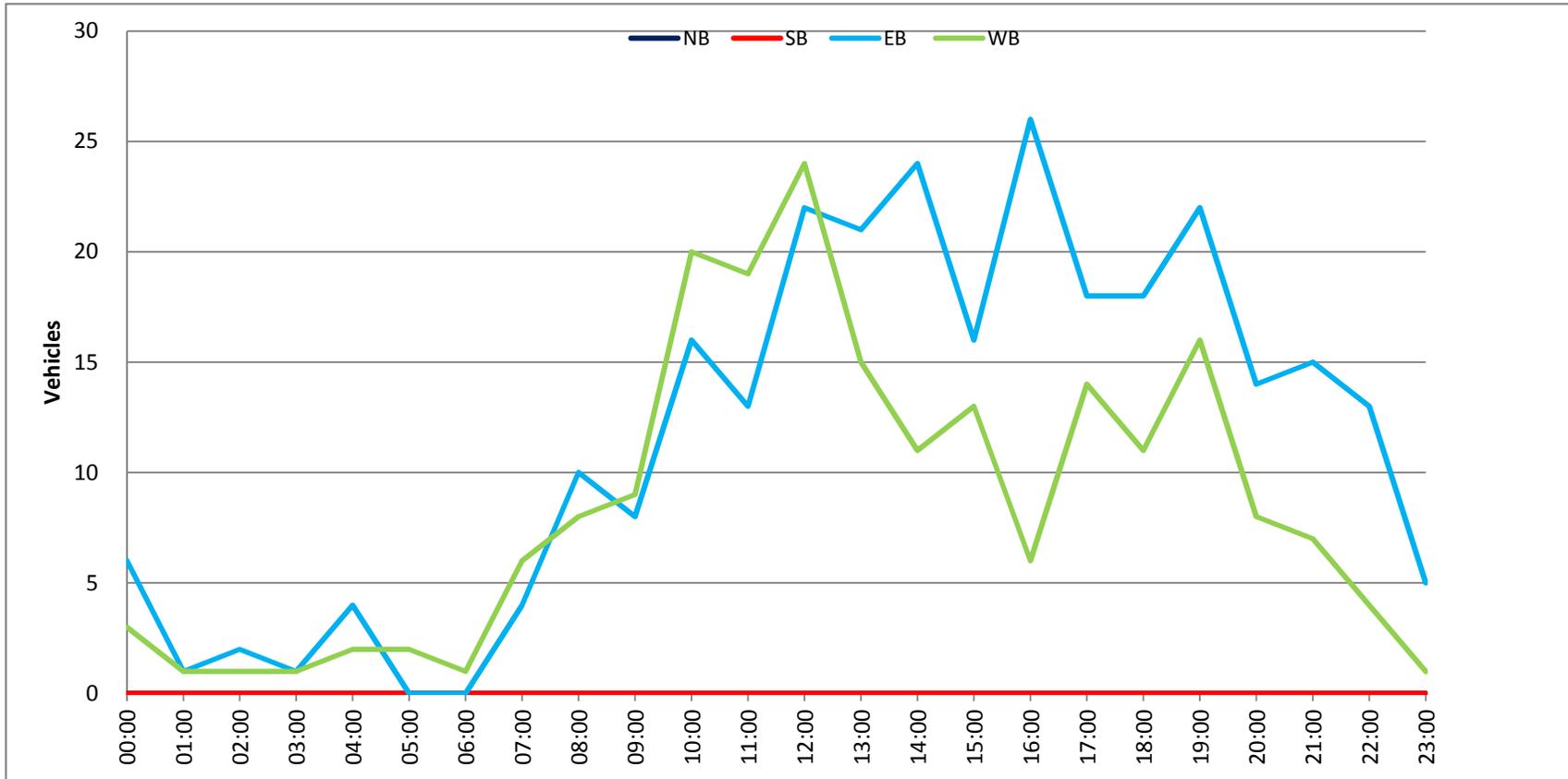


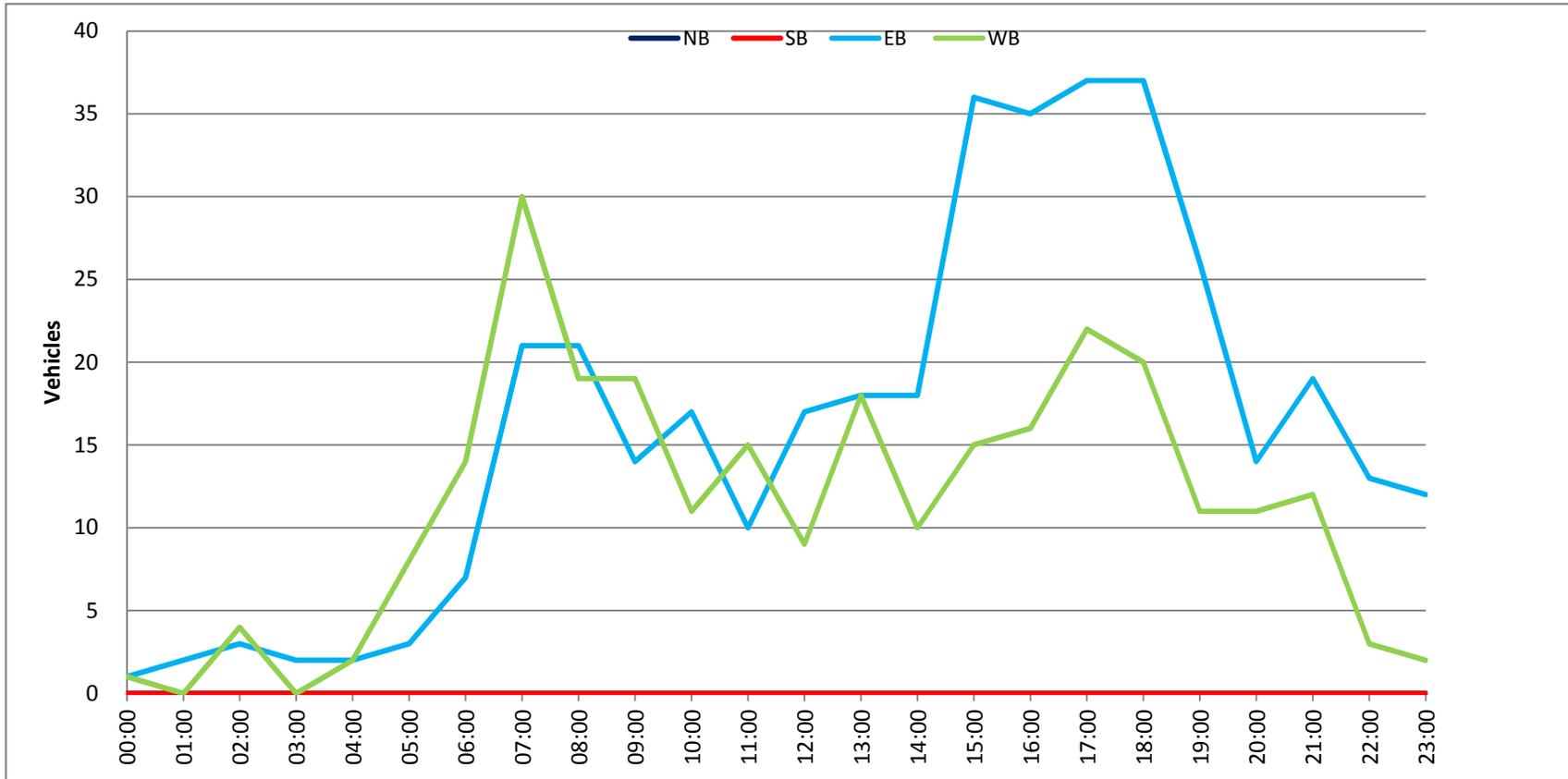












VOLUME

Fifth Avenue east of El Camino Real

Day: Tuesday
Date: 5/10/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB						Total	
					0	0	8,727					11,069	19,796
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	17	12	29		12:00	0	0	126	171	297	
00:15	0	0	8	11	19		12:15	0	0	156	147	303	
00:30	0	0	14	10	24		12:30	0	0	134	175	309	
00:45	0	0	4	43	8	41	12:45	0	0	141	557	149	642
01:00	0	0	10	6	16		13:00	0	0	137	164	301	
01:15	0	0	9	6	15		13:15	0	0	131	144	275	
01:30	0	0	11	7	18		13:30	0	0	132	128	260	
01:45	0	0	4	34	9	28	13:45	0	0	128	528	139	575
02:00	0	0	5	1	6		14:00	0	0	145	178	323	
02:15	0	0	2	6	8		14:15	0	0	145	157	302	
02:30	0	0	5	2	7		14:30	0	0	177	159	336	
02:45	0	0	5	17	3	12	14:45	0	0	183	650	157	651
03:00	0	0	4	1	5		15:00	0	0	193	208	401	
03:15	0	0	1	7	8		15:15	0	0	205	194	399	
03:30	0	0	0	4	4		15:30	0	0	188	219	407	
03:45	0	0	6	11	5	17	15:45	0	0	213	799	207	828
04:00	0	0	1	2	3		16:00	0	0	208	246	454	
04:15	0	0	6	4	10		16:15	0	0	209	237	446	
04:30	0	0	3	10	13		16:30	0	0	199	268	467	
04:45	0	0	11	21	11	27	16:45	0	0	172	788	287	1038
05:00	0	0	10	11	21		17:00	0	0	189	252	441	
05:15	0	0	8	22	30		17:15	0	0	184	277	461	
05:30	0	0	17	33	50		17:30	0	0	184	236	420	
05:45	0	0	36	71	34	100	17:45	0	0	158	715	204	969
06:00	0	0	28	45	73		18:00	0	0	153	213	366	
06:15	0	0	29	56	85		18:15	0	0	145	183	328	
06:30	0	0	58	80	138		18:30	0	0	128	178	306	
06:45	0	0	59	174	126	307	18:45	0	0	119	545	168	742
07:00	0	0	76	189	265		19:00	0	0	103	170	273	
07:15	0	0	96	241	337		19:15	0	0	106	134	240	
07:30	0	0	159	310	469		19:30	0	0	84	103	187	
07:45	0	0	174	505	313	1053	19:45	0	0	80	373	129	536
08:00	0	0	200	315	515		20:00	0	0	82	129	211	
08:15	0	0	197	201	398		20:15	0	0	65	100	165	
08:30	0	0	188	186	374		20:30	0	0	92	102	194	
08:45	0	0	165	750	156	858	20:45	0	0	69	308	106	437
09:00	0	0	148	149	297		21:00	0	0	64	75	139	
09:15	0	0	120	138	258		21:15	0	0	59	67	126	
09:30	0	0	103	133	236		21:30	0	0	76	64	140	
09:45	0	0	132	503	149	569	21:45	0	0	55	254	73	279
10:00	0	0	99	128	227		22:00	0	0	36	55	91	
10:15	0	0	96	124	220		22:15	0	0	44	52	96	
10:30	0	0	98	114	212		22:30	0	0	36	35	71	
10:45	0	0	88	381	125	491	22:45	0	0	21	137	35	177
11:00	0	0	115	134	249		23:00	0	0	23	18	41	
11:15	0	0	122	144	266		23:15	0	0	18	16	34	
11:30	0	0	125	152	277		23:30	0	0	20	13	33	
11:45	0	0	127	489	202	632	23:45	0	0	13	74	13	60
TOTALS			2999	4135	7134		TOTALS			5728	6934	12662	
SPLIT %			42.0%	58.0%	36.0%		SPLIT %			45.2%	54.8%	64.0%	

DAILY TOTALS					NB	SB						Total	
					0	0	8,727					11,069	19,796
AM Peak Hour			07:45	07:15	07:30		PM Peak Hour			15:45	16:30	16:30	
AM Pk Volume			759	1179	1869		PM Pk Volume			829	1084	1828	
Pk Hr Factor			0.949	0.936	0.907		Pk Hr Factor			0.973	0.944	0.979	
7 - 9 Volume	0	0	1255	1911	3166		4 - 6 Volume	0	0	1503	2007	3510	
7 - 9 Peak Hour			07:45	07:15	07:30		4 - 6 Peak Hour			16:00	16:30	16:30	
7 - 9 Pk Volume	0	0	759	1179	1869		4 - 6 Pk Volume	0	0	788	1084	1828	
Pk Hr Factor	0.000	0.000	0.949	0.936	0.907		Pk Hr Factor	0.000	0.000	0.943	0.944	0.979	

VOLUME

Fifth Avenue east of El Camino Real

Day: Wednesday
Date: 5/11/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB						Total	
					0	0						18,836	
							7,919			10,917			
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0	11	8	19		12:00	0	0	73	184	257	
00:15	0	0	10	5	15		12:15	0	0	116	163	279	
00:30	0	0	10	9	19		12:30	0	0	98	138	236	
00:45	0	0	5	36	11	33	12:45	0	0	104	391	147	632
01:00	0	0	8	11	19		13:00	0	0	97	139	236	
01:15	0	0	6	3	9		13:15	0	0	141	140	281	
01:30	0	0	3	5	8		13:30	0	0	105	152	257	
01:45	0	0	4	21	5	24	13:45	0	0	90	433	135	566
02:00	0	0	7	2	9		14:00	0	0	119	158	277	
02:15	0	0	9	5	14		14:15	0	0	146	148	294	
02:30	0	0	4	5	9		14:30	0	0	155	189	344	
02:45	0	0	2	22	2	14	14:45	0	0	149	569	172	667
03:00	0	0	5	5	10		15:00	0	0	144	178	322	
03:15	0	0	1	9	10		15:15	0	0	153	216	369	
03:30	0	0	1	1	2		15:30	0	0	159	190	349	
03:45	0	0	2	9	7	22	15:45	0	0	191	647	202	786
04:00	0	0	1	2	3		16:00	0	0	180	255	435	
04:15	0	0	4	4	8		16:15	0	0	166	214	380	
04:30	0	0	5	14	19		16:30	0	0	185	269	454	
04:45	0	0	12	22	18	38	16:45	0	0	180	711	212	950
05:00	0	0	12	10	22		17:00	0	0	156	257	413	
05:15	0	0	16	18	34		17:15	0	0	176	234	410	
05:30	0	0	17	32	49		17:30	0	0	181	238	419	
05:45	0	0	37	82	47	107	17:45	0	0	184	697	238	967
06:00	0	0	18	48	66		18:00	0	0	149	233	382	
06:15	0	0	26	65	91		18:15	0	0	138	187	325	
06:30	0	0	56	79	135		18:30	0	0	151	198	349	
06:45	0	0	69	169	146	338	18:45	0	0	117	555	152	770
07:00	0	0	71	178	249		19:00	0	0	101	160	261	
07:15	0	0	101	242	343		19:15	0	0	116	150	266	
07:30	0	0	156	318	474		19:30	0	0	114	114	228	
07:45	0	0	169	497	316	1054	19:45	0	0	100	431	105	529
08:00	0	0	189	283	472		20:00	0	0	92	122	214	
08:15	0	0	191	234	425		20:15	0	0	72	99	171	
08:30	0	0	160	204	364		20:30	0	0	76	132	208	
08:45	0	0	140	680	144	865	20:45	0	0	87	327	100	453
09:00	0	0	116	164	280		21:00	0	0	74	98	172	
09:15	0	0	101	121	222		21:15	0	0	69	77	146	
09:30	0	0	86	133	219		21:30	0	0	71	56	127	
09:45	0	0	99	402	113	531	21:45	0	0	50	264	55	286
10:00	0	0	79	107	186		22:00	0	0	49	46	95	
10:15	0	0	94	133	227		22:15	0	0	33	43	76	
10:30	0	0	100	135	235		22:30	0	0	35	39	74	
10:45	0	0	95	368	130	505	22:45	0	0	37	154	29	157
11:00	0	0	76	109	185		23:00	0	0	35	21	56	
11:15	0	0	81	129	210		23:15	0	0	12	20	32	
11:30	0	0	91	137	228		23:30	0	0	24	19	43	
11:45	0	0	94	342	173	548	23:45	0	0	19	90	15	75
TOTALS			2650	4079	6729		TOTALS			5269	6838	12107	
SPLIT %			39.4%	60.6%	35.7%		SPLIT %			43.5%	56.5%	64.3%	

DAILY TOTALS					NB	SB						Total
					0	0						18,836
							7,919			10,917		
AM Peak Hour			07:45	07:15	07:30	PM Peak Hour			15:45	16:30	16:30	
AM Pk Volume			709	1159	1856	PM Pk Volume			722	972	1669	
Pk Hr Factor			0.928	0.911	0.957	Pk Hr Factor			0.945	0.903	0.919	
7 - 9 Volume	0	0	1177	1919	3096	4 - 6 Volume	0	0	1408	1917	3325	
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour			16:00	16:30	16:30	
7 - 9 Pk Volume			709	1159	1856	4 - 6 Pk Volume			711	972	1669	
Pk Hr Factor	0.000	0.000	0.928	0.911	0.957	Pk Hr Factor	0.000	0.000	0.961	0.903	0.919	

VOLUME

Fifth Avenue east of El Camino Real

Day: Thursday
Date: 5/12/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB	EB					WB	Total		
					0	0	8,318					11,145	19,463		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL				
00:00	0	0	15	11	26	12:00	0	0	125	161	286				
00:15	0	0	11	6	17	12:15	0	0	126	156	282				
00:30	0	0	11	5	16	12:30	0	0	118	156	274				
00:45	0	0	7	44	10	32	12:45	0	0	140	509	180	653	320	1162
01:00	0	0	6	5	11	13:00	0	0	117	163	280				
01:15	0	0	6	7	13	13:15	0	0	108	183	291				
01:30	0	0	5	9	14	13:30	0	0	151	182	333				
01:45	0	0	2	19	5	26	13:45	0	0	158	534	169	697	327	1231
02:00	0	0	7	3	10	14:00	0	0	168	202	370				
02:15	0	0	5	4	9	14:15	0	0	129	156	285				
02:30	0	0	3	4	7	14:30	0	0	152	183	335				
02:45	0	0	5	20	3	14	14:45	0	0	150	599	184	725	334	1324
03:00	0	0	2	4	6	15:00	0	0	154	169	323				
03:15	0	0	0	8	8	15:15	0	0	174	202	376				
03:30	0	0	2	6	8	15:30	0	0	185	225	410				
03:45	0	0	2	6	3	21	15:45	0	0	201	714	214	810	415	1524
04:00	0	0	2	2	4	16:00	0	0	173	214	387				
04:15	0	0	6	5	11	16:15	0	0	181	220	401				
04:30	0	0	4	15	19	16:30	0	0	192	239	431				
04:45	0	0	13	25	12	34	16:45	0	0	161	707	223	896	384	1603
05:00	0	0	13	15	28	17:00	0	0	160	235	395				
05:15	0	0	13	26	39	17:15	0	0	168	237	405				
05:30	0	0	9	36	45	17:30	0	0	163	217	380				
05:45	0	0	33	68	44	121	17:45	0	0	172	663	221	910	393	1573
06:00	0	0	30	44	74	18:00	0	0	149	237	386				
06:15	0	0	31	58	89	18:15	0	0	143	164	307				
06:30	0	0	45	106	151	18:30	0	0	143	178	321				
06:45	0	0	62	168	142	350	18:45	0	0	137	572	157	736	294	1308
07:00	0	0	71	188	259	19:00	0	0	108	160	268				
07:15	0	0	95	251	346	19:15	0	0	112	127	239				
07:30	0	0	136	317	453	19:30	0	0	102	130	232				
07:45	0	0	189	491	306	1062	19:45	0	0	89	411	119	536	208	947
08:00	0	0	190	280	470	20:00	0	0	95	131	226				
08:15	0	0	158	219	377	20:15	0	0	91	139	230				
08:30	0	0	194	184	378	20:30	0	0	86	95	181				
08:45	0	0	123	665	159	842	20:45	0	0	69	341	96	461	165	802
09:00	0	0	126	153	279	21:00	0	0	72	87	159				
09:15	0	0	105	150	255	21:15	0	0	76	76	152				
09:30	0	0	99	122	221	21:30	0	0	55	73	128				
09:45	0	0	109	439	121	546	21:45	0	0	57	260	53	289	110	549
10:00	0	0	101	124	225	22:00	0	0	53	49	102				
10:15	0	0	103	127	230	22:15	0	0	43	33	76				
10:30	0	0	93	154	247	22:30	0	0	28	44	72				
10:45	0	0	113	410	128	533	22:45	0	0	24	148	28	154	52	302
11:00	0	0	91	144	235	23:00	0	0	28	21	49				
11:15	0	0	116	153	269	23:15	0	0	16	22	38				
11:30	0	0	106	165	271	23:30	0	0	16	11	27				
11:45	0	0	115	428	168	630	23:45	0	0	17	77	13	67	30	144
TOTALS			2783	4211	6994	TOTALS			5535	6934	12469				
SPLIT %			39.8%	60.2%	35.9%	SPLIT %			44.4%	55.6%	64.1%				

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0	8,318					11,145	19,463

AM Peak Hour			07:45	07:15	07:30	PM Peak Hour			15:45	16:30	15:45		
AM Pk Volume			731	1154	1795	PM Pk Volume			747	934	1634		
Pk Hr Factor			0.942	0.910	0.907	Pk Hr Factor			0.929	0.977	0.948		
7 - 9 Volume	0	0	1156	1904	3060	4 - 6 Volume	0	0	1370	1806	3176		
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour			16:00	16:30	16:30		
7 - 9 Pk Volume	0	0	731	1154	1795	4 - 6 Pk Volume	0	0	707	934	1615		
Pk Hr Factor	0.000	0.000	0.942	0.910	0.907	Pk Hr Factor	0.000	0.000	0.921	0.977	0.937		

VOLUME

Fifth Avenue east of El Camino Real

Day: Friday
Date: 5/13/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS		NB	SB	EB	WB	Total
		0	0	8,544	11,564	20,108

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL				
00:00	0	0	12	17	29	12:00	0	0	144	178	322				
00:15	0	0	10	9	19	12:15	0	0	137	159	296				
00:30	0	0	6	9	15	12:30	0	0	114	165	279				
00:45	0	0	6	34	8	43	12:45	0	0	133	528	138	640	271	1168
01:00	0	0	13	12	25	13:00	0	0	125	159	284				
01:15	0	0	7	6	13	13:15	0	0	132	157	289				
01:30	0	0	6	15	21	13:30	0	0	110	158	268				
01:45	0	0	9	35	11	44	13:45	0	0	131	498	173	647	304	1145
02:00	0	0	8	11	19	14:00	0	0	140	162	302				
02:15	0	0	8	8	16	14:15	0	0	116	187	303				
02:30	0	0	8	3	11	14:30	0	0	165	217	382				
02:45	0	0	3	27	2	24	14:45	0	0	186	607	182	748	368	1355
03:00	0	0	5	4	9	15:00	0	0	164	199	363				
03:15	0	0	2	3	5	15:15	0	0	193	235	428				
03:30	0	0	9	9	18	15:30	0	0	190	221	411				
03:45	0	0	2	18	6	22	15:45	0	0	214	761	244	899	458	1660
04:00	0	0	1	4	5	16:00	0	0	200	230	430				
04:15	0	0	4	6	10	16:15	0	0	201	230	431				
04:30	0	0	4	15	19	16:30	0	0	180	240	420				
04:45	0	0	13	22	5	30	16:45	0	0	181	762	233	933	414	1695
05:00	0	0	10	14	24	17:00	0	0	181	271	452				
05:15	0	0	7	20	27	17:15	0	0	176	220	396				
05:30	0	0	24	33	57	17:30	0	0	165	228	393				
05:45	0	0	17	58	41	108	17:45	0	0	160	682	234	953	394	1635
06:00	0	0	24	39	63	18:00	0	0	142	220	362				
06:15	0	0	27	67	94	18:15	0	0	157	183	340				
06:30	0	0	40	92	132	18:30	0	0	139	184	323				
06:45	0	0	67	158	142	340	18:45	0	0	118	556	204	791	322	1347
07:00	0	0	66	189	255	19:00	0	0	143	151	294				
07:15	0	0	94	243	337	19:15	0	0	112	147	259				
07:30	0	0	131	324	455	19:30	0	0	118	138	256				
07:45	0	0	177	468	288	1044	19:45	0	0	98	471	137	573	235	1044
08:00	0	0	182	306	488	20:00	0	0	100	135	235				
08:15	0	0	182	212	394	20:15	0	0	76	124	200				
08:30	0	0	161	200	361	20:30	0	0	89	111	200				
08:45	0	0	121	646	156	874	20:45	0	0	85	350	101	471	186	821
09:00	0	0	111	138	249	21:00	0	0	80	87	167				
09:15	0	0	99	145	244	21:15	0	0	81	92	173				
09:30	0	0	95	153	248	21:30	0	0	68	89	157				
09:45	0	0	103	408	132	568	21:45	0	0	62	291	85	353	147	644
10:00	0	0	92	110	202	22:00	0	0	52	59	111				
10:15	0	0	95	122	217	22:15	0	0	61	69	130				
10:30	0	0	105	126	231	22:30	0	0	47	56	103				
10:45	0	0	107	399	143	501	22:45	0	0	40	200	51	235	91	435
11:00	0	0	77	134	211	23:00	0	0	59	37	96				
11:15	0	0	107	137	244	23:15	0	0	34	41	75				
11:30	0	0	105	155	260	23:30	0	0	34	22	56				
11:45	0	0	129	418	171	597	23:45	0	0	20	147	26	126	46	273
TOTALS			2691	4195	6886	TOTALS			5853	7369	13222				
SPLIT %			39.1%	60.9%	34.2%	SPLIT %			44.3%	55.7%	65.8%				

DAILY TOTALS		NB	SB	EB	WB	Total
		0	0	8,544	11,564	20,108

AM Peak Hour	07:45	07:15	07:30	PM Peak Hour	15:30	16:15	15:45				
AM Pk Volume	702	1161	1802	PM Pk Volume	805	974	1739				
Pk Hr Factor	0.964	0.896	0.923	Pk Hr Factor	0.940	0.899	0.949				
7 - 9 Volume	0	0	1114	1918	3032	4 - 6 Volume	0	0	1444	1886	3330
7 - 9 Peak Hour	07:45	07:15	07:30	4 - 6 Peak Hour	16:00	16:15	16:15				
7 - 9 Pk Volume	0	0	702	1161	1802	4 - 6 Pk Volume	0	0	762	974	1717
Pk Hr Factor	0.000	0.000	0.964	0.896	0.923	Pk Hr Factor	0.000	0.000	0.948	0.899	0.950

VOLUME

Fifth Avenue east of El Camino Real

Day: Saturday
Date: 5/14/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0	6,911					9,407	16,318
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	0	0	15	18	33	12:00	0	0	153	179	332		
00:15	0	0	24	16	40	12:15	0	0	141	182	323		
00:30	0	0	12	10	22	12:30	0	0	120	211	331		
00:45	0	0	14	65	15	59	12:45	0	0	160	574	192	764
01:00	0	0	7	17	24	13:00	0	0	160	192	352		
01:15	0	0	13	17	30	13:15	0	0	136	152	288		
01:30	0	0	14	13	27	13:30	0	0	129	186	315		
01:45	0	0	6	40	28	75	13:45	0	0	130	555	164	694
02:00	0	0	11	11	22	14:00	0	0	134	197	331		
02:15	0	0	14	11	25	14:15	0	0	119	161	280		
02:30	0	0	7	6	13	14:30	0	0	117	177	294		
02:45	0	0	3	35	2	30	14:45	0	0	125	495	187	722
03:00	0	0	7	6	13	15:00	0	0	121	209	330		
03:15	0	0	2	8	10	15:15	0	0	156	180	336		
03:30	0	0	6	7	13	15:30	0	0	126	166	292		
03:45	0	0	2	17	5	26	15:45	0	0	132	535	148	703
04:00	0	0	2	2	4	16:00	0	0	121	190	311		
04:15	0	0	3	10	13	16:15	0	0	133	187	320		
04:30	0	0	6	12	18	16:30	0	0	140	140	280		
04:45	0	0	9	20	16	40	16:45	0	0	118	512	150	667
05:00	0	0	5	7	12	17:00	0	0	137	137	274		
05:15	0	0	3	10	13	17:15	0	0	102	137	239		
05:30	0	0	11	20	31	17:30	0	0	127	128	255		
05:45	0	0	10	29	19	56	17:45	0	0	116	482	115	517
06:00	0	0	16	26	42	18:00	0	0	96	125	221		
06:15	0	0	19	34	53	18:15	0	0	95	152	247		
06:30	0	0	18	44	62	18:30	0	0	97	109	206		
06:45	0	0	28	81	74	178	18:45	0	0	106	394	136	522
07:00	0	0	35	66	101	19:00	0	0	90	112	202		
07:15	0	0	37	95	132	19:15	0	0	80	91	171		
07:30	0	0	45	123	168	19:30	0	0	91	90	181		
07:45	0	0	61	178	133	417	19:45	0	0	59	320	119	412
08:00	0	0	61	131	192	20:00	0	0	63	90	153		
08:15	0	0	78	106	184	20:15	0	0	73	105	178		
08:30	0	0	67	117	184	20:30	0	0	54	94	148		
08:45	0	0	88	294	131	485	20:45	0	0	53	243	85	374
09:00	0	0	84	122	206	21:00	0	0	58	81	139		
09:15	0	0	98	127	225	21:15	0	0	72	79	151		
09:30	0	0	103	151	254	21:30	0	0	73	68	141		
09:45	0	0	125	410	122	522	21:45	0	0	65	268	77	305
10:00	0	0	136	176	312	22:00	0	0	61	66	127		
10:15	0	0	117	134	251	22:15	0	0	48	63	111		
10:30	0	0	117	171	288	22:30	0	0	44	56	100		
10:45	0	0	124	494	188	669	22:45	0	0	47	200	57	242
11:00	0	0	127	188	315	23:00	0	0	36	62	98		
11:15	0	0	133	169	302	23:15	0	0	43	48	91		
11:30	0	0	120	198	318	23:30	0	0	33	34	67		
11:45	0	0	151	531	188	743	23:45	0	0	27	139	41	185
TOTALS			2194	3300	5494	TOTALS			4717	6107	10824		
SPLIT %			39.9%	60.1%	33.7%	SPLIT %			43.6%	56.4%	66.3%		

DAILY TOTALS					NB	SB	EB					WB	Total
					0	0	6,911					9,407	16,318
AM Peak Hour			11:30	11:45	11:45	PM Peak Hour			12:45	12:15	12:15		
AM Pk Volume			565	760	1325	PM Pk Volume			585	777	1358		
Pk Hr Factor			0.923	0.900	0.977	Pk Hr Factor			0.914	0.921	0.964		
7 - 9 Volume	0	0	472	902	1374	4 - 6 Volume	0	0	994	1184	2178		
7 - 9 Peak Hour			08:00	07:30	08:00	4 - 6 Peak Hour			16:15	16:00	16:00		
7 - 9 Pk Volume	0	0	294	493	779	4 - 6 Pk Volume	0	0	528	667	1179		
Pk Hr Factor	0.000	0.000	0.835	0.927	0.889	Pk Hr Factor	0.000	0.000	0.943	0.878	0.921		

VOLUME

Fifth Avenue east of El Camino Real

Day: Sunday
Date: 5/15/2016

City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB						Total			
					0	0						13,495			
					5,726					7,769					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00	0	0	18	34	52		12:00	0	0	117	157	274			
00:15	0	0	25	32	57		12:15	0	0	106	178	284			
00:30	0	0	23	25	48		12:30	0	0	139	151	290			
00:45	0	0	22	88	16	107	12:45	0	0	133	495	149	635		
01:00	0	0	14	18	32		13:00	0	0	127	180	307			
01:15	0	0	14	13	27		13:15	0	0	121	140	261			
01:30	0	0	5	24	29		13:30	0	0	122	153	275			
01:45	0	0	21	54	18	73	13:45	0	0	147	517	155	628		
02:00	0	0	15	30	45		14:00	0	0	124	210	334			
02:15	0	0	17	9	26		14:15	0	0	97	160	257			
02:30	0	0	7	15	22		14:30	0	0	101	142	243			
02:45	0	0	9	48	11	65	14:45	0	0	115	437	158	670		
03:00	0	0	3	7	10		15:00	0	0	110	146	256			
03:15	0	0	9	8	17		15:15	0	0	117	124	241			
03:30	0	0	7	6	13		15:30	0	0	114	158	272			
03:45	0	0	2	21	3	24	15:45	0	0	99	440	142	570		
04:00	0	0	3	4	7		16:00	0	0	89	135	224			
04:15	0	0	6	3	9		16:15	0	0	83	122	205			
04:30	0	0	2	4	6		16:30	0	0	105	146	251			
04:45	0	0	4	15	7	18	16:45	0	0	95	372	127	530		
05:00	0	0	9	7	16		17:00	0	0	85	120	205			
05:15	0	0	2	9	11		17:15	0	0	82	121	203			
05:30	0	0	11	20	31		17:30	0	0	71	107	178			
05:45	0	0	10	32	21	57	17:45	0	0	78	316	111	459		
06:00	0	0	8	14	22		18:00	0	0	81	116	197			
06:15	0	0	18	29	47		18:15	0	0	84	105	189			
06:30	0	0	20	27	47		18:30	0	0	104	118	222			
06:45	0	0	22	68	30	100	18:45	0	0	58	327	118	457		
07:00	0	0	25	26	51		19:00	0	0	86	105	191			
07:15	0	0	32	38	70		19:15	0	0	70	98	168			
07:30	0	0	37	60	97		19:30	0	0	68	104	172			
07:45	0	0	49	143	76	200	19:45	0	0	62	286	101	408		
08:00	0	0	51	72	123		20:00	0	0	67	99	166			
08:15	0	0	50	74	124		20:15	0	0	51	93	144			
08:30	0	0	39	86	125		20:30	0	0	68	96	164			
08:45	0	0	54	194	102	334	20:45	0	0	73	259	77	365		
09:00	0	0	84	136	220		21:00	0	0	69	72	141			
09:15	0	0	64	94	158		21:15	0	0	65	81	146			
09:30	0	0	76	104	180		21:30	0	0	53	73	126			
09:45	0	0	85	309	110	444	21:45	0	0	39	226	57	283		
10:00	0	0	86	127	213		22:00	0	0	54	47	101			
10:15	0	0	96	124	220		22:15	0	0	46	48	94			
10:30	0	0	114	144	258		22:30	0	0	31	39	70			
10:45	0	0	134	430	138	533	22:45	0	0	30	161	35	169		
11:00	0	0	95	140	235		23:00	0	0	16	27	43			
11:15	0	0	100	154	254		23:15	0	0	18	20	38			
11:30	0	0	84	137	221		23:30	0	0	22	6	28			
11:45	0	0	137	416	142	573	23:45	0	0	16	72	14	67		
TOTALS			1818	2528	4346		TOTALS			3908	5241	9149			
SPLIT %			41.8%	58.2%	32.2%		SPLIT %			42.7%	57.3%	67.8%			

DAILY TOTALS					NB	SB						Total			
					0	0						13,495			
					5,726					7,769					
AM Peak Hour			11:45	11:45	11:45		PM Peak Hour			12:30	13:30	13:15			
AM Pk Volume			499	628	1127		PM Pk Volume			520	678	1172			
Pk Hr Factor			0.897	0.882	0.972		Pk Hr Factor			0.935	0.807	0.877			
7 - 9 Volume	0	0	337	534	871		4 - 6 Volume	0	0	688	989	1677			
7 - 9 Peak Hour			08:00	08:00	08:00		4 - 6 Peak Hour			16:00	16:00	16:00			
7 - 9 Pk Volume	0	0	194	334	528		4 - 6 Pk Volume	0	0	372	530	902			
Pk Hr Factor	0.000	0.000	0.898	0.819	0.846		Pk Hr Factor	0.000	0.000	0.886	0.908	0.898			

VOLUME

Fifth Avenue east of El Camino Real

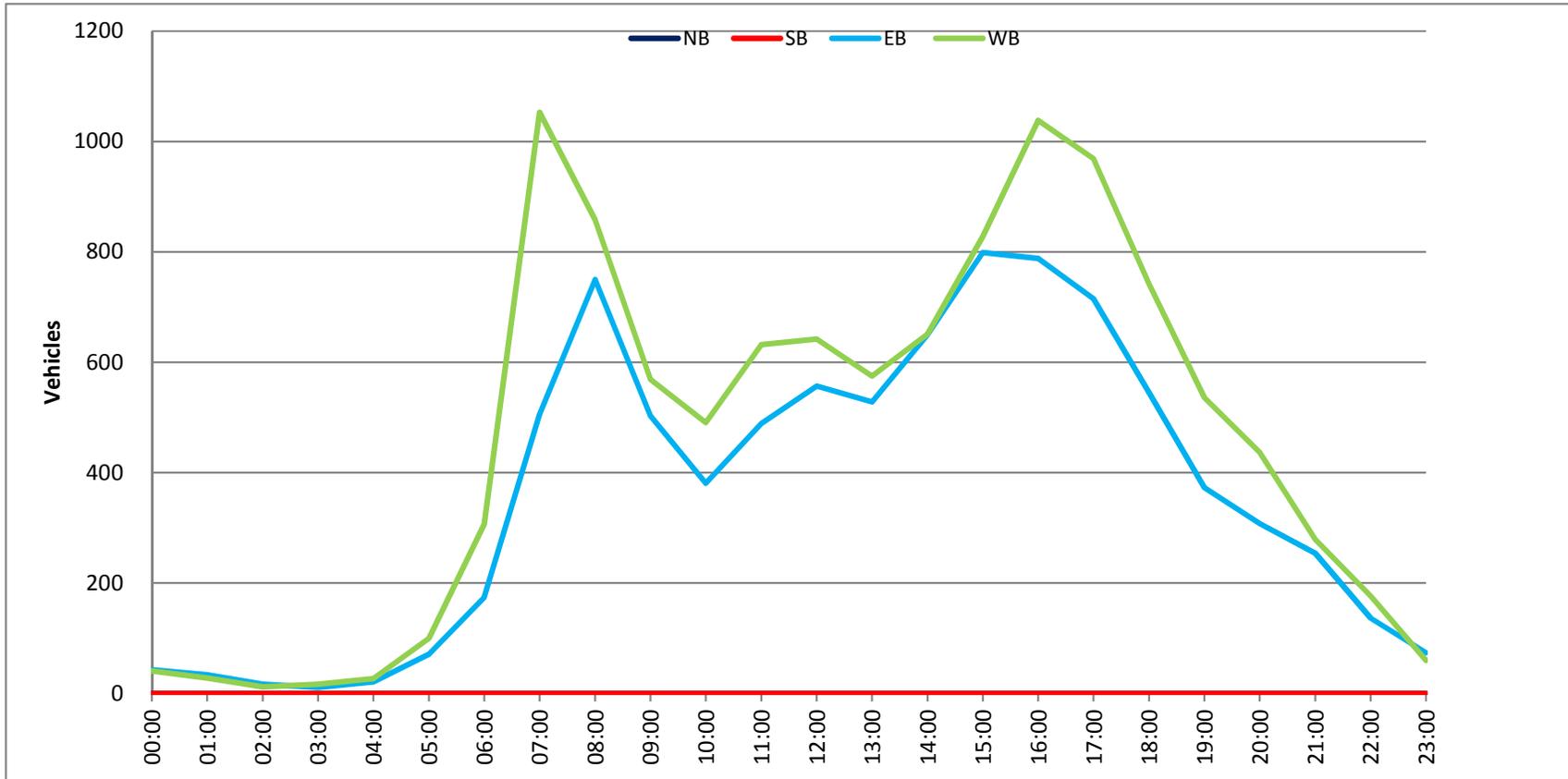
Day: Monday
Date: 5/16/2016

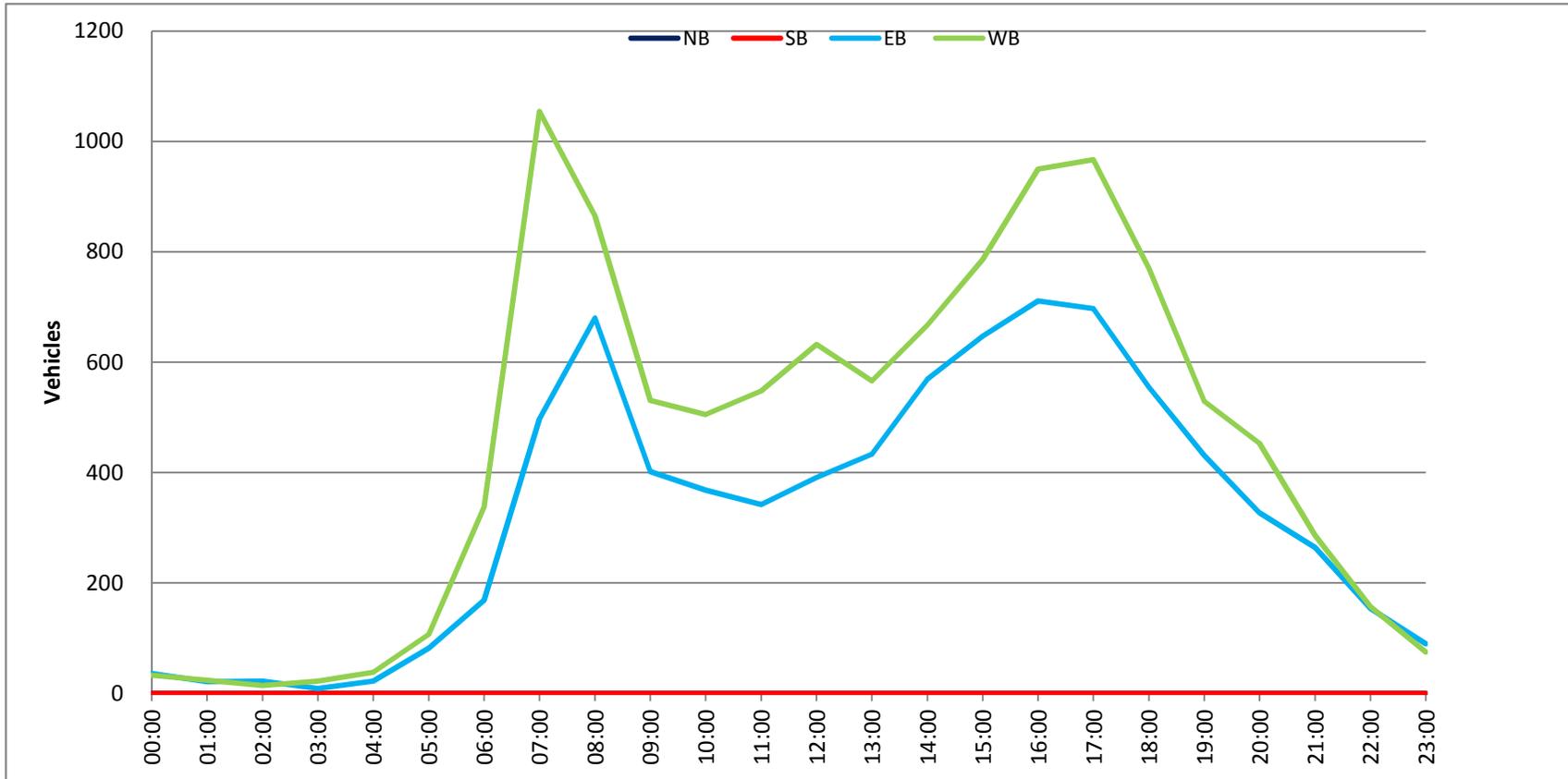
City: Atherton
Project #: 16-7361-003

DAILY TOTALS					NB	SB						Total
					0	0						19,011
							7,925			11,086		
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL
00:00	0	0	8	7	15		12:00	0	0	120	160	280
00:15	0	0	8	13	21		12:15	0	0	112	142	254
00:30	0	0	8	5	13		12:30	0	0	94	165	259
00:45	0	0	5	29	12	37	12:45	0	0	130	456	619
					17	66						282
01:00	0	0	7	7	14		13:00	0	0	108	148	256
01:15	0	0	6	14	20		13:15	0	0	97	144	241
01:30	0	0	6	5	11		13:30	0	0	96	158	254
01:45	0	0	4	23	11	37	13:45	0	0	94	395	600
					15	60						244
02:00	0	0	7	7	14		14:00	0	0	113	166	279
02:15	0	0	2	1	3		14:15	0	0	116	165	281
02:30	0	0	4	3	7		14:30	0	0	140	158	298
02:45	0	0	4	17	1	12	14:45	0	0	176	545	666
					5	29						353
03:00	0	0	4	2	6		15:00	0	0	151	177	328
03:15	0	0	2	10	12		15:15	0	0	182	215	397
03:30	0	0	3	1	4		15:30	0	0	180	235	415
03:45	0	0	3	12	5	18	15:45	0	0	190	703	837
					8	30						400
04:00	0	0	1	1	2		16:00	0	0	186	211	397
04:15	0	0	5	5	10		16:15	0	0	194	241	435
04:30	0	0	3	9	12		16:30	0	0	207	233	440
04:45	0	0	12	21	10	25	16:45	0	0	155	742	925
					22	46						395
05:00	0	0	19	19	38		17:00	0	0	171	260	431
05:15	0	0	9	18	27		17:15	0	0	162	244	406
05:30	0	0	11	30	41		17:30	0	0	152	242	394
05:45	0	0	33	72	40	107	17:45	0	0	162	647	986
					73	179						402
06:00	0	0	26	37	63		18:00	0	0	148	215	363
06:15	0	0	35	63	98		18:15	0	0	168	231	399
06:30	0	0	54	85	139		18:30	0	0	107	189	296
06:45	0	0	55	170	129	314	18:45	0	0	110	533	798
					184	484						273
07:00	0	0	70	190	260		19:00	0	0	99	145	244
07:15	0	0	106	245	351		19:15	0	0	119	137	256
07:30	0	0	141	301	442		19:30	0	0	81	140	221
07:45	0	0	177	494	305	1041	19:45	0	0	69	368	522
					482	1535						169
08:00	0	0	169	307	476		20:00	0	0	72	118	190
08:15	0	0	166	202	368		20:15	0	0	87	96	183
08:30	0	0	170	197	367		20:30	0	0	59	107	166
08:45	0	0	156	661	169	875	20:45	0	0	85	303	403
					325	1536						167
09:00	0	0	117	146	263		21:00	0	0	75	91	166
09:15	0	0	96	139	235		21:15	0	0	62	81	143
09:30	0	0	106	132	238		21:30	0	0	55	69	124
09:45	0	0	130	449	133	550	21:45	0	0	38	230	298
					263	999						95
10:00	0	0	103	131	234		22:00	0	0	40	67	107
10:15	0	0	102	132	234		22:15	0	0	32	46	78
10:30	0	0	85	150	235		22:30	0	0	32	40	72
10:45	0	0	105	395	158	571	22:45	0	0	24	128	177
					263	966						48
11:00	0	0	101	162	263		23:00	0	0	22	20	42
11:15	0	0	115	126	241		23:15	0	0	26	15	41
11:30	0	0	111	171	282		23:30	0	0	21	15	36
11:45	0	0	116	443	147	606	23:45	0	0	20	89	12
					263	1049						32
TOTALS			2786	4193	6979		TOTALS			5139	6893	12032
SPLIT %			39.9%	60.1%	36.7%		SPLIT %			42.7%	57.3%	63.3%

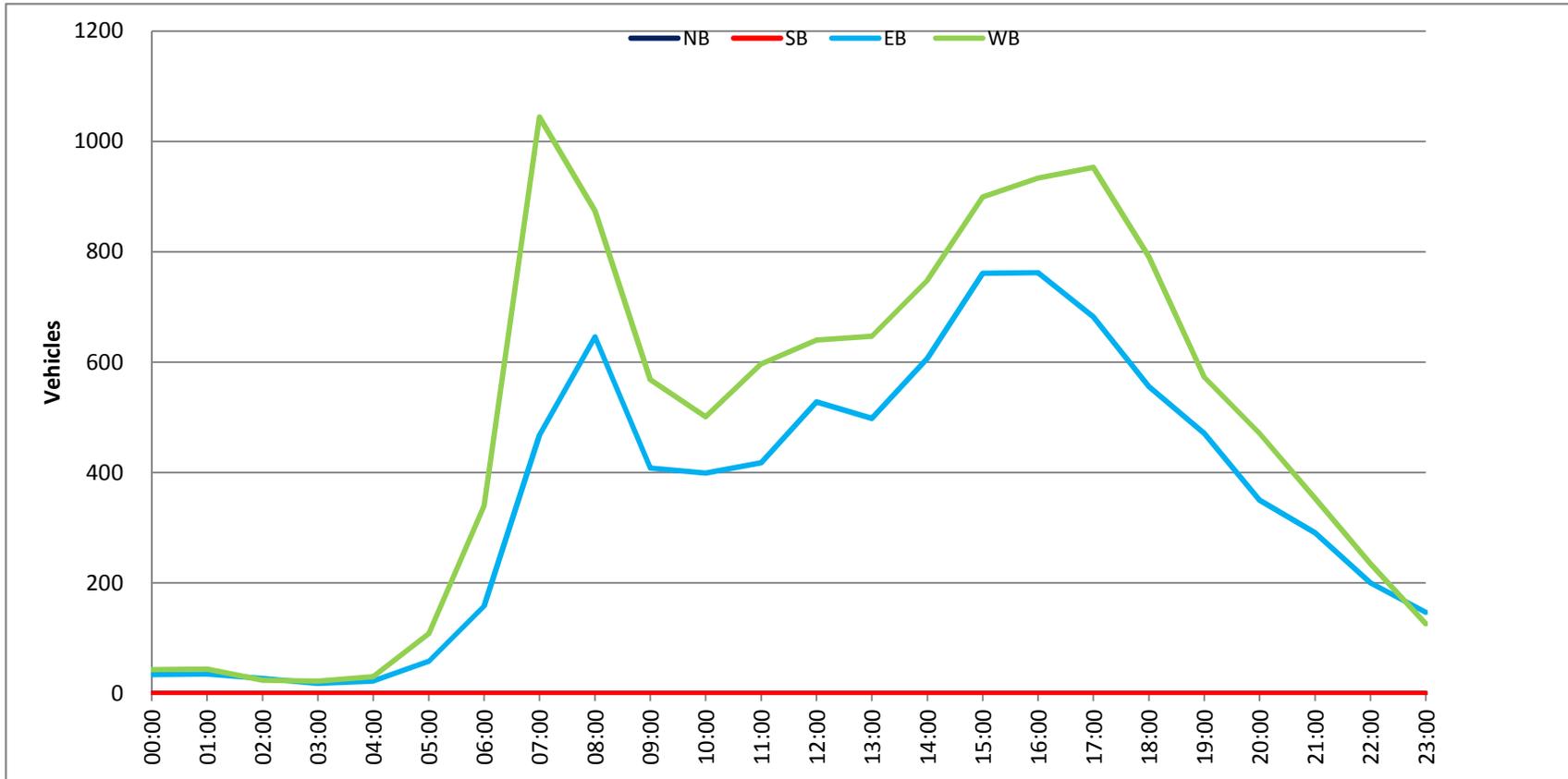
DAILY TOTALS					NB	SB						Total
					0	0						19,011
							7,925			11,086		

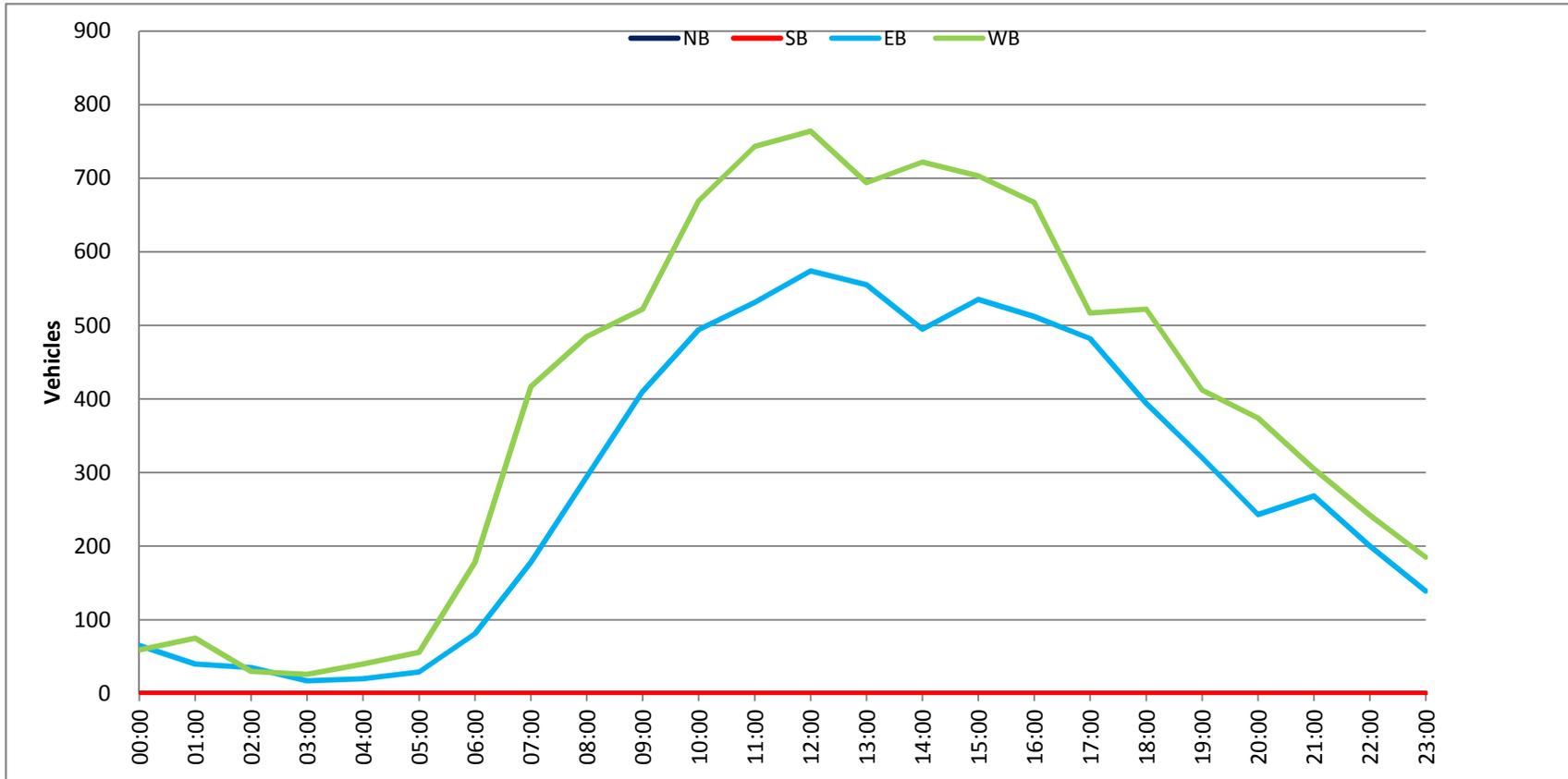
AM Peak Hour			07:45	07:15	07:30	PM Peak Hour			15:45	16:45	16:15
AM Pk Volume			682	1158	1768	PM Pk Volume			777	986	1701
Pk Hr Factor			0.963	0.943	0.917	Pk Hr Factor			0.938	0.948	0.966
7 - 9 Volume	0	0	1155	1916	3071	4 - 6 Volume	0	0	1389	1911	3300
7 - 9 Peak Hour			07:45	07:15	07:30	4 - 6 Peak Hour			16:00	16:45	16:15
7 - 9 Pk Volume	0	0	682	1158	1768	4 - 6 Pk Volume	0	0	742	986	1701
Pk Hr Factor	0.000	0.000	0.963	0.943	0.917	Pk Hr Factor	0.000	0.000	0.896	0.948	0.966



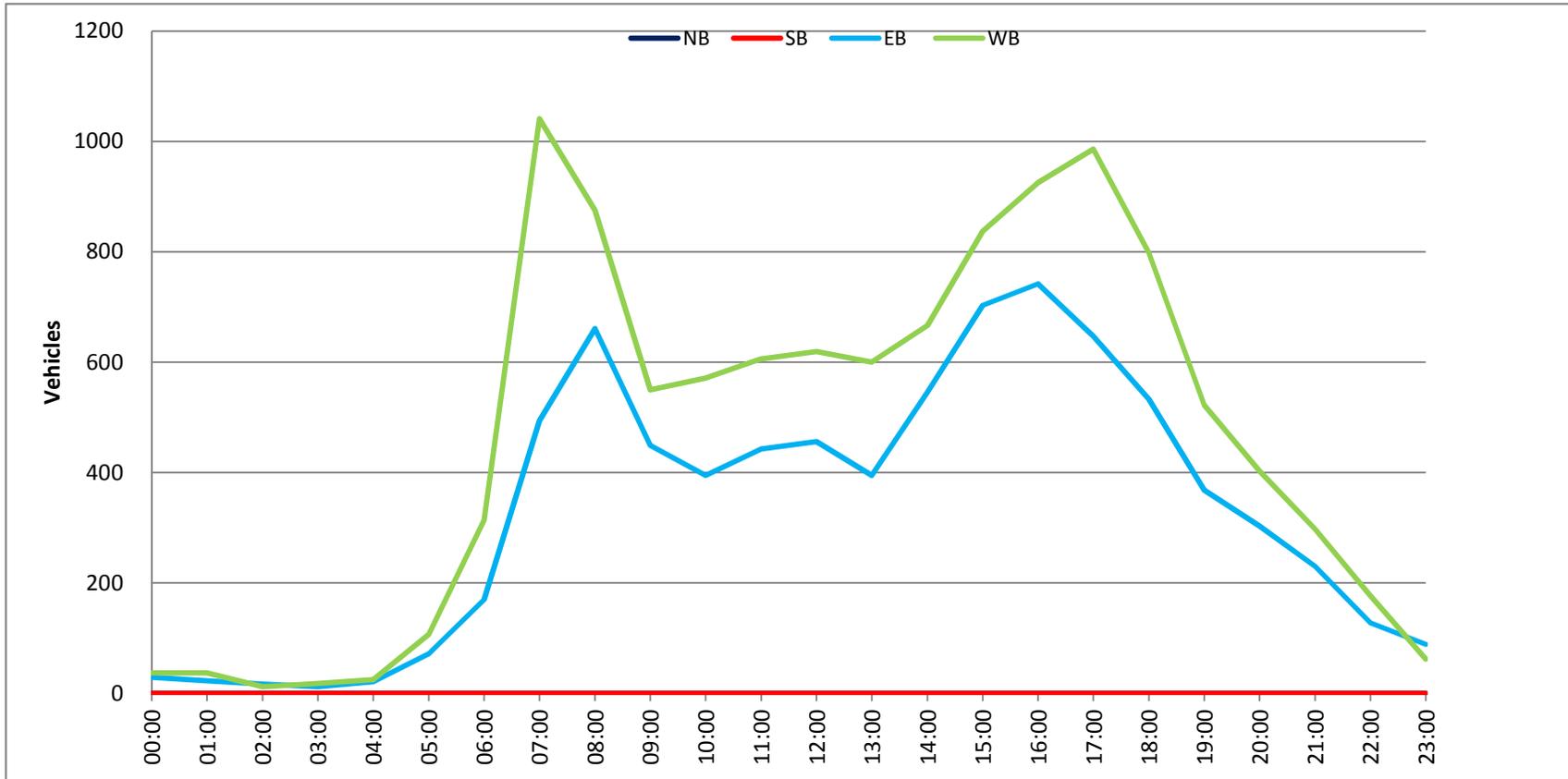












VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Tuesday
Date: 5/10/2016City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB	WB	Total	
						23,471	22,015	0	0	45,486	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	30	28	0	0	58	12:00	394	304	0	0	698
00:15	32	23	0	0	55	12:15	364	290	0	0	654
00:30	25	15	0	0	40	12:30	335	340	0	0	675
00:45	16	103	15	81	31	12:45	362	1455	304	1238	666
01:00	15	11	0	0	26	13:00	348	308	0	0	656
01:15	11	14	0	0	25	13:15	339	313	0	0	652
01:30	4	9	0	0	13	13:30	315	347	0	0	662
01:45	10	40	9	43	19	13:45	331	1333	311	1279	642
02:00	13	6	0	0	19	14:00	404	339	0	0	743
02:15	8	7	0	0	15	14:15	393	301	0	0	694
02:30	12	10	0	0	22	14:30	405	385	0	0	790
02:45	10	43	9	32	19	14:45	371	1573	367	1392	738
03:00	8	7	0	0	15	15:00	474	353	0	0	827
03:15	5	15	0	0	20	15:15	463	337	0	0	800
03:30	9	11	0	0	20	15:30	451	387	0	0	838
03:45	8	30	8	41	16	15:45	473	1861	347	1424	820
04:00	13	16	0	0	29	16:00	527	391	0	0	918
04:15	7	15	0	0	22	16:15	559	357	0	0	916
04:30	19	26	0	0	45	16:30	605	369	0	0	974
04:45	15	54	29	86	44	16:45	611	2302	349	1466	960
05:00	22	38	0	0	60	17:00	598	375	0	0	973
05:15	17	60	0	0	77	17:15	596	378	0	0	974
05:30	41	78	0	0	119	17:30	574	430	0	0	1004
05:45	54	134	108	284	162	17:45	544	2312	373	1556	917
06:00	71	110	0	0	181	18:00	527	387	0	0	914
06:15	65	142	0	0	207	18:15	497	352	0	0	849
06:30	98	238	0	0	336	18:30	504	323	0	0	827
06:45	108	342	230	720	338	18:45	397	1925	304	1366	701
07:00	186	347	0	0	533	19:00	372	287	0	0	659
07:15	230	486	0	0	716	19:15	347	273	0	0	620
07:30	299	627	0	0	926	19:30	307	212	0	0	519
07:45	356	1071	603	2063	959	19:45	326	1352	187	959	513
08:00	437	592	0	0	1029	20:00	293	203	0	0	496
08:15	310	620	0	0	930	20:15	274	169	0	0	443
08:30	290	587	0	0	877	20:30	249	180	0	0	429
08:45	298	1335	535	2334	833	20:45	252	1068	148	700	400
09:00	271	410	0	0	681	21:00	275	159	0	0	434
09:15	267	359	0	0	626	21:15	224	155	0	0	379
09:30	274	347	0	0	621	21:30	204	146	0	0	350
09:45	258	1070	336	1452	594	21:45	196	899	115	575	311
10:00	296	325	0	0	621	22:00	158	89	0	0	247
10:15	268	297	0	0	565	22:15	132	76	0	0	208
10:30	294	302	0	0	596	22:30	104	68	0	0	172
10:45	288	1146	309	1233	597	22:45	88	482	61	294	149
11:00	297	316	0	0	613	23:00	74	57	0	0	131
11:15	312	292	0	0	604	23:15	56	45	0	0	101
11:30	342	320	0	0	662	23:30	46	40	0	0	86
11:45	374	1325	304	1232	678	23:45	40	216	23	165	63
TOTALS	6693	9601			16294	TOTALS	16778	12414			29192
SPLIT %	41.1%	58.9%			35.8%	SPLIT %	57.5%	42.5%			64.2%

DAILY TOTALS						NB	SB	EB	WB	Total	
						23,471	22,015	0	0	45,486	
AM Peak Hour	11:30	07:30			07:30	PM Peak Hour	16:30	17:15		16:45	
AM Pk Volume	1474	2442			3844	PM Pk Volume	2410	1568		3911	
Pk Hr Factor	0.935	0.974			0.934	Pk Hr Factor	0.986	0.912		0.974	
7 - 9 Volume	2406	4397	0	0	6803	4 - 6 Volume	4614	3022	0	0	7636
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:30	17:00			16:45
7 - 9 Pk Volume	1402	2442			3844	4 - 6 Pk Volume	2410	1556			3911
Pk Hr Factor	0.802	0.974	0.000	0.000	0.934	Pk Hr Factor	0.986	0.905	0.000	0.000	0.974

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Wednesday
Date: 5/11/2016

City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB	WB	Total				
						23,140	21,611	0	0	44,751				
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00	28	22	0	0	50	12:00	373	313	0	0	686			
00:15	21	24	0	0	45	12:15	330	314	0	0	644			
00:30	16	17	0	0	33	12:30	332	292	0	0	624			
00:45	21	86	18	81	0	0	382	1417	349	1268	0	0	731	2685
01:00	18	16	0	0	34	13:00	323	299	0	0	622			
01:15	19	9	0	0	28	13:15	327	293	0	0	620			
01:30	13	9	0	0	22	13:30	329	308	0	0	637			
01:45	14	64	11	45	0	0	337	1316	273	1173	0	0	610	2489
02:00	4	9	0	0	13	14:00	375	301	0	0	676			
02:15	15	8	0	0	23	14:15	358	353	0	0	711			
02:30	14	8	0	0	22	14:30	424	371	0	0	795			
02:45	10	43	7	32	0	0	371	1528	343	1368	0	0	714	2896
03:00	7	6	0	0	13	15:00	410	345	0	0	755			
03:15	11	7	0	0	18	15:15	465	314	0	0	779			
03:30	4	12	0	0	16	15:30	531	361	0	0	892			
03:45	5	27	15	40	0	0	437	1843	360	1380	0	0	797	3223
04:00	9	9	0	0	18	16:00	530	363	0	0	893			
04:15	14	19	0	0	33	16:15	531	360	0	0	891			
04:30	21	25	0	0	46	16:30	614	378	0	0	992			
04:45	28	72	40	93	0	0	539	2214	365	1466	0	0	904	3680
05:00	27	60	0	0	87	17:00	596	384	0	0	980			
05:15	26	67	0	0	93	17:15	591	403	0	0	994			
05:30	47	102	0	0	149	17:30	572	395	0	0	967			
05:45	46	146	117	346	0	0	558	2317	381	1563	0	0	939	3880
06:00	51	96	0	0	147	18:00	532	390	0	0	922			
06:15	77	136	0	0	213	18:15	484	351	0	0	835			
06:30	96	208	0	0	304	18:30	474	298	0	0	772			
06:45	133	357	258	698	0	0	416	1906	264	1303	0	0	680	3209
07:00	183	324	0	0	507	19:00	378	276	0	0	654			
07:15	241	554	0	0	795	19:15	380	233	0	0	613			
07:30	308	638	0	0	946	19:30	307	240	0	0	547			
07:45	339	1071	605	2121	0	0	294	1359	202	951	0	0	496	2310
08:00	389	519	0	0	908	20:00	252	194	0	0	446			
08:15	356	571	0	0	927	20:15	270	159	0	0	429			
08:30	263	570	0	0	833	20:30	268	175	0	0	443			
08:45	282	1290	469	2129	0	0	257	1047	147	675	0	0	404	1722
09:00	287	378	0	0	665	21:00	235	153	0	0	388			
09:15	272	356	0	0	628	21:15	226	129	0	0	355			
09:30	300	360	0	0	660	21:30	200	126	0	0	326			
09:45	263	1122	374	1468	0	0	161	822	96	504	0	0	257	1326
10:00	270	320	0	0	590	22:00	141	93	0	0	234			
10:15	285	304	0	0	589	22:15	127	71	0	0	198			
10:30	263	307	0	0	570	22:30	109	63	0	0	172			
10:45	300	1118	288	1219	0	0	98	475	63	290	0	0	161	765
11:00	266	292	0	0	558	23:00	68	63	0	0	131			
11:15	329	319	0	0	648	23:15	70	50	0	0	120			
11:30	329	308	0	0	637	23:30	51	30	0	0	81			
11:45	332	1256	301	1220	0	0	55	244	35	178	0	0	90	422
TOTALS	6652	9492			16144	TOTALS	16488	12119			28607			
SPLIT %	41.2%	58.8%			36.1%	SPLIT %	57.6%	42.4%			63.9%			

DAILY TOTALS						NB	SB	EB	WB	Total
						23,140	21,611	0	0	44,751

AM Peak Hour	07:30	07:30			07:30	PM Peak Hour	16:30	17:15			17:00
AM Pk Volume	1392	2333			3725	PM Pk Volume	2340	1569			3880
Pk Hr Factor	0.895	0.914			0.984	Pk Hr Factor	0.953	0.973			0.976
7 - 9 Volume	2361	4250	0	0	6611	4 - 6 Volume	4531	3029	0	0	7560
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:30	17:00			17:00
7 - 9 Pk Volume	1392	2333			3725	4 - 6 Pk Volume	2340	1563			3880
Pk Hr Factor	0.895	0.914	0.000	0.000	0.984	Pk Hr Factor	0.953	0.970	0.000	0.000	0.976

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Thursday
Date: 5/12/2016

City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB	WB	Total	
						23,407	21,780	0	0	45,187	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	34	23	0	0	57	12:00	388	314	0	0	702
00:15	36	29	0	0	65	12:15	336	317	0	0	653
00:30	19	26	0	0	45	12:30	351	342	0	0	693
00:45	22	111	11	89	200	12:45	369	1444	306	1279	2723
01:00	20	17	0	0	37	13:00	341	300	0	0	641
01:15	14	12	0	0	26	13:15	380	325	0	0	705
01:30	19	18	0	0	37	13:30	375	340	0	0	715
01:45	17	70	11	58	128	13:45	392	1488	350	1315	2803
02:00	7	12	0	0	19	14:00	397	321	0	0	718
02:15	9	8	0	0	17	14:15	386	306	0	0	692
02:30	12	7	0	0	19	14:30	410	342	0	0	752
02:45	10	38	8	35	73	14:45	414	1607	341	1310	2917
03:00	2	3	0	0	5	15:00	421	323	0	0	744
03:15	10	6	0	0	16	15:15	474	357	0	0	831
03:30	8	12	0	0	20	15:30	464	349	0	0	813
03:45	3	23	3	24	47	15:45	511	1870	316	1345	3215
04:00	9	18	0	0	27	16:00	516	333	0	0	849
04:15	15	18	0	0	33	16:15	528	355	0	0	883
04:30	17	21	0	0	38	16:30	554	387	0	0	941
04:45	20	61	55	112	173	16:45	561	2159	379	1454	3613
05:00	27	45	0	0	72	17:00	577	360	0	0	937
05:15	37	67	0	0	104	17:15	578	449	0	0	1027
05:30	33	87	0	0	120	17:30	543	408	0	0	951
05:45	49	146	114	313	459	17:45	599	2297	381	1598	3895
06:00	58	109	0	0	167	18:00	536	373	0	0	909
06:15	66	140	0	0	206	18:15	529	340	0	0	869
06:30	99	215	0	0	314	18:30	451	340	0	0	791
06:45	129	352	238	702	1054	18:45	408	1924	292	1345	3269
07:00	189	309	0	0	498	19:00	352	253	0	0	605
07:15	239	508	0	0	747	19:15	356	237	0	0	593
07:30	315	623	0	0	938	19:30	341	207	0	0	548
07:45	345	1088	650	2090	3178	19:45	284	1333	214	911	2244
08:00	351	544	0	0	895	20:00	294	224	0	0	518
08:15	299	551	0	0	850	20:15	298	192	0	0	490
08:30	279	534	0	0	813	20:30	259	185	0	0	444
08:45	291	1220	498	2127	3347	20:45	208	1059	164	765	1824
09:00	241	368	0	0	609	21:00	266	142	0	0	408
09:15	251	347	0	0	598	21:15	234	146	0	0	380
09:30	282	350	0	0	632	21:30	206	121	0	0	327
09:45	289	1063	331	1396	2459	21:45	167	873	128	537	1410
10:00	272	291	0	0	563	22:00	179	109	0	0	288
10:15	263	288	0	0	551	22:15	121	95	0	0	216
10:30	294	288	0	0	582	22:30	122	57	0	0	179
10:45	298	1127	330	1197	2324	22:45	89	511	67	328	839
11:00	301	282	0	0	583	23:00	69	42	0	0	111
11:15	281	342	0	0	623	23:15	65	44	0	0	109
11:30	352	330	0	0	682	23:30	54	43	0	0	97
11:45	375	1309	333	1287	2596	23:45	46	234	34	163	397
TOTALS	6608	9430			16038	TOTALS	16799	12350			29149
SPLIT %	41.2%	58.8%			35.5%	SPLIT %	57.6%	42.4%			64.5%

DAILY TOTALS						NB	SB	EB	WB	Total
						23,407	21,780	0	0	45,187

AM Peak Hour	11:30	07:30			07:30	PM Peak Hour	17:00	17:15			17:00
AM Pk Volume	1451	2368			3678	PM Pk Volume	2297	1611			3895
Pk Hr Factor	0.935	0.911			0.924	Pk Hr Factor	0.959	0.897			0.948
7 - 9 Volume	2308	4217	0	0	6525	4 - 6 Volume	4456	3052	0	0	7508
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	1310	2368			3678	4 - 6 Pk Volume	2297	1598	0	0	3895
Pk Hr Factor	0.933	0.911	0.000	0.000	0.924	Pk Hr Factor	0.959	0.890	0.000	0.000	0.948

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Friday
Date: 5/13/2016

City: Atherton
Project #: 16-7361-004

DAILY TOTALS		NB	SB	EB	WB	Total
		23,867	22,419	0	0	46,286

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	32	25	0	0	57	12:00	372	323	0	0	695
00:15	27	20	0	0	47	12:15	346	289	0	0	635
00:30	25	15	0	0	40	12:30	349	304	0	0	653
00:45	19	103	15	75	34	12:45	346	1413	309	1225	655
01:00	28	22	0	0	50	13:00	380	327	0	0	707
01:15	22	22	0	0	44	13:15	387	311	0	0	698
01:30	20	17	0	0	37	13:30	358	302	0	0	660
01:45	25	95	20	81	45	13:45	378	1503	317	1257	695
02:00	15	13	0	0	28	14:00	368	327	0	0	695
02:15	22	9	0	0	31	14:15	399	304	0	0	703
02:30	7	11	0	0	18	14:30	462	380	0	0	842
02:45	9	53	13	46	22	14:45	407	1636	389	1400	796
03:00	8	4	0	0	12	15:00	455	315	0	0	770
03:15	10	10	0	0	20	15:15	456	367	0	0	823
03:30	14	19	0	0	33	15:30	470	367	0	0	837
03:45	13	45	7	40	20	15:45	523	1904	376	1425	899
04:00	7	17	0	0	24	16:00	549	409	0	0	958
04:15	6	17	0	0	23	16:15	561	399	0	0	960
04:30	16	24	0	0	40	16:30	550	373	0	0	923
04:45	15	44	37	95	52	16:45	521	2181	376	1557	897
05:00	25	55	0	0	80	17:00	576	369	0	0	945
05:15	30	66	0	0	96	17:15	559	419	0	0	978
05:30	26	100	0	0	126	17:30	543	331	0	0	874
05:45	57	138	91	312	148	17:45	542	2220	406	1525	948
06:00	56	97	0	0	153	18:00	543	304	0	0	847
06:15	78	158	0	0	236	18:15	429	343	0	0	772
06:30	82	202	0	0	284	18:30	431	308	0	0	739
06:45	119	335	242	699	361	18:45	426	1829	309	1264	735
07:00	167	337	0	0	504	19:00	386	285	0	0	671
07:15	233	530	0	0	763	19:15	355	249	0	0	604
07:30	297	673	0	0	970	19:30	340	283	0	0	623
07:45	354	1051	580	2120	934	19:45	324	1405	234	1051	558
08:00	370	568	0	0	938	20:00	297	217	0	0	514
08:15	301	529	0	0	830	20:15	287	216	0	0	503
08:30	315	567	0	0	882	20:30	265	193	0	0	458
08:45	316	1302	495	2159	811	20:45	261	1110	151	777	412
09:00	251	423	0	0	674	21:00	228	182	0	0	410
09:15	276	356	0	0	632	21:15	251	152	0	0	403
09:30	284	320	0	0	604	21:30	265	148	0	0	413
09:45	320	1131	314	1413	634	21:45	211	955	154	636	365
10:00	277	307	0	0	584	22:00	175	114	0	0	289
10:15	262	295	0	0	557	22:15	204	143	0	0	347
10:30	280	299	0	0	579	22:30	133	108	0	0	241
10:45	292	1111	309	1210	601	22:45	128	640	114	479	242
11:00	286	296	0	0	582	23:00	105	83	0	0	188
11:15	298	318	0	0	616	23:15	111	82	0	0	193
11:30	369	312	0	0	681	23:30	75	72	0	0	147
11:45	350	1303	346	1272	696	23:45	69	360	64	301	133
TOTALS	6711	9522			16233	TOTALS	17156	12897			30053
SPLIT %	41.3%	58.7%			35.1%	SPLIT %	57.1%	42.9%			64.9%

DAILY TOTALS		NB	SB	EB	WB	Total
		23,867	22,419	0	0	46,286

AM Peak Hour	11:30	07:15	07:30	PM Peak Hour	17:00	15:45	17:00
AM Pk Volume	1437	2351	3672	PM Pk Volume	2220	1557	3745
Pk Hr Factor	0.966	0.873	0.946	Pk Hr Factor	0.964	0.952	0.957
7 - 9 Volume	2353	4279	6632	4 - 6 Volume	4401	3082	7483
7 - 9 Peak Hour	07:45	07:15	07:30	4 - 6 Peak Hour	17:00	16:00	17:00
7 - 9 Pk Volume	1340	2351	3672	4 - 6 Pk Volume	2220	1557	3745
Pk Hr Factor	0.905	0.873	0.946	Pk Hr Factor	0.964	0.952	0.957

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Saturday
Date: 5/14/2016

City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB		WB		Total		
						19,286	17,188	0		0		36,474		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00	62	32	0	0	94	12:00	356	361	0	0	717			
00:15	40	46	0	0	86	12:15	348	356	0	0	704			
00:30	37	27	0	0	64	12:30	407	331	0	0	738			
00:45	46	185	29	134	0	0	389	1500	332	1380	0	0	721	2880
01:00	30	26	0	0	56	13:00	369	345	0	0	714			
01:15	38	31	0	0	69	13:15	365	311	0	0	676			
01:30	29	28	0	0	57	13:30	375	383	0	0	758			
01:45	44	141	21	106	0	0	356	1465	324	1363	0	0	680	2828
02:00	32	24	0	0	56	14:00	397	294	0	0	691			
02:15	26	22	0	0	48	14:15	401	284	0	0	685			
02:30	17	16	0	0	33	14:30	385	325	0	0	710			
02:45	17	92	12	74	0	0	359	1542	316	1219	0	0	675	2761
03:00	8	7	0	0	15	15:00	421	334	0	0	755			
03:15	15	8	0	0	23	15:15	368	331	0	0	699			
03:30	10	14	0	0	24	15:30	388	306	0	0	694			
03:45	16	49	13	42	0	0	354	1531	329	1300	0	0	683	2831
04:00	12	7	0	0	19	16:00	381	288	0	0	669			
04:15	15	17	0	0	32	16:15	417	302	0	0	719			
04:30	15	19	0	0	34	16:30	371	324	0	0	695			
04:45	16	58	25	68	0	0	336	1505	313	1227	0	0	649	2732
05:00	14	19	0	0	33	17:00	333	314	0	0	647			
05:15	12	31	0	0	43	17:15	335	291	0	0	626			
05:30	22	53	0	0	75	17:30	325	284	0	0	609			
05:45	37	85	56	159	0	0	320	1313	295	1184	0	0	615	2497
06:00	28	49	0	0	77	18:00	313	255	0	0	568			
06:15	39	66	0	0	105	18:15	318	253	0	0	571			
06:30	41	89	0	0	130	18:30	260	248	0	0	508			
06:45	73	181	84	288	0	0	309	1200	256	1012	0	0	565	2212
07:00	78	119	0	0	197	19:00	286	216	0	0	502			
07:15	90	122	0	0	212	19:15	270	220	0	0	490			
07:30	138	156	0	0	294	19:30	264	197	0	0	461			
07:45	157	463	173	570	0	0	254	1074	149	782	0	0	403	1856
08:00	166	163	0	0	329	20:00	222	193	0	0	415			
08:15	184	204	0	0	388	20:15	233	165	0	0	398			
08:30	168	221	0	0	389	20:30	224	151	0	0	375			
08:45	196	714	242	830	0	0	203	882	140	649	0	0	343	1531
09:00	250	211	0	0	461	21:00	194	152	0	0	346			
09:15	239	258	0	0	497	21:15	214	142	0	0	356			
09:30	251	290	0	0	541	21:30	174	154	0	0	328			
09:45	250	990	310	1069	0	0	201	783	140	588	0	0	341	1371
10:00	293	284	0	0	577	22:00	158	125	0	0	283			
10:15	269	291	0	0	560	22:15	165	121	0	0	286			
10:30	296	285	0	0	581	22:30	142	103	0	0	245			
10:45	333	1191	286	1146	0	0	116	581	105	454	0	0	221	1035
11:00	325	279	0	0	604	23:00	122	68	0	0	190			
11:15	314	337	0	0	651	23:15	112	84	0	0	196			
11:30	346	335	0	0	681	23:30	74	67	0	0	141			
11:45	380	1365	332	1283	0	0	88	396	42	261	0	0	130	657
TOTALS	5514	5769			11283	TOTALS	13772	11419			25191			
SPLIT %	48.9%	51.1%			30.9%	SPLIT %	54.7%	45.3%			69.1%			

DAILY TOTALS						NB	SB	EB		WB		Total
						19,286	17,188	0		0		36,474

AM Peak Hour	11:45	11:30			11:45	PM Peak Hour	14:15	12:00			12:00
AM Pk Volume	1491	1384			2871	PM Pk Volume	1566	1380			2880
Pk Hr Factor	0.916	0.958			0.973	Pk Hr Factor	0.930	0.956			0.976
7 - 9 Volume	1177	1400	0	0	2577	4 - 6 Volume	2818	2411	0	0	5229
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	16:15			16:00
7 - 9 Pk Volume	714	830	0	0	1544	4 - 6 Pk Volume	1505	1253	0	0	2732
Pk Hr Factor	0.911	0.857	0.000	0.000	0.881	Pk Hr Factor	0.902	0.967	0.000	0.000	0.950

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

Day: Sunday
Date: 5/15/2016City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB	WB	Total	
						16,106	14,067	0	0	30,173	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	91	57	0	0	148	12:00	328	282	0	0	610
00:15	76	48	0	0	124	12:15	358	285	0	0	643
00:30	55	49	0	0	104	12:30	358	283	0	0	641
00:45	33	255	42	196	0	0	0	0	0	0	644
					75	451	369	1413	275	1125	2538
01:00	38	27	0	0	65	13:00	340	254	0	0	594
01:15	23	20	0	0	43	13:15	357	284	0	0	641
01:30	34	21	0	0	55	13:30	353	304	0	0	657
01:45	35	130	28	96	0	0	0	0	0	0	649
					63	226	360	1410	289	1131	2541
02:00	49	35	0	0	84	14:00	349	279	0	0	628
02:15	22	29	0	0	51	14:15	333	280	0	0	613
02:30	33	26	0	0	59	14:30	303	253	0	0	556
02:45	18	122	16	106	0	0	0	0	0	0	642
					34	228	330	1315	312	1124	2439
03:00	14	9	0	0	23	15:00	343	268	0	0	611
03:15	13	15	0	0	28	15:15	316	281	0	0	597
03:30	11	14	0	0	25	15:30	332	257	0	0	589
03:45	10	48	9	47	0	0	0	0	0	0	585
					19	95	329	1320	256	1062	2382
04:00	8	9	0	0	17	16:00	307	253	0	0	560
04:15	12	11	0	0	23	16:15	318	266	0	0	584
04:30	8	13	0	0	21	16:30	302	250	0	0	552
04:45	10	38	24	57	0	0	0	0	0	0	543
					34	95	295	1222	248	1017	2239
05:00	8	12	0	0	20	17:00	295	257	0	0	552
05:15	15	28	0	0	43	17:15	262	222	0	0	484
05:30	23	33	0	0	56	17:30	254	232	0	0	486
05:45	31	77	38	111	0	0	0	0	0	0	513
					69	188	261	1072	252	963	2035
06:00	33	35	0	0	68	18:00	277	216	0	0	493
06:15	40	55	0	0	95	18:15	253	216	0	0	469
06:30	29	56	0	0	85	18:30	246	206	0	0	452
06:45	40	142	79	225	0	0	0	0	0	0	445
					119	367	256	1032	189	827	1859
07:00	41	72	0	0	113	19:00	217	172	0	0	389
07:15	58	79	0	0	137	19:15	224	175	0	0	399
07:30	74	107	0	0	181	19:30	207	156	0	0	363
07:45	104	277	140	398	0	0	0	0	0	0	343
					244	675	198	846	145	648	1494
08:00	108	122	0	0	230	20:00	182	173	0	0	355
08:15	112	135	0	0	247	20:15	197	147	0	0	344
08:30	146	146	0	0	292	20:30	209	126	0	0	335
08:45	158	524	172	575	0	0	0	0	0	0	322
					330	1099	186	774	136	582	1356
09:00	207	202	0	0	409	21:00	152	130	0	0	282
09:15	200	206	0	0	406	21:15	165	111	0	0	276
09:30	190	219	0	0	409	21:30	146	98	0	0	244
09:45	216	813	229	856	0	0	0	0	0	0	230
					445	1669	145	608	85	424	1032
10:00	227	210	0	0	437	22:00	106	81	0	0	187
10:15	259	222	0	0	481	22:15	89	84	0	0	173
10:30	254	232	0	0	486	22:30	86	57	0	0	143
10:45	296	1036	292	956	0	0	0	0	0	0	118
					588	1992	58	339	60	282	621
11:00	252	255	0	0	507	23:00	58	49	0	0	107
11:15	307	299	0	0	606	23:15	58	35	0	0	93
11:30	279	267	0	0	546	23:30	60	41	0	0	101
11:45	249	1087	280	1101	0	0	0	0	0	0	63
					529	2188	30	206	33	158	364
TOTALS	4549	4724			9273	TOTALS	11557	9343			20900
SPLIT %	49.1%	50.9%			30.7%	SPLIT %	55.3%	44.7%			69.3%

DAILY TOTALS						NB	SB	EB	WB	Total	
						16,106	14,067	0	0	30,173	
AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	12:15	13:15		13:15	
AM Pk Volume	1293	1130			2423	PM Pk Volume	1425	1156		2575	
Pk Hr Factor	0.903	0.991			0.942	Pk Hr Factor	0.965	0.951		0.980	
7 - 9 Volume	801	973	0	0	1774	4 - 6 Volume	2294	1980	0	0	4274
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	16:15			16:00
7 - 9 Pk Volume	524	575	0	0	1099	4 - 6 Pk Volume	1222	1021	0	0	2239
Pk Hr Factor	0.829	0.836	0.000	0.000	0.833	Pk Hr Factor	0.961	0.960	0.000	0.000	0.958

VOLUME

El Camino Real between Selby Lane and Columbia Avenue

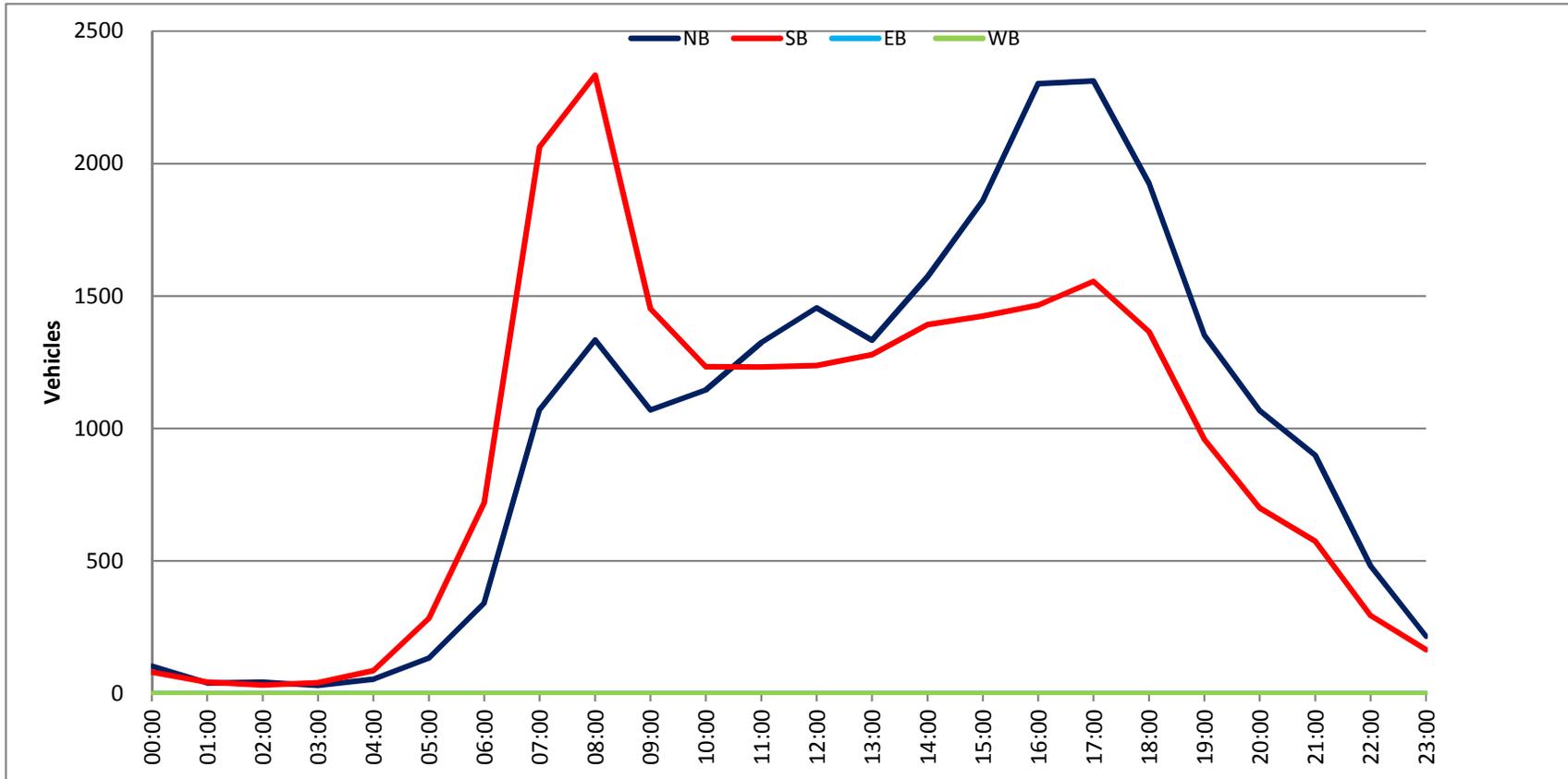
Day: Monday
Date: 5/16/2016

City: Atherton
Project #: 16-7361-004

DAILY TOTALS						NB	SB	EB	WB	Total			
						22,574	21,250	0	0	43,824			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	34	19	0	0	53	12:00	387	288	0	0	675		
00:15	25	16	0	0	41	12:15	352	340	0	0	692		
00:30	10	22	0	0	32	12:30	366	271	0	0	637		
00:45	18	87	20	77	0	0	336	1441	305	1204	0	641	2645
01:00	20	19	0	0	39	13:00	331	300	0	0	631		
01:15	23	13	0	0	36	13:15	354	277	0	0	631		
01:30	10	14	0	0	24	13:30	375	306	0	0	681		
01:45	15	68	11	57	0	0	351	1411	299	1182	0	650	2593
02:00	13	10	0	0	23	14:00	358	288	0	0	646		
02:15	3	4	0	0	7	14:15	361	304	0	0	665		
02:30	4	7	0	0	11	14:30	396	333	0	0	729		
02:45	3	23	7	28	0	0	406	1521	364	1289	0	770	2810
03:00	7	7	0	0	14	15:00	372	328	0	0	700		
03:15	5	6	0	0	11	15:15	433	374	0	0	807		
03:30	9	7	0	0	16	15:30	481	372	0	0	853		
03:45	7	28	17	37	0	0	510	1796	332	1406	0	842	3202
04:00	14	13	0	0	27	16:00	530	310	0	0	840		
04:15	14	18	0	0	32	16:15	509	375	0	0	884		
04:30	15	26	0	0	41	16:30	572	351	0	0	923		
04:45	19	62	38	95	0	0	531	2142	359	1395	0	890	3537
05:00	27	48	0	0	75	17:00	597	345	0	0	942		
05:15	26	62	0	0	88	17:15	592	411	0	0	1003		
05:30	38	101	0	0	139	17:30	567	364	0	0	931		
05:45	53	144	99	310	0	0	534	2290	388	1508	0	922	3798
06:00	43	99	0	0	142	18:00	536	347	0	0	883		
06:15	74	139	0	0	213	18:15	476	363	0	0	839		
06:30	102	199	0	0	301	18:30	416	280	0	0	696		
06:45	117	336	250	687	0	0	350	1778	322	1312	0	672	3090
07:00	185	313	0	0	498	19:00	323	243	0	0	566		
07:15	237	537	0	0	774	19:15	328	261	0	0	589		
07:30	315	628	0	0	943	19:30	295	235	0	0	530		
07:45	367	1104	558	2036	0	0	274	1220	198	937	0	472	2157
08:00	368	595	0	0	963	20:00	221	189	0	0	410		
08:15	323	560	0	0	883	20:15	236	162	0	0	398		
08:30	296	539	0	0	835	20:30	234	145	0	0	379		
08:45	300	1287	488	2182	0	0	234	925	152	648	0	386	1573
09:00	278	361	0	0	639	21:00	229	143	0	0	372		
09:15	241	363	0	0	604	21:15	208	148	0	0	356		
09:30	257	415	0	0	672	21:30	173	117	0	0	290		
09:45	304	1080	344	1483	0	0	156	766	101	509	0	257	1275
10:00	267	322	0	0	589	22:00	152	82	0	0	234		
10:15	297	305	0	0	602	22:15	121	76	0	0	197		
10:30	279	309	0	0	588	22:30	78	44	0	0	122		
10:45	281	1124	308	1244	0	0	67	418	50	252	0	117	670
11:00	329	307	0	0	636	23:00	76	43	0	0	119		
11:15	326	271	0	0	597	23:15	52	41	0	0	93		
11:30	334	329	0	0	663	23:30	50	38	0	0	88		
11:45	325	1314	309	1216	0	0	31	209	34	156	0	65	365
TOTALS	6657	9452			16109	TOTALS	15917	11798			27715		
SPLIT %	41.3%	58.7%			36.8%	SPLIT %	57.4%	42.6%			63.2%		

DAILY TOTALS						NB	SB	EB	WB	Total
						22,574	21,250	0	0	43,824

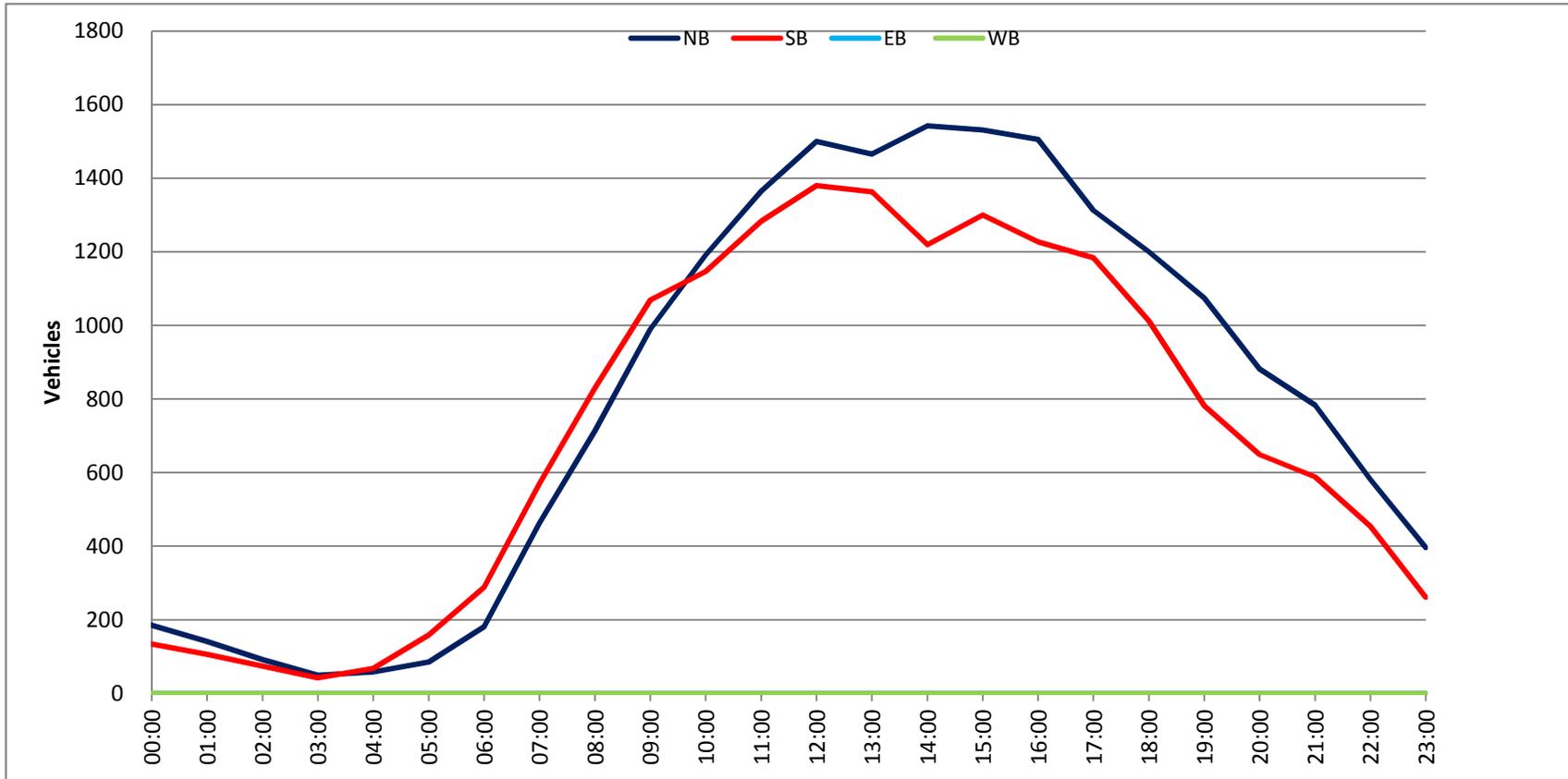
AM Peak Hour	11:45	07:30			07:30	PM Peak Hour	16:30	17:15			17:00
AM Pk Volume	1430	2341			3714	PM Pk Volume	2292	1510			3798
Pk Hr Factor	0.924	0.932			0.964	Pk Hr Factor	0.960	0.918			0.947
7 - 9 Volume	2391	4218	0	0	6609	4 - 6 Volume	4432	2903	0	0	7335
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	16:30	17:00			17:00
7 - 9 Pk Volume	1373	2341	0	0	3714	4 - 6 Pk Volume	2292	1508	0	0	3798
Pk Hr Factor	0.933	0.932	0.000	0.000	0.964	Pk Hr Factor	0.960	0.917	0.000	0.000	0.947

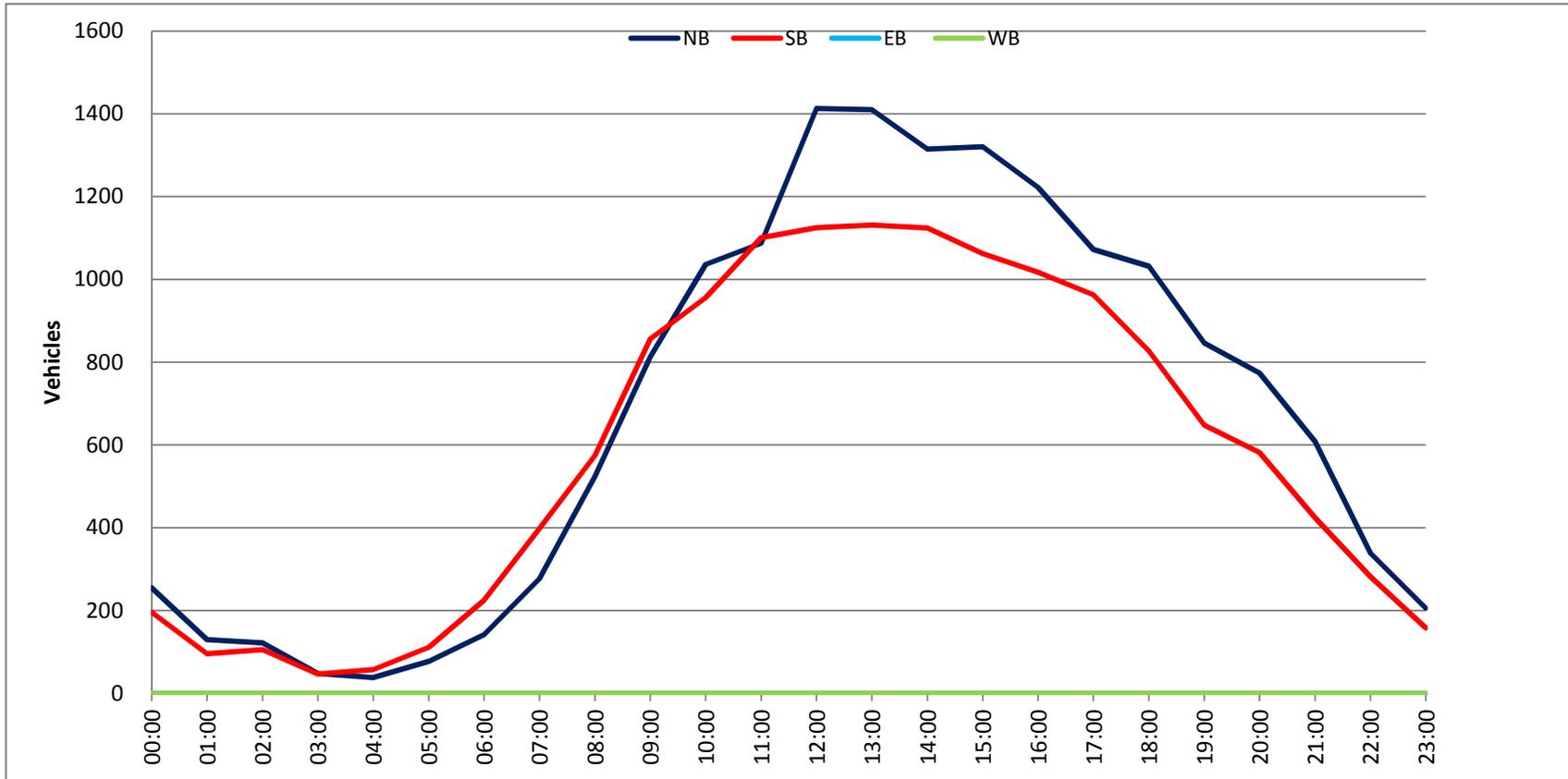














B . A . Y . M . E . T . R . I . C . S .
ORIGIN & DESTINATION SUMMARY

PROJECT: ORIGIN - DESTINATION SURVEYS IN ATHERTON											
SURVEY DATE: 6/2/2016				SURVEY DAY: THURSDAY							
SURVEY TIME: 7:00 AM to 9:00 AM											
JURISDICTION: ATHERTON				FILE: 3606056-AM							
LOCATION: ORIGIN:				DESTINATION:							
ROUTE 1			1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL				ROUTE 2			4. OAKWOOD BLVD, NORTH OF SELBY LANE	
ROUTE 2			2. FIFTH AVENUE, EAST OF EL CAMINO REAL				ROUTE 3			5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE	
ROUTE 3			3. OAKWOOD BLVD, NORTH OF SELBY LANE							6. OAKWOOD DRIVE, WEST OF EL CAMINO REAL	
TIME		ROUTE 1			ROUTE 2			ROUTE 3			
From	To	O	D	MATCH	O	D	MATCH	O	D	MATCH	
TOTAL BY PERIOD											
7:00 AM	to	7:15 AM	8	9	1	89	1	0	11	33	4
7:15 AM	to	7:30 AM	17	9	0	136	3	1	9	47	3
7:30 AM	to	7:45 AM	21	33	3	135	10	4	10	64	7
7:45 AM	to	8:00 AM	21	45	4	182	5	2	21	47	11
8:00 AM	to	8:15 AM	30	37	5	213	3	3	42	76	27
8:15 AM	to	8:30 AM	22	35	6	189	9	3	54	85	44
8:30 AM	to	8:45 AM	12	21	1	234	7	4	41	63	28
8:45 AM	to	9:00 AM	20	31	2	191	10	4	31	33	13
HOURLY TOTALS											
7:00 AM	to	8:00 AM	67	96	8	542	19	7	51	191	25
7:15 AM	to	8:15 AM	89	124	12	666	21	10	82	234	48
7:30 AM	to	8:30 AM	94	150	18	719	27	12	127	272	89
7:45 AM	to	8:45 AM	85	138	16	818	24	12	158	271	110
8:00 AM	to	9:00 AM	84	124	14	827	29	14	168	257	112
S U M M A R Y											
PEAK	TIME		ROUTE 1								
	From	To	O	D	MATCH						
HOUR	7:30 AM	to 8:30 AM	94	150	18	ROUTE 2					
PERIOD	7:00 AM	to 9:00 AM	151	220	22	O	D	MATCH			
HOUR	8:00 AM	to 9:00 AM				827	29	14	ROUTE 3		
PERIOD	7:00 AM	to 9:00 AM				1369	48	21	O	D	MATCH
HOUR	8:00 AM	to 9:00 AM							168	257	112
PERIOD	7:00 AM	to 9:00 AM							219	448	137
TEL: (510) 232 - 1271						EMAIL: Baymetrics@gmail.com					

B . A . Y . M . E . T . R . I . C . S .

ORIGIN & DESTINATION SUMMARY

PROJECT: ORIGIN - DESTINATION SURVEYS IN ATHERTON											
SURVEY DATE: 6/2/2016				SURVEY DAY: THURSDAY							
SURVEY TIME: 1:15 PM to 3:15 PM											
JURISDICTION: ATHERTON						FILE: 3606056-MD					
LOCATION: ORIGIN: DESTINATION:											
ROUTE 1 1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL				4. OAKWOOD BLVD, NORTH OF SELBY LANE							
ROUTE 2 2. FIFTH AVENUE, EAST OF EL CAMINO REAL				5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE							
ROUTE 3 3. OAKWOOD BLVD, NORTH OF SELBY LANE				6. OAKWOOD DRIVE, WEST OF EL CAMINO REAL							
TIME		ROUTE 1			ROUTE 2			ROUTE 3			
From	To	O	D	MATCH	O	D	MATCH	O	D	MATCH	
TOTAL BY PERIOD											
1:15 PM	to	1:30 PM	20	20	3	140	9	7	15	19	4
1:30 PM	to	1:45 PM	19	7	2	156	2	1	50	47	33
1:45 PM	to	2:00 PM	20	8	0	186	5	3	35	41	26
2:00 PM	to	2:15 PM	15	6	1	173	8	5	26	23	11
2:15 PM	to	2:30 PM	17	10	0	160	6	3	19	27	5
2:30 PM	to	2:45 PM	20	8	1	153	2	1	26	28	11
2:45 PM	to	3:00 PM	25	17	2	158	4	1	25	25	8
3:00 PM	to	3:15 PM	30	25	5	189	5	2	17	38	9
HOURLY TOTALS											
1:15 PM	to	2:15 PM	74	41	6	655	24	16	126	130	74
1:30 PM	to	2:30 PM	71	31	3	675	21	12	130	138	75
1:45 PM	to	2:45 PM	72	32	2	672	21	12	106	119	53
2:00 PM	to	3:00 PM	77	41	4	644	20	10	96	103	35
2:15 PM	to	3:15 PM	92	60	8	660	17	7	87	118	33
S U M M A R Y											
PEAK	TIME		ROUTE 1								
	From	To	O	D	MATCH						
HOUR	2:15 PM	to 3:15 PM	92	60	8	ROUTE 2					
PERIOD	1:15 PM	to 3:15 PM	166	101	14	O	D	MATCH			
HOUR	1:15 PM	to 2:15 PM				655	24	16	ROUTE 3		
PERIOD	1:15 PM	to 3:15 PM				1315	41	23	O	D	MATCH
HOUR	1:30 PM	to 2:30 PM							130	138	75
PERIOD	1:15 PM	to 3:15 PM							213	248	107
TEL: (510) 232 - 1271 EMAIL: Baymetrics@gmail.com											

B. A. Y. M. E. T. R. I. C. S.

ORIGIN & DESTINATION SUMMARY

PROJECT: ORIGIN - DESTINATION SURVEYS IN ATHERTON											
SURVEY DATE: 6/2/2016				SURVEY DAY: THURSDAY							
SURVEY TIME: 4:00 PM to 6:00 PM											
JURISDICTION: ATHERTON				FILE: 3606056-PM							
LOCATION: ORIGIN:				DESTINATION:							
ROUTE 1		1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL				ROUTE 2		4. OAKWOOD BLVD, NORTH OF SELBY LANE			
ROUTE 2		2. FIFTH AVENUE, EAST OF EL CAMINO REAL				ROUTE 3		5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE			
ROUTE 3		3. OAKWOOD BLVD, NORTH OF SELBY LANE						6. OAKWOOD DRIVE, WEST OF EL CAMINO REAL			
TIME		ROUTE 1			ROUTE 2			ROUTE 3			
From	To	O	D	MATCH	O	D	MATCH	O	D	MATCH	
TOTAL BY PERIOD											
4:00 PM	to	4:15 PM	35	16	4	199	10	6	33	30	9
4:15 PM	to	4:30 PM	32	8	2	218	6	4	23	28	7
4:30 PM	to	4:45 PM	40	20	4	202	8	5	25	28	5
4:45 PM	to	5:00 PM	31	15	2	210	5	4	27	32	7
5:00 PM	to	5:15 PM	31	14	5	210	7	4	37	43	9
5:15 PM	to	5:30 PM	40	13	4	225	8	6	29	48	12
5:30 PM	to	5:45 PM	39	20	7	197	7	4	35	43	8
5:45 PM	to	6:00 PM	47	25	5	160	3	1	29	37	11
HOURLY TOTALS											
4:00 PM	to	5:00 PM	138	59	12	829	29	19	108	118	28
4:15 PM	to	5:15 PM	134	57	13	840	26	17	112	131	28
4:30 PM	to	5:30 PM	142	62	15	847	28	19	118	151	33
4:45 PM	to	5:45 PM	141	62	18	842	27	18	128	166	36
5:00 PM	to	6:00 PM	157	72	21	792	25	15	130	171	40
S U M M A R Y											
PEAK	TIME		ROUTE 1								
	From	To	O	D	MATCH						
HOUR	5:00 PM	to 6:00 PM	157	72	21	ROUTE 2					
PERIOD	4:00 PM	to 6:00 PM	295	131	33	O	D	MATCH			
HOUR	4:30 PM	to 5:30 PM				847	28	19	ROUTE 3		
PERIOD	4:00 PM	to 6:00 PM				1621	54	34	O	D	MATCH
HOUR	5:00 PM	to 6:00 PM							130	171	40
PERIOD	4:00 PM	to 6:00 PM							238	289	68
TEL: (510) 232 - 1271 EMAIL: Baymetrics@gmail.com											

BAYMETRICS

LICENSE PLATE O-D SURVEY FORM

PROJECT:	LICENSE PLATE O-D SURVEY		
DATE:	6/2/2016	DAY:	THURSDAY
JURISDICTION:	ATHERTON	TIME:	7:00 AM TO 9:00 AM
LOCATION:	ORIGIN:	FILE:	3606056-1AM
	1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL	TO	4. OAKWOOD BLVD, NORTH OF SELBY LANE

TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1	
	ORIGIN	DESTINATION									
7:00 AM	5526	X081	7:30 AM	R020	M093	8:00 AM	F434	Z108	8:30 AM	A885	M163
	B100	W644		W733	38M1		9138	G126		F987	S647
	T595	L343		X865	33H1		B859	S426		6550	K713
	P161	W645		C169	F775		G389	U833		4397	V874
	K256	P456		E140	TOWNE		G419	U904		1033	6241
	Z160	K256		S670	Y977		58T1	B859		8114	V151
	F847	16C1		P691	T898		V904	H769		S847	C478
	S109	G415		H697	E155		V922	J894		D130	6550
		4883		D622	6017		D115	L098		C278	W855
				X081	H506		D628	J353		U176	A253
				36K1	68A1		F483	R465		5030	E473
				W513	U284		W333	9531		L501	W791
				R726	H386		D656	D557			D590
				W645	9361		7220	M825			V320
				1641	R046		W075	G419			M253
7:15 AM			7:45 AM	6942	F832	8:15 AM	H251	X082	8:45 AM		S553
				V761	E140		3082	E209			G389
				P085	AXON		D996	R988			DGZL
				70G1	G898		W592	X672			N080
				A808	C934		J952	U150			H929
				E543	R827		J747	N949			B923
					G035		D024	H251			
					E787		L082	3082			
					G609		D176	D996			
					Z454		V123	B286			
					D115		Y987	L831			
					V687		Z043	M157			
					Y011		D613	P767			
					L721		6593	N761			
					Z788		L993	C357			
			9913		D728						
			70G1		M116						
			5656		3198						
					V452						
					W730						
					F359						
					V662						
7:15 AM	M216	G804	7:45 AM	D080	8789	8:15 AM	X155	L993	8:45 AM	J067	H693
	Y487	X752		G705	8186		F946	M004		H969	E166
	A658	M118		E666	17X1		H078	J592		O242	E696
	U592	G255		3396	7277		K068	K292		T823	Z840
	Z111	40A2		8616	T980		W683	1581		K164	E209
	P755	F341		G526	R444		R587	X155		C657	T691
	42W1	R635		9511	X496		D961	P976		X092	O242
	4291	4794		07A1	60K1		J889	Z706		O682	O224
	4780	C910		S727	E543		W169	P868		7242	J639
	K388			N674	D080		G391	U514		A956	9106
	Y517			2568	G526		6595	R587		Z641	E930
	1054			D196	R756		C691	7345		S147	Z788
	R046			W036	A712		S604	W169		X019	V810
	Y889			P609	V587		4595	V216		G179	90V1
	S957			X847	C630		O224	O143		V123	Y332
1032		D712	F094	7352	X580	U040	W373				
7:30 AM	W075	8:00 AM	8983	Y476	8:30 AM	U589	C691	9:00 AM	E675	F987	
			B757	Z364		M270	C969		K460	Z345	
			W257	J045		D461	M932		U514	W476	
			73H0	Y428		W522	K732		1246	Z641	
			G983	T360		K215	A640			N313	
				E473		H721	R140			S391	
				S839			D598			8145	
				L542			U589			W681	
				33H1			77X1			IDOC	
				V534			Z257			1942	
				B513			4856			Z100	
				U714			G181			A140	
				C642			MOTO			D915	
				Y749			S643			F980	
				J595			DIST			Y065	
				V550			W151				
				A862			Z607				
				X847			16C1				
				W645			E954				
				H545							
				L927							
				P471							
				W784							
				J173							
				T892							
				O224							
				B310							
				Z200							
				B043							

TEL: (510) 232-1271 EMAIL: Baymetrics@gmail.com

MATCH PLATE

BAYMETRICS

LICENSE PLATE O-D SURVEY FORM

PROJECT: LICENSE PLATE O-D SURVEY	
DATE: 6/2/2016	DAY: THURSDAY
JURISDICTION: ATHERTON	FILE: 3606056-1MD
LOCATION: 1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL	DESTINATION: 4. OAKWOOD BLVD, NORTH OF SELBY LANE

TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1					
	ORIGIN	DESTINATION													
1:15 PM	Z178	Y991	1:45 PM	L891	X525	2:15 PM	B927	D115	2:45 PM	F784	X366				
	X160	F000		S147	F253		J910	M593		M474	KINS				
	J474	X160		A925	77U1		5878	H280		6427	B255				
	NEW CAR	Z017		AXON	370U		Y521	E261		M364	Z373				
	A933	N187		D024	R196		G114	H693		U592	5573				
	26M1	5683		Z487	3198		M157	V949		H045	L343				
	90L1	G918		B178	F535		N933	21D1		NEW CAR	IZEE				
	01M1	H454		N458	R627		C278	A421		W645	J438				
	N187	E259		G431			G389	D567		B923	F987				
	H454	N313		M076			K239	F606		J438	X533				
	O134	P143		G181			L217			E460	V426				
	C656	O971		L455			85A1			F407	F453				
	S076	77U1		6595			B757			4886	A179				
	V123	OREL		V954			Y151			R756	H296				
	4629	P388		28B1			P546			6090	L993				
	U579	V151		8447			J185			36K1	DALY				
	7199	X891		J501			O5B1			4397	E691				
	1:30 PM	K006		P767	2:00 PM		INMX			2:30 PM			3:00 PM	2585	
K429		Y282	A526					E363							
ORVS		Z108	P804					L993							
								E778							
								B178							
								4285							
								D327							
								3743							
1:30 PM		Y964	3719	2:00 PM		A516	G415	2:30 PM	B435		P632	3:00 PM		B178	J185
		T583	20K1			A140	G431		G179		M116			P298	BJ.BJ2
	C446	S447	Y165		W645	A003	Z820		ZCME	P298					
	T851	U332	K460		R924	C184	O107		N729	L738					
	P503	01D1	D165		3534	O107	D728		Z345	W484					
	S447	S100	D111		J298	1329	K998		B671	E627					
	9237	L747	4969			G600	U398		L738	1964					
	8410		H771			D177	5573		V444	S504					
	V761		J344			J438			L636	P888					
	K111		D057			R502			W484	G398					
	L242		5206			M473			V397	24B.269					
	S100		M253			L198			E894	W645					
	7129		C411			55R1			T752	O590					
	R808		P406			29B1			V232	CREEK					
	A385		L109			G268			G770	G318					
	V739					S328			Z889	4856					
	D461					Y108			F952	88W1					
	V706					N291			05A1	4226					
C840				C908		K164	K164								
				T392		B629	1038								
						G361	E343								
						85T1	F089								
						B991	E523								
						K179	B524								
						E896	G500								
						T809									
						X407									
						W915									
						V587									
						F089									

TEL: (510) 232-1271 EMAIL: Baymetrics@gmail.com

MATCH PLATE

BAYMETRICS

LICENSE PLATE O-D SURVEY FORM

PROJECT: LICENSE PLATE O-D SURVEY	
DATE: 6/2/2016	DAY: THURSDAY
JURISDICTION: ATHERTON	FILE: 3606056-1PM
LOCATION: 1. OAKWOOD DRIVE, WEST OF EL CAMINO REAL	DESTINATION: 4. OAKWOOD BLVD, NORTH OF SELBY LANE

TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1		TIME	ROUTE 1					
	ORIGIN	DESTINATION													
4:00 PM	E524	X634	4:30 PM	X525	E134	5:00 PM	J087	J087	5:30 PM	P046	N232				
	R755	U476		R923	63A2		P206	P206		I246	G182				
	T173	E524		V928	Y635		W175	IQUE		T979	X057				
	V890	J411		P161	F258		U904	2290		T931	F363				
	2076	V890		A667	F671		W803	W803		F342	V621				
	D628	J640		R046	E637		C052	8338		D917	Z682				
	V035	Z429		V283	N606		MOTO	C815		K657	9622				
	B028	S689		J656	S411		H455	N593		I1E1	H545				
	H679	ACUN		P587	C419		LUUZ	J622		E209	V572				
	R721	K055		V434	X525		Z341	F556		V621	N782				
	M475	C181		3396	Y476		9027	L721		9622	N719				
	M002	Z577		U598	V283		NEW CAR	T398		C250	P050				
	S689	WALK		V836	1877		R704	66F1		J392	N521				
	S227	M445		M169	R827		6295	22T1		T533	C743				
	L562	E743		X879	A739		C815			S096	C899				
	4870	P618		91J1	79X1		M614			Z671	22U1				
	4:15 PM	X794			4:45 PM		P434	54L1		5:15 PM	E205		5:45 PM	V572	N949
		E263					P449	X974			B884			N782	N525
		S954					S422	D486			R390			N719	RAM
		NEW CAR					I014	A715			7991			LDRS	V484
		K055					S923				F556			K225	
		U849					F583				Y896			P699	
		Y673					L189				F519			B921	
		Y082					NEW CAR				G007			U283	
		I132					N257				R235			S445	
		K049					P456				B539			C899	
		OGRH					V072				L496			T384	
		R529					B609				C124			U093	
F905			P377			L578		OMAS							
5759			P926			65G1		N949							
Z932			V123			NEW CAR		H876							
M109			79X1					N611							
K025			L876					V741							
9205			4872					G480							
R460			A950					Z389							
			D400					9560							
			C969					NEW CAR							
			D055					H335							
			L356					5295							
			T594												
4:15 PM		F946	B879	4:45 PM		1630	L267	5:15 PM	Y257		U833	5:45 PM		J166	E883
		6502	H993			X808	F275		V434		M682			X865	H448
		C621	5779			68H1	E473		4952		R403			42X1	42X1
		E246	6090			98C1	F832		B645		E473			P713	G621
	C798	X398	S583		37X1	X215	4952		G367	E524					
	85A1	Z394	L097		P456	V470	OSMO		T840	D951					
	H993	L914	N458		6092	N291	C548		R703	R704					
	D051	7129	4YHS		D6ZL	J296	V253		K635	C840					
	E818		Z354		H621	RCHD	B038		6630	N313					
	K034		RUNR		L884	D331	Y428		ORVS	G004					
	B177		Z311		9168	C548	T173		E524	Z426					
	C753		POSTAL		F818	H353	N223		S966	F359					
	D727		Z330		L333	9824	D926		U130	A830					
	4:30 PM	34Y1			5:00 PM	3114	M672		5:30 PM	N786			6:00 PM	E891	V320
		N195				6WMH	G546			R549				G546	W645
		L874				6092				9847				D884	N521
		C798				LLOA				V253				C840	P976
		Z394				Z892				M004				U035	S689
		X398				2878				X761				J143	S779
		D6CL				L884				L387				L580	P867
		5067				O224				L189				N522	A778
		B138				Y754				HAWA				Z426	E130
		Z560				V139				C037				B300	C403
		KES2				T517				V042				B310	U728
		AXON				V705				R046				A633	S335
		A885				F100				Y740				F231	
		6187				B921				C525				M069	
		V982				D448				G101				F231	
T645			18W1			H652		E155							
F258			N199			C429		D538							
F671			7129			N170		U728							
A463						R927		C339							
						T206		U985							
						U730		A723							
						D095		U301							
						G993		N634							
						L166		SRAD							
						7649		M248							
						N223		N521							
						N093		J334							
								H707							
						M607									
						T961									
						T217									
						L228									
						J474									
						P012									

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MATCH PLATE

BAYMETRICS
LICENSE PLATE O-D SURVEY FORM

PROJECT:		LICENSE PLATE O-D SURVEY																				
DATE:		6/2/2016				DAY:		THURSDAY				TIME:		7:00 AM TO 9:00 AM								
JURISDICTION:		ATHERTON																				
LOCATION:		ORIGIN: 2. FIFTH AVENUE, EAST OF EL CAMINO REAL						TO		DESTINATION: 5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE												
TIME	ROUTE 2				TIME	ROUTE 2				TIME	ROUTE 2				TIME	ROUTE 2						
	ORIGIN	ROUTE 2		DESTINATION		ORIGIN	ROUTE 2		DESTINATION		ORIGIN	ROUTE 2		DESTINATION		ORIGIN	ROUTE 2		DESTINATION			
7:00 AM	6250	R802	H800	Z910	7:30 AM	Z720	2422	F904	Z966	8:00 AM	B318	V486	R983	L791	1758	8:30 AM	S228	D545	G179	Y650	A089	Y042
	S482	X081	H698			U700	K256	7319	94E1		N639	L628	M549	5284	C918		8114	M079	C145	R044	8615	C339
	2606	D515	X			L462	L387	H501	NEW CAR		W619	A957	W296	X671	R726		V107	7708	X394	R195	X	45U1
	K304	X	N888			W158	C042	J015	62Y1		X303	61S1	95T1	A738			D467	X503	8674	Y042	P420	J568
	G182	L548	2037			J182	B062	U620	R094		T282	C447	X	R726			Z266	X	18B1	J199	V576	H653
	M416	N544	2943			P034	F616	G438	Z354		G027	76L1	R486	B150			T908	O669	M367	R733	ZRAW	K762
	3555	F656	B364			V257	V483	J755	47G1		Y010	A907	V737	E180			D033	6675		X	J094	23R1
	X	B463	E876			D317	G087	A362	4919		Z495	C260	C918	B403			6433	J114		D534	J469	
	H833	9417	NEW CAR			V908	5555	K976	S138		R750	V399	N135	S867			Z321	3949		Z175	F466	
	M702	X	98E1			9905	5874	X	1374		C984	U243	V737	X			H431	Z266		M910	A153	
	T639	L815	B904			V130	9433	H078			Z138	A899	J752	32W1			108	J992		W959	F237	
	R193	C696	25R1			B047	P456	62Y1			O858	E459	U897	S006			D049	B961		4856	H653	
	V007	R446	9460			U961	F458	A891			8584	N373	V011	E293			X	G223		NEW CAR	M916	
	X	J822				H897	K804	J030			S686	T150	W140	S411			R586	M001		A729	NEW CAR	
	Z447	8411				1745	CKEN	P863			D024	N549	81F1	F180			7032	D501		H101	A345	
	22A1	X				96L1	G723	C364			Y156	S339	N258	X			4700	D996		7852	X368	
		X				81U1	C079	S564			81U1	C079	S564	Z103			C279	S293		X	14F1	
		95A1				X182	T519				5906	W263	T074	R811			B870	W250		Y870	P414	
		9463				2548	T662				W971	LHAK	D949	8017			X	V919		X	G215	
		C005				NEW CAR					N611	A146	X713	B834			9054	C193		F327	LC4U	
	X819			6431	H686			T996	X677	X496	N066		S185	X438		U294	X					
	O814			E210	A830			V768	Y504	78T1	K172		X727	Z255		R727	L766					
	F774			V953	N747			S911	G809	H423	P421		Y419	A345		O080	177N					
	W403			S342	O335			Y320	V996	J768	F485		NEW CAR	T826		NEW CAR	D006					
	9899			L498	3396			N469	N705	Y907	BBLE		87K1	C967		M902	U599					
	C671			2635	R094			F426	RICE	X	T624		U705	A840		D750	B118					
	L003			U284	N502			N156	F875	B246	26X1		S821	V429		V438	A253					
	X			E080	Z354			8405	S878	F662	W981		X	G991		K153	N776					
	LDER			U242	M152			E988	4046	X	D615		X	S851		L501	E757					
	W645			E498	G795			W397	PCAF	NEW CAR	W724		G357	E414		G324	M534					
	C048			R994	G562			D807	X568	C221	K195		U696	V088		C015	L749					
	L074			U563	A959			9037	01F1	23X1	W347		F809	T958		NO PLATE	F415					
	B387			H530	4919			G093	C313	L934	X587		N600	W503		1898	F432					
	K791			P120	U900			D825	DLEE	C550	Y163		T823	L766		T082	Z816					
	Y248			D547	R732			B657	M371	X	N514		M638	V003		45U1	Y204					
	X			9303	B722			22K1	J256	V543			H111	H012		M492	Z8R1					
	T733			R911	61N1			9965	3975	W211			7511	R851		A002	V886					
	1271			7477	Z731			F429	K250	C705			3856	81KD		1393	X					
	43V1			0724	X857			M660	L221	0946			U705	B261		Z870	6259					
	9431			J314	K420			L489	D422	G657			L824	R980		8841	13V1					
	X			79V1	C667			6379	P487	1836			N879	B314		9783	8284					
	Z812			22C1	N743			N231	WOOD	H136			G0D	R394		NEW CAR	H340					
	4990			A814	L918			7342	94J2	M840			9208	Z800		R810	V826					
	M137			72HW	J214			O063	PS21	9071			C266	J517		Z047	B384					
	L804			X857	Z168			H953	31G1	6298			W120	G339		NEW CAR	4397					
	A704			T097	F725			Y278	K156	D968			H527	Y457		94EN	J463					
	N496			3LUJ	W548			B109	N013	W312			9273	U409		M019	B050					
	8421			D858	A742			K461	L203	C300			F614	M867		P468	NEW CAR					
	9246			Z823	L387			N439	NEW CAR	R369			Y497	C446		X						
	C646			B158	R138			C134	L267	Y750			3644	1547		E951						
	9138			S199	H694			E531	S216	A582			H116	Z311		E800						
	E852			Y212	W806			H183	O920	BSA			E500	D217		G452						
	F873			K695	A798			G807	C607	B962			8336	C769		E584						
	R765			9797	S882			V218	A468	W778			T191	P511		N031						
	Y465			U868	S003			8994	V715	F371			W733	L426		K036						
	C928			W548	4410			L006	1665	T121			L458	T669		R413						
	V429			S252	P019			R058	822U	T965			K778	X		9171						
	R043			1745	V768			A617	F583	A866			Z217	F146		E400						
	X			R217	C048			7543		Z114			N006	C322		NEW CAR						
	Y186				M200			S785		H504			Y980	10H1		X						
	6568	32G1	C623	J186	81U1	F336	F086	N555	1551	1745	5287	J055	R577	V954	NEW CAR	Z036	9221		R281	G507	M367	
	T954	R210	D546	B434	A502	C267	H749	X	U453	L083	N810	D472	1679	S274	C256	61T1	Z564		A002	C055	K942	
	M471	U682	S430	X979	5978	3860	H416	V959	J787	L065	Z630	7562	3784	B97	R799	L954	K926		H939	1MTW	C986	
	L028	X	X520	J118		5683	F939	6256	X045	Z086	V868	U542	R243	Y628	8532	P715	B955		NO PLATE	Z488	M795	
	DI		M471	V523		1386	M673	NEW CAR	X718	W653	1966	1676	4385	69R1	0944	V985	321		Z737	E816	S147	
	B423		L028	V118		G711	G761	T208	H324		Z928	H692	J278	00H1	X804	RBUT	D957		T736	D804	E757	
	E650		A502	X		F609	J722	C594	C005		V118	38D1	O214	J904	5930	68E1	Y112		S127	T211	G507	
	X		X120	Y039		D910	P595	K917	P567		M265	D387	X109	M206	R405	N777	S429		M549	Z129	75X1	
	Y565		M600	5281		R841	1386	R402	4078		3198	7991	E206	NEW CAR	A956	G747	E961		C465	2594	Z129	
	N086		X585			D613	6003	71U1	F040		K548	F295	30E1	E206		F774	L719		P471	X987		
	4573		K447			33U1	W148	L631	D704		XEIE	N969	NETE	L993		S327	J297		M806	D830		
	8299		9225			Z238	Z304	K196	8522		8990	D080	Y552	G943		K359	49H1		V656	B321		
	M762		X303			X617	L710	W646	U637		M118	8185	T486	M151		G787	F358		32V1	MOTO		
	Y367		8882			F616	S069	U206	R260		T753	F500	O529	A956		B460	55N0		A566	E242		
	L261		8299			8597	R386	C053	J268		E369	J299	039	B133		J108	D429		T868	E463		
	X		X839			X	M873	3679	41S1		1611	B327	J077	U096		B206	Y443		J904	R630		
	F684		E353			G340	W678	X	9805		U114	N559	A221	C861		X312	C409		C865	CHEN		
	8188		Y966			B257	8336	T583	J276		4405	C498	NEW CAR	R741		T676	O3M1		K325	34G1		
	K949		W966			H507	C366	A152	E910		B273		J103	33H1		J500	G101		Z725	7972		
	D274		L141			J063	4959	A370	D911		X297	N682	H803	X		9644	F370		C729	B697		
	G566		D917			C135	K055	W214	X		01U1		R382	X		R809	A116		R737	P608		
	4432		S808			G286	K236	F657	9576		96K1	K744	9125	F004		M390	W476		Z678			
	E180		7801			E658	T536	5759	1758		T682	R193	8532	TNTX		8573	G					

BAYMETRICS
LICENSE PLATE O-D SURVEY FORM

PROJECT:		LICENSE PLATE O-D SURVEY				DATE:		6/2/2016		DAY:		THURSDAY		TIME:		1:15 PM TO 3:15 PM		JURISDICTION:		ATHERTON		FILE:		3606056-2PM		ORIGIN:		2. FIFTH AVENUE, EAST OF EL CAMINO REAL		to		DESTINATION: <td colspan="2">5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE</td>		5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE	
TIME	ROUTE 2				TIME	ROUTE 2				TIME	ROUTE 2				TIME	ROUTE 2																			
	ORIGIN	DESTINATION			O	DESTINATION			O	DESTINATION			O	DESTINATION																					
1:15 PM	9517	S798	U980	P765	9001	L097	P840	Y572	I091	J552	E845	Y859	21U1	Z012	T124	M060	S147	Z026	C794		G809														
	P961	79G1	M379	R276	U980	W105	Z737	K677	X077	7400	U178	B611	38R1	H806	Z910	X007	8411	U398	T825		K316														
	D971	6563	C635	O737	L635	B318	V341	1672	X883	M852	L623	A933	U009	NEW CAR	M554	36K1	G605	K316	K504		Y668														
	8600	O737	X	LVRB	C339	898	T908	B641	F583	L801	E428	MOTO	N331	S411	Y571	T843	W787	C249	I332		0375 (POST)														
	W550	5699	X	111M	E312	Z882	F563	L669	U884	E463	T165	04B1	3471	B453	D350	F679	70N1	Z497	T590																
	5211	Z437	X	33H1	79G1	G243	NEW CAR	X	X		R147	N655	X250	A676	NEW CAR	X096	Z019	C782	NEW CAR																
	5761	X	X	Y752	L005	1601	C322	V855	3137		N013	L710	47R1	F024		78V1	2054	7201	H165																
	NEW CAR	T122	1407	C676	L569	B110	N850	H352	L801		T533	3122	D998	Y681		33M1	N835	H832	C636																
	X285	X662	7222	8272	2054	T633	1601	G126	44J1		W637	X137	X250	4317		C916	B051	T211	C256																
	A060	7708	C339			TZU	L822	1601	J364		C426	26H1	A421	NEW CAR		Z185	E041	4910	9364																
	X	Y327	F565			X	66D1	P717	X650		R612	P012	9664	P963		S025	E198	B638	T382																
	X		J671			N021	V364	M492	D019		D133	O305	Z104	C011		NEW CAR	O039	6039																	
	J335		J247			B395	96K1	X	1556		NEW CAR	F790	D3KC	D650		H783	Z973	X110																	
	8135		M517			MOTO	P565	Y116	G238		S453	U471	C501	T347		A093	206	S802																	
	W329		X			A140	R694	F400	J557		NEW CAR	X681	D250	R055		Y378	M940	R103																	
	F537		Z937			60H1	2423	Z366	P356		1643	X166	14L1			X915	X794	N324																	
	NEW CAR		X			J586	X210	B881	F207		M051	D883	W918			B369	Z790	71M1																	
	91B1		ACEP			M673	W892	Z346	C290		7040	L631	X865			X	XL	D529																	
	X		S907			N373	R564	U298	2475		6377	Y320	X			Z857	P474	X110																	
	X		L011			S447	D472	89M1	8450		U581	W896	K219			E909	M075	Z141																	
	D726		X			63A2	E199	T117	A248		C157	A860	S378			T203	N658	Y042																	
	W128		D844			M753	85M1	T931	W876		U927	J860	O152			F134	K884	608																	
	1:30 PM	1073	A425			H299	M920	7400	S965		G692	F428	L559			Z664	S758	W566																	
	T633		W918			C498	Z663	L430	G761		A197	7508	A197			L343	Z088	C143																	
	3455		E312			G290	M278	X	U601		94E1	04W1	V633			G124	W134	D447																	
	N679		MOTO			Y119	A811	R696	Z916		NDAD		T124			N893	8548	68V1																	
	E189		T767			Z351	L931	J516	9176		E857		M554			C492	R762	N398																	
	A956		F838			89M1	S627	R513	A165		W733		90V1			H441		R092																	
	G813		X			X	F207	D830			B044		NEW CAR			R734		X110																	
	F748		C353			C279	24V1	F847			O927		1766			4824		C800																	
	G371		Y397			P634	E545	F084			F875		5628			K548		X110																	
	5689		F707			D519	79E1	Y675			D832		28N1			B809		U030																	
	B033		DALY			K583	M565	5192			9054		5475			2273		M458																	
	E861		T347			R097	V840	30A1			K900		E264			R154		Y336																	
	L952		W356			P695	1966	T868			3310		3048			5665		6678																	
	V895		G931			7511	X884	58K1			F783		K033			N410		T368																	
	2533		X			06A1	2402	3L4V			X		7631			G251		K648																	
	D440		M793			NEW CAR	H229	R462			X		B474			Y286		3EVE																	
	W267		U036			8955		727			F546		D924			X		D924																	
	Y102		N582			J511	X	Z830			T840		Y052			3599		K485																	
R253		Z930			860		39D1			N373		MMMS			390		D084																		
8R29		H440			V346		K406			BUB		N552			0751		W237																		
L569		K810			383		T727			1811		04W1			1973		V806																		
8476		B667			R481		X			P960		U339			G350		L443																		
Z337		L961			J097		B271			2211		S796			13N1		R860																		
B188		2054			NEW CAR		H075			NEW CAR		3502			997		V938																		
P111		B318			L722		S705			J018		Y683			E094		D435																		
Y040		79T1			A524		L848			D467		R396			K352		S592																		
T671		Z523			B879		E272			L993		D968			D924		N775																		
L164		S686			M171		W974			C103		8123			L722		9654																		
5282		M035			R988		E698			G983		J317			P883		84B1																		
A294		T734			T652		LQJR			F642		2423			X		N852																		
4255		B690			P709		P438			N835		W355			3712		X																		
U640		N895			21C1		S085			B253		U301			GOOD		E073																		
H833		R819			L955		Z403			O685		C939			R677		M895																		
9298		9298			F614		P4720			644		A630			D884		64Z1																		
M001		8788			W434		G464			U160		U871			S139		X																		
NEW CAR		F350			8878		MAUI			R077		9033			V966		Z423																		
O971		U871			V894		18R1			C036		Z066			931		V117																		
					Y278		C909	M882	V576	5930		C559	E993	2699	Z804	E581		L729	4810	AXUN	B295	S491													
					U288		W684	J137	B255	02B1		R141	J143	N941	R470	K011		13	K443	H595	RD31	R599													
					V424		D722	R801	G552	M750		5980	N521	X906	C093			8115	R948	X	N107	Z363													
					P201		S098	64Y1	X			19A1	4595	R141	V520			R456	X	Z682	W239	B920													
					R335		L842	K586	G807			U255	U808	H499	X683			N524	2315	L750	R974	7719													
					A800		BUB	Z372	E204			F862	C317	NEW CAR	U342			T991	5274	V579	V377														
					S318		X	G888	A759			P976	R622	S544	7161			J180	W233	5839	A611														
					04Y1		R489	K922	V159			T663	0051	C737				L957	4737	8499	R158														
					X349		MOTO	X191	4936			R820	V085	K473				S170	D608	C957	S610														
					Y019		8500	M490	L336			E906	X	X				R988	T730	R712	N093														
					K690		E593	1262	T876			H003	V257	R822				M118	2934	4660	X														
					8720		4458	K046	U072			J417	7389	D288				7990	S318	D981	C051														
					F086		X067	F633	C623			H576	586	X958				B346	49U1	A973	T275														
					R390		A686	K661				H117	16V	296X				C818	K461	B051	JVW														
					C820		F030	9196				59H1	E567	X																					

BAYMETRICS

LICENSE PLATE O-D SURVEY FORM

PROJECT: LICENSE PLATE O-D SURVEY
DATE: 6/2/2016 **DAY:** THURSDAY **TIME:** 4:00 PM TO 6:00 PM
JURISDICTION: ATHERTON **FILE:** 3606056-2PM
LOCATION: 2. FIFTH AVENUE, EAST OF EL CAMINO REAL TO 5. WAVERLY AVENUE, NORTH OF FIFTH AVENUE

TIME	ROUTE 2					TIME	ROUTE 2					TIME	ROUTE 2					TIME	ROUTE 2					
	ORIGIN	C176	32W1	30A2	DESTINATION		O	K618	G438	1971	DESTINATION		O	O165	NEW CAR	X	5415		O	N283	W491	Z706	DESTINATION	
4:00 PM	S0T1	C176	32W1	30A2	S138	4:30 PM	U797	K618	G438	1971	N501	5:00 PM	9879	O165	NEW CAR	X	5415	5:30 PM	H986	N283	W491	Z706	G418	
	E851	04R1	Z577	C969	Z577		4891	R093	N938	S258	V253		R725	L700	6914	T141	Z601		Z250	W938	4686	MOTO		X444
	M280	X	D856	V107	G278		5216	Z683	Z420	Y507	49L1		X999	U933	Z601	9501	Z563		J019	R752	J881	J018		6620
	NEW CAR	X032	9203	W271	E877		2381	9354	385	K386	NEW CAR		Z260	9U01	939	9391	V036		L578	S676	R390	L709		P855
	1859	P737	M938	164	Y160		7160	L465	O954	X488	E974		Z222	W927	X	H372	61W1		C024	9315	V359	C589		E674
	F857	F173	L075	S222	K845		G138	5657	N137	E179	T706		V734	U476	F023	35P1	A084		D913	K097	J549	Y819		A189
	R680	MOTO	P587	F419	T707		Y635	34R1	X	D996	N276		U243	B757	R130	H439	C157		3652	M300	J218	F269		D137
	L115	Y125	Z497	X	C969		W138	16H1	36K1	C707	4458		R080	N982	X	V998			X	H980	L395	825		
	650	X545	R871	S635	D561		S926	8109	W390	D904			T199	P893	X	463			X	Y223	E362	S121		
	31HD	5108	T692	26E1	C256		H621	4308	W318	X488			N185	983	W498	X			T754	V882	X490	81F1		
	W427	O553	6975	O976			5159	8423	69Y1	3254			7338	1UE1	C865	R684			V553	R476	X909	B021		
	4470	9811	X	R997			7151	K664	H010	D515			Z434	X	C854	V731			7849	GOOD	B722	S784		
	8951	K845	5178	U076			P117	85U1	5372	F825			S837	653	X	9655			J392	49T1	P115	D137		
	94X1	F459	80U1	6260			T649	3489	NEW CAR	1223			Y133	51C1	842	Z262			Y278	Z612	885	X		
	X	G169	F187	3785			7709	4838	C419	B900			6871	X679	X	61W1			W857	F542	D076	U065		
	B799	1265	O008	K292			NEW CAR	3589	E133	W125			D404	9586	56F1	X			4345	S666	D371	P336		
	H495	X	5839	MOTO			V744	65W1	8667	X830			1776	X131	W134	474			X	3574	91T1	J427		
	Y824	87C4	C841	R192			A733	L591	X	5274			G110	E966	R283	X			X	W760	NEW CAR	X050		
	L813	NEW CAR	R463	X			1033	U250	R407	69W1			A387	H469	H073	V530			F454	D844	U104	L076		
	Z149	E805	542	T313			R125	B975	N501	9371			X999	P769	P285	V482			P321	78A1	N013	A135		
M577	P145	J085	N649		Z110	K067	K235	X		1872	A649	7398	X		7244	6327	Y323	U225						
H592	2858	4717	X635		L660	W854	5490	W125		7098	K992	D724	Z631		5834	Z840	NEW CAR	Z869						
L064	X318	V222	743		9948	A775	K760			14P1	K488	L811	A221		J768	C676	B502	R248						
4851	W761	V627	N902		B859	4184	K751			R944	2081	F132	D213		NEW CAR	U542	3178	5672						
1324	X871	K359	X914		80F1	62G1	833			R994	T318	K253	M197		N151	X	J211							
T410	U961	540	G657		Z813	S326	69Y1			Y151	NEW CAR	N322	560		W688	X	X							
X473	Z096	C287	V412		NEW CAR	4067	C504			J211	571	D777	C157		T231	W216	991							
1759	P665	A193	01V1		U501	D273	U197			P285	G002	Z487	X		F705	296	W574							
B884	U030	G278	X		SZ510	8300	7149			7424	W672	L729	B326		8953	E897	X368							
L668	O249	N974	K813		X695	21E1	Y755			S201	U709	X747	N893		NEW CAR	D240	X							
W688	R513	E877	K051		9671	W141	49L1			Z543	Z951	W339	L024		5432	B910	J268							
U447	M651	X566			E887	E031	A487			F778	X	C410			N858	F621	X							
8648	V506	X			S998	N552	7046			98T1	D992	T404			V228	06V1	L711							
50M1	S208	F298			H499	X550	A972			U181	78W1	R935			Y322	6623	H209							
P733	64B1	Y160			C854	K747	A353			E172	P637	G198			P334	Y133	R936							
X	2694	K739			W966	36N1	F706			0711	D777	762			E636	J162	X							
Z203	X500	H335			0397	X550	R797			7699	W806	W245			U451	3206	C498							
S208	P970	X			D376	R039	G107			Y082	W823	X			P921	A447	P855							
S278	1758	L321			D935	A400	Z758			X999	Z746	C002			U254	M159	Z850							
W054	E913	1826			B736	H174	H076			X999	Z496	A275			W579	4362	93X1							
9044	C728	R137			40H1	Y215	D788			D942	W611	X			X	4027	01B1							
4079	M415	64F8			67T1	G179	Z483			D504	W921	571			M869	A151	9603							
H862	L012	B112			X695	H711	X			E439	V492	V536			G124	G101	S365							
1574	S877	717			Y230	Z929	X879			X	G849	L517			617	X	8424							
E785	V791	X			L812	F485	X250			X	M116	M043			M946	A950	E761							
Y850	GIM	X			T511	O937	B709			X	N775	NEW CAR			K034	1021	X							
Z173	D871	9136			1013	5682	E334			R935	Z213	Z114			NEW CAR	C691	Z379							
11X1	W680	A389			G136	C005	C370			86D1	X	T324			049	X	3172							
J550	X				6348	90A2	J951			N541	V756	X756			W104	N941	W894							
D528	E796				W892	P837	X			R372	L028	X			NEW CAR	G013	7686							
36V1	1032				R252	W687	N775			1087	W335	X			P787	K029	NEW CAR							
E473	X				Y620	L657	D559			13D1	T351	A644			B334	N559	C256							
71K1	3191				Z966	9104	R458			A511	O422	X652			40X1	S221	M943							
19U1	Y058				D137	37K1	X			6466	M137	D712			J419		A189							
Y741	Y987				E547	4086	8921			F363	N171	N727			O537		3574							
Z153	MOTO				6003	V929	W982			676	X451	D416			5398		M932							
K434	525				R599	H296	E782			C002	W893	A859			9603		7361							
R151	X				W652	NEW CAR	K143			V501	L977	X			93EN		U608							
V613	B615				NDD	F813	X525			C633	X	K275			S313		Z698							
T420	NEW CAR				E974	M692	X909			X744		Z946			3017		X							
S609	SHAN	C269	X	Z601	C135	5375	460	6881	G240	X	591	N109	T613	9043	F605	F068	X287	R749		P900				
S201	P351	Y358	R447	U260	C275	A508	X	6823	N825	300	A886	N791	F231	V792	22D1	S499	C487	32V1		D350				
E983	815	6348	S388	46A1	S172	K436	Z542	1712	E757	J975	C768	X	R762	K012	B488	Z295	U262	X		R611				
6348	J373	Z980	3126	JAZON	07J1	Z521	U706	G160	D794	M039	B775	87K1	78N1	C920	M373	W998	A140	H816						
R446	B400	X999	3276	3785	X695	H891	X	F854	GRAB YT	1487	NEW CAR	L211	X	B720	E631	U946	R433							
C627	GB818	X	C019	NEW CAR	M082	040	3032	K989		1303	Z488	E259	S009	A134	M028	A438	X							
T242	H335	G645	9647		8787	X550	X	N109		C701	T235	NEW CAR	371	T150	1154	4420	P900							
3752	V581	X	1854		Y211	W045	E658	S848		W247	R875	W191	Z334	5238	Z381	P252	T946							
K666	H084	9027	TI0N		J348	L172	G240	R730		G515	2300	T680	O616		X234	O158	9371			</				

Appendix C

Existing Conditions

- Movement Level of Service Summary Tables
- Synchro Level of Service Summary Sheets
- Synchro Queue Summary Sheets

Movement Level of Service Summary Tables

Table: Existing Conditions Movement Level of Service Analysis – AM Peak Hour

ID	Intersection	Control Type	MOE	AM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	22.0	-	-	116.4	-	33.7	14.3	-	30.8	34.7	-
			LOS	-	C	-	-	F	-	C	B	-	C	C	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	>50*	-	-	>50*	-	58.7	-	-	12.6	-	-
			LOS	-	F	-	-	F	-	F	-	-	B	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	34.4	-	6.0	-	29.8	-	34.4	14.1	-
			LOS	-	-	-	C	-	A	-	C	-	C	B	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	>50*			-	-	-	30.9	-	-	-	-	-
			LOS	F			-	-	-	D	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	4.9	-	-	-	-	-	-	-	33.4		
			LOS	-	A	-	-	-	-	-	-	-	D		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	2.5	-	-	3.1	-	-	-	-	27.4		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
 >50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.
Bold indicates unacceptable operations.

Table: Existing Conditions Movement Level of Service Analysis – School PM Peak Hour

ID	Intersection	Control Type	MOE	School PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	23.2	-	-	22.9	-	25.6	10.8	-	25.5	9.6	-
			LOS	-	C	-	-	C	-	C	B	-	C	A	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	21.3	-	-	76.2	-	14.8	-	-	12.8	-	-
			LOS	-	C	-	-	F	-	B	-	-	B	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	33.8	-	12.5	-	19.7	-	29.2	4.6	-
			LOS	-	-	-	C	-	B	-	B	-	C	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	75.8			-	-	-	11.6	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	3.4	-	-	-	-	-	-	-	12.7		
			LOS	-	A	-	-	-	-	-	-	-	B		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	1.6	-	-	1.7	-	-	-	-	24.6		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
Bold indicates unacceptable operations.

Table: Existing Conditions Movement Level of Service Analysis – PM Peak Hour

ID	Intersection	Control Type	MOE	PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	21.7	-	-	24.2	-	32.7	20.0	-	33.0	13.1	-
			LOS	-	C	-	-	C	-	C	B	-	C	B	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	12.2	-	-	19.2	-	17.4	-	-	16.2	-	-
			LOS	-	B	-	-	C	-	C	-	-	C	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	36.4	-	17.2	-	32.4	-	42.5	6.3	-
			LOS	-	-	-	D	-	B	-	C	-	D	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	249.6			-	-	-	12.3	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	3.6	-	-	-	-	-	-	-	13.1		
			LOS	-	A	-	-	-	-	-	-	-	B		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	4.0	-	-	4.6	-	-	-	-	24.0		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

Bold indicates unacceptable operations.

Existing Conditions Level of Service Summary Sheets

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	81	42	120	225	30	47	58	51	1090	39	39	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.93			0.98			1.00	0.99			1.00
Flt Protected		0.98			0.96			0.95	1.00			0.95
Satd. Flow (prot)		1690			1748			1770	5051			1770
Flt Permitted		0.85			0.54			0.95	1.00			0.95
Satd. Flow (perm)		1455			972			1770	5051			1770
Peak-hour factor, PHF	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83	0.83	0.96	0.96
Adj. Flow (vph)	99	51	146	250	33	52	70	61	1313	47	41	44
RTOR Reduction (vph)	0	40	0	0	8	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	256	0	0	327	0	0	131	1356	0	0	85
Confl. Peds. (#/hr)	27						27			12		
Confl. Bikes (#/hr)			6			6				3		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		20.8			20.8			8.1	32.1			6.6
Effective Green, g (s)		20.8			20.8			8.1	32.1			6.6
Actuated g/C Ratio		0.30			0.30			0.12	0.46			0.09
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		435			290			206	2332			168
v/s Ratio Prot								c0.07	0.27			0.05
v/s Ratio Perm		0.18			c0.34							
v/c Ratio		0.59			1.13			0.64	0.58			0.51
Uniform Delay, d1		20.7			24.4			29.3	13.8			29.9
Progression Factor		1.00			1.00			0.99	1.01			1.00
Incremental Delay, d2		1.3			92.1			4.7	0.4			0.9
Delay (s)		22.0			116.4			33.7	14.3			30.8
Level of Service		C			F			C	B			C
Approach Delay (s)		22.0			116.4				16.0			
Approach LOS		C			F				B			

Intersection Summary

HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	69.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak

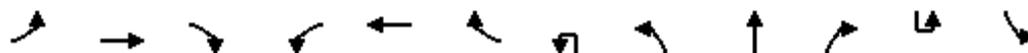


Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Volume (vph)	2098	16
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5078	
Flt Permitted	1.00	
Satd. Flow (perm)	5078	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	2185	17
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2201	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.6	
Effective Green, g (s)	30.6	
Actuated g/C Ratio	0.44	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2235	
v/s Ratio Prot	c0.43	
v/s Ratio Perm		
v/c Ratio	0.98	
Uniform Delay, d1	19.2	
Progression Factor	1.00	
Incremental Delay, d2	15.5	
Delay (s)	34.7	
Level of Service	C	
Approach Delay (s)	34.6	
Approach LOS	C	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↕	↑↑↑			↕
Volume (veh/h)	9	0	251	0	3	30	19	222	1172	3	34	24
Sign Control		Stop			Stop				Free			
Grade		0%			0%				0%			
Peak Hour Factor	0.87	0.87	0.87	0.69	0.69	0.69	0.82	0.82	0.82	0.82	0.95	0.95
Hourly flow rate (vph)	10	0	289	0	4	43	0	271	1429	4	0	25
Pedestrians		1			7							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type									None			
Median storage (veh)												
Upstream signal (ft)									677			
pX, platoon unblocked	0.63	0.63	0.61	0.63	0.63	0.96	0.00	0.61			0.00	0.96
vC, conflicting volume	3579	4492	891	3103	4596	489	0	2566			0	1440
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2620	4074	0	1864	4240	329	0	1326			0	1317
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			0.0	4.1
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			0.0	2.2
p0 queue free %	0	100	56	100	0	93	0	14			0	95
cM capacity (veh/h)	0	0	660	4	0	636	0	315			0	498

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	299	48	271	572	572	290	25	941	941	682
Volume Left	10	0	271	0	0	0	25	0	0	0
Volume Right	289	43	0	0	0	4	0	0	0	212
cSH	0	2	315	1700	1700	1700	498	1700	1700	1700
Volume to Capacity	Err	27.33	0.86	0.34	0.34	0.17	0.05	0.55	0.55	0.40
Queue Length 95th (ft)	Err	Err	193	0	0	0	4	0	0	0
Control Delay (s)	Err	Err	58.7	0.0	0.0	0.0	12.6	0.0	0.0	0.0
Lane LOS	F	F	F				B			
Approach Delay (s)	Err	Err	9.3				0.1			
Approach LOS	F	F								

Intersection Summary

Average Delay		Err								
Intersection Capacity Utilization			93.7%		ICU Level of Service				F	
Analysis Period (min)			15							

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (veh/h)	2236	201
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.95	0.95
Hourly flow rate (vph)	2354	212
Pedestrians	4	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	0	
Right turn flare (veh)		
Median type	None	
Median storage (veh)		
Upstream signal (ft)	1147	
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↙↙	↕↕↕		↙↙	↕↕↕
Volume (vph)	491	697	676	186	616	1865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1760	2787	4895		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1760	2787	4895		3433	5085
Peak-hour factor, PHF	0.88	0.88	0.82	0.82	0.95	0.95
Adj. Flow (vph)	558	792	824	227	648	1963
RTOR Reduction (vph)	0	4	76	0	0	0
Lane Group Flow (vph)	558	788	975	0	648	1963
Confl. Peds. (#/hr)	10			9		
Confl. Bikes (#/hr)				4		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	22.7	40.6	14.9		13.9	32.3
Effective Green, g (s)	22.7	40.6	14.9		13.9	32.3
Actuated g/C Ratio	0.35	0.63	0.23		0.22	0.50
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	624	1768	1139		745	2566
v/s Ratio Prot		0.28	0.20		c0.19	c0.39
v/s Ratio Perm	c0.32					
v/c Ratio	0.89	0.45	0.86		0.87	0.77
Uniform Delay, d1	19.5	6.0	23.5		24.2	12.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.9	0.1	6.3		10.3	1.3
Delay (s)	34.4	6.0	29.8		34.4	14.1
Level of Service	C	A	C		C	B
Approach Delay (s)	17.8		29.8			19.1
Approach LOS	B		C			B

Intersection Summary

HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: AM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	38	134	31	91	851	2200	170
Sign Control	Stop				Free		Free
Grade	0%				0%	0%	
Peak Hour Factor	0.81	0.81	0.87	0.87	0.87	0.90	0.90
Hourly flow rate (vph)	47	165	0	105	978	2444	189
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)					567		
pX, platoon unblocked	0.68	0.68	0.00	0.68			
vC, conflicting volume	3074	909	0	2633			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2396	0	0	1746			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	77	0	57			
cM capacity (veh/h)	11	735	0	241			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	
Volume Total	212	105	326	326	326	978	978	678	
Volume Left	47	105	0	0	0	0	0	0	
Volume Right	165	0	0	0	0	0	0	189	
cSH	46	241	1700	1700	1700	1700	1700	1700	
Volume to Capacity	4.60	0.43	0.19	0.19	0.19	0.58	0.58	0.40	
Queue Length 95th (ft)	Err	51	0	0	0	0	0	0	
Control Delay (s)	Err	30.9	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS	F	D							
Approach Delay (s)	Err	3.0					0.0		
Approach LOS	F								

Intersection Summary			
Average Delay	541.3		
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: AM Peak

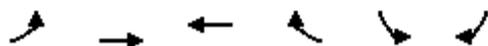


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	152	252	403	11	38	88
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.71	0.71	0.69	0.69
Hourly flow rate (vph)	183	304	568	15	55	128
Pedestrians		1	3		1	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	584				1249	577
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584				1249	577
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	81				64	75
cM capacity (veh/h)	990				155	515
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	487	583	183			
Volume Left	183	0	55			
Volume Right	0	15	128			
cSH	990	1700	303			
Volume to Capacity	0.19	0.34	0.60			
Queue Length 95th (ft)	17	0	92			
Control Delay (s)	4.9	0.0	33.4			
Lane LOS	A		D			
Approach Delay (s)	4.9	0.0	33.4			
Approach LOS			D			
Intersection Summary						
Average Delay			6.8			
Intersection Capacity Utilization			61.3%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	16	753	1193	18	19	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3535	3529		1669	
Flt Permitted		0.92	1.00		0.98	
Satd. Flow (perm)		3241	3529		1669	
Peak-hour factor, PHF	0.91	0.91	0.89	0.89	0.86	0.86
Adj. Flow (vph)	18	827	1340	20	22	34
RTOR Reduction (vph)	0	0	1	0	30	0
Lane Group Flow (vph)	0	845	1359	0	26	0
Confl. Peds. (#/hr)	9			9	14	
Confl. Bikes (#/hr)				9		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		52.0	52.0		7.0	
Effective Green, g (s)		52.0	52.0		7.0	
Actuated g/C Ratio		0.78	0.78		0.10	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2515	2738		174	
v/s Ratio Prot			c0.39			
v/s Ratio Perm		0.26			c0.02	
v/c Ratio		0.34	0.50		0.15	
Uniform Delay, d1		2.3	2.7		27.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.4		0.1	
Delay (s)		2.5	3.1		27.4	
Level of Service		A	A		C	
Approach Delay (s)		2.5	3.1		27.4	
Approach LOS		A	A		C	
Intersection Summary						
HCM 2000 Control Delay			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			67.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	69	38	41	94	19	39	32	66	1376	38	52	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		1.00			1.00			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.96			0.97			1.00	1.00			1.00
Flt Protected		0.98			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1752			1744			1770	5065			1770
Flt Permitted		0.81			0.71			0.95	1.00			0.95
Satd. Flow (perm)		1461			1269			1770	5065			1770
Peak-hour factor, PHF	0.77	0.77	0.77	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.96	0.96
Adj. Flow (vph)	90	49	53	101	20	42	37	76	1582	44	54	55
RTOR Reduction (vph)	0	18	0	0	16	0	0	0	3	0	0	0
Lane Group Flow (vph)	0	174	0	0	147	0	0	113	1623	0	0	109
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		11.6			11.6			6.8	29.6			6.7
Effective Green, g (s)		11.6			11.6			6.8	29.6			6.7
Actuated g/C Ratio		0.20			0.20			0.12	0.51			0.12
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		292			254			207	2589			204
v/s Ratio Prot								c0.06	c0.32			0.06
v/s Ratio Perm		c0.12			0.12							
v/c Ratio		0.59			0.58			0.55	0.63			0.53
Uniform Delay, d1		21.0			20.9			24.1	10.2			24.1
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		2.2			2.0			1.6	0.5			1.3
Delay (s)		23.2			22.9			25.6	10.8			25.5
Level of Service		C			C			C	B			C
Approach Delay (s)		23.2			22.9				11.7			
Approach LOS		C			C				B			

Intersection Summary

HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	10.0
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak

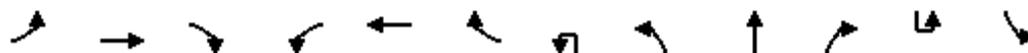


Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (vph)	1228	32
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5063	
Flt Permitted	1.00	
Satd. Flow (perm)	5063	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1279	33
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1310	0
Confl. Bikes (#/hr)		1
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	29.5	
Effective Green, g (s)	29.5	
Actuated g/C Ratio	0.51	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2579	
v/s Ratio Prot	0.26	
v/s Ratio Perm		
v/c Ratio	0.51	
Uniform Delay, d1	9.4	
Progression Factor	1.00	
Incremental Delay, d2	0.2	
Delay (s)	9.6	
Level of Service	A	
Approach Delay (s)	10.8	
Approach LOS	B	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↕	↑↑↑			↕
Volume (veh/h)	13	0	173	2	1	15	12	187	1504	4	29	17
Sign Control		Stop			Stop				Free			
Grade		0%			0%				0%			
Peak Hour Factor	0.85	0.85	0.85	0.75	0.75	0.75	0.82	0.82	0.82	0.82	0.96	0.96
Hourly flow rate (vph)	15	0	204	3	1	20	0	228	1834	5	0	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type									None			
Median storage (veh)												
Upstream signal (ft)									677			
pX, platoon unblocked	0.84	0.84	0.91	0.84	0.84	0.80	0.00	0.91			0.00	0.80
vC, conflicting volume	2464	3671	471	2966	3704	614	0	1376			0	1839
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1344	2776	60	1940	2815	0	0	1058			0	1160
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			0.0	4.1
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			0.0	2.2
p0 queue free %	72	100	77	85	85	98	0	62			0	96
cM capacity (veh/h)	55	9	901	17	9	864	0	594			0	476

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	219	24	228	734	734	372	18	522	522	333
Volume Left	15	3	228	0	0	0	18	0	0	0
Volume Right	204	20	0	0	0	5	0	0	0	72
cSH	435	73	594	1700	1700	1700	476	1700	1700	1700
Volume to Capacity	0.50	0.33	0.38	0.43	0.43	0.22	0.04	0.31	0.31	0.20
Queue Length 95th (ft)	69	30	45	0	0	0	3	0	0	0
Control Delay (s)	21.3	76.2	14.8	0.0	0.0	0.0	12.8	0.0	0.0	0.0
Lane LOS	C	F	B				B			
Approach Delay (s)	21.3	76.2	1.6				0.2			
Approach LOS	C	F								

Intersection Summary

Average Delay	2.7
Intersection Capacity Utilization	60.4%
ICU Level of Service	B
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (veh/h)	1252	69
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.96	0.96
Hourly flow rate (vph)	1304	72
Pedestrians		
Lane Width (ft)		
Walking Speed (ft/s)		
Percent Blockage		
Right turn flare (veh)		
Median type	None	
Median storage (veh)		
Upstream signal (ft)	1147	
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	206	502	1182	271	460	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		4.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	2787	4931		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	2787	4931		3433	5085
Peak-hour factor, PHF	0.77	0.77	0.88	0.88	0.90	0.90
Adj. Flow (vph)	268	652	1343	308	511	1079
RTOR Reduction (vph)	0	15	48	0	0	0
Lane Group Flow (vph)	268	637	1603	0	511	1079
Confl. Bikes (#/hr)				1		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	12.5	28.9	25.5		12.4	42.4
Effective Green, g (s)	12.5	28.9	25.5		12.4	42.4
Actuated g/C Ratio	0.20	0.45	0.40		0.19	0.66
Clearance Time (s)	4.0		5.0		4.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	346	1260	1967		666	3374
v/s Ratio Prot		0.23	c0.33		c0.15	0.21
v/s Ratio Perm	c0.15					
v/c Ratio	0.77	0.51	0.81		0.77	0.32
Uniform Delay, d1	24.4	12.4	17.1		24.4	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.5	0.1	2.6		4.8	0.0
Delay (s)	33.8	12.5	19.7		29.2	4.6
Level of Service	C	B	B		C	A
Approach Delay (s)	18.7		19.7			12.5
Approach LOS	B		B			B

Intersection Summary

HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: School PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	38	61	12	59	1407	1132	54
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.88	0.88	0.89	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	43	69	0	66	1581	1204	57
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.94	0.94	0.00	0.94			
vC, conflicting volume	1893	430	0	1262			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1730	176	0	1060			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	35	91	0	89			
cM capacity (veh/h)	67	787	0	615			

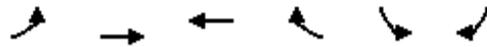
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	112	66	527	527	527	482	482	298
Volume Left	43	66	0	0	0	0	0	0
Volume Right	69	0	0	0	0	0	0	57
cSH	153	615	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.74	0.11	0.31	0.31	0.31	0.28	0.28	0.18
Queue Length 95th (ft)	111	9	0	0	0	0	0	0
Control Delay (s)	75.8	11.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	75.8	0.5				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization	42.9%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	85	172	234	33	17	44
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.68	0.68	0.86	0.86	0.80	0.80
Hourly flow rate (vph)	125	253	272	38	21	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	310				794	291
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310				794	291
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	90				93	93
cM capacity (veh/h)	1250				321	748
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	378	310	76			
Volume Left	125	0	21			
Volume Right	0	38	55			
cSH	1250	1700	546			
Volume to Capacity	0.10	0.18	0.14			
Queue Length 95th (ft)	8	0	12			
Control Delay (s)	3.4	0.0	12.7			
Lane LOS	A		B			
Approach Delay (s)	3.4	0.0	12.7			
Approach LOS			B			
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			41.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	6	713	678	23	21	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.94	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3538	3519		1709	
Flt Permitted		0.95	1.00		0.97	
Satd. Flow (perm)		3358	3519		1709	
Peak-hour factor, PHF	0.92	0.92	0.77	0.77	0.80	0.80
Adj. Flow (vph)	7	775	881	30	26	18
RTOR Reduction (vph)	0	0	1	0	17	0
Lane Group Flow (vph)	0	782	910	0	27	0
Confl. Bikes (#/hr)				3		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		41.5	41.5		2.7	
Effective Green, g (s)		41.5	41.5		2.7	
Actuated g/C Ratio		0.80	0.80		0.05	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2669	2797		88	
v/s Ratio Prot			c0.26			
v/s Ratio Perm		0.23			c0.02	
v/c Ratio		0.29	0.33		0.31	
Uniform Delay, d1		1.4	1.5		23.8	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2		0.7	
Delay (s)		1.6	1.7		24.6	
Level of Service		A	A		C	
Approach Delay (s)		1.6	1.7		24.6	
Approach LOS		A	A		C	

Intersection Summary

HCM 2000 Control Delay	2.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	51	28	64	92	23	54	28	124	2004	54	66	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.94			0.96			1.00	1.00			1.00
Flt Protected		0.98			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1701			1719			1770	5058			1770
Flt Permitted		0.86			0.74			0.95	1.00			0.95
Satd. Flow (perm)		1482			1300			1770	5058			1770
Peak-hour factor, PHF	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	63	35	79	107	27	63	29	131	2109	57	69	92
RTOR Reduction (vph)	0	37	0	0	22	0	0	0	3	0	0	0
Lane Group Flow (vph)	0	140	0	0	175	0	0	160	2163	0	0	161
Confl. Peds. (#/hr)	21						21			16		
Confl. Bikes (#/hr)			4			2				9		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		15.2			15.2			8.8	31.6			8.8
Effective Green, g (s)		15.2			15.2			8.8	31.6			8.8
Actuated g/C Ratio		0.23			0.23			0.13	0.48			0.13
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		343			301			237	2436			237
v/s Ratio Prot								0.09	c0.43			c0.09
v/s Ratio Perm		0.09			c0.14							
v/c Ratio		0.41			0.58			0.68	0.89			0.68
Uniform Delay, d1		21.4			22.4			27.0	15.4			27.1
Progression Factor		1.00			1.00			0.99	1.01			1.00
Incremental Delay, d2		0.3			1.9			5.9	4.5			6.0
Delay (s)		21.7			24.2			32.7	20.0			33.0
Level of Service		C			C			C	B			C
Approach Delay (s)		21.7			24.2				20.8			
Approach LOS		C			C				C			

Intersection Summary

HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak

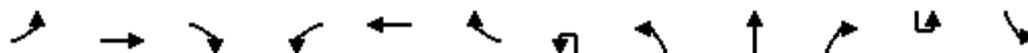


Movement	SBT	SBR
Lane Configurations	↑↑↑	↑
Volume (vph)	1418	18
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5074	
Flt Permitted	1.00	
Satd. Flow (perm)	5074	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	1493	19
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1510	0
Confl. Peds. (#/hr)		3
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	31.6	
Effective Green, g (s)	31.6	
Actuated g/C Ratio	0.48	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2444	
v/s Ratio Prot	0.30	
v/s Ratio Perm		
v/c Ratio	0.62	
Uniform Delay, d1	12.5	
Progression Factor	1.00	
Incremental Delay, d2	0.5	
Delay (s)	13.1	
Level of Service	B	
Approach Delay (s)	15.0	
Approach LOS	B	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (veh/h)	5	0	159	1	0	26	16	273	2250	16	34	29
Sign Control		Stop			Stop				Free			
Grade		0%			0%				0%			
Peak Hour Factor	0.80	0.80	0.80	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.91	0.91
Hourly flow rate (vph)	6	0	199	1	0	27	0	281	2320	16	0	32
Pedestrians		1			14							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		4.0			4.0							
Percent Blockage		0			1							
Right turn flare (veh)												
Median type									None			
Median storage (veh)												
Upstream signal (ft)									677			
pX, platoon unblocked	0.76	0.76	0.82	0.76	0.76	0.67	0.00	0.82			0.00	0.67
vC, conflicting volume	3010	4557	561	3677	4599	798	0	1631			0	2350
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	916	2949	0	1792	3004	0	0	987			0	1288
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			0.0	4.1
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			0.0	2.2
p0 queue free %	93	100	78	94	100	96	0	50			0	91
cM capacity (veh/h)	94	5	885	17	5	715	0	568			0	354

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	205	28	281	928	928	480	32	611	611	407
Volume Left	6	1	281	0	0	0	32	0	0	0
Volume Right	199	27	0	0	0	16	0	0	0	101
cSH	704	282	568	1700	1700	1700	354	1700	1700	1700
Volume to Capacity	0.29	0.10	0.50	0.55	0.55	0.28	0.09	0.36	0.36	0.24
Queue Length 95th (ft)	30	8	68	0	0	0	7	0	0	0
Control Delay (s)	12.2	19.2	17.4	0.0	0.0	0.0	16.2	0.0	0.0	0.0
Lane LOS	B	C	C				C			
Approach Delay (s)	12.2	19.2	1.9				0.3			
Approach LOS	B	C								

Intersection Summary

Average Delay		1.9								
Intersection Capacity Utilization		69.4%		ICU Level of Service				C		
Analysis Period (min)		15								

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (veh/h)	1391	92
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.91	0.91
Hourly flow rate (vph)	1529	101
Pedestrians	3	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	0	
Right turn flare (veh)		
Median type	None	
Median storage (veh)		
Upstream signal (ft)	1147	
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	286	799	1704	263	529	1024
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1761	2787	4960		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1761	2787	4960		3433	5085
Peak-hour factor, PHF	0.86	0.86	1.00	1.00	0.95	0.95
Adj. Flow (vph)	333	929	1704	263	557	1078
RTOR Reduction (vph)	0	4	26	0	0	0
Lane Group Flow (vph)	333	925	1941	0	557	1078
Confl. Peds. (#/hr)	7			17		
Confl. Bikes (#/hr)				7		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	18.8	37.4	32.2		14.6	50.3
Effective Green, g (s)	18.8	37.4	32.2		14.6	50.3
Actuated g/C Ratio	0.24	0.48	0.41		0.19	0.64
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	423	1334	2044		641	3274
v/s Ratio Prot		0.33	c0.39		c0.16	0.21
v/s Ratio Perm	c0.19					
v/c Ratio	0.79	0.69	0.95		0.87	0.33
Uniform Delay, d1	27.8	15.9	22.2		30.8	6.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.7	1.3	10.2		11.6	0.0
Delay (s)	36.4	17.2	32.4		42.5	6.3
Level of Service	D	B	C		D	A
Approach Delay (s)	22.2		32.4			18.6
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	12.5
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	37	61	20	108	2002	1201	76
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.98	0.98
Hourly flow rate (vph)	44	72	0	114	2107	1226	78
Pedestrians	3				3		
Lane Width (ft)	12.0				12.0		
Walking Speed (ft/s)	4.0				4.0		
Percent Blockage	0				0		
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.93	0.93	0.00	0.93			
vC, conflicting volume	2197	453	0	1306			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2017	137	0	1057			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	91	0	81			
cM capacity (veh/h)	38	818	0	606			

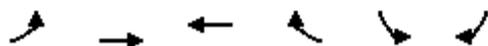
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	115	114	702	702	702	490	490	323
Volume Left	44	114	0	0	0	0	0	0
Volume Right	72	0	0	0	0	0	0	78
cSH	94	606	1700	1700	1700	1700	1700	1700
Volume to Capacity	1.23	0.19	0.41	0.41	0.41	0.29	0.29	0.19
Queue Length 95th (ft)	201	17	0	0	0	0	0	0
Control Delay (s)	249.6	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	249.6	0.6				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		8.3	
Intersection Capacity Utilization	52.0%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	87	143	311	52	16	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.91	0.91	0.68	0.68
Hourly flow rate (vph)	94	154	342	57	24	44
Pedestrians		3	2		5	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	404				718	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	404				718	378
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				93	93
cM capacity (veh/h)	1150				361	664

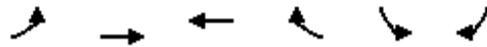
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	399	68
Volume Left	94	0	24
Volume Right	0	57	44
cSH	1150	1700	514
Volume to Capacity	0.08	0.23	0.13
Queue Length 95th (ft)	7	0	11
Control Delay (s)	3.6	0.0	13.1
Lane LOS	A		B
Approach Delay (s)	3.6	0.0	13.1
Approach LOS			B

Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization		46.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	12	779	1086	15	42	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		0.98	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3536	3530		1699	
Flt Permitted		0.93	1.00		0.97	
Satd. Flow (perm)		3306	3530		1699	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	13	838	1168	16	51	22
RTOR Reduction (vph)	0	0	1	0	18	0
Lane Group Flow (vph)	0	851	1183	0	55	0
Confl. Peds. (#/hr)	12			12	26	
Confl. Bikes (#/hr)				11		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		47.5	47.5		11.2	
Effective Green, g (s)		47.5	47.5		11.2	
Actuated g/C Ratio		0.71	0.71		0.17	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2354	2513		285	
v/s Ratio Prot			c0.34			
v/s Ratio Perm		0.26			c0.03	
v/c Ratio		0.36	0.47		0.19	
Uniform Delay, d1		3.7	4.2		23.9	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.4		0.1	
Delay (s)		4.0	4.6		24.0	
Level of Service		A	A		C	
Approach Delay (s)		4.0	4.6		24.0	
Approach LOS		A	A		C	

Intersection Summary				
HCM 2000 Control Delay		5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio		0.42		
Actuated Cycle Length (s)		66.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization		44.3%	ICU Level of Service	A
Analysis Period (min)		15		
c Critical Lane Group				

Existing Conditions Queue Summary Sheets

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	296	335	131	1360	85	2202
v/c Ratio	0.62	1.12	0.54	0.58	0.43	0.98
Control Delay	24.0	114.2	37.2	16.0	37.1	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	114.2	37.2	16.0	37.1	36.9
Queue Length 50th (ft)	87	~175	51	140	33	309
Queue Length 95th (ft)	156	#344	m99	m214	80	#577
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	478	300	549	2356	549	2252
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	0.62	1.12	0.24	0.58	0.15	0.98

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.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	558	792	1051	648	1963
v/c Ratio	0.90	0.45	0.87	0.87	0.77
Control Delay	41.2	7.3	31.5	39.6	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	7.3	31.5	39.6	15.6
Queue Length 50th (ft)	203	76	123	118	187
Queue Length 95th (ft)	#391	136	201	#272	362
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	621	1948	1319	990	3045
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.41	0.80	0.65	0.64

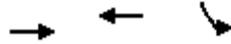
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	845	1360	56
v/c Ratio	0.32	0.47	0.19
Control Delay	4.0	4.9	14.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.0	4.9	14.0
Queue Length 50th (ft)	42	81	10
Queue Length 95th (ft)	143	262	30
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2674	2912	799
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.47	0.07
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	192	163	113	1626	109	1312
v/c Ratio	0.61	0.60	0.44	0.62	0.43	0.50
Control Delay	28.9	29.9	30.6	13.1	30.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	29.9	30.6	13.1	30.6	11.7
Queue Length 50th (ft)	56	47	37	143	37	105
Queue Length 95th (ft)	98	108	84	249	86	197
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	495	429	677	2777	677	2769
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	0.38	0.17	0.59	0.16	0.47

Intersection Summary

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



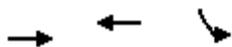
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	268	652	1651	511	1079
v/c Ratio	0.78	0.50	0.83	0.77	0.32
Control Delay	44.7	13.9	21.5	34.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	13.9	21.5	34.9	5.0
Queue Length 50th (ft)	101	91	203	101	58
Queue Length 95th (ft)	177	138	288	178	84
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	464	1520	2866	957	4363
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.43	0.58	0.53	0.25

Intersection Summary

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	782	911	44
v/c Ratio	0.26	0.29	0.15
Control Delay	1.8	1.8	16.7
Queue Delay	0.0	0.0	0.0
Total Delay	1.8	1.8	16.7
Queue Length 50th (ft)	0	0	6
Queue Length 95th (ft)	54	51	28
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	3054	3200	1050
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.28	0.04
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	177	197	160	2166	161	1512
v/c Ratio	0.46	0.61	0.56	0.88	0.56	0.61
Control Delay	20.4	28.1	35.5	25.9	35.7	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	28.1	35.5	25.9	35.7	17.0
Queue Length 50th (ft)	43	60	57	264	58	148
Queue Length 95th (ft)	88	124	m129	#589	131	307
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	514	441	599	2450	599	2460
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	0.34	0.45	0.27	0.88	0.27	0.61

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	333	929	1967	557	1078
v/c Ratio	0.79	0.70	0.96	0.87	0.33
Control Delay	43.8	19.7	35.3	48.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	19.7	35.3	48.0	7.3
Queue Length 50th (ft)	162	207	306	137	66
Queue Length 95th (ft)	244	253	#618	#274	158
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	433	1437	2301	810	3769
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.65	0.85	0.69	0.29

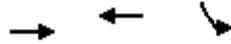
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	851	1184	73
v/c Ratio	0.35	0.45	0.20
Control Delay	5.9	6.7	17.5
Queue Delay	0.0	0.0	0.0
Total Delay	5.9	6.7	17.5
Queue Length 50th (ft)	42	65	19
Queue Length 95th (ft)	143	215	42
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2448	2615	811
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.35	0.45	0.09

Intersection Summary

Appendix D

Alternative 1 Conditions

- Movement Level of Service Summary Tables
- Synchro Level of Service Summary Sheets
- Synchro Queue Summary Sheets

Movement Level of Service Summary Tables

Table: Alternative 1 Conditions Movement Level of Service Analysis – AM Peak Hour

ID	Intersection	Control Type	MOE	AM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	23.0	-	-	115.0	-	34.0	15.2	-	33.0	31.5	-
			LOS	-	C	-	-	F	-	C	B	-	C	C	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	-	14.6	-	-	11.1	68.9	-	-	-	-	-
			LOS	-	-	B	-	-	B	F	-	-	-	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	35.6	-	6.0	-	30.4	-	35.8	13.9	-
			LOS	-	-	-	D	-	A	-	C	-	D	B	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	>50*			-	-	-	31.2	-	-	-	-	-
			LOS	F			-	-	-	D	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	5.2	-	-	-	-	-	-	-	-	34.5	
			LOS	-	A	-	-	-	-	-	-	-	-	D	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	2.7	-	-	3.2	-	-	-	-	-	27.1	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
 >50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.
Bold indicates unacceptable operations.

Table: Alternative 1 Conditions Movement Level of Service Analysis – School PM Peak Hour

ID	Intersection	Control Type	MOE	School PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	25.3	-	-	22.6	-	26.7	11.8	-	28.1	9.8	-
			LOS	-	C	-	-	C	-	C	B	-	C	A	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	-	9.9	-	-	9.3	14.8	-	-	-	-	-
			LOS	-	-	A	-	-	A	B	-	-	-	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	34.9	-	12.5	-	20.2	-	29.4	4.6	-
			LOS	-	-	-	C	-	B	-	C	-	C	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	76.0			-	-	-	11.6	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	3.8	-	-	-	-	-	-	-	-	12.8	
			LOS	-	A	-	-	-	-	-	-	-	-	B	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	2.1	-	-	2.1	-	-	-	-	-	23.4	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
Bold indicates unacceptable operations.

Table: Alternative 1 Conditions Movement Level of Service Analysis – PM Peak Hour

ID	Intersection	Control Type	MOE	PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	23.7	-	-	27.4	-	34.4	25.2	-	29.7	12.6	-
			LOS	-	C	-	-	C	-	C	C	-	C	B	-
2	El Camino Real & Selby Ln	TWSC	Delay	-	-	10.2	-	-	10.2	18.4	-	-	-	-	-
			LOS	-	-	B	-	-	B	C	-	-	-	-	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	37.5	-	17.0	-	34.1	-	44.0	6.3	-
			LOS	-	-	-	D	-	B	-	C	-	D	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	250.6			-	-	-	12.3	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	3.8	-	-	-	-	-	-	-	13.1		
			LOS	-	A	-	-	-	-	-	-	-	B		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	4.2	-	-	4.5	-	-	-	-	24.0		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

Bold indicates unacceptable operations.

Alternative 1 Conditions Level of Service Summary Sheets

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	90	42	120	225	30	47	58	51	1090	39	39	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.94			0.98			1.00	0.99			1.00
Flt Protected		0.98			0.96			0.95	1.00			0.95
Satd. Flow (prot)		1692			1748			1770	5051			1770
Flt Permitted		0.84			0.54			0.95	1.00			0.95
Satd. Flow (perm)		1439			974			1770	5051			1770
Peak-hour factor, PHF	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83	0.83	0.96	0.96
Adj. Flow (vph)	110	51	146	250	33	52	70	61	1313	47	41	79
RTOR Reduction (vph)	0	38	0	0	8	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	269	0	0	327	0	0	131	1356	0	0	120
Confl. Peds. (#/hr)	27						27				12	
Confl. Bikes (#/hr)			6			6					3	
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		20.8			20.8			8.1	30.9			7.8
Effective Green, g (s)		20.8			20.8			8.1	30.9			7.8
Actuated g/C Ratio		0.30			0.30			0.12	0.44			0.11
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		430			291			206	2245			198
v/s Ratio Prot								c0.07	0.27			0.07
v/s Ratio Perm		0.19			c0.34							
v/c Ratio		0.63			1.12			0.64	0.60			0.61
Uniform Delay, d1		21.0			24.4			29.3	14.7			29.4
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		2.0			90.7			4.7	0.5			3.6
Delay (s)		23.0			115.0			34.0	15.2			33.0
Level of Service		C			F			C	B			C
Approach Delay (s)		23.0			115.0				16.8			
Approach LOS		C			F				B			

Intersection Summary

HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	69.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Volume (vph)	2064	16
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5078	
Flt Permitted	1.00	
Satd. Flow (perm)	5078	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	2150	17
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2166	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.6	
Effective Green, g (s)	30.6	
Actuated g/C Ratio	0.44	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2235	
v/s Ratio Prot	c0.43	
v/s Ratio Perm		
v/c Ratio	0.97	
Uniform Delay, d1	19.0	
Progression Factor	1.00	
Incremental Delay, d2	12.5	
Delay (s)	31.5	
Level of Service	C	
Approach Delay (s)	31.6	
Approach LOS	C	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	0	0	251	0	0	30	19	225	1172	3	0	2260
Sign Control		Stop			Stop				Free			Free
Grade		0%			0%				0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.69	0.69	0.69	0.82	0.82	0.82	0.82	0.95	0.95
Hourly flow rate (vph)	0	0	289	0	0	43	0	274	1429	4	0	2379
Pedestrians		1			7							4
Lane Width (ft)		12.0			12.0							12.0
Walking Speed (ft/s)		4.0			4.0							4.0
Percent Blockage		0			1							0
Right turn flare (veh)												
Median type									None			None
Median storage (veh)												
Upstream signal (ft)									677			1147
pX, platoon unblocked	0.63	0.63	0.61	0.63	0.63	0.96	0.00	0.61			0.96	
vC, conflicting volume	3558	4474	900	3068	4578	489	0	2592			1440	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2594	4049	0	1815	4214	330	0	1373			1318	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2	
p0 queue free %	100	100	56	100	100	93	0	9			100	
cM capacity (veh/h)	2	0	661	4	0	635	0	302			497	

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	289	43	274	572	572	290	952	952	687
Volume Left	0	0	274	0	0	0	0	0	0
Volume Right	289	43	0	0	0	4	0	0	212
cSH	661	635	302	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.44	0.07	0.91	0.34	0.34	0.17	0.56	0.56	0.40
Queue Length 95th (ft)	55	5	214	0	0	0	0	0	0
Control Delay (s)	14.6	11.1	68.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	F						
Approach Delay (s)	14.6	11.1	11.1				0.0		
Approach LOS	B	B							

Intersection Summary		
Average Delay		5.1
Intersection Capacity Utilization	87.2%	ICU Level of Service E
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	SBR
Line Configurations	
Volume (veh/h)	201
Sign Control	
Grade	
Peak Hour Factor	0.95
Hourly flow rate (vph)	212
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage (veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	
tC, single (s)	
tC, 2 stage (s)	
tF (s)	
p0 queue free %	
cM capacity (veh/h)	
Direction, Lane #	

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		 	  		 	  
Volume (vph)	491	700	676	186	640	1865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1760	2787	4895		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1760	2787	4895		3433	5085
Peak-hour factor, PHF	0.88	0.88	0.82	0.82	0.95	0.95
Adj. Flow (vph)	558	795	824	227	674	1963
RTOR Reduction (vph)	0	4	76	0	0	0
Lane Group Flow (vph)	558	791	975	0	674	1963
Confl. Peds. (#/hr)	10			9		
Confl. Bikes (#/hr)				4		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	22.7	41.0	14.9		14.3	32.7
Effective Green, g (s)	22.7	41.0	14.9		14.3	32.7
Actuated g/C Ratio	0.35	0.64	0.23		0.22	0.51
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	620	1774	1132		762	2581
v/s Ratio Prot		0.28	0.20		c0.20	c0.39
v/s Ratio Perm	c0.32					
v/c Ratio	0.90	0.45	0.86		0.88	0.76
Uniform Delay, d1	19.8	5.9	23.8		24.3	12.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	15.8	0.1	6.7		11.6	1.2
Delay (s)	35.6	6.0	30.4		35.8	13.9
Level of Service	D	A	C		D	B
Approach Delay (s)	18.2		30.4			19.5
Approach LOS	B		C			B
Intersection Summary						
HCM 2000 Control Delay			21.5		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.89			
Actuated Cycle Length (s)			64.4		Sum of lost time (s)	12.5
Intersection Capacity Utilization			73.7%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: AM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	38	134	31	91	851	2200	170
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.81	0.81	0.87	0.87	0.87	0.90	0.90
Hourly flow rate (vph)	47	165	0	105	978	2444	189
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.68	0.68	0.00	0.68			
vC, conflicting volume	3074	909	0	2633			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2403	0	0	1754			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	78	0	56			
cM capacity (veh/h)	11	737	0	240			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	212	105	326	326	326	978	978	678
Volume Left	47	105	0	0	0	0	0	0
Volume Right	165	0	0	0	0	0	0	189
cSH	46	240	1700	1700	1700	1700	1700	1700
Volume to Capacity	4.65	0.44	0.19	0.19	0.19	0.58	0.58	0.40
Queue Length 95th (ft)	Err	52	0	0	0	0	0	0
Control Delay (s)	Err	31.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	D						
Approach Delay (s)	Err	3.0				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		541.3	
Intersection Capacity Utilization		73.4%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	161	243	403	11	38	88
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.71	0.71	0.69	0.69
Hourly flow rate (vph)	194	293	568	15	55	128
Pedestrians		1	3		1	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	584				1260	577
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584				1260	577
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	80				63	75
cM capacity (veh/h)	990				151	515
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	487	583	183			
Volume Left	194	0	55			
Volume Right	0	15	128			
cSH	990	1700	298			
Volume to Capacity	0.20	0.34	0.61			
Queue Length 95th (ft)	18	0	94			
Control Delay (s)	5.2	0.0	34.5			
Lane LOS	A		D			
Approach Delay (s)	5.2	0.0	34.5			
Approach LOS			D			
Intersection Summary						
Average Delay			7.0			
Intersection Capacity Utilization			61.4%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



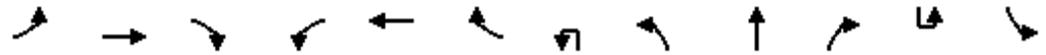
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	40	753	1193	18	19	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3530	3529		1666	
Flt Permitted		0.83	1.00		0.98	
Satd. Flow (perm)		2952	3529		1666	
Peak-hour factor, PHF	0.91	0.91	0.89	0.89	0.86	0.86
Adj. Flow (vph)	44	827	1340	20	22	37
RTOR Reduction (vph)	0	0	1	0	33	0
Lane Group Flow (vph)	0	871	1359	0	26	0
Confl. Peds. (#/hr)	9			9	14	
Confl. Bikes (#/hr)				9		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		51.3	51.3		7.0	
Effective Green, g (s)		51.3	51.3		7.0	
Actuated g/C Ratio		0.77	0.77		0.11	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2284	2730		175	
v/s Ratio Prot			c0.39			
v/s Ratio Perm		0.30			c0.02	
v/c Ratio		0.38	0.50		0.15	
Uniform Delay, d1		2.4	2.8		26.9	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.4		0.1	
Delay (s)		2.7	3.2		27.1	
Level of Service		A	A		C	
Approach Delay (s)		2.7	3.2		27.1	
Approach LOS		A	A		C	

Intersection Summary			
HCM 2000 Control Delay	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	66.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↕	↑↑↑			↕
Volume (vph)	82	38	41	94	19	39	32	66	1376	38	52	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		1.00			1.00			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.97			0.97			1.00	1.00			1.00
Flt Protected		0.98			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1754			1744			1770	5065			1770
Flt Permitted		0.79			0.71			0.95	1.00			0.95
Satd. Flow (perm)		1423			1275			1770	5065			1770
Peak-hour factor, PHF	0.77	0.77	0.77	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.96	0.96
Adj. Flow (vph)	106	49	53	101	20	42	37	76	1582	44	54	85
RTOR Reduction (vph)	0	16	0	0	16	0	0	0	3	0	0	0
Lane Group Flow (vph)	0	192	0	0	147	0	0	113	1623	0	0	139
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		12.4			12.4			6.9	29.6			7.6
Effective Green, g (s)		12.4			12.4			6.9	29.6			7.6
Actuated g/C Ratio		0.21			0.21			0.12	0.50			0.13
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		296			265			204	2515			225
v/s Ratio Prot								0.06	c0.32			c0.08
v/s Ratio Perm		c0.14			0.12							
v/c Ratio		0.65			0.56			0.55	0.65			0.62
Uniform Delay, d1		21.6			21.1			24.9	11.1			24.6
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		3.7			1.4			1.8	0.6			3.5
Delay (s)		25.3			22.6			26.7	11.8			28.1
Level of Service		C			C			C	B			C
Approach Delay (s)		25.3			22.6				12.7			
Approach LOS		C			C				B			

Intersection Summary

HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (vph)	1199	32
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5063	
Flt Permitted	1.00	
Satd. Flow (perm)	5063	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1249	33
RTOR Reduction (vph)	3	0
Lane Group Flow (vph)	1279	0
Confl. Bikes (#/hr)		1
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.3	
Effective Green, g (s)	30.3	
Actuated g/C Ratio	0.51	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2573	
v/s Ratio Prot	0.25	
v/s Ratio Perm		
v/c Ratio	0.50	
Uniform Delay, d1	9.6	
Progression Factor	1.00	
Incremental Delay, d2	0.2	
Delay (s)	9.8	
Level of Service	A	
Approach Delay (s)	11.6	
Approach LOS	B	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations									 			 
Volume (veh/h)	0	0	173	0	0	15	12	188	1504	4	0	1269
Sign Control		Stop			Stop				Free			Free
Grade		0%			0%				0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.75	0.75	0.75	0.82	0.82	0.82	0.82	0.96	0.96
Hourly flow rate (vph)	0	0	204	0	0	20	0	229	1834	5	0	1322
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type									None			None
Median storage (veh)												
Upstream signal (ft)									677			1147
pX, platoon unblocked	0.85	0.85	0.90	0.85	0.85	0.79	0.00	0.90			0.79	
vC, conflicting volume	2448	3655	477	2939	3689	614	0	1394			1839	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1262	2691	23	1844	2731	0	0	1044			1150	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2	
p0 queue free %	100	100	78	100	100	98	0	61			100	
cM capacity (veh/h)	73	11	942	22	10	861	0	595			479	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3			
Volume Total	204	20	229	734	734	372	529	529	336			
Volume Left	0	0	229	0	0	0	0	0	0			
Volume Right	204	20	0	0	0	5	0	0	72			
cSH	942	861	595	1700	1700	1700	1700	1700	1700			
Volume to Capacity	0.22	0.02	0.39	0.43	0.43	0.22	0.31	0.31	0.20			
Queue Length 95th (ft)	20	2	45	0	0	0	0	0	0			
Control Delay (s)	9.9	9.3	14.8	0.0	0.0	0.0	0.0	0.0	0.0			
Lane LOS	A	A	B									
Approach Delay (s)	9.9	9.3	1.6				0.0					
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			57.8%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Movement	SBR
Line Configurations	
Volume (veh/h)	69
Sign Control	
Grade	
Peak Hour Factor	0.96
Hourly flow rate (vph)	72
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage (veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	
tC, single (s)	
tC, 2 stage (s)	
tF (s)	
p0 queue free %	
cM capacity (veh/h)	
Direction, Lane #	

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		 	   		 	  
Volume (vph)	208	503	1182	271	477	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		4.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	2787	4931		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	2787	4931		3433	5085
Peak-hour factor, PHF	0.77	0.77	0.88	0.88	0.90	0.90
Adj. Flow (vph)	270	653	1343	308	530	1079
RTOR Reduction (vph)	0	15	48	0	0	0
Lane Group Flow (vph)	270	638	1603	0	530	1079
Confl. Bikes (#/hr)				1		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	12.6	29.5	25.6		12.9	43.0
Effective Green, g (s)	12.6	29.5	25.6		12.9	43.0
Actuated g/C Ratio	0.20	0.46	0.40		0.20	0.67
Clearance Time (s)	4.0		5.0		4.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	345	1272	1954		685	3384
v/s Ratio Prot		0.23	c0.32		c0.15	0.21
v/s Ratio Perm	c0.15					
v/c Ratio	0.78	0.50	0.82		0.77	0.32
Uniform Delay, d1	24.7	12.4	17.4		24.5	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.2	0.1	2.7		5.0	0.0
Delay (s)	34.9	12.5	20.2		29.4	4.6
Level of Service	C	B	C		C	A
Approach Delay (s)	19.0		20.2			12.8
Approach LOS	B		C			B

Intersection Summary

HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	64.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: School PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	38	61	12	59	1407	1132	54
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.88	0.88	0.89	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	43	69	0	66	1581	1204	57
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.94	0.94	0.00	0.94			
vC, conflicting volume	1893	430	0	1262			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1731	178	0	1061			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	35	91	0	89			
cM capacity (veh/h)	66	786	0	614			

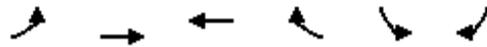
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	112	66	527	527	527	482	482	298
Volume Left	43	66	0	0	0	0	0	0
Volume Right	69	0	0	0	0	0	0	57
cSH	152	614	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.74	0.11	0.31	0.31	0.31	0.28	0.28	0.18
Queue Length 95th (ft)	112	9	0	0	0	0	0	0
Control Delay (s)	76.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	76.0	0.5				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization	42.9%		ICU Level of Service
Analysis Period (min)	15		A

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	98	159	234	33	17	44
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.68	0.68	0.86	0.86	0.80	0.80
Hourly flow rate (vph)	144	234	272	38	21	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	310				813	291
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310				813	291
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	88				93	93
cM capacity (veh/h)	1250				308	748
Direction, Lane #						
	EB 1	WB 1	SB 1			
Volume Total	378	310	76			
Volume Left	144	0	21			
Volume Right	0	38	55			
cSH	1250	1700	535			
Volume to Capacity	0.12	0.18	0.14			
Queue Length 95th (ft)	10	0	12			
Control Delay (s)	3.8	0.0	12.8			
Lane LOS	A		B			
Approach Delay (s)	3.8	0.0	12.8			
Approach LOS			B			
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			41.8%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	23	713	678	23	21	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.94	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3534	3519		1703	
Flt Permitted		0.92	1.00		0.97	
Satd. Flow (perm)		3252	3519		1703	
Peak-hour factor, PHF	0.92	0.92	0.77	0.77	0.80	0.80
Adj. Flow (vph)	25	775	881	30	26	21
RTOR Reduction (vph)	0	0	1	0	19	0
Lane Group Flow (vph)	0	800	910	0	28	0
Confl. Bikes (#/hr)				3		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		41.6	41.6		4.4	
Effective Green, g (s)		41.6	41.6		4.4	
Actuated g/C Ratio		0.77	0.77		0.08	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2505	2710		138	
v/s Ratio Prot			c0.26			
v/s Ratio Perm		0.25			c0.02	
v/c Ratio		0.32	0.34		0.20	
Uniform Delay, d1		1.9	1.9		23.2	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2		0.3	
Delay (s)		2.1	2.1		23.4	
Level of Service		A	A		C	
Approach Delay (s)		2.1	2.1		23.4	
Approach LOS		A	A		C	

Intersection Summary

HCM 2000 Control Delay	2.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations		↕			↕			↕	↑↑↑			↕	
Volume (vph)	56	28	64	92	23	54	28	124	2004	54	66	121	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0	
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00	
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Frt		0.94			0.96			1.00	1.00			1.00	
Flt Protected		0.98			0.97			0.95	1.00			0.95	
Satd. Flow (prot)		1703			1718			1770	5057			1770	
Flt Permitted		0.84			0.72			0.95	1.00			0.95	
Satd. Flow (perm)		1450			1267			1770	5057			1770	
Peak-hour factor, PHF	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	69	35	79	107	27	63	29	131	2109	57	69	127	
RTOR Reduction (vph)	0	35	0	0	22	0	0	0	3	0	0	0	
Lane Group Flow (vph)	0	148	0	0	175	0	0	160	2163	0	0	196	
Confl. Peds. (#/hr)	21						21			16			
Confl. Bikes (#/hr)			4			2				9			
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4			4		1	1	6		5	5	
Permitted Phases	4			4									
Actuated Green, G (s)		15.3			15.3			9.2	31.7			12.0	
Effective Green, g (s)		15.3			15.3			9.2	31.7			12.0	
Actuated g/C Ratio		0.22			0.22			0.13	0.46			0.17	
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0	
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		321			280			236	2323			307	
v/s Ratio Prot								c0.09	c0.43			0.11	
v/s Ratio Perm		0.10			c0.14								
v/c Ratio		0.46			0.63			0.68	0.93			0.64	
Uniform Delay, d1		23.3			24.3			28.5	17.6			26.5	
Progression Factor		1.00			1.00			1.00	1.00			1.00	
Incremental Delay, d2		0.4			3.1			6.0	7.6			3.2	
Delay (s)		23.7			27.4			34.4	25.2			29.7	
Level of Service		C			C			C	C			C	
Approach Delay (s)		23.7			27.4				25.8				
Approach LOS		C			C				C				
Intersection Summary													
HCM 2000 Control Delay			21.5									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.77										
Actuated Cycle Length (s)			69.0									Sum of lost time (s)	10.0
Intersection Capacity Utilization			78.4%									ICU Level of Service	D
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (vph)	1384	18
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5073	
Flt Permitted	1.00	
Satd. Flow (perm)	5073	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	1457	19
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1475	0
Confl. Peds. (#/hr)		3
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	34.5	
Effective Green, g (s)	34.5	
Actuated g/C Ratio	0.50	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2536	
v/s Ratio Prot	c0.29	
v/s Ratio Perm		
v/c Ratio	0.58	
Uniform Delay, d1	12.2	
Progression Factor	1.00	
Incremental Delay, d2	0.4	
Delay (s)	12.6	
Level of Service	B	
Approach Delay (s)	14.6	
Approach LOS	B	
Intersection Summary		

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	0	0	159	0	0	26	16	273	2250	16	0	1420
Sign Control		Stop			Stop				Free			Free
Grade		0%			0%				0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.91	0.91
Hourly flow rate (vph)	0	0	199	0	0	27	0	281	2320	16	0	1560
Pedestrians		1			14							3
Lane Width (ft)		12.0			12.0							12.0
Walking Speed (ft/s)		4.0			4.0							4.0
Percent Blockage		0			1							0
Right turn flare (veh)												
Median type									None			None
Median storage (veh)												
Upstream signal (ft)									677			1147
pX, platoon unblocked	0.76	0.76	0.82	0.76	0.76	0.67	0.00	0.82			0.67	
vC, conflicting volume	2978	4525	572	3624	4567	798	0	1663			2350	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	876	2918	0	1728	2973	0	0	1034			1276	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	0.0	4.1			4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2	
p0 queue free %	100	100	78	100	100	96	0	48			100	
cM capacity (veh/h)	104	5	887	19	5	713	0	546			356	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3			
Volume Total	199	27	281	928	928	480	624	624	413			
Volume Left	0	0	281	0	0	0	0	0	0			
Volume Right	199	27	0	0	0	16	0	0	101			
cSH	887	713	546	1700	1700	1700	1700	1700	1700			
Volume to Capacity	0.22	0.04	0.52	0.55	0.55	0.28	0.37	0.37	0.24			
Queue Length 95th (ft)	21	3	73	0	0	0	0	0	0			
Control Delay (s)	10.2	10.2	18.4	0.0	0.0	0.0	0.0	0.0	0.0			
Lane LOS	B	B	C									
Approach Delay (s)	10.2	10.2	2.0				0.0					
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			65.3%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	SBR
Line Configurations	
Volume (veh/h)	92
Sign Control	
Grade	
Peak Hour Factor	0.91
Hourly flow rate (vph)	101
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage (veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	
tC, single (s)	
tC, 2 stage (s)	
tF (s)	
p0 queue free %	
cM capacity (veh/h)	
Direction, Lane #	

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵	↵↵	↕↕↕		↵↵	↕↕↕
Volume (vph)	287	799	1704	263	558	1024
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1761	2787	4960		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1761	2787	4960		3433	5085
Peak-hour factor, PHF	0.86	0.86	1.00	1.00	0.95	0.95
Adj. Flow (vph)	334	929	1704	263	587	1078
RTOR Reduction (vph)	0	4	26	0	0	0
Lane Group Flow (vph)	334	925	1941	0	587	1078
Confl. Peds. (#/hr)	7			17		
Confl. Bikes (#/hr)				7		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	18.9	38.2	32.3		15.3	51.1
Effective Green, g (s)	18.9	38.2	32.3		15.3	51.1
Actuated g/C Ratio	0.24	0.48	0.41		0.19	0.65
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	421	1347	2027		664	3289
v/s Ratio Prot		0.33	c0.39		c0.17	0.21
v/s Ratio Perm	c0.19					
v/c Ratio	0.79	0.69	0.96		0.88	0.33
Uniform Delay, d1	28.2	15.8	22.7		31.0	6.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.3	1.2	11.4		13.0	0.0
Delay (s)	37.5	17.0	34.1		44.0	6.3
Level of Service	D	B	C		D	A
Approach Delay (s)	22.4		34.1			19.6
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	37	61	20	108	2002	1201	76
Sign Control	Stop				Free		Free
Grade	0%				0%		0%
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.98	0.98
Hourly flow rate (vph)	44	72	0	114	2107	1226	78
Pedestrians	3				3		
Lane Width (ft)	12.0				12.0		
Walking Speed (ft/s)	4.0				4.0		
Percent Blockage	0				0		
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.93	0.93	0.00	0.93			
vC, conflicting volume	2197	453	0	1306			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2019	140	0	1058			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	91	0	81			
cM capacity (veh/h)	38	815	0	605			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	
Volume Total	115	114	702	702	702	490	490	323	
Volume Left	44	114	0	0	0	0	0	0	
Volume Right	72	0	0	0	0	0	0	78	
cSH	94	605	1700	1700	1700	1700	1700	1700	
Volume to Capacity	1.23	0.19	0.41	0.41	0.41	0.29	0.29	0.19	
Queue Length 95th (ft)	202	17	0	0	0	0	0	0	
Control Delay (s)	250.6	12.3	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS	F	B							
Approach Delay (s)	250.6	0.6					0.0		
Approach LOS	F								

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	92	138	311	52	16	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.91	0.91	0.68	0.68
Hourly flow rate (vph)	99	148	342	57	24	44
Pedestrians		3	2		5	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	404				724	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	404				724	378
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				93	93
cM capacity (veh/h)	1150				357	664

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	399	68
Volume Left	99	0	24
Volume Right	0	57	44
cSH	1150	1700	511
Volume to Capacity	0.09	0.23	0.13
Queue Length 95th (ft)	7	0	11
Control Delay (s)	3.8	0.0	13.1
Lane LOS	A		B
Approach Delay (s)	3.8	0.0	13.1
Approach LOS			B

Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization		46.2%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	41	779	1086	15	42	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		0.98	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3530	3530		1698	
Flt Permitted		0.85	1.00		0.97	
Satd. Flow (perm)		3011	3530		1698	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	44	838	1168	16	51	23
RTOR Reduction (vph)	0	0	1	0	19	0
Lane Group Flow (vph)	0	882	1183	0	55	0
Confl. Peds. (#/hr)	12			12	26	
Confl. Bikes (#/hr)				11		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		47.4	47.4		11.1	
Effective Green, g (s)		47.4	47.4		11.1	
Actuated g/C Ratio		0.71	0.71		0.17	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2146	2516		283	
v/s Ratio Prot			c0.34			
v/s Ratio Perm		0.29			c0.03	
v/c Ratio		0.41	0.47		0.19	
Uniform Delay, d1		3.9	4.1		23.8	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.4	0.4		0.1	
Delay (s)		4.2	4.5		24.0	
Level of Service		A	A		C	
Approach Delay (s)		4.2	4.5		24.0	
Approach LOS		A	A		C	
Intersection Summary						
HCM 2000 Control Delay			5.1		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.42			
Actuated Cycle Length (s)			66.5		Sum of lost time (s)	8.0
Intersection Capacity Utilization			65.7%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Alternative 1 Conditions Queue Summary Sheets

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	307	335	131	1360	120	2167
v/c Ratio	0.65	1.11	0.54	0.60	0.52	0.96
Control Delay	25.5	113.4	37.4	17.2	37.3	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	113.4	37.4	17.2	37.3	34.2
Queue Length 50th (ft)	94	~175	51	145	47	301
Queue Length 95th (ft)	165	#344	100	224	102	#564
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	471	301	549	2268	549	2251
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	0.65	1.11	0.24	0.60	0.22	0.96

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.

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	558	795	1051	674	1963
v/c Ratio	0.91	0.45	0.88	0.89	0.76
Control Delay	42.4	7.3	31.9	40.7	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	7.3	31.9	40.7	15.5
Queue Length 50th (ft)	207	77	126	124	187
Queue Length 95th (ft)	#391	137	201	#288	362
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	616	1933	1310	982	3021
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.41	0.80	0.69	0.65

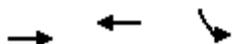
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	871	1360	59
v/c Ratio	0.36	0.47	0.19
Control Delay	4.3	4.9	13.5
Queue Delay	0.0	0.0	0.0
Total Delay	4.3	4.9	13.5
Queue Length 50th (ft)	45	81	9
Queue Length 95th (ft)	156	262	31
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2428	2905	805
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.36	0.47	0.07
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	163	113	1626	139	1282
v/c Ratio	0.66	0.58	0.45	0.64	0.50	0.49
Control Delay	32.1	29.2	31.7	14.4	31.8	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	29.2	31.7	14.4	31.8	11.9
Queue Length 50th (ft)	65	48	40	157	49	108
Queue Length 95th (ft)	112	111	86	259	104	191
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	469	422	662	2710	662	2771
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	0.44	0.39	0.17	0.60	0.21	0.46

Intersection Summary

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



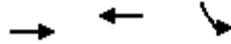
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	270	653	1651	530	1079
v/c Ratio	0.79	0.50	0.84	0.78	0.32
Control Delay	45.6	13.9	21.9	35.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	13.9	21.9	35.3	5.0
Queue Length 50th (ft)	104	92	208	106	59
Queue Length 95th (ft)	178	138	288	185	84
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	458	1504	2829	945	4340
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.43	0.58	0.56	0.25

Intersection Summary

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	800	911	47
v/c Ratio	0.30	0.31	0.17
Control Delay	2.5	2.5	16.8
Queue Delay	0.0	0.0	0.0
Total Delay	2.5	2.5	16.8
Queue Length 50th (ft)	38	44	8
Queue Length 95th (ft)	56	51	29
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2824	3055	1000
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.28	0.30	0.05
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	183	197	160	2166	196	1476
v/c Ratio	0.51	0.65	0.58	0.95	0.63	0.58
Control Delay	22.6	31.1	37.3	32.6	37.2	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	31.1	37.3	32.6	37.2	16.3
Queue Length 50th (ft)	48	62	60	278	73	146
Queue Length 95th (ft)	98	130	133	#616	155	298
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	473	404	558	2282	558	2557
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	0.49	0.29	0.95	0.35	0.58

Intersection Summary

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

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	929	1967	587	1078
v/c Ratio	0.80	0.70	0.96	0.89	0.33
Control Delay	44.9	19.5	36.4	49.5	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	19.5	36.4	49.5	7.2
Queue Length 50th (ft)	166	207	315	145	66
Queue Length 95th (ft)	245	253	#618	#296	158
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	428	1420	2269	799	3716
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.78	0.65	0.87	0.73	0.29

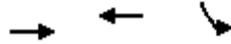
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	882	1184	74
v/c Ratio	0.40	0.45	0.20
Control Delay	6.4	6.7	17.3
Queue Delay	0.0	0.0	0.0
Total Delay	6.4	6.7	17.3
Queue Length 50th (ft)	45	65	19
Queue Length 95th (ft)	157	215	42
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2229	2613	813
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.40	0.45	0.09

Intersection Summary

Appendix E

Alternative 2 Conditions, Option 1

- Movement Level of Service Summary Tables
- Synchro Level of Service Summary Sheets
- Synchro Queue Summary Sheets

Movement Level of Service Summary Tables

Table: Alternative 2, Option 1 Movement Level of Service Analysis – AM Peak Hour

ID	Intersection	Control Type	MOE	AM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	17.7	-	-	68.1	-	31.8	15.0	-	30.3	32.5	-
			LOS	-	B	-	-	E	-	C	B	-	C	C	-
2	El Camino Real & Selby Ln	Signal	Delay	-	99.7	-	-	45.4	-	104.7	15.3	-	79.9	64.5	-
			LOS	-	F	-	-	D	-	F	B	-	E	E	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	34.4	-	6.0	-	29.8	-	34.4	14.1	-
			LOS	-	-	-	C	-	A	-	C	-	C	B	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	>50*			-	-	-	30.9	-	-	-	-	-
			LOS	F			-	-	-	D	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.2	-	-	-	-	-	-	-	-	26.1	
			LOS	-	A	-	-	-	-	-	-	-	-	D	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	2.5	-	-	3.1	-	-	-	-	-	27.4	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
 >50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.
Bold indicates unacceptable operations.

Table: Alternative 2, Option 1 Movement Level of Service Analysis – School PM Peak Hour

ID	Intersection	Control Type	MOE	School PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	21.1	-	-	23.6	-	25.5	10.5	-	25.7	9.1	-
			LOS	-	C	-	-	C	-	C	B	-	C	A	-
2	El Camino Real & Selby Ln	Signal	Delay	-	43.1	-	-	34.7	-	40.7	9.8	-	45.1	16.8	-
			LOS	-	D	-	-	C	-	D	A	-	D	B	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	33.8	-	12.5	-	19.7	-	29.2	4.6	-
			LOS	-	-	-	C	-	B	-	B	-	C	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	75.8			-	-	-	11.6	-	-	-	-	
			LOS	F			-	-	-	B	-	-	-	-	
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.1	-	-	-	-	-	-	-	-	12.5	
			LOS	-	A	-	-	-	-	-	-	-	-	B	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	1.6	-	-	1.7	-	-	-	-	-	24.6	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
Bold indicates unacceptable operations.

Table: Alternative 2, Option 1 Movement Level of Service Analysis – PM Peak Hour

ID	Intersection	Control Type	MOE	PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	20.5	-	-	23.5	-	31.4	20.6	-	32.8	12.4	-
			LOS	-	C	-	-	C	-	C	C	-	C	B	-
2	El Camino Real & Selby Ln	Signal	Delay	-	59.0	-	-	46.5	-	55.6	11.2	-	65.1	20.6	-
			LOS	-	E	-	-	D	-	E	B	-	E	C	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	36.4	-	17.2	-	32.4	-	42.5	6.3	-
			LOS	-	-	-	D	-	B	-	C	-	D	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	249.6			-	-	-	12.3	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.2	-	-	-	-	-	-	-	13.5		
			LOS	-	A	-	-	-	-	-	-	-	B		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	4.0	-	-	4.6	-	-	-	-	24.0		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
Bold indicates unacceptable operations.

Alternative 2, Option 1 Level of Service Summary Sheets

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations		↕			↕			↕	↑↑↑			↕	
Volume (vph)	23	11	120	225	30	47	58	33	1148	70	39	42	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0	
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00	
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Frt		0.89			0.98			1.00	0.99			1.00	
Flt Protected		0.99			0.96			0.95	1.00			0.95	
Satd. Flow (prot)		1630			1748			1770	5028			1770	
Flt Permitted		0.94			0.61			0.95	1.00			0.95	
Satd. Flow (perm)		1543			1103			1770	5028			1770	
Peak-hour factor, PHF	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83	0.83	0.96	0.96	
Adj. Flow (vph)	28	13	146	250	33	52	70	40	1383	84	41	44	
RTOR Reduction (vph)	0	102	0	0	8	0	0	0	8	0	0	0	
Lane Group Flow (vph)	0	85	0	0	327	0	0	110	1459	0	0	85	
Confl. Peds. (#/hr)	27						27				12		
Confl. Bikes (#/hr)			6			6					3		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4			4		1	1	6		5	5	
Permitted Phases	4			4									
Actuated Green, G (s)		20.8			20.8			7.4	31.3			6.6	
Effective Green, g (s)		20.8			20.8			7.4	31.3			6.6	
Actuated g/C Ratio		0.30			0.30			0.11	0.46			0.10	
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0	
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		467			333			190	2290			170	
v/s Ratio Prot								c0.06	0.29			0.05	
v/s Ratio Perm		0.06			c0.30								
v/c Ratio		0.18			0.98			0.58	0.64			0.50	
Uniform Delay, d1		17.7			23.8			29.2	14.3			29.5	
Progression Factor		1.00			1.00			1.00	1.00			1.00	
Incremental Delay, d2		0.1			44.3			2.6	0.7			0.8	
Delay (s)		17.7			68.1			31.8	15.0			30.3	
Level of Service		B			E			C	B			C	
Approach Delay (s)		17.7			68.1				16.2				
Approach LOS		B			E				B				
Intersection Summary													
HCM 2000 Control Delay			28.7									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.92										
Actuated Cycle Length (s)			68.7									Sum of lost time (s)	10.0
Intersection Capacity Utilization			87.9%									ICU Level of Service	E
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak

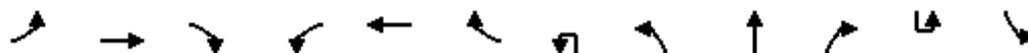


Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (vph)	2098	16
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5078	
Flt Permitted	1.00	
Satd. Flow (perm)	5078	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	2185	17
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2201	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.5	
Effective Green, g (s)	30.5	
Actuated g/C Ratio	0.44	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2254	
v/s Ratio Prot	c0.43	
v/s Ratio Perm		
v/c Ratio	0.98	
Uniform Delay, d1	18.7	
Progression Factor	1.00	
Incremental Delay, d2	13.8	
Delay (s)	32.5	
Level of Service	C	
Approach Delay (s)	32.4	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	98	0	251	0	3	30	19	240	1172	3	34	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.2			3.5	5.0			3.5
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.98			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.90			0.88			1.00	1.00			1.00
Flt Protected		0.99			1.00			0.95	1.00			0.95
Satd. Flow (prot)		1641			1600			1770	5082			1770
Flt Permitted		0.89			1.00			0.95	1.00			0.95
Satd. Flow (perm)		1479			1600			1770	5082			1770
Peak-hour factor, PHF	0.87	0.87	0.87	0.69	0.69	0.69	0.82	0.82	0.82	0.82	0.95	0.95
Adj. Flow (vph)	113	0	289	0	4	43	23	293	1429	4	36	25
RTOR Reduction (vph)	0	60	0	0	33	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	342	0	0	14	0	0	316	1433	0	0	61
Confl. Peds. (#/hr)	4						4			7		
Confl. Bikes (#/hr)			1			5				2		
Turn Type	Perm	NA			NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4			4								
Actuated Green, G (s)		36.6			36.6			28.4	96.6			8.6
Effective Green, g (s)		36.6			36.6			28.4	96.6			8.6
Actuated g/C Ratio		0.24			0.24			0.18	0.63			0.06
Clearance Time (s)		4.2			4.2			3.5	5.0			3.5
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		350			379			325	3177			98
v/s Ratio Prot					0.01			c0.18	0.28			0.03
v/s Ratio Perm		c0.23										
v/c Ratio		0.98			0.04			0.97	0.45			0.62
Uniform Delay, d1		58.5			45.4			62.7	15.1			71.4
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		41.2			0.0			42.1	0.1			8.5
Delay (s)		99.7			45.4			104.7	15.3			79.9
Level of Service		F			D			F	B			E
Approach Delay (s)		99.7			45.4				31.4			
Approach LOS		F			D				C			

Intersection Summary

HCM 2000 Control Delay	55.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	154.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (vph)	2236	201
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5011	
Flt Permitted	1.00	
Satd. Flow (perm)	5011	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	2354	212
RTOR Reduction (vph)	7	0
Lane Group Flow (vph)	2559	0
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	76.8	
Effective Green, g (s)	76.8	
Actuated g/C Ratio	0.50	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2490	
v/s Ratio Prot	c0.51	
v/s Ratio Perm		
v/c Ratio	1.03	
Uniform Delay, d1	38.9	
Progression Factor	1.00	
Incremental Delay, d2	25.6	
Delay (s)	64.5	
Level of Service	E	
Approach Delay (s)	64.8	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	491	697	676	186	616	1865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1760	2787	4895		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1760	2787	4895		3433	5085
Peak-hour factor, PHF	0.88	0.88	0.82	0.82	0.95	0.95
Adj. Flow (vph)	558	792	824	227	648	1963
RTOR Reduction (vph)	0	4	76	0	0	0
Lane Group Flow (vph)	558	788	975	0	648	1963
Confl. Peds. (#/hr)	10			9		
Confl. Bikes (#/hr)				4		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	22.7	40.6	14.9		13.9	32.3
Effective Green, g (s)	22.7	40.6	14.9		13.9	32.3
Actuated g/C Ratio	0.35	0.63	0.23		0.22	0.50
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	624	1768	1139		745	2566
v/s Ratio Prot		0.28	0.20		c0.19	c0.39
v/s Ratio Perm	c0.32					
v/c Ratio	0.89	0.45	0.86		0.87	0.77
Uniform Delay, d1	19.5	6.0	23.5		24.2	12.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.9	0.1	6.3		10.3	1.3
Delay (s)	34.4	6.0	29.8		34.4	14.1
Level of Service	C	A	C		C	B
Approach Delay (s)	17.8		29.8			19.1
Approach LOS	B		C			B

Intersection Summary

HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: AM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	38	134	31	91	851	2200	170
Sign Control	Stop				Free		Free
Grade	0%				0%	0%	
Peak Hour Factor	0.81	0.81	0.87	0.87	0.87	0.90	0.90
Hourly flow rate (vph)	47	165	0	105	978	2444	189
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)							567
pX, platoon unblocked	0.68	0.68	0.00	0.68			
vC, conflicting volume	3074	909	0	2633			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2396	0	0	1746			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	77	0	57			
cM capacity (veh/h)	11	735	0	241			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	
Volume Total	212	105	326	326	326	978	978	678	
Volume Left	47	105	0	0	0	0	0	0	
Volume Right	165	0	0	0	0	0	0	189	
cSH	46	241	1700	1700	1700	1700	1700	1700	
Volume to Capacity	4.60	0.43	0.19	0.19	0.19	0.58	0.58	0.40	
Queue Length 95th (ft)	Err	51	0	0	0	0	0	0	
Control Delay (s)	Err	30.9	0.0	0.0	0.0	0.0	0.0	0.0	
Lane LOS	F	D							
Approach Delay (s)	Err	3.0					0.0		
Approach LOS	F								

Intersection Summary			
Average Delay	541.3		
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	63	341	421	11	38	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.71	0.71	0.69	0.69
Hourly flow rate (vph)	76	411	593	15	55	101
Pedestrians		1	3		1	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	609				1167	603
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	609				1167	603
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				72	80
cM capacity (veh/h)	968				197	498
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	487	608	157			
Volume Left	76	0	55			
Volume Right	0	15	101			
cSH	968	1700	324			
Volume to Capacity	0.08	0.36	0.48			
Queue Length 95th (ft)	6	0	63			
Control Delay (s)	2.2	0.0	26.1			
Lane LOS	A		D			
Approach Delay (s)	2.2	0.0	26.1			
Approach LOS			D			
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization			61.0%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak

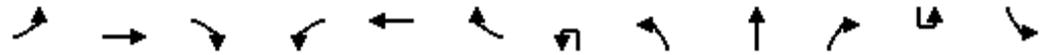


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	16	753	1193	18	19	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3535	3529		1669	
Flt Permitted		0.92	1.00		0.98	
Satd. Flow (perm)		3241	3529		1669	
Peak-hour factor, PHF	0.91	0.91	0.89	0.89	0.86	0.86
Adj. Flow (vph)	18	827	1340	20	22	34
RTOR Reduction (vph)	0	0	1	0	30	0
Lane Group Flow (vph)	0	845	1359	0	26	0
Confl. Peds. (#/hr)	9			9	14	
Confl. Bikes (#/hr)				9		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		52.0	52.0		7.0	
Effective Green, g (s)		52.0	52.0		7.0	
Actuated g/C Ratio		0.78	0.78		0.10	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2515	2738		174	
v/s Ratio Prot			c0.39			
v/s Ratio Perm		0.26			c0.02	
v/c Ratio		0.34	0.50		0.15	
Uniform Delay, d1		2.3	2.7		27.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.4		0.1	
Delay (s)		2.5	3.1		27.4	
Level of Service		A	A		C	
Approach Delay (s)		2.5	3.1		27.4	
Approach LOS		A	A		C	
Intersection Summary						
HCM 2000 Control Delay			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			67.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕↕			↕↕			↔	↑↑↑			↔
Volume (vph)	48	26	41	94	19	39	32	58	1397	50	52	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		1.00			1.00			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.95			0.97			1.00	0.99			1.00
Flt Protected		0.98			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1737			1744			1770	5059			1770
Flt Permitted		0.85			0.73			0.95	1.00			0.95
Satd. Flow (perm)		1511			1320			1770	5059			1770
Peak-hour factor, PHF	0.77	0.77	0.77	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.96	0.96
Adj. Flow (vph)	62	34	53	101	20	42	37	67	1606	57	54	55
RTOR Reduction (vph)	0	27	0	0	16	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	122	0	0	147	0	0	104	1659	0	0	109
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		11.2			11.2			6.6	30.4			6.7
Effective Green, g (s)		11.2			11.2			6.6	30.4			6.7
Actuated g/C Ratio		0.19			0.19			0.11	0.52			0.11
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		290			253			200	2637			203
v/s Ratio Prot								0.06	c0.33			c0.06
v/s Ratio Perm		0.08			c0.11							
v/c Ratio		0.42			0.58			0.52	0.63			0.54
Uniform Delay, d1		20.7			21.4			24.4	9.9			24.3
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		0.4			2.2			1.1	0.5			1.4
Delay (s)		21.1			23.6			25.5	10.5			25.7
Level of Service		C			C			C	B			C
Approach Delay (s)		21.1			23.6				11.4			
Approach LOS		C			C				B			

Intersection Summary

HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Volume (vph)	1228	32
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5063	
Flt Permitted	1.00	
Satd. Flow (perm)	5063	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1279	33
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1310	0
Confl. Bikes (#/hr)		1
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.5	
Effective Green, g (s)	30.5	
Actuated g/C Ratio	0.52	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2648	
v/s Ratio Prot	0.26	
v/s Ratio Perm		
v/c Ratio	0.49	
Uniform Delay, d1	8.9	
Progression Factor	1.00	
Incremental Delay, d2	0.2	
Delay (s)	9.1	
Level of Service	A	
Approach Delay (s)	10.4	
Approach LOS	B	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations													
Volume (vph)	46	0	173	2	1	15	12	195	1504	4	29	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.2			4.2			3.5	5.0			3.5	
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00	
Frbp, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Frt		0.89			0.89			1.00	1.00			1.00	
Flt Protected		0.99			0.99			0.95	1.00			0.95	
Satd. Flow (prot)		1647			1643			1770	5083			1770	
Flt Permitted		0.93			0.95			0.95	1.00			0.95	
Satd. Flow (perm)		1541			1572			1770	5083			1770	
Peak-hour factor, PHF	0.85	0.85	0.85	0.75	0.75	0.75	0.82	0.82	0.82	0.82	0.96	0.96	
Adj. Flow (vph)	54	0	204	3	1	20	15	238	1834	5	30	18	
RTOR Reduction (vph)	0	97	0	0	17	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	161	0	0	7	0	0	253	1839	0	0	48	
Confl. Bikes (#/hr)										1			
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4			4		5	5	2		1	1	
Permitted Phases	4			4									
Actuated Green, G (s)		15.7			15.7			20.1	63.3			6.2	
Effective Green, g (s)		15.7			15.7			20.1	63.3			6.2	
Actuated g/C Ratio		0.16			0.16			0.21	0.65			0.06	
Clearance Time (s)		4.2			4.2			3.5	5.0			3.5	
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		247			252			363	3286			112	
v/s Ratio Prot							c0.14	c0.36				0.03	
v/s Ratio Perm		c0.10			0.00								
v/c Ratio		0.65			0.03			0.70	0.56			0.43	
Uniform Delay, d1		38.5			34.7			36.1	9.6			44.1	
Progression Factor		1.00			1.00			1.00	1.00			1.00	
Incremental Delay, d2		4.6			0.0			4.7	0.3			1.0	
Delay (s)		43.1			34.7			40.7	9.8			45.1	
Level of Service		D			C			D	A			D	
Approach Delay (s)		43.1			34.7				13.6				
Approach LOS		D			C				B				
Intersection Summary													
HCM 2000 Control Delay			17.3									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.62										
Actuated Cycle Length (s)			97.9									Sum of lost time (s)	12.7
Intersection Capacity Utilization			68.1%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	
Volume (vph)	1252	69
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5040	
Flt Permitted	1.00	
Satd. Flow (perm)	5040	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1304	72
RTOR Reduction (vph)	4	0
Lane Group Flow (vph)	1372	0
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	49.4	
Effective Green, g (s)	49.4	
Actuated g/C Ratio	0.50	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2543	
v/s Ratio Prot	0.27	
v/s Ratio Perm		
v/c Ratio	0.54	
Uniform Delay, d1	16.5	
Progression Factor	1.00	
Incremental Delay, d2	0.3	
Delay (s)	16.8	
Level of Service	B	
Approach Delay (s)	17.7	
Approach LOS	B	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	206	502	1182	271	460	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		4.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	2787	4931		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	2787	4931		3433	5085
Peak-hour factor, PHF	0.77	0.77	0.88	0.88	0.90	0.90
Adj. Flow (vph)	268	652	1343	308	511	1079
RTOR Reduction (vph)	0	15	48	0	0	0
Lane Group Flow (vph)	268	637	1603	0	511	1079
Confl. Bikes (#/hr)				1		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	12.5	28.9	25.5		12.4	42.4
Effective Green, g (s)	12.5	28.9	25.5		12.4	42.4
Actuated g/C Ratio	0.20	0.45	0.40		0.19	0.66
Clearance Time (s)	4.0		5.0		4.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	346	1260	1967		666	3374
v/s Ratio Prot		0.23	c0.33		c0.15	0.21
v/s Ratio Perm	c0.15					
v/c Ratio	0.77	0.51	0.81		0.77	0.32
Uniform Delay, d1	24.4	12.4	17.1		24.4	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.5	0.1	2.6		4.8	0.0
Delay (s)	33.8	12.5	19.7		29.2	4.6
Level of Service	C	B	B		C	A
Approach Delay (s)	18.7		19.7			12.5
Approach LOS	B		B			B

Intersection Summary

HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: School PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	38	61	12	59	1407	1132	54
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.88	0.88	0.89	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	43	69	0	66	1581	1204	57
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.94	0.94	0.00	0.94			
vC, conflicting volume	1893	430	0	1262			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1730	176	0	1060			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	35	91	0	89			
cM capacity (veh/h)	67	787	0	615			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	112	66	527	527	527	482	482	298
Volume Left	43	66	0	0	0	0	0	0
Volume Right	69	0	0	0	0	0	0	57
cSH	153	615	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.74	0.11	0.31	0.31	0.31	0.28	0.28	0.18
Queue Length 95th (ft)	111	9	0	0	0	0	0	0
Control Delay (s)	75.8	11.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	75.8	0.5				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization	42.9%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	52	205	242	33	17	36
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.68	0.68	0.86	0.86	0.80	0.80
Hourly flow rate (vph)	76	301	281	38	21	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	320				755	301
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	320				755	301
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				94	94
cM capacity (veh/h)	1240				353	739
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	378	320	66			
Volume Left	76	0	21			
Volume Right	0	38	45			
cSH	1240	1700	547			
Volume to Capacity	0.06	0.19	0.12			
Queue Length 95th (ft)	5	0	10			
Control Delay (s)	2.1	0.0	12.5			
Lane LOS	A		B			
Approach Delay (s)	2.1	0.0	12.5			
Approach LOS			B			
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			41.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	6	713	678	23	21	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.94	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3538	3519		1709	
Flt Permitted		0.95	1.00		0.97	
Satd. Flow (perm)		3358	3519		1709	
Peak-hour factor, PHF	0.92	0.92	0.77	0.77	0.80	0.80
Adj. Flow (vph)	7	775	881	30	26	18
RTOR Reduction (vph)	0	0	1	0	17	0
Lane Group Flow (vph)	0	782	910	0	27	0
Confl. Bikes (#/hr)				3		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		41.5	41.5		2.7	
Effective Green, g (s)		41.5	41.5		2.7	
Actuated g/C Ratio		0.80	0.80		0.05	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2669	2797		88	
v/s Ratio Prot			c0.26			
v/s Ratio Perm		0.23			c0.02	
v/c Ratio		0.29	0.33		0.31	
Uniform Delay, d1		1.4	1.5		23.8	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2		0.7	
Delay (s)		1.6	1.7		24.6	
Level of Service		A	A		C	
Approach Delay (s)		1.6	1.7		24.6	
Approach LOS		A	A		C	

Intersection Summary

HCM 2000 Control Delay	2.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	28	15	64	92	23	54	28	106	2027	67	66	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.92			0.96			1.00	1.00			1.00
Flt Protected		0.99			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1670			1719			1770	5051			1770
Flt Permitted		0.92			0.78			0.95	1.00			0.95
Satd. Flow (perm)		1550			1380			1770	5051			1770
Peak-hour factor, PHF	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	19	79	107	27	63	29	112	2134	71	69	92
RTOR Reduction (vph)	0	61	0	0	22	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	72	0	0	175	0	0	141	2201	0	0	161
Confl. Peds. (#/hr)	21						21			16		
Confl. Bikes (#/hr)			4			2				9		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		14.9			14.9			8.2	31.6			8.8
Effective Green, g (s)		14.9			14.9			8.2	31.6			8.8
Actuated g/C Ratio		0.23			0.23			0.13	0.48			0.13
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		353			314			222	2444			238
v/s Ratio Prot								0.08	c0.44			c0.09
v/s Ratio Perm		0.05			c0.13							
v/c Ratio		0.20			0.56			0.64	0.90			0.68
Uniform Delay, d1		20.4			22.3			27.1	15.4			26.9
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		0.1			1.2			4.3	5.2			5.9
Delay (s)		20.5			23.5			31.4	20.6			32.8
Level of Service		C			C			C	C			C
Approach Delay (s)		20.5			23.5				21.2			
Approach LOS		C			C				C			

Intersection Summary

HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	65.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



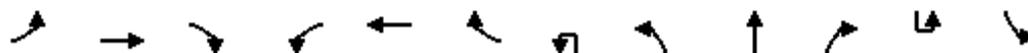
Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (vph)	1418	18
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5074	
Flt Permitted	1.00	
Satd. Flow (perm)	5074	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	1493	19
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1510	0
Confl. Peds. (#/hr)		3
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	32.2	
Effective Green, g (s)	32.2	
Actuated g/C Ratio	0.49	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2502	
v/s Ratio Prot	0.30	
v/s Ratio Perm		
v/c Ratio	0.60	
Uniform Delay, d1	11.9	
Progression Factor	1.00	
Incremental Delay, d2	0.5	
Delay (s)	12.4	
Level of Service	B	
Approach Delay (s)	14.4	
Approach LOS	B	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↔	↑↑↑			↔
Volume (vph)	41	0	159	1	0	26	16	291	2250	16	34	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2			4.2			3.5	5.0			3.5
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.98			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.89			0.87			1.00	1.00			1.00
Flt Protected		0.99			1.00			0.95	1.00			0.95
Satd. Flow (prot)		1627			1587			1770	5078			1770
Flt Permitted		0.93			0.98			0.95	1.00			0.95
Satd. Flow (perm)		1521			1564			1770	5078			1770
Peak-hour factor, PHF	0.80	0.80	0.80	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.91	0.91
Adj. Flow (vph)	51	0	199	1	0	27	16	300	2320	16	37	32
RTOR Reduction (vph)	0	103	0	0	24	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	147	0	0	4	0	0	316	2336	0	0	69
Confl. Peds. (#/hr)	3						3			14		
Confl. Bikes (#/hr)			1				3			8		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4			4								
Actuated Green, G (s)		17.5			17.5			28.2	87.3			7.8
Effective Green, g (s)		17.5			17.5			28.2	87.3			7.8
Actuated g/C Ratio		0.14			0.14			0.23	0.70			0.06
Clearance Time (s)		4.2			4.2			3.5	5.0			3.5
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		212			218			398	3537			110
v/s Ratio Prot								c0.18	c0.46			0.04
v/s Ratio Perm		c0.10			0.00							
v/c Ratio		0.69			0.02			0.79	0.66			0.63
Uniform Delay, d1		51.3			46.5			45.8	10.7			57.3
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		7.6			0.0			9.8	0.5			7.8
Delay (s)		59.0			46.5			55.6	11.2			65.1
Level of Service		E			D			E	B			E
Approach Delay (s)		59.0			46.5				16.5			
Approach LOS		E			D				B			

Intersection Summary

HCM 2000 Control Delay	21.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	125.3	Sum of lost time (s)	12.7
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Volume (vph)	1391	92
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5030	
Flt Permitted	1.00	
Satd. Flow (perm)	5030	
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1529	101
RTOR Reduction (vph)	4	0
Lane Group Flow (vph)	1626	0
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		7
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	66.9	
Effective Green, g (s)	66.9	
Actuated g/C Ratio	0.53	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2685	
v/s Ratio Prot	0.32	
v/s Ratio Perm		
v/c Ratio	0.61	
Uniform Delay, d1	20.1	
Progression Factor	1.00	
Incremental Delay, d2	0.5	
Delay (s)	20.6	
Level of Service	C	
Approach Delay (s)	22.4	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	286	799	1704	263	529	1024
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1761	2787	4960		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1761	2787	4960		3433	5085
Peak-hour factor, PHF	0.86	0.86	1.00	1.00	0.95	0.95
Adj. Flow (vph)	333	929	1704	263	557	1078
RTOR Reduction (vph)	0	4	26	0	0	0
Lane Group Flow (vph)	333	925	1941	0	557	1078
Confl. Peds. (#/hr)	7			17		
Confl. Bikes (#/hr)				7		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	18.8	37.4	32.2		14.6	50.3
Effective Green, g (s)	18.8	37.4	32.2		14.6	50.3
Actuated g/C Ratio	0.24	0.48	0.41		0.19	0.64
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	423	1334	2044		641	3274
v/s Ratio Prot		0.33	c0.39		c0.16	0.21
v/s Ratio Perm	c0.19					
v/c Ratio	0.79	0.69	0.95		0.87	0.33
Uniform Delay, d1	27.8	15.9	22.2		30.8	6.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.7	1.3	10.2		11.6	0.0
Delay (s)	36.4	17.2	32.4		42.5	6.3
Level of Service	D	B	C		D	A
Approach Delay (s)	22.2		32.4			18.6
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	12.5
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	37	61	20	108	2002	1201	76
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.98	0.98
Hourly flow rate (vph)	44	72	0	114	2107	1226	78
Pedestrians	3				3		
Lane Width (ft)	12.0				12.0		
Walking Speed (ft/s)	4.0				4.0		
Percent Blockage	0				0		
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.93	0.93	0.00	0.93			
vC, conflicting volume	2197	453	0	1306			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2017	137	0	1057			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	91	0	81			
cM capacity (veh/h)	38	818	0	606			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	115	114	702	702	702	490	490	323
Volume Left	44	114	0	0	0	0	0	0
Volume Right	72	0	0	0	0	0	0	78
cSH	94	606	1700	1700	1700	1700	1700	1700
Volume to Capacity	1.23	0.19	0.41	0.41	0.41	0.29	0.29	0.19
Queue Length 95th (ft)	201	17	0	0	0	0	0	0
Control Delay (s)	249.6	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	249.6	0.6				0.0		
Approach LOS	F							

Intersection Summary

Average Delay	8.3
Intersection Capacity Utilization	52.0%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	51	179	329	52	16	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.91	0.91	0.68	0.68
Hourly flow rate (vph)	55	192	362	57	24	18
Pedestrians		3	2		5	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	424				699	398
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	424				699	398
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				94	97
cM capacity (veh/h)	1131				384	647

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	419	41
Volume Left	55	0	24
Volume Right	0	57	18
cSH	1131	1700	465
Volume to Capacity	0.05	0.25	0.09
Queue Length 95th (ft)	4	0	7
Control Delay (s)	2.2	0.0	13.5
Lane LOS	A		B
Approach Delay (s)	2.2	0.0	13.5
Approach LOS			B

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		47.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	12	779	1086	15	42	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		0.98	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3536	3530		1699	
Flt Permitted		0.93	1.00		0.97	
Satd. Flow (perm)		3306	3530		1699	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	13	838	1168	16	51	22
RTOR Reduction (vph)	0	0	0	0	18	0
Lane Group Flow (vph)	0	851	1184	0	55	0
Confl. Peds. (#/hr)	12			12	26	
Confl. Bikes (#/hr)				11		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		47.5	47.5		11.2	
Effective Green, g (s)		47.5	47.5		11.2	
Actuated g/C Ratio		0.71	0.71		0.17	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2354	2513		285	
v/s Ratio Prot			c0.34			
v/s Ratio Perm		0.26			c0.03	
v/c Ratio		0.36	0.47		0.19	
Uniform Delay, d1		3.7	4.2		23.9	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.4		0.1	
Delay (s)		4.0	4.6		24.0	
Level of Service		A	A		C	
Approach Delay (s)		4.0	4.6		24.0	
Approach LOS		A	A		C	
Intersection Summary						
HCM 2000 Control Delay			5.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.42			
Actuated Cycle Length (s)			66.7		Sum of lost time (s)	8.0
Intersection Capacity Utilization			44.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Alternative 2, Option 1 Queue Summary Sheets

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	187	335	110	1467	85	2202
v/c Ratio	0.33	0.97	0.49	0.63	0.42	0.97
Control Delay	7.7	69.8	36.7	16.7	36.4	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	69.8	36.7	16.7	36.4	34.6
Queue Length 50th (ft)	12	~155	42	154	33	301
Queue Length 95th (ft)	48	#313	86	233	79	#561
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	572	344	554	2319	554	2274
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	0.33	0.97	0.20	0.63	0.15	0.97

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.

Queues

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	402	47	316	1433	61	2566
v/c Ratio	0.98	0.11	0.97	0.45	0.55	1.03
Control Delay	84.5	14.3	103.7	16.2	87.7	65.0
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	84.5	14.3	103.7	16.5	87.7	65.0
Queue Length 50th (ft)	338	3	322	275	61	~1023
Queue Length 95th (ft)	#520	21	#445	293	111	#1105
Internal Link Dist (ft)	1071	146		597		1067
Turn Bay Length (ft)			55		105	
Base Capacity (vph)	423	425	328	3194	166	2484
Starvation Cap Reductn	0	0	0	1030	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.11	0.96	0.66	0.37	1.03

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.

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	558	792	1051	648	1963
v/c Ratio	0.90	0.45	0.87	0.87	0.77
Control Delay	41.2	7.3	31.5	39.6	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	7.3	31.5	39.6	15.6
Queue Length 50th (ft)	203	76	123	118	187
Queue Length 95th (ft)	#391	136	201	#272	362
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	621	1948	1319	990	3045
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.41	0.80	0.65	0.64

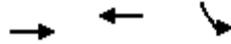
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	845	1360	56
v/c Ratio	0.32	0.47	0.19
Control Delay	4.0	4.9	14.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.0	4.9	14.0
Queue Length 50th (ft)	42	81	10
Queue Length 95th (ft)	143	262	30
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2674	2912	799
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.47	0.07
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	149	163	104	1663	109	1312
v/c Ratio	0.47	0.60	0.43	0.62	0.44	0.49
Control Delay	22.7	29.9	30.5	12.8	30.6	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	29.9	30.5	12.8	30.6	11.1
Queue Length 50th (ft)	37	47	34	142	36	101
Queue Length 95th (ft)	71	106	79	252	85	193
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	506	436	661	2706	661	2719
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	0.29	0.37	0.16	0.61	0.16	0.48

Intersection Summary

Queues

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	258	24	253	1839	48	1376
v/c Ratio	0.75	0.09	0.70	0.56	0.34	0.55
Control Delay	38.7	20.9	51.7	11.6	58.7	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	20.9	51.7	11.6	58.7	18.9
Queue Length 50th (ft)	82	2	142	215	28	201
Queue Length 95th (ft)	201	21	288	329	87	347
Internal Link Dist (ft)	1071	146		597		1067
Turn Bay Length (ft)			55		105	
Base Capacity (vph)	721	679	567	4430	288	3974
Starvation Cap Reductn	0	0	0	536	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.04	0.45	0.47	0.17	0.35

Intersection Summary

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



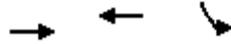
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	268	652	1651	511	1079
v/c Ratio	0.78	0.50	0.83	0.77	0.32
Control Delay	44.7	13.9	21.5	34.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	13.9	21.5	34.9	5.0
Queue Length 50th (ft)	101	91	203	101	58
Queue Length 95th (ft)	177	138	288	178	84
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	464	1520	2866	957	4363
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.43	0.58	0.53	0.25

Intersection Summary

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	782	911	44
v/c Ratio	0.26	0.29	0.15
Control Delay	1.8	1.8	16.7
Queue Delay	0.0	0.0	0.0
Total Delay	1.8	1.8	16.7
Queue Length 50th (ft)	0	0	6
Queue Length 95th (ft)	54	51	28
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	3054	3200	1050
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.28	0.04

Intersection Summary

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	133	197	141	2205	161	1512
v/c Ratio	0.32	0.58	0.53	0.90	0.56	0.60
Control Delay	12.3	26.9	35.8	26.5	35.5	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	26.9	35.8	26.5	35.5	16.1
Queue Length 50th (ft)	17	59	50	262	57	140
Queue Length 95th (ft)	50	121	118	#605	131	300
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	559	469	602	2459	602	2518
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	0.24	0.42	0.23	0.90	0.27	0.60

Intersection Summary

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

Queues

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	250	28	316	2336	69	1630
v/c Ratio	0.79	0.10	0.79	0.66	0.51	0.61
Control Delay	45.4	0.7	64.0	14.3	75.0	22.3
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	45.4	0.7	64.0	14.8	75.0	22.3
Queue Length 50th (ft)	109	0	250	356	56	313
Queue Length 95th (ft)	168	0	#516	699	122	493
Internal Link Dist (ft)	1071	146		597		1067
Turn Bay Length (ft)			55		105	
Base Capacity (vph)	562	536	420	3746	214	3192
Starvation Cap Reductn	0	0	0	802	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.05	0.75	0.79	0.32	0.51

Intersection Summary

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

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	333	929	1967	557	1078
v/c Ratio	0.79	0.70	0.96	0.87	0.33
Control Delay	43.8	19.7	35.3	48.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	19.7	35.3	48.0	7.3
Queue Length 50th (ft)	162	207	306	137	66
Queue Length 95th (ft)	244	253	#618	#274	158
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	433	1437	2301	810	3769
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.65	0.85	0.69	0.29

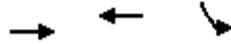
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	851	1184	73
v/c Ratio	0.35	0.45	0.20
Control Delay	5.9	6.7	17.5
Queue Delay	0.0	0.0	0.0
Total Delay	5.9	6.7	17.5
Queue Length 50th (ft)	42	65	19
Queue Length 95th (ft)	143	216	42
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2448	2615	811
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.35	0.45	0.09
Intersection Summary			

Appendix F

Alternative 2, Option 2

- Movement Level of Service Summary Tables
- Synchro Level of Service Summary Sheets
- Synchro Queue Summary Sheets

Movement Level of Service Summary Tables

Table: Alternative 2, Option 2 Movement Level of Service Analysis Results – AM Peak Hour

ID	Intersection	Control Type	MOE	AM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	17.7	-	-	68.1	-	31.8	15.0	-	30.3	32.5	-
			LOS	-	B	-	-	E	-	C	B	-	C	C	-
2	El Camino Real & Selby Ln	Signal	Delay	-	57.6	50.0	-	59.4	-	108.2	12.0	-	68.4	46.5	-
			LOS	-	E	D	-	E	-	F	B	-	E	D	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	34.4	-	6.0	-	29.8	-	34.4	14.1	-
			LOS	-	-	-	C	-	A	-	C	-	C	B	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	>50*			-	-	-	30.9	-	-	-	-	-
			LOS	F			-	-	-	D	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.2	-	-	-	-	-	-	-	-	26.1	
			LOS	-	A	-	-	-	-	-	-	-	-	D	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	2.5	-	-	3.1	-	-	-	-	-	27.4	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
 >50* = Control Delay at intersection exceeds software maximum reportable value, >50 seconds yields LOS F.
Bold indicates unacceptable operations.

Table: Alternative 2, Option 2 Movement Level of Service Analysis Results – School PM Peak Hour

ID	Intersection	Control Type	MOE	School PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	21.1	-	-	23.6	-	25.5	10.5	-	25.7	9.1	-
			LOS	-	C	-	-	C	-	C	B	-	C	A	-
2	El Camino Real & Selby Ln	Signal	Delay	-	41.6	39.9	-	45.9	-	37.0	10.5	-	44.6	18.6	-
			LOS	-	D	D	-	D	-	D	B	-	D	B	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	33.8	-	12.5	-	19.7	-	29.2	4.6	-
			LOS	-	-	-	C	-	B	-	B	-	C	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	75.8			-	-	-	11.6	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.1	-	-	-	-	-	-	-	-	12.5	
			LOS	-	A	-	-	-	-	-	-	-	-	B	
6	Waverly Ave & Fifth Ave	Signal	Delay	-	1.6	-	-	1.7	-	-	-	-	-	24.6	
			LOS	-	A	-	-	A	-	-	-	-	-	C	

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.
 LOS = Level of Service
Bold indicates unacceptable operations.

Table: Alternative 2, Option 2 Movement Level of Service Analysis Results – PM Peak Hour

ID	Intersection	Control Type	MOE	PM Peak Hour											
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1	El Camino Real & Oakwood Dr-Dumbarton Ave	Signal	Delay	-	20.5	-	-	23.5	-	31.4	20.6	-	32.8	12.4	-
			LOS	-	C	-	-	C	-	C	C	-	C	B	-
2	El Camino Real & Selby Ln	Signal	Delay	-	48.2	46.7	-	54.6	-	66.6	13.7	-	64.3	21.2	-
			LOS	-	D	D	-	D	-	E	B	-	E	C	-
3	El Camino Real & Fifth Ave	Signal	Delay	-	-	-	36.4	-	17.2	-	32.4	-	42.5	6.3	-
			LOS	-	-	-	D	-	B	-	C	-	D	A	-
4	El Camino Real & Stockbridge Ave	OWSC	Delay	249.6			-	-	-	12.3	-	-	-	-	-
			LOS	F			-	-	-	B	-	-	-	-	-
5	Oakwood Blvd & Selby Ln	OWSC	Delay	-	2.2	-	-	-	-	-	-	-	13.5		
			LOS	-	A	-	-	-	-	-	-	-	B		
6	Waverly Ave & Fifth Ave	Signal	Delay	-	4.0	-	-	4.6	-	-	-	-	24.0		
			LOS	-	A	-	-	A	-	-	-	-	C		

Notes: Delay = Average intersection delay in seconds per vehicle for signalized intersections or minor street (worst approach) delay for OWSC or TWSC intersections.

LOS = Level of Service

Bold indicates unacceptable operations.

Alternative 2, Option 2 Level of Service Summary Sheets

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↕	↑↑↑			↕
Volume (vph)	23	11	120	225	30	47	58	33	1148	70	39	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.89			0.98			1.00	0.99			1.00
Flt Protected		0.99			0.96			0.95	1.00			0.95
Satd. Flow (prot)		1630			1748			1770	5028			1770
Flt Permitted		0.94			0.61			0.95	1.00			0.95
Satd. Flow (perm)		1543			1103			1770	5028			1770
Peak-hour factor, PHF	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83	0.83	0.96	0.96
Adj. Flow (vph)	28	13	146	250	33	52	70	40	1383	84	41	44
RTOR Reduction (vph)	0	102	0	0	8	0	0	0	8	0	0	0
Lane Group Flow (vph)	0	85	0	0	327	0	0	110	1459	0	0	85
Confl. Peds. (#/hr)	27						27			12		
Confl. Bikes (#/hr)			6			6				3		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		20.8			20.8			7.4	31.3			6.6
Effective Green, g (s)		20.8			20.8			7.4	31.3			6.6
Actuated g/C Ratio		0.30			0.30			0.11	0.46			0.10
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		467			333			190	2290			170
v/s Ratio Prot								c0.06	0.29			0.05
v/s Ratio Perm		0.06			c0.30							
v/c Ratio		0.18			0.98			0.58	0.64			0.50
Uniform Delay, d1		17.7			23.8			29.2	14.3			29.5
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		0.1			44.3			2.6	0.7			0.8
Delay (s)		17.7			68.1			31.8	15.0			30.3
Level of Service		B			E			C	B			C
Approach Delay (s)		17.7			68.1				16.2			
Approach LOS		B			E				B			

Intersection Summary

HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	68.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak

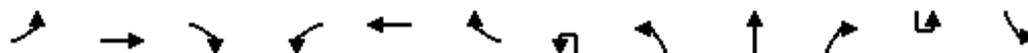


Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Volume (vph)	2098	16
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5078	
Flt Permitted	1.00	
Satd. Flow (perm)	5078	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	2185	17
RTOR Reduction (vph)	1	0
Lane Group Flow (vph)	2201	0
Confl. Peds. (#/hr)		6
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.5	
Effective Green, g (s)	30.5	
Actuated g/C Ratio	0.44	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2254	
v/s Ratio Prot	c0.43	
v/s Ratio Perm		
v/c Ratio	0.98	
Uniform Delay, d1	18.7	
Progression Factor	1.00	
Incremental Delay, d2	13.8	
Delay (s)	32.5	
Level of Service	C	
Approach Delay (s)	32.4	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕	↗		↔			↔	↑↑↑			↘
Volume (vph)	98	0	251	0	3	30	19	240	1172	3	34	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	4.2		4.2			3.5	5.0			3.5
Lane Util. Factor		1.00	1.00		1.00			1.00	0.91			1.00
Frbp, ped/bikes		1.00	0.99		0.94			1.00	1.00			1.00
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00			1.00
Frt		1.00	0.85		0.88			1.00	1.00			1.00
Flt Protected		0.95	1.00		1.00			0.95	1.00			0.95
Satd. Flow (prot)		1763	1562		1538			1770	5083			1770
Flt Permitted		0.73	1.00		1.00			0.95	1.00			0.95
Satd. Flow (perm)		1348	1562		1538			1770	5083			1770
Peak-hour factor, PHF	0.87	0.87	0.87	0.69	0.69	0.69	0.82	0.82	0.82	0.82	0.95	0.95
Adj. Flow (vph)	113	0	289	0	4	43	23	293	1429	4	36	25
RTOR Reduction (vph)	0	0	243	0	41	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	113	46	0	6	0	0	316	1433	0	0	61
Confl. Peds. (#/hr)	4						4			7		
Confl. Bikes (#/hr)			1			5				2		
Turn Type	Perm	NA	Perm		NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4		3	3		5	5	2		1	1
Permitted Phases	4		4									
Actuated Green, G (s)		17.2	17.2		5.6			22.7	82.0			7.1
Effective Green, g (s)		17.2	17.2		5.6			22.7	82.0			7.1
Actuated g/C Ratio		0.13	0.13		0.04			0.18	0.64			0.06
Clearance Time (s)		4.2	4.2		4.2			3.5	5.0			3.5
Vehicle Extension (s)		2.0	2.0		2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		180	208		66			311	3236			97
v/s Ratio Prot					c0.00			c0.18	0.28			0.03
v/s Ratio Perm		c0.08	0.03									
v/c Ratio		0.63	0.22		0.09			1.02	0.44			0.63
Uniform Delay, d1		52.8	49.8		59.2			53.1	11.8			59.6
Progression Factor		1.00	1.00		1.00			1.00	1.00			1.00
Incremental Delay, d2		4.9	0.2		0.2			55.2	0.1			8.8
Delay (s)		57.6	50.0		59.4			108.2	12.0			68.4
Level of Service		E	D		E			F	B			E
Approach Delay (s)		52.1			59.4			29.4				
Approach LOS		D			E			C				

Intersection Summary

HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	128.8	Sum of lost time (s)	16.9
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	
Volume (vph)	2236	201
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5011	
Flt Permitted	1.00	
Satd. Flow (perm)	5011	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	2354	212
RTOR Reduction (vph)	6	0
Lane Group Flow (vph)	2560	0
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	66.4	
Effective Green, g (s)	66.4	
Actuated g/C Ratio	0.52	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2583	
v/s Ratio Prot	c0.51	
v/s Ratio Perm		
v/c Ratio	0.99	
Uniform Delay, d1	30.9	
Progression Factor	1.00	
Incremental Delay, d2	15.6	
Delay (s)	46.5	
Level of Service	D	
Approach Delay (s)	47.0	
Approach LOS	D	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	491	697	676	186	616	1865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	0.99	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1760	2787	4895		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1760	2787	4895		3433	5085
Peak-hour factor, PHF	0.88	0.88	0.82	0.82	0.95	0.95
Adj. Flow (vph)	558	792	824	227	648	1963
RTOR Reduction (vph)	0	4	76	0	0	0
Lane Group Flow (vph)	558	788	975	0	648	1963
Confl. Peds. (#/hr)	10			9		
Confl. Bikes (#/hr)				4		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	22.7	40.6	14.9		13.9	32.3
Effective Green, g (s)	22.7	40.6	14.9		13.9	32.3
Actuated g/C Ratio	0.35	0.63	0.23		0.22	0.50
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	624	1768	1139		745	2566
v/s Ratio Prot		0.28	0.20		c0.19	c0.39
v/s Ratio Perm	c0.32					
v/c Ratio	0.89	0.45	0.86		0.87	0.77
Uniform Delay, d1	19.5	6.0	23.5		24.2	12.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.9	0.1	6.3		10.3	1.3
Delay (s)	34.4	6.0	29.8		34.4	14.1
Level of Service	C	A	C		C	B
Approach Delay (s)	17.8		29.8			19.1
Approach LOS	B		C			B

Intersection Summary

HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	64.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: AM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑↑	↑↑↑	
Volume (veh/h)	38	134	31	91	851	2200	170
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.81	0.81	0.87	0.87	0.87	0.90	0.90
Hourly flow rate (vph)	47	165	0	105	978	2444	189
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.68	0.68	0.00	0.68			
vC, conflicting volume	3074	909	0	2633			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2396	0	0	1746			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	77	0	57			
cM capacity (veh/h)	11	735	0	241			

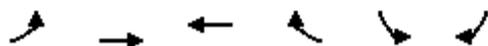
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	212	105	326	326	326	978	978	678
Volume Left	47	105	0	0	0	0	0	0
Volume Right	165	0	0	0	0	0	0	189
cSH	46	241	1700	1700	1700	1700	1700	1700
Volume to Capacity	4.60	0.43	0.19	0.19	0.19	0.58	0.58	0.40
Queue Length 95th (ft)	Err	51	0	0	0	0	0	0
Control Delay (s)	Err	30.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	D						
Approach Delay (s)	Err	3.0				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		541.3	
Intersection Capacity Utilization		73.4%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	63	341	421	11	38	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.83	0.83	0.71	0.71	0.69	0.69
Hourly flow rate (vph)	76	411	593	15	55	101
Pedestrians		1	3		1	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	609				1167	603
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	609				1167	603
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				72	80
cM capacity (veh/h)	968				197	498
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	487	608	157			
Volume Left	76	0	55			
Volume Right	0	15	101			
cSH	968	1700	324			
Volume to Capacity	0.08	0.36	0.48			
Queue Length 95th (ft)	6	0	63			
Control Delay (s)	2.2	0.0	26.1			
Lane LOS	A		D			
Approach Delay (s)	2.2	0.0	26.1			
Approach LOS			D			
Intersection Summary						
Average Delay			4.1			
Intersection Capacity Utilization			61.0%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	16	753	1193	18	19	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.92	
Flt Protected		1.00	1.00		0.98	
Satd. Flow (prot)		3535	3529		1669	
Flt Permitted		0.92	1.00		0.98	
Satd. Flow (perm)		3241	3529		1669	
Peak-hour factor, PHF	0.91	0.91	0.89	0.89	0.86	0.86
Adj. Flow (vph)	18	827	1340	20	22	34
RTOR Reduction (vph)	0	0	1	0	30	0
Lane Group Flow (vph)	0	845	1359	0	26	0
Confl. Peds. (#/hr)	9			9	14	
Confl. Bikes (#/hr)				9		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		52.0	52.0		7.0	
Effective Green, g (s)		52.0	52.0		7.0	
Actuated g/C Ratio		0.78	0.78		0.10	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2515	2738		174	
v/s Ratio Prot			c0.39			
v/s Ratio Perm		0.26			c0.02	
v/c Ratio		0.34	0.50		0.15	
Uniform Delay, d1		2.3	2.7		27.3	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.4		0.1	
Delay (s)		2.5	3.1		27.4	
Level of Service		A	A		C	
Approach Delay (s)		2.5	3.1		27.4	
Approach LOS		A	A		C	
Intersection Summary						
HCM 2000 Control Delay			3.5		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			67.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations													
Volume (vph)	48	26	41	94	19	39	32	58	1397	50	52	53	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0	
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00	
Frbp, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00	
Frt		0.95			0.97			1.00	0.99			1.00	
Flt Protected		0.98			0.97			0.95	1.00			0.95	
Satd. Flow (prot)		1737			1744			1770	5059			1770	
Flt Permitted		0.85			0.73			0.95	1.00			0.95	
Satd. Flow (perm)		1511			1320			1770	5059			1770	
Peak-hour factor, PHF	0.77	0.77	0.77	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.96	0.96	
Adj. Flow (vph)	62	34	53	101	20	42	37	67	1606	57	54	55	
RTOR Reduction (vph)	0	27	0	0	16	0	0	0	4	0	0	0	
Lane Group Flow (vph)	0	122	0	0	147	0	0	104	1659	0	0	109	
Confl. Bikes (#/hr)													
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4			4		1	1	6		5	5	
Permitted Phases	4			4									
Actuated Green, G (s)		11.2			11.2			6.6	30.4			6.7	
Effective Green, g (s)		11.2			11.2			6.6	30.4			6.7	
Actuated g/C Ratio		0.19			0.19			0.11	0.52			0.11	
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0	
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		290			253			200	2637			203	
v/s Ratio Prot								0.06	c0.33			c0.06	
v/s Ratio Perm		0.08			c0.11								
v/c Ratio		0.42			0.58			0.52	0.63			0.54	
Uniform Delay, d1		20.7			21.4			24.4	9.9			24.3	
Progression Factor		1.00			1.00			1.00	1.00			1.00	
Incremental Delay, d2		0.4			2.2			1.1	0.5			1.4	
Delay (s)		21.1			23.6			25.5	10.5			25.7	
Level of Service		C			C			C	B			C	
Approach Delay (s)		21.1			23.6				11.4				
Approach LOS		C			C				B				
Intersection Summary													
HCM 2000 Control Delay			12.0									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.60										
Actuated Cycle Length (s)			58.3									Sum of lost time (s)	10.0
Intersection Capacity Utilization			57.1%									ICU Level of Service	B
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (vph)	1228	32
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5063	
Flt Permitted	1.00	
Satd. Flow (perm)	5063	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1279	33
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1310	0
Confl. Bikes (#/hr)		1
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	30.5	
Effective Green, g (s)	30.5	
Actuated g/C Ratio	0.52	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2648	
v/s Ratio Prot	0.26	
v/s Ratio Perm		
v/c Ratio	0.49	
Uniform Delay, d1	8.9	
Progression Factor	1.00	
Incremental Delay, d2	0.2	
Delay (s)	9.1	
Level of Service	A	
Approach Delay (s)	10.4	
Approach LOS	B	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations									  				
Volume (vph)	46	0	173	2	1	15	12	195	1504	4	29	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.2	4.2		4.2			3.5	5.0			3.5	
Lane Util. Factor		1.00	1.00		1.00			1.00	0.91			1.00	
Frbp, ped/bikes		1.00	1.00		1.00			1.00	1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00			1.00	
Frt		1.00	0.85		0.89			1.00	1.00			1.00	
Flt Protected		0.95	1.00		0.99			0.95	1.00			0.95	
Satd. Flow (prot)		1770	1583		1643			1770	5083			1770	
Flt Permitted		0.74	1.00		0.99			0.95	1.00			0.95	
Satd. Flow (perm)		1381	1583		1643			1770	5083			1770	
Peak-hour factor, PHF	0.85	0.85	0.85	0.75	0.75	0.75	0.82	0.82	0.82	0.82	0.96	0.96	
Adj. Flow (vph)	54	0	204	3	1	20	15	238	1834	5	30	18	
RTOR Reduction (vph)	0	0	184	0	19	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	54	20	0	5	0	0	253	1839	0	0	48	
Confl. Bikes (#/hr)										1			
Turn Type	Perm	NA	Perm	Split	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4		3	3		5	5	2		1	1	
Permitted Phases	4		4										
Actuated Green, G (s)		9.5	9.5		2.9			21.3	61.2			6.1	
Effective Green, g (s)		9.5	9.5		2.9			21.3	61.2			6.1	
Actuated g/C Ratio		0.10	0.10		0.03			0.22	0.63			0.06	
Clearance Time (s)		4.2	4.2		4.2			3.5	5.0			3.5	
Vehicle Extension (s)		2.0	2.0		2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		135	155		49			390	3220			111	
v/s Ratio Prot					c0.00			c0.14	c0.36			0.03	
v/s Ratio Perm		c0.04	0.01										
v/c Ratio		0.40	0.13		0.09			0.65	0.57			0.43	
Uniform Delay, d1		40.9	39.8		45.6			34.2	10.2			43.6	
Progression Factor		1.00	1.00		1.00			1.00	1.00			1.00	
Incremental Delay, d2		0.7	0.1		0.3			2.8	0.3			1.0	
Delay (s)		41.6	39.9		45.9			37.0	10.5			44.6	
Level of Service		D	D		D			D	B			D	
Approach Delay (s)		40.3			45.9				13.7				
Approach LOS		D			D				B				
Intersection Summary													
HCM 2000 Control Delay			17.9									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.57										
Actuated Cycle Length (s)			96.6									Sum of lost time (s)	16.9
Intersection Capacity Utilization			65.7%									ICU Level of Service	C
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (vph)	1252	69
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5039	
Flt Permitted	1.00	
Satd. Flow (perm)	5039	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1304	72
RTOR Reduction (vph)	4	0
Lane Group Flow (vph)	1372	0
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	46.0	
Effective Green, g (s)	46.0	
Actuated g/C Ratio	0.48	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2399	
v/s Ratio Prot	0.27	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	18.2	
Progression Factor	1.00	
Incremental Delay, d2	0.4	
Delay (s)	18.6	
Level of Service	B	
Approach Delay (s)	19.5	
Approach LOS	B	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	206	502	1182	271	460	971
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		4.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	2787	4931		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	2787	4931		3433	5085
Peak-hour factor, PHF	0.77	0.77	0.88	0.88	0.90	0.90
Adj. Flow (vph)	268	652	1343	308	511	1079
RTOR Reduction (vph)	0	15	48	0	0	0
Lane Group Flow (vph)	268	637	1603	0	511	1079
Confl. Bikes (#/hr)				1		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	12.5	28.9	25.5		12.4	42.4
Effective Green, g (s)	12.5	28.9	25.5		12.4	42.4
Actuated g/C Ratio	0.20	0.45	0.40		0.19	0.66
Clearance Time (s)	4.0		5.0		4.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	346	1260	1967		666	3374
v/s Ratio Prot		0.23	c0.33		c0.15	0.21
v/s Ratio Perm	c0.15					
v/c Ratio	0.77	0.51	0.81		0.77	0.32
Uniform Delay, d1	24.4	12.4	17.1		24.4	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.5	0.1	2.6		4.8	0.0
Delay (s)	33.8	12.5	19.7		29.2	4.6
Level of Service	C	B	B		C	A
Approach Delay (s)	18.7		19.7			12.5
Approach LOS	B		B			B

Intersection Summary

HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: School PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	38	61	12	59	1407	1132	54
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.88	0.88	0.89	0.89	0.89	0.94	0.94
Hourly flow rate (vph)	43	69	0	66	1581	1204	57
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.94	0.94	0.00	0.94			
vC, conflicting volume	1893	430	0	1262			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1730	176	0	1060			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	35	91	0	89			
cM capacity (veh/h)	67	787	0	615			

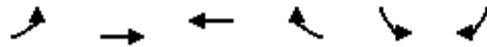
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	112	66	527	527	527	482	482	298
Volume Left	43	66	0	0	0	0	0	0
Volume Right	69	0	0	0	0	0	0	57
cSH	153	615	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.74	0.11	0.31	0.31	0.31	0.28	0.28	0.18
Queue Length 95th (ft)	111	9	0	0	0	0	0	0
Control Delay (s)	75.8	11.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	75.8	0.5				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization	42.9%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: School PM Peak

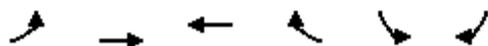


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	52	205	242	33	17	36
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.68	0.68	0.86	0.86	0.80	0.80
Hourly flow rate (vph)	76	301	281	38	21	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	320				755	301
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	320				755	301
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				94	94
cM capacity (veh/h)	1240				353	739
Direction, Lane #						
	EB 1	WB 1	SB 1			
Volume Total	378	320	66			
Volume Left	76	0	21			
Volume Right	0	38	45			
cSH	1240	1700	547			
Volume to Capacity	0.06	0.19	0.12			
Queue Length 95th (ft)	5	0	10			
Control Delay (s)	2.1	0.0	12.5			
Lane LOS	A		B			
Approach Delay (s)	2.1	0.0	12.5			
Approach LOS			B			
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			41.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↔↔	
Volume (vph)	6	713	678	23	21	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	1.00		0.94	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3538	3519		1709	
Flt Permitted		0.95	1.00		0.97	
Satd. Flow (perm)		3358	3519		1709	
Peak-hour factor, PHF	0.92	0.92	0.77	0.77	0.80	0.80
Adj. Flow (vph)	7	775	881	30	26	18
RTOR Reduction (vph)	0	0	1	0	17	0
Lane Group Flow (vph)	0	782	910	0	27	0
Confl. Bikes (#/hr)				3		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		41.5	41.5		2.7	
Effective Green, g (s)		41.5	41.5		2.7	
Actuated g/C Ratio		0.80	0.80		0.05	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2669	2797		88	
v/s Ratio Prot			c0.26			
v/s Ratio Perm		0.23			c0.02	
v/c Ratio		0.29	0.33		0.31	
Uniform Delay, d1		1.4	1.5		23.8	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2		0.7	
Delay (s)		1.6	1.7		24.6	
Level of Service		A	A		C	
Approach Delay (s)		1.6	1.7		24.6	
Approach LOS		A	A		C	

Intersection Summary

HCM 2000 Control Delay	2.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	52.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations		↕			↕			↕	↑↑↑			↕
Volume (vph)	28	15	64	92	23	54	28	106	2027	67	66	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0	4.0			3.0
Lane Util. Factor		1.00			1.00			1.00	0.91			1.00
Frbp, ped/bikes		0.99			0.99			1.00	1.00			1.00
Flpb, ped/bikes		1.00			1.00			1.00	1.00			1.00
Frt		0.92			0.96			1.00	1.00			1.00
Flt Protected		0.99			0.97			0.95	1.00			0.95
Satd. Flow (prot)		1670			1719			1770	5051			1770
Flt Permitted		0.92			0.78			0.95	1.00			0.95
Satd. Flow (perm)		1550			1380			1770	5051			1770
Peak-hour factor, PHF	0.81	0.81	0.81	0.86	0.86	0.86	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	19	79	107	27	63	29	112	2134	71	69	92
RTOR Reduction (vph)	0	61	0	0	22	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	72	0	0	175	0	0	141	2201	0	0	161
Confl. Peds. (#/hr)	21						21			16		
Confl. Bikes (#/hr)			4			2				9		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		1	1	6		5	5
Permitted Phases	4			4								
Actuated Green, G (s)		14.9			14.9			8.2	31.6			8.8
Effective Green, g (s)		14.9			14.9			8.2	31.6			8.8
Actuated g/C Ratio		0.23			0.23			0.13	0.48			0.13
Clearance Time (s)		3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)		2.0			2.0			2.0	4.0			2.0
Lane Grp Cap (vph)		353			314			222	2444			238
v/s Ratio Prot								0.08	c0.44			c0.09
v/s Ratio Perm		0.05			c0.13							
v/c Ratio		0.20			0.56			0.64	0.90			0.68
Uniform Delay, d1		20.4			22.3			27.1	15.4			26.9
Progression Factor		1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2		0.1			1.2			4.3	5.2			5.9
Delay (s)		20.5			23.5			31.4	20.6			32.8
Level of Service		C			C			C	C			C
Approach Delay (s)		20.5			23.5				21.2			
Approach LOS		C			C				C			

Intersection Summary

HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	65.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↗
Volume (vph)	1418	18
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5074	
Flt Permitted	1.00	
Satd. Flow (perm)	5074	
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	1493	19
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1510	0
Confl. Peds. (#/hr)		3
Confl. Bikes (#/hr)		8
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	32.2	
Effective Green, g (s)	32.2	
Actuated g/C Ratio	0.49	
Clearance Time (s)	4.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2502	
v/s Ratio Prot	0.30	
v/s Ratio Perm		
v/c Ratio	0.60	
Uniform Delay, d1	11.9	
Progression Factor	1.00	
Incremental Delay, d2	0.5	
Delay (s)	12.4	
Level of Service	B	
Approach Delay (s)	14.4	
Approach LOS	B	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	
Lane Configurations													
Volume (vph)	41	0	159	1	0	26	16	291	2250	16	34	29	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.2	4.2		4.2			3.5	5.0			3.5	
Lane Util. Factor		1.00	1.00		1.00			1.00	0.91			1.00	
Frbp, ped/bikes		1.00	0.99		0.94			1.00	1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00			1.00	
Frt		1.00	0.85		0.87			1.00	1.00			1.00	
Flt Protected		0.95	1.00		1.00			0.95	1.00			0.95	
Satd. Flow (prot)		1765	1561		1524			1770	5078			1770	
Flt Permitted		0.74	1.00		1.00			0.95	1.00			0.95	
Satd. Flow (perm)		1373	1561		1524			1770	5078			1770	
Peak-hour factor, PHF	0.80	0.80	0.80	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.91	0.91	
Adj. Flow (vph)	51	0	199	1	0	27	16	300	2320	16	37	32	
RTOR Reduction (vph)	0	0	177	0	27	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	51	22	0	1	0	0	316	2336	0	0	69	
Confl. Peds. (#/hr)	3						3			14			
Confl. Bikes (#/hr)			1			3				8			
Turn Type	Perm	NA	Perm	Split	NA		Prot	Prot	NA		Prot	Prot	
Protected Phases		4		3	3		5	5	2		1	1	
Permitted Phases	4		4										
Actuated Green, G (s)		12.9	12.9		3.7			23.5	75.9			6.9	
Effective Green, g (s)		12.9	12.9		3.7			23.5	75.9			6.9	
Actuated g/C Ratio		0.11	0.11		0.03			0.20	0.65			0.06	
Clearance Time (s)		4.2	4.2		4.2			3.5	5.0			3.5	
Vehicle Extension (s)		2.0	2.0		2.0			2.0	4.0			2.0	
Lane Grp Cap (vph)		152	173		48			357	3314			105	
v/s Ratio Prot					c0.00			c0.18	c0.46			0.04	
v/s Ratio Perm		c0.04	0.01										
v/c Ratio		0.34	0.13		0.02			0.89	0.70			0.66	
Uniform Delay, d1		47.7	46.6		54.5			45.1	13.0			53.5	
Progression Factor		1.00	1.00		1.00			1.00	1.00			1.00	
Incremental Delay, d2		0.5	0.1		0.1			21.5	0.7			10.8	
Delay (s)		48.2	46.7		54.6			66.6	13.7			64.3	
Level of Service		D	D		D			E	B			E	
Approach Delay (s)		47.0			54.6			20.0					
Approach LOS		D			D			C					
Intersection Summary													
HCM 2000 Control Delay			22.8									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.69										
Actuated Cycle Length (s)			116.3									Sum of lost time (s)	16.9
Intersection Capacity Utilization			76.1%									ICU Level of Service	D
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Movement	SBT	SBR
Lane Configurations	↑↑↑	↘
Volume (vph)	1391	92
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.0	
Lane Util. Factor	0.91	
Frbp, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5030	
Flt Permitted	1.00	
Satd. Flow (perm)	5030	
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1529	101
RTOR Reduction (vph)	4	0
Lane Group Flow (vph)	1626	0
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		7
Turn Type	NA	
Protected Phases	6	
Permitted Phases		
Actuated Green, G (s)	59.3	
Effective Green, g (s)	59.3	
Actuated g/C Ratio	0.51	
Clearance Time (s)	5.0	
Vehicle Extension (s)	4.0	
Lane Grp Cap (vph)	2564	
v/s Ratio Prot	0.32	
v/s Ratio Perm		
v/c Ratio	0.63	
Uniform Delay, d1	20.6	
Progression Factor	1.00	
Incremental Delay, d2	0.6	
Delay (s)	21.2	
Level of Service	C	
Approach Delay (s)	23.0	
Approach LOS	C	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	286	799	1704	263	529	1024
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0		3.5	5.0
Lane Util. Factor	1.00	0.88	0.91		0.97	0.91
Frbp, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1761	2787	4960		3433	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1761	2787	4960		3433	5085
Peak-hour factor, PHF	0.86	0.86	1.00	1.00	0.95	0.95
Adj. Flow (vph)	333	929	1704	263	557	1078
RTOR Reduction (vph)	0	4	26	0	0	0
Lane Group Flow (vph)	333	925	1941	0	557	1078
Confl. Peds. (#/hr)	7			17		
Confl. Bikes (#/hr)				7		
Turn Type	Perm	pt+ov	NA		Prot	NA
Protected Phases		4 5	6		5	2
Permitted Phases	4					
Actuated Green, G (s)	18.8	37.4	32.2		14.6	50.3
Effective Green, g (s)	18.8	37.4	32.2		14.6	50.3
Actuated g/C Ratio	0.24	0.48	0.41		0.19	0.64
Clearance Time (s)	4.0		5.0		3.5	5.0
Vehicle Extension (s)	0.2		0.2		0.2	0.2
Lane Grp Cap (vph)	423	1334	2044		641	3274
v/s Ratio Prot		0.33	c0.39		c0.16	0.21
v/s Ratio Perm	c0.19					
v/c Ratio	0.79	0.69	0.95		0.87	0.33
Uniform Delay, d1	27.8	15.9	22.2		30.8	6.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.7	1.3	10.2		11.6	0.0
Delay (s)	36.4	17.2	32.4		42.5	6.3
Level of Service	D	B	C		D	A
Approach Delay (s)	22.2		32.4			18.6
Approach LOS	C		C			B

Intersection Summary

HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	12.5
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

4: El Camino Real & Stockbridge Avenue

Timing Plan: PM Peak



Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	W			W	↑↑↑	↑↑↑	
Volume (veh/h)	37	61	20	108	2002	1201	76
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.98	0.98
Hourly flow rate (vph)	44	72	0	114	2107	1226	78
Pedestrians	3				3		
Lane Width (ft)	12.0				12.0		
Walking Speed (ft/s)	4.0				4.0		
Percent Blockage	0				0		
Right turn flare (veh)							
Median type					None	None	
Median storage (veh)							
Upstream signal (ft)						567	
pX, platoon unblocked	0.93	0.93	0.00	0.93			
vC, conflicting volume	2197	453	0	1306			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2017	137	0	1057			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	0	91	0	81			
cM capacity (veh/h)	38	818	0	606			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	115	114	702	702	702	490	490	323
Volume Left	44	114	0	0	0	0	0	0
Volume Right	72	0	0	0	0	0	0	78
cSH	94	606	1700	1700	1700	1700	1700	1700
Volume to Capacity	1.23	0.19	0.41	0.41	0.41	0.29	0.29	0.19
Queue Length 95th (ft)	201	17	0	0	0	0	0	0
Control Delay (s)	249.6	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B						
Approach Delay (s)	249.6	0.6				0.0		
Approach LOS	F							

Intersection Summary			
Average Delay		8.3	
Intersection Capacity Utilization	52.0%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

5: Selby Lane & Oakwood Boulevard

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	51	179	329	52	16	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.91	0.91	0.68	0.68
Hourly flow rate (vph)	55	192	362	57	24	18
Pedestrians		3	2		5	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			1151			
pX, platoon unblocked						
vC, conflicting volume	424				699	398
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	424				699	398
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				94	97
cM capacity (veh/h)	1131				384	647

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	247	419	41
Volume Left	55	0	24
Volume Right	0	57	18
cSH	1131	1700	465
Volume to Capacity	0.05	0.25	0.09
Queue Length 95th (ft)	4	0	7
Control Delay (s)	2.2	0.0	13.5
Lane LOS	A		B
Approach Delay (s)	2.2	0.0	13.5
Approach LOS			B

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		47.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔		↕↔	
Volume (vph)	12	779	1086	15	42	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		3.5	
Lane Util. Factor		0.95	0.95		1.00	
Frbp, ped/bikes		1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00		0.98	
Frt		1.00	1.00		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		3536	3530		1699	
Flt Permitted		0.93	1.00		0.97	
Satd. Flow (perm)		3306	3530		1699	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.83	0.83
Adj. Flow (vph)	13	838	1168	16	51	22
RTOR Reduction (vph)	0	0	0	0	18	0
Lane Group Flow (vph)	0	851	1184	0	55	0
Confl. Peds. (#/hr)	12			12	26	
Confl. Bikes (#/hr)				11		
Turn Type	Perm	NA	NA		Perm	
Protected Phases		2	6			
Permitted Phases	2				4	
Actuated Green, G (s)		47.5	47.5		11.2	
Effective Green, g (s)		47.5	47.5		11.2	
Actuated g/C Ratio		0.71	0.71		0.17	
Clearance Time (s)		4.5	4.5		3.5	
Vehicle Extension (s)		6.0	6.0		1.0	
Lane Grp Cap (vph)		2354	2513		285	
v/s Ratio Prot			c0.34			
v/s Ratio Perm		0.26			c0.03	
v/c Ratio		0.36	0.47		0.19	
Uniform Delay, d1		3.7	4.2		23.9	
Progression Factor		1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.4		0.1	
Delay (s)		4.0	4.6		24.0	
Level of Service		A	A		C	
Approach Delay (s)		4.0	4.6		24.0	
Approach LOS		A	A		C	

Intersection Summary			
HCM 2000 Control Delay	5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Alternative 2, Option 2 Queue Summary Sheets

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	187	335	110	1467	85	2202
v/c Ratio	0.33	0.97	0.49	0.63	0.42	0.97
Control Delay	7.7	69.8	36.7	16.7	36.4	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	69.8	36.7	16.7	36.4	34.6
Queue Length 50th (ft)	12	~155	42	154	33	301
Queue Length 95th (ft)	48	#313	86	233	79	#561
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	572	344	554	2319	554	2274
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	0.33	0.97	0.20	0.63	0.15	0.97

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.

Queues

2: El Camino Real & Selby Lane

Timing Plan: AM Peak



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	113	289	47	316	1433	61	2566
v/c Ratio	0.62	0.64	0.37	1.00	0.44	0.53	0.99
Control Delay	66.6	12.6	28.7	103.6	14.5	77.4	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	66.6	12.6	28.7	103.6	14.7	77.4	47.2
Queue Length 50th (ft)	90	6	3	~261	210	49	735
Queue Length 95th (ft)	146	72	26	#491	335	110	#1174
Internal Link Dist (ft)	1071		146		597		1067
Turn Bay Length (ft)				55		105	
Base Capacity (vph)	404	666	138	316	3279	149	2588
Starvation Cap Reductn	0	0	0	0	788	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	0.43	0.34	1.00	0.58	0.41	0.99

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.

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: AM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	558	792	1051	648	1963
v/c Ratio	0.90	0.45	0.87	0.87	0.77
Control Delay	41.2	7.3	31.5	39.6	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	7.3	31.5	39.6	15.6
Queue Length 50th (ft)	203	76	123	118	187
Queue Length 95th (ft)	#391	136	201	#272	362
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	621	1948	1319	990	3045
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.41	0.80	0.65	0.64

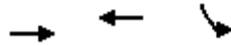
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: AM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	845	1360	56
v/c Ratio	0.32	0.47	0.19
Control Delay	4.0	4.9	14.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.0	4.9	14.0
Queue Length 50th (ft)	42	81	10
Queue Length 95th (ft)	143	262	30
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2674	2912	799
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.47	0.07
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	149	163	104	1663	109	1312
v/c Ratio	0.47	0.60	0.43	0.62	0.44	0.49
Control Delay	22.7	29.9	30.5	12.8	30.6	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	29.9	30.5	12.8	30.6	11.1
Queue Length 50th (ft)	37	47	34	142	36	101
Queue Length 95th (ft)	71	106	79	252	85	193
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	506	436	661	2706	661	2719
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	0.29	0.37	0.16	0.61	0.16	0.48

Intersection Summary

Queues

2: El Camino Real & Selby Lane

Timing Plan: School PM Peak



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	204	24	253	1839	48	1376
v/c Ratio	0.39	0.60	0.21	0.63	0.56	0.34	0.57
Control Delay	55.9	15.0	30.2	46.2	11.3	55.6	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	15.0	30.2	46.2	11.3	55.6	18.8
Queue Length 50th (ft)	32	0	2	143	234	29	225
Queue Length 95th (ft)	80	59	24	#268	302	78	300
Internal Link Dist (ft)	1071		146		597		1067
Turn Bay Length (ft)				55		105	
Base Capacity (vph)	594	796	167	452	4137	213	3671
Starvation Cap Reductn	0	0	0	0	469	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	0.09	0.26	0.14	0.56	0.50	0.23	0.37

Intersection Summary

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

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: School PM Peak



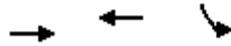
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	268	652	1651	511	1079
v/c Ratio	0.78	0.50	0.83	0.77	0.32
Control Delay	44.7	13.9	21.5	34.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	13.9	21.5	34.9	5.0
Queue Length 50th (ft)	101	91	203	101	58
Queue Length 95th (ft)	177	138	288	178	84
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	464	1520	2866	957	4363
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.43	0.58	0.53	0.25

Intersection Summary

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: School PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	782	911	44
v/c Ratio	0.26	0.29	0.15
Control Delay	1.8	1.8	16.7
Queue Delay	0.0	0.0	0.0
Total Delay	1.8	1.8	16.7
Queue Length 50th (ft)	0	0	6
Queue Length 95th (ft)	54	51	28
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	3054	3200	1050
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.28	0.04
Intersection Summary			

Queues

1: El Camino Real & Oakwood Drive/Dumbarton Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	133	197	141	2205	161	1512
v/c Ratio	0.32	0.58	0.53	0.90	0.56	0.60
Control Delay	12.3	26.9	35.8	26.5	35.5	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	26.9	35.8	26.5	35.5	16.1
Queue Length 50th (ft)	17	59	50	262	57	140
Queue Length 95th (ft)	50	121	118	#605	131	300
Internal Link Dist (ft)	437	497		1067		634
Turn Bay Length (ft)			205		195	
Base Capacity (vph)	559	469	602	2459	602	2518
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	0.24	0.42	0.23	0.90	0.27	0.60

Intersection Summary

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

Queues

2: El Camino Real & Selby Lane

Timing Plan: PM Peak



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	199	28	316	2336	69	1630
v/c Ratio	0.33	0.56	0.15	0.87	0.69	0.53	0.63
Control Delay	54.7	12.7	1.7	71.0	17.2	72.3	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Total Delay	54.7	12.7	1.7	71.0	17.5	72.3	22.8
Queue Length 50th (ft)	38	0	0	240	393	52	300
Queue Length 95th (ft)	68	39	0	#560	791	120	530
Internal Link Dist (ft)	1071		146		597		1067
Turn Bay Length (ft)				55		105	
Base Capacity (vph)	475	671	202	364	3569	172	2991
Starvation Cap Reductn	0	0	0	0	582	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	0.11	0.30	0.14	0.87	0.78	0.40	0.54

Intersection Summary

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

Queues

3: El Camino Real & Fifth Avenue

Timing Plan: PM Peak



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	333	929	1967	557	1078
v/c Ratio	0.79	0.70	0.96	0.87	0.33
Control Delay	43.8	19.7	35.3	48.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	19.7	35.3	48.0	7.3
Queue Length 50th (ft)	162	207	306	137	66
Queue Length 95th (ft)	244	253	#618	#274	158
Internal Link Dist (ft)	599		487		597
Turn Bay Length (ft)		105		295	
Base Capacity (vph)	433	1437	2301	810	3769
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.65	0.85	0.69	0.29

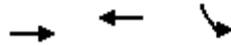
Intersection Summary

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

Queues

6: Fifth Avenue & Waverly Avenue

Timing Plan: PM Peak



Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	851	1184	73
v/c Ratio	0.35	0.45	0.20
Control Delay	5.9	6.7	17.5
Queue Delay	0.0	0.0	0.0
Total Delay	5.9	6.7	17.5
Queue Length 50th (ft)	42	65	19
Queue Length 95th (ft)	143	216	42
Internal Link Dist (ft)	599	192	305
Turn Bay Length (ft)			
Base Capacity (vph)	2448	2615	811
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.35	0.45	0.09
Intersection Summary			